



VILLAGE OF LAWTON

Communitywide Capital Improvement Plan (CCIP) 2022-2031



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Overview and Summary:

The purpose of the Communitywide Capital Improvement Plan (CCIP) is to provide a concise, yet complete, project plan for critical public infrastructure repairs within the Village of Lawton across all assets. The goal is to allow the Village to make effective decisions about what projects to proceed with, when to implement them, and how they will be funded. Village owned assets incorporated in the CCIP include the following:

- Roads
- Water Infrastructure
- Sanitary Sewer Infrastructure
- Storm Sewer Infrastructure
- Parks and Recreation
- Village Facilities and Equipment

The CCIP involves analysis of previous Capital Improvement Plans (CIPs) for individual assets, the Village's budget and utility rates, and potential funding opportunities to prioritize and determine the scope and timing of projects. It serves as a guide for future construction / development projects in the most cost-efficient manner. The CCIP is a 10-year plan and shall be used as a tool for Village employees and council to align expectations and understand infrastructure needs and their respective financial burden from years 2022 to 2031. Though the CCIP is a long-term plan, it is encouraged to be reviewed annually to be revised based on ever changing circumstances and opportunities.

The CCIP will act as a valuable tool to for planning and managing the Village's wants and needs to facilitate growth. The analysis displays the costs of the Village's upcoming infrastructure projects and potential funding solutions. It encourages discussion of the direction of the Village and how to implement the Village's needs, wants, and objectives. It is crucial to maintain and improve the community's public infrastructure for the health and safety of the residents, businesses, and future development. Furthermore, it's extremely important to understand the cost of future infrastructure projects, how these can be funded, the gap in funding needed, and the priority / need of the project itself.

The projects have been put into one of the three groups below to exhibit importance and assist in prioritizing:

1. **Absolute:** Projects required to keep the public systems functioning or to conform with regulations and / or law.
2. **Need:** Projects necessary to maintain the asset cost effectively.
3. **Want:** Projects that would be good to do as a proactive measure. Investments into the community.

Below are some key points in our findings and analysis:

- The Village has a total of approximately 487 water services to be replaced by the end of 2041.
 - At an estimated average cost of \$6,300 per service replacement, total cost is just over 3 million dollars over the next 20 years.
 - Priority: Absolute
- The Village has approximately 8,300 feet of four (4) inch water main that should be upsized prior to service replacements.
 - Priority: Need
- A sewer lining project (both sanitary and storm) is proposed and will address many projects identified on previous CIPs.
 - Economy to scale with sewer lining. Combine all lining into one larger project.
 - Sewer lining will lessen inflow and infiltration (I & I) so the Village does not treat groundwater getting into the sanitary sewer system.
 - Priority: Need

- Local road projects have been selected based on available funds, road condition, and possibility to bundle with other assets' needs.
 - Three local road projects have been selected for reconstruction and include replacing the 4-inch water main and water services.
 - Project locations are Washington Street, Bitely Street, and 4th Street.
- Major road projects have been selected based on available funds, potential grants / funding opportunities, road condition, and possibility to bundle with other assets' needs.
 - Water service replacements and any recommended storm / sanitary sewer improvements at the project location are bundled with major road projects.
- Michigan Department of Transportation (MDOT) M-40 Streetscape Project (2023)
 - This transformative project involves roadway improvements, streetscape, water main replacement, sanitary sewer replacement, and storm improvements on M-40 thru the heart of Downtown Lawton.
 - The following are the estimated cost incurred by the Village:
 - Streetscaping, misc. roadway improvements, and storm sewer = \$1.4m
 - Water main and services = \$540,000
 - Sanitary sewer = \$40,000

Action:

The key to success is funding and implementing the projects identified. Annually, the Village should evaluate the projects planned for the upcoming years, prioritize them, and determine a funding mechanism and execution strategy.

The Village has taken proactive steps with the implementation of the new water and sewer rates to provide funding of the upcoming water and sewer system needs. The water and sewer projects shown in the CIP Summary List (Appendix 5) should be fully funded by the enterprise funds of the given system. In addition, the major and local road projects identified in the Transportation Asset Management Plan (TAMP) (Appendix 2) are able to be funded with the current revenues in the respective funds.

Though many of the bundled projects identified are planned to be funded through enterprise funds or current revenues, the Village should constantly be aware of available grant opportunities. Any grant funding allows for the Village's dollar to be stretched further, and in turn, more projects can be completed. See the "Funding Options" section below for some current opportunities.

The Village Manager and the Council are doing a phenomenal job at identifying the Village's goals, taking major steps to improve the community, being proactive, and getting things done. It is extremely encouraging to see community leaders with a forward thinking mindset.

Analysis:

When analyzing the Village's infrastructure conditions and needs, multiple resources and approaches were utilized. The resources include:

- Storm and Wastewater Asset Management and CIP Reports Completed in 2019 (SAW).
 - Provide a comprehensive evaluation of both the sanitary sewer and storm sewer infrastructure.
 - Includes CIPs for both the sanitary sewer system and storm sewer system.
- Water Asset Management Plan (WAMP) Completed in 2017

- Evaluates the water system needs and recommended infrastructure improvements.
 - Includes CIP for the water system.
- The Michigan Department of Environmental, Great Lakes, and Energy (EGLE) Guidance.
 - Includes documents providing information on the Lead Copper Rule (LCR) and the Distribution System Materials Inventories (DSMI).
 - The Lead Copper Rule requires water supplies to replace all lead service lines, both public and private, and all galvanized services connected or previously connected to a lead gooseneck.
 - Service replacements to be complete by the end of 2041.
 - The DSMI involves water supplies to characterize and document system materials, including service line material on both public and private property.
 - DSMI to be complete by January 1st, 2025.
- Water Reliability Study Completed in 2021.
 - Provides a detailed summary / report of the water system's components and capacity.
- The Village of Lawton's 2021/2022 Budget and Utility Rates.
 - The Budget and Utility Rates show the revenues and expenditures for public assets and help determine available funds and potential shortcomings for projects.
- Pavement Surface Evaluation and Rating (PASER) data to evaluate road conditions.
- Village of Lawton: 5-Year Parks & Recreation Master Plan

The above references have been utilized to analyze individual projects for specific assets and combine them based on various factors to create larger bundled projects.

Individual Projects:

Individual projects refer to projects listed in the CIPs for the various assets (e.g., SAW Reports and WAMP). The individual projects focus on one (1) asset. Completing these as stand-alone projects may be illogical and less economically friendly. For example, there are projects identified in the SAW Report that involve replacing 20 feet of pipe or lining 120 feet of pipe. If the Village were to complete a project containing such little scope, the unit cost will be inflated due to mobilization and other typical project cost. Therefore, we analyzed the project types, location, and criticality to bundle individual projects together.

The project cost estimates have been adjusted to reflect 2021 costs. The Village should escalate project budgets 3% per year, or as deemed necessary, during the implementation process.

The "CCIP Total Project List" (Appendix 3) document includes all the individual projects across all assets. Many of the Individual Projects have been bundled to create a larger project across multiple assets. The "CCIP Total Project List" displays which projects have been bundled and the remaining individual projects.

Bundled Projects:

Bundled Projects refer to individual projects that have been combined to create a larger "Bundled Project". Detailed estimates have been created for the Bundled Projects and the cost have been separated per asset and/or fund source (see Appendix 4 for detailed cost estimates). Bundled projects may involve a combination of water improvements, sanitary and/or storm sewer improvements, and roadway improvements.

There are benefits to bundling projects together and tackling multiple assets within a single project. Bundling projects is the most cost-effective way to maintain and improve the Village assets. The cost savings include engineering fees, traffic control, mobilization, and economy to scale regarding unit prices. In addition, the members of the community will appreciate projects being complete in an efficient manner and not having

multiple projects in the same location within a short time frame. Lastly, with bundling projects, there is a broader range of funding options and more potential sources of funding to be utilized.

The focus of the CCIP is how to implement and fund the bundled projects. The remaining individual projects are still recommended to be completed and should be included in future road projects or as the Village sees fit.

Conclusion:

Water:

The water infrastructure demands were the main driver on selecting the scope and timing of bundled projects. Water service replacements are an 'absolute' regarding priority and it is crucial to keep on track to meet the State's requirements. In addition, the Village has approximately 8,300 feet of four (4) inch water main which should be upsized prior the water service replacements to conform with current standards and increase fire flow.

A large upcoming financial burden relates to water service replacements, which was a significant factor in prioritizing and bundling projects. The Village has 487 water services (per the most recent Water Reliability Study), and it is assumed all the services require replacement. With an average estimated cost per service replacement of \$6,300, the total estimated cost over the next 20 years is just over 3 million dollars.

Sewer:

Both the sanitary sewer and storm sewer systems, overall, are in good condition. Many of the projects identified in the SAW Reports relate to minor replacement projects where a small portion of the sewer has failed, root cutting, and lining segments of sewer where roots or leaks were discovered. Also, the following sanitary sewer extension project has been identified:

- Extend sanitary sewer north along M-40 to 66th Street (Village limits).

The individual sewer lining projects has been bundled to create a one large sewer lining project. The project includes all the sewer lining depicted in the SAW Reports within the CCIP time frame for both sanitary and storm infrastructure. Prior to sewer lining, root cutting shall take place.

It is recommended that the minor sanitary and storm sewer replacements identified in the SAW Reports shall be completed at the time the roadway at the sewer replacement location gets improved.

Roads:

When determining both local and major road projects the following factors were considered:

- Condition of roadway
- Cost of selected roadway improvement
- Water main replacement needs
- Amount of water services along roadway segment
- Average daily traffic

The Village of Lawton's road network consists of a total length of 16.16 miles split between Major Streets (6.44 miles) and Local Streets (9.72 miles). Included in the mileage is 3.14 miles of Federal Aid eligible roads for which the Village can receive federal funds towards improvements. No roads under the jurisdiction of the Village are listed on the National Highway System. To understand the current condition and future needs of

the roads within Lawton, the Van Buren County Road Commission gathered PASER data in 2018 which assign a value of 1-10 to each road segment based on visible distress. The results are as follows:

- Poor Condition (rating 1 – 4): 72.01%
- Fair Condition (rating 5 – 7): 23.65%
- Good Condition (rating 8-10): 0.00%
- Unrated: 4.35%
- Major Streets Average Rating: 3.75
- Local Streets Average Rating: 2.60
 - The condition difference between Major and Local is expected due to the limited funds available for local streets.

PASER ratings are not only useful for efficiently capturing current road surface conditions, but they also help determine the appropriate maintenance needs of a roadway. Roads in poor condition have begun to lose pavement structure, which requires a structural repair such a mill and overlay or full reconstruction. A fair condition rating indicates a pavement has begun to exhibit minor, non-structural, distresses and can often be addressed by treatments such as a chip seal, fog seal, or a thin overlay to extend the life of road. Any road with a rating of good is considered 'like new' with minimal maintenance required. Though, crack sealing can be applied to address defects early in the pavements life and delay further deterioration. Utilizing the PASER rating information will select projects which maximize road conditions within the Village's allocated funding.

With the water infrastructure demands and the roadway improvements determined, individual projects were selected to be bundled with one another, creating a larger, more comprehensive project. The road projects selected include improvements to multiple assets such as water service replacements, water main replacements, and sanitary and storm sewer improvements.

Other:

The Village of Lawton has recently completed a Parks and Recreation Plan for fiscal years 2021 – 2025. The Plan identifies current issues and identifies future demands based on the communities needs and values. The intent of the Plan is to develop recreational opportunities, parks, and trail systems which provide safe facilities for non-motorized transportation. The Plan discusses and reviews the current parks facilities the Village has to offer. In addition, it identifies the following goals and an action plan for the Village to focus on:

- Goals:
 - Take advantage of economic development opportunities presented by downtown and commercial development.
 - Provide and expand non-motorized trails and bicycle routes for recreation and transportation use.
 - Provide multi-generational recreational opportunities / quality leisure time activities with consideration for activities which improve health and fitness for all ages.
 - Create and promote community awareness of Lawton recreational opportunities.

Refer to the "Village of Lawton 5 Year Parks & Recreation Master Plan" for additional information. See page 27 of the Master Plan for the proposed Action Plan.

Funding Options:

Potential funding opportunities include but are not limited to:

Roadways:

- Major and Local Streets Funds.

- MDOT Transportation Economic Development Fund (TEDF) Category B Grant – Villages and Small Cities
 - Maximum Grant of \$250,000 with a 50% minimum local match.
 - Any road construction work is eligible (other than regular maintenance).
 - May apply for funding in consecutive years.
 - Encourage applications on roadways that are ineligible for federal aid.
 - Encourage combining other infrastructure work.
- MDOT TEDF Category A Grant – Economic Development Road Projects
 - Transportation improvement must relate to an immediate economic development project. A transportation need such as capacity, condition, safety, or accessibility must exist.
 - 80% grant funded with 20% local match.
- MDOT TEDF Category D Grant – Secondary All-Season Roads
 - The project must be essential to the creation of an all-season road system and must be eligible for federal aid.
 - 80% grant funded with 20% local match.
- MDOT TEDF Category F Grant – Urban Areas in Rural Counties
 - Coordinated with the secondary all-season road system (Category D) or provides all-season routes within the Village.
 - 80% grant funded with 20% local match. Maximum grant award of \$375,000.
- Small Urban Group – Lawton & Paw Paw
 - Maximum of \$385,000 with 20% minimum local match.
 - Even Years
 - Village of Lawton, Village of Paw Paw, and Van Buran Road Commission alternate years for projects.
 - Next upcoming project for the Village of Lawton is 2024.
 - Roads must be on the federal-aid highway system.
 - Theoretically, every six (6) years Lawton will receive funding.
 - Any road construction work is eligible (other than regular maintenance).
- Congestion Mitigation and Air Quality Improvement Program (CMAQ)
 - Federal program required thru the Clean Air Act in areas that do not meet the National Ambient Air Quality Standards (NAAQS).
 - Eligible projects included carpools, traffic signal optimization, roundabouts, new bike lanes, etc.
 - Up to 80% Federal / State funded.
- Safe Routes to School (SRTS)
 - Eligible projects include sidewalk improvements, bicycle facilities, traffic diversion improvements, pedestrian crossing improvements, etc. Only eligible for K-8 students.
 - 80% grant funded with 20% local match.

Water / Sanitary Sewer:

- Enterprise Funds: Water and sewer rates.
- USDA Loan: Long term, low interest loan. Limited grants.
 - Can be used to implement large water / sewer project.
 - Does not cover work on private property (private side of water service replacements).
 - Typically, little to no design engineering required to secure funding.
- Drinking Water State Revolving Fund (DWSRF): Long term, low interest loan. Limited forgiveness.
 - Can be used to implement large water / sewer project.
 - Does cover work on private property (private side of water service replacements).
 - Typically, design engineering required to secure funding (approximately 50% complete).
- Drinking Water Asset Management (DWAM) Grant (Currently all funds exhausted)
 - Grant intended to assist water suppliers Lead and Copper Rule compliance.

Other:

- American Recovery Plan Act (ARPA):
 - Related to Covid-19 response
 - Eligible projects are fairly broad included investments in water, sewer, or broadband infrastructure. In addition, to respond to the Covid-19 public health emergency or its negative economic impacts.
 - Lawton received approximately \$180,000 in ARPA funds. Van Buren County is also receiving a total of approximately \$14.5 million in ARPA Funds. The county is taking applications to fund eligible projects within the County.
- Michigan Economic Development Corporation (MEDC) Programs. Visit <https://www.miplace.org/programs/> for additional information on the following programs.
 - State Community Development Block Grant (CDBG)
 - Eligible activities include acquisition of property, rehabilitation of structures, construction of public facilities and improvements, energy conservation / renewable energy resources, etc.
 - Revitalization and Placemaking (RAP) Program. Utilizes ARPA dollars to repurpose vacant or underutilized historic buildings.
 - Match on Main. Supports eligible small businesses.
 - Michigan Community Revitalization Program.
 - Public Spaces Community Places (PSCP). Projects that activate public space within a traditional downtown area.
- Hazardous Mitigation Grant Program (through FEMA)
 - Intended to reduce risk and the potential impact of future disasters by rebuilding in a better, stronger and safer way.
 - Eligible projects include structural retrofits to make a building more resistant to natural disasters, retrofits to utilities or other infrastructure to enhance resistance to natural hazards, drainage improvements to reduce flooding, etc.

Parks and Recreation:

MDOT Transportation Alternatives Program (TAP):

The MDOT TAP is a competitive grant program aimed towards projects such as shared use paths, pedestrian and bicycle safety improvements, and preservation of historic facilities. Each year, there is approximately \$24.5 million federal dollars available. Of the annual amount available, approximately \$17.6 million is distributed through a competitive grant process and would be a logical source of funds to pursue for this project. The remaining amount only applies to urban areas with populations greater than 200,000.

Eligible applicants for the TAP grant funding include county road commissions, cities, villages, regional transportation authorities, state and federal natural resource or public land agencies, nonprofits responsible for the administration of local transportation safety programs, and tribal governments.

The MDOT TAP funding is extremely competitive and the program prioritizes funding for projects that demonstrate a competitive concept and a high likelihood of constructability. There is no maximum for grant request. Though, there is a 20% required match commitment. Over-match at 50% or more is expected for large TAP projects with a portion of the match from the applicant. Other grant sources are encouraged to avoid reliance TAP funding alone.

Complete applications can be submitted and accepted year-round. To be awarded a TAP grant, it is very important to have a complete and well detailed application. This involves the following factors:

- Financial Factors: Overmatch increases competitiveness.
- Project Cost Estimate: Itemized cost estimates to develop accurate budget.
- Property Ownership: The property is required to be in control by applicant agency.
- Public Input: Outreach, understanding, and support from the public.
- Include in Planning Documents: Updated masterplans/recreational plans.
- Engineering Cost: TAP fund does not cover any engineering related cost.
- Environmental Effects: NEPA review process along with threatened & endangered species review.
- Site and Design Considerations: Feasibility of project and conforming to federal and state design standards.
- Timeline: TAP application review process typically takes six to nine months. Construction does not typically begin until one or two years after funding commitment is issued.
- Required Maintenance: Maintenance plan with schedule, budget, funding, and responsible parties.

TAP funding has been acquired for the upcoming MDOT Streetscape project in 2023.

Michigan Natural Resources Trust Fund (MNRTF):

The MNRTF grant allocates State funds to projects that support the protection of natural resources and outdoor recreation and is administered by the Michigan Department of Natural Resources (MDNR). The maximum grant amount of \$300,000, for a single project. A minimum local match of 25% is also required to receive MNRTF.

Most of the same factors required for the MDOT TAP application apply for the MNRTF grant as well. The application process is competitive and the more detailed and transparent the project is, the greater probability of receiving a grant. The grant applications are due in April and approved in December/January for release of fund spending in spring. Typically, the grant is awarded and designed for the first year and construction in the following year.

Recreation Passport Grant through the Michigan Department of Natural Resources (MDNR):

The Recreation Passport Grant is intended to provide funding to local units of government for the development of public recreation facilities which includes renovation and constructing new. The program requires a 25% match from the applicant. Applications are due on April 1st each year with a grant award notification expected to occur in December. The grant has a minimum and maximum amount of \$7,500 and \$150,000 respectively.

Private Donors

Private donors may be the missing link to getting this project complete. There already has been success on the IN-MI River Valley Trail thus far with private donors. The local match for construction of the first phase in Niles Charter Township was paid for completely with small grants and private donors. Recognition of donors can be done in various ways: signage, plaques, benches.

It is recommended that a single municipality or an entity such as West Michigan Trails and Greenways Coalition act as the fiduciary to hold and track the donations until it is time to spend.

Endowments/Trust Funds

It is one thing to raise enough money to build a trail, but thought should be given to future maintenance of the trail to preserve it for future users. Currently, the federal and state grant programs do not grant funding for maintenance of existing projects but only new projects.

The purpose of an endowment or trust fund is to provide a source for to pay for future maintenance projects. Typically, Kalamazoo County Parks raises twice as much as the estimated construction to put into an endowment. An example of a maintenance fundraiser page: <https://yvcf.org/trails/>.

Endowment funds "...can be set up to aid funding for acquisition, construction or maintenance, and can be administered by a non-profit group or local commission. Funds can be contributed to a trust fund from government sources, private grants and gifts. One contributor to the [Rails to Trails Conservancy] Listserv notes that transparency is important with a trust fund, stating, 'If you do set up a dedicated endowment for land management, I would recommend keeping the endowment's books open to the public and [providing] members and donors with annual financial reports for the endowment.'" (Rails-to-Trails, Financing & Funding)

Appendix 1: Existing Capital Improvement Plans

CAPITAL IMPROVEMENT PLAN

Summary of Storm Capital Improvement Projects

Village of Lawton

Year	Project Name	Estimated Cost
2020	1st Street, West of Hamilton Street	\$3,000
2020	3rd Street, East of Franklin Street	\$3,000
2020	3rd Street, East of Railroad Street	\$3,000
2020	Fremont Street, South of 2nd Street	\$3,000
2020	Nursery Street, North of 4th Street	\$4,000
2020	South of Railroad Tracks, North of Union Street	\$58,000
2020	South of Railroad Tracks, West of Main Street	\$11,000
2020	Union Street, West of Main Street	\$1,000
2021	1st Street at Railroad Street	\$5,000
2021	Walker Street from Welch Foods	\$51,000
2021	Walker Street, South of White Oak Street	\$55,000
2022	2nd Street at Hamilton Street	\$10,000
2022	2nd Street, East of Fremont Street	\$11,000
2022	2nd Street, East of Hamilton Street	\$8,000
2022	2nd Street, East of Nursery Street	\$7,000
2022	Railroad Street, North of 2nd Street	\$14,000
2022	South Side of 2nd Street, West of Nursery Street	\$8,000
2023	4th Street West of West Street swGM-137	\$29,000
2023	Walker North of 4th Street swGM-149	\$47,000
2023	Walker South of Union swGM-151	\$20,000
2024	4th Street East of Walker - swGM-139	\$36,000
2024	4th Street, West of West Street	\$19,000
2024	Fremont Street, South of 3rd Street	\$6,000
2024	Nursery Street, North of 3rd Street	\$18,000
2024	swGM-138 4th Street East of Walker Street	\$20,000
2024	Walker Street East Side Across Union Street	\$12,000
2025	Root Cutting - 5yr Cycle	\$25,000
2030	Root Cutting - 5yr Cycle	\$25,000
2035	Root Cutting - 5yr Cycle	\$25,000

Total Estimated Project Cost for 20 Year Storm CIP = \$ 537,000

CAPITAL IMPROVEMENT PLAN

Summary of Sanitary Capital Improvement Projects

Village of Lawton

Year	Project Name	Estimated Cost
2020	Bitely Main to Railroad	\$3,000
2020	Portable Generator for Lift Station	\$42,000
2020	Replace Decanter Seals (2) at WWTF	\$36,000
2021	New Roof over WWTF	\$17,000
2023	North Main St South of White Oak	\$15,000
2023	North Main St, South of RR Tracks	\$39,000
2023	Orchard East of Main	\$22,000
2023	Re route sewer from east on 2nd St down Main to Union	\$59,000
2023	South Main St Between Durkee St and Morrill St	\$12,000
2023	South Main St North of Orchard St	\$6,000
2023	South Main St South of Morrill St	\$6,000
2025	Replace Force Main from White Oak to Main	\$61,000
2028	2nd St at Main St Intersection	\$7,000
2028	2nd St, West of 29th St	\$8,000
2028	Alley South of 2nd St	\$34,000
2028	Bitely East of Hamilton	\$15,000
2028	Bitely St Between Hamilton St and Liberty St	\$28,000
2028	Bitely St Between Liberty St and Railroad St	\$20,000
2028	Durkee St Between S Main St and Railroad St	\$20,000
2028	Durkee St Between S Railroad St and Liberty St	\$21,000
2028	East Bitely St, West of S Hamilton St	\$18,000
2028	Fremont St, North of 4th St	\$10,000
2028	Liberty St Between Durkee St and Bitely St	\$18,000
2028	Lining N. Main South of White Oak	\$11,000
2028	Lining S. Main Between Durkee and Morrill	\$16,000
2028	Merchant St, North of 2nd St	\$11,000
2028	North Main St north of the railroad tracks	\$11,000
2028	North Main St, North of RR Tracks	\$25,000
2028	Quincy St, South of 3rd St	\$10,000
2028	South Main St Between 5th St and Bitely St	\$24,000
2033	1st St, East of Railroad St	\$24,000
2033	1st St, West of Adams St	\$20,000
2033	1st St, West of Franklin St	\$19,000

Capital Improvement Project List Continued On Next Page

CAPITAL IMPROVEMENT PLAN

Summary of Sanitary Capital Improvement Projects (cont.)

Village of Lawton

Year	Project Name	Estimated Cost
2033	2nd St, West of Hamilton St	\$16,000
2033	3rd St, East of Franklin St	\$28,000
2033	3rd St, West of Adams St	\$20,000
2033	3rd St, West of Fremont St	\$16,000
2033	3rd St, West of Hamilton St	\$20,000
2033	4th St, West of Fremont St	\$20,000
2033	Adams St, South of 3rd St.	\$18,000
2038	Franklin St, 4th St to Washington St	\$19,000
2038	Franklin St, South of 1st St	\$19,000
2038	Hamilton St, South of 3rd St	\$17,000
2038	Harvey St, West of West St	\$9,000
2038	Nursery St Morrill to Durkee	\$3,000
2038	Nursery St, North of Washington St	\$8,000
2038	Railroad St, South of 4th St	\$25,000
2038	Railroad St, South of 5th St	\$15,000
2038	Union St, West of Walker St	\$28,000
2038	Washington S, East of Hamilton St	\$20,000
2038	Washington St, West of Adams St	\$20,000

Total Estimated Project Cost for Twenty Year Sanitary CIP =	\$1,009,000
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VILLAGE OF LAWTON – CAPITAL IMPROVEMENTS PLAN

2017

In 2010, the Village of Lawton took on a major upgrade to the Water System. This included up grading water main from 2" and 4" to 6" in the following places: From well houses to West Fourth Street, North Main Street, West First Street, North Nursery Street, Adams Street, Bitely Street, Liberty Street, West Bitely Street and North Hamilton Street The project also called for a new well and a new Water Tower located n North Main Street. With all of the construction 2010, replacing 4" water main will need to be up graded thought the following years.

Capital Improvements Plan List Projects	Estimated Cost	Timeframe
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<i>Well #4 Fund</i>		
Well #4 Cleaning and Overhaul	5,000	2018
Replace" Main on Second St.	105,000	2020
Replace Hydrants on Main St	50,000	2021
Replace Main on Franklin St.	25,000	2025
Replace 4" Main on Washington St.	75,000	2025
Replace 4" Main on Third St.	30,000	2025
Repaint Water Tower	60,000 <i>Donor</i>	2030
Replace 4" Main on Bitely St.	60,000	2030
Replace 4" Main on S. Hamilton St.	35,000	2030
Replace 4" Main on Hamilton St.	40,000	2030
(S. of Washington)		
Replace 4" Main on Fourth St.	75,000	2035
Replace 4" Main on Fremont St.	130,000	2035
Replace 4" Main on Union St.	60,000	2035
Replace Water Meters	150,000	2040

All project cast are to be funded by the water budget and/or may utilize financing for associated project improvements depending on the funding source and scope.

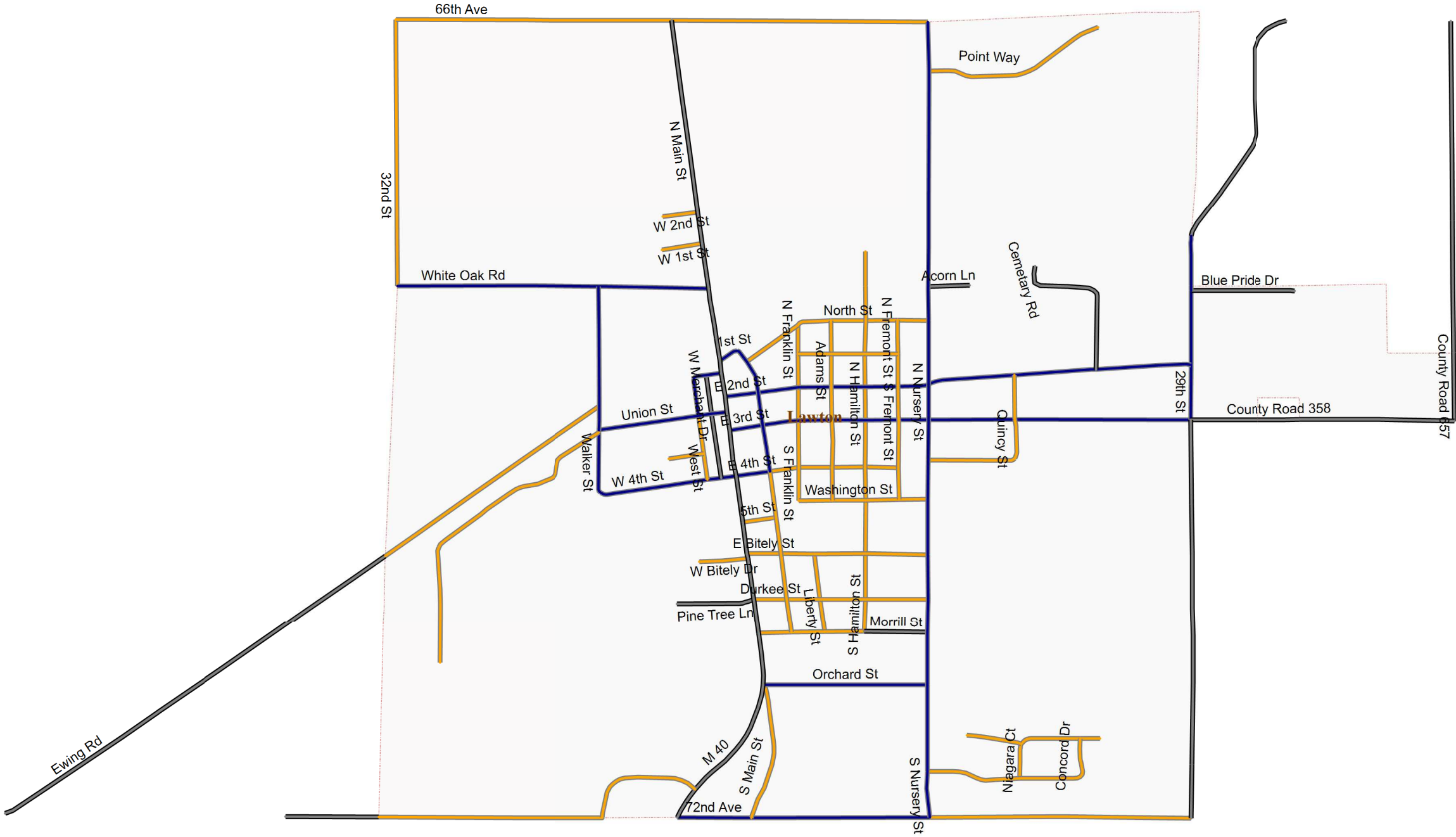
Appendix 2: Transportation Asset Management Plan

Major/Local Roads

Village of Lawton



- Road
- City Major
 - City Local
 - default

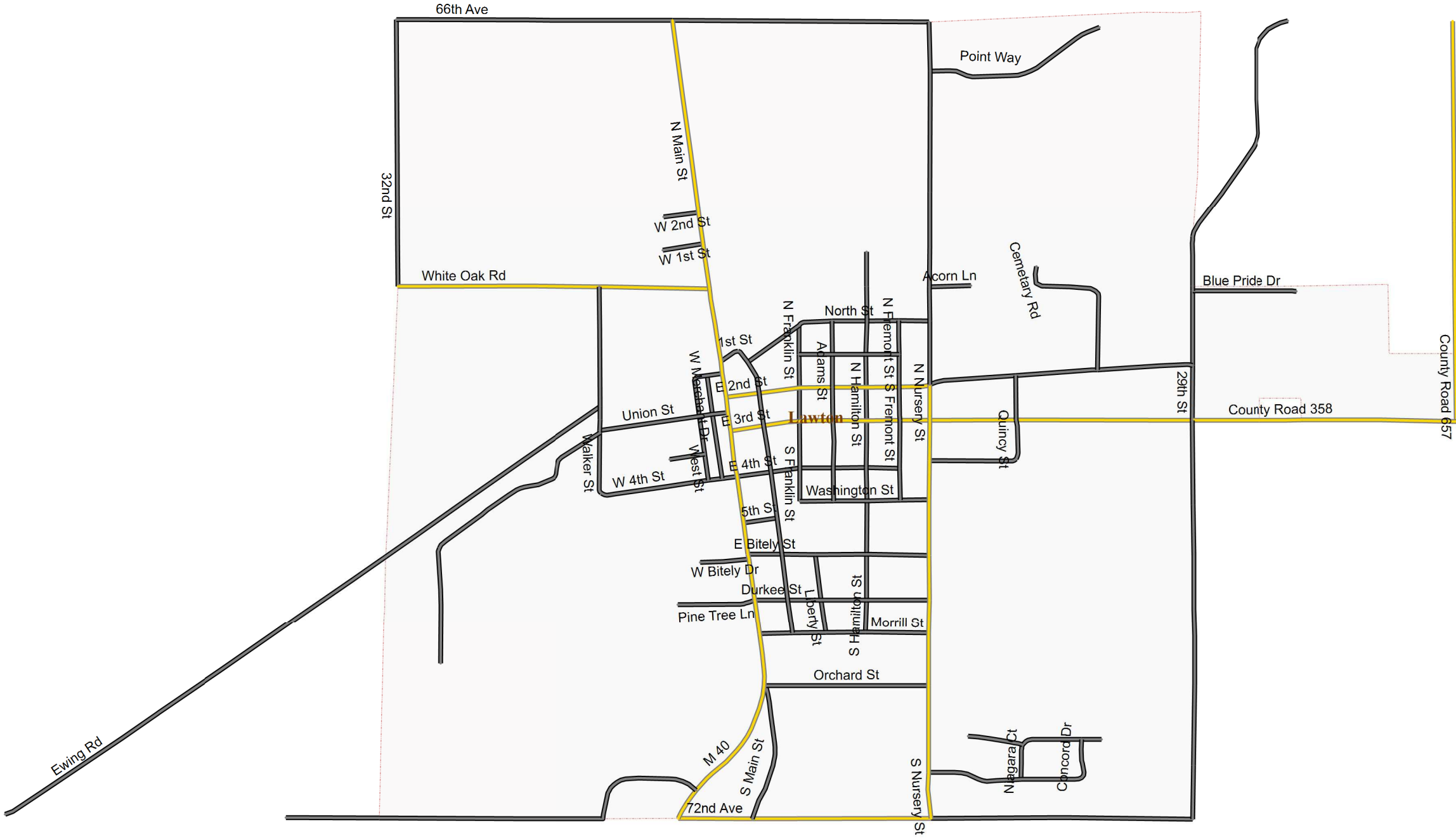


Federal Aid Eligible Roads

Village of Lawton



- Road
- 5 : Major Collector
 - 4 : Minor Arterial
 - 3 : Other Principal Arterial
 - 2 : Other Freeway
 - 1 : Interstate
 - default



Asphalt PASER

Modified for Michigan TAMC Data Collection

◆ Denotes Priority Distress

	Asphalt 10	Asphalt 9	Asphalt 8
Good	<p>New construction (<1 year old) No defects <u>Recent base improvement</u> <i>Possible Action:</i> PPM</p>	<p>Like new condition (>1 year old) No defects <u>Recent overlay with or without a crush and shape</u> <i>Possible Action:</i> PPM</p>	<p>◆ Transverse cracks: >40' apart Cracks: tight (hairline) or sealed Longitudinal cracks: few, on joints <u>Recent seal coat or slurry seal (*see below)</u> <i>Possible Action:</i> Crack seal (PPM)</p>
	Asphalt 7	Asphalt 6	Asphalt 5
Fair	<p>◆ Transverse cracks: 10'-40' apart Cracks: open < 1/4" Crack erosion: none or little Surface raveling: none or little Patches: none or few in excellent condition <u>First signs of wear</u> <i>Possible Action:</i> Maintain with crack seal, fog seal</p>	<p>◆ Transverse cracks: < 10' apart ◆ Block cracking: 6'-10' Blocks (large, stable) Cracks open 1/4" – 1/2" Surface raveling: slight Patches: few in good condition Polishing or flushing: slight, moderate <u>Sound structural condition</u> <i>Possible Action:</i> Maintain with sealcoat</p>	<p>◆ Block cracking: 1' – 5' blocks ◆ Longitudinal cracks: first signs, at edge ◆ Secondary cracks: first signs Cracks open >1/2" Surface raveling: moderate Patches/wedging: good condition Flushing & polishing: extensive, severe <u>Sound structural condition</u> <i>Possible Action:</i> Maintain with sealcoat or thin overlay</p>
	Asphalt 4	Asphalt 3	Asphalt 2
Poor	<p>◆ Block cracking: <1' blocks ◆ Wheel-path cracking (longitudinal) ◆ Rutting: 1/2" - 1" deep Transverse cracks: slight erosion Longitudinal cracks: slight erosion Surface raveling: severe Patches: fair condition <u>First signs of structural weakening</u> <i>Possible Action:</i> Structural overlay >2" Underseal</p>	<p>◆ Block cracking: severe (like alligator) ◆ Alligator cracking: initial, < 25% ◆ Rutting: 1"- 2" deep Transverse cracks: extensive erosion Longitudinal cracks: extensive erosion Patches: fair/poor condition Potholes: occasional <i>Possible Action:</i> Structural overlay >2" Patching & repair prior to an overlay Milling to extend overlay life</p>	<p>◆ Alligator cracks: > 25% ◆ Rutting or distortion: >2" Cracks: closely spaced, with erosion Patches: extensive, in poor condition Potholes: frequent <i>Possible Action:</i> Reconstruction with base repair Crush and shape</p>
			<p>Asphalt 1 Like PASER 2 but with visible base and: Surface integrity: lost Surface distress: extensive <i>Possible Action:</i> Reconstruction with base repair</p>

General Rating Tips

Rate surface distress, not ride quality. Be aware of cracks in the wheel path; they can be hard to see and do not affect the ride.

Disregard the shoulder. Rate only the driveable pavement, edge line to edge line.

Do not ignore reflective cracks. Rate by assessing the type of crack (e.g. transverse, longitudinal, alligator).

Rate the current surface condition. If construction is in progress (i.e., work is active) but you are driving on the old surface, rate the new surface. Some barrels by the roadside is *not* construction in progress.

Rate the lane with the worst condition when lanes have differing conditions. For variable surface types, rate the worst lane and select it as the *Surface Subtype*.

Rate what you see, not what distresses you think might happen in the future.

Rate roads with the same scrutiny regardless of their use, ownership, or functional class.

Rutting often has visual cues like plow scars. Get out and measure using a straight edge and tape measure. Use caution! Rutting measurement changes are detailed in the *TAMC Data Collection Training Manual's* "Michigan-specific Asphalt Road Rating Guide" section, page 7.

Composite Pavement consists of a concrete pavement overlaid with asphalt; rate it based on the uppermost surface (e.g. asphalt); and note the *Surface Subtype* as composite. A repaired concrete pavement's highest rating is a 9. While it may have had concrete joint repairs, no other defects can be present and the condition is "like new". Note, this is *not* what the *Concrete PASER Manual* says.

Sealcoat pavements are sealcoat over gravel whereas sealcoat treatment is sealcoat applied over asphalt. See pages 6-7 of the TAMC Data Collection Manual for rating sealcoat pavements. *With proactive sealcoat treatments, do not downgrade an asphalt PASER 9 or 10 (no defects) to an asphalt PASER 8 because of the treatment. Rate it based on the distresses that are visible (see *TAMC Data Collection Training Manual's* "Proactive Sealcoat Treatments on Asphalt PASER 9" section, page 8).

	Concrete 10			Concrete 9			Concrete 8		
	Good								
	<p>New construction (< 1 year old)</p> <p>No defects</p> <p><u>Recent reconstruction</u></p> <p><i>Possible Action:</i></p> <p><i>None</i></p>			<p>Like NEW (> 1 year old)</p> <p>◆ Joint rehabilitation: recent, only if no other defects are present</p> <p>Map cracks: slight</p> <p>Pop outs: few</p> <p>Surface wear: light, in wheel path</p> <p><u>Recent concrete overlay</u></p> <p><i>Possible Action:</i></p> <p><i>None</i></p>			<p>◆ Joint sealant: partial loss</p> <p>◆ Joints: good condition</p> <p>◆ Transverse cracks: none</p> <p>Meander cracks: isolated, well-sealed/tight</p> <p>Cracks: at manholes – isolated, well-sealed/tight</p> <p>Map cracks: minor</p> <p>Scaling: slight (first signs)</p> <p>Pop outs: minor</p> <p>Surface wear: light</p> <p><i>Possible Action:</i></p> <p><i>Little to no maintenance</i></p>		
	Concrete 7			Concrete 6			Concrete 5		
	Fair								
	<p>◆ Full-depth repairs: excellent condition</p> <p>◆ Transverse cracks: isolated</p> <p>Joints: some open</p> <p>Cracks: at manholes – some</p> <p>Settlement/heaves: isolated</p> <p>Scaling: minor</p> <p>Pop outs: could be extensive but sound</p> <p><i>Possible Action:</i></p> <p><i>Seal open joints</i></p> <p><i>Spot repair surface defects</i></p>			<p>◆ Transverse joints: open ¼"</p> <p>◆ Longitudinal joints: open ¼"</p> <p>◆ Transverse & meander cracks: open ¼"</p> <p>Cracks: at corners – several, well-sealed/tight</p> <p>Shallow reinforcement: cracking – first signs</p> <p>Scaling: <25% surface</p> <p><i>Possible Action:</i></p> <p><i>Seal open joints and cracks</i></p> <p><i>Overlay surface raveling areas</i></p>			<p>◆ Joint/crack spalling: first signs</p> <p>◆ Joint/crack faulting: up to ¼"</p> <p>Cracks: at corners – multiple, w/ broken pieces</p> <p>Shallow reinforcement: spalling</p> <p>Scaling: 25% to 50% surface</p> <p>Polishing: 25% to 50% surface</p> <p><i>Possible Action:</i></p> <p><i>Some partial depth joint repairs or patching may be needed</i></p>		
	Concrete 4			Concrete 3			Concrete 2		
	Poor								
	<p>◆ Joint/crack spalling: open 1" on several slabs</p> <p>◆ Joint/crack faulting: up to ½"</p> <p>◆ Transverse or meander cracks: multiple</p> <p>Cracks: at corners – missing pieces or patches</p> <p>Pavement blowups</p> <p>Spalling: >50% surface</p> <p>Map cracks: >50 % surface</p> <p>Scaling: >50% surface</p> <p>Polishing: > 50% surface</p> <p><i>Possible Action:</i></p> <p><i>Some full depth repairs</i></p> <p><i>Asphalt overlay or extensive surface texturing of surface scaling</i></p>			<p>◆ Joint, transverse, and meander cracks: open 1" on most slabs severely spalled</p> <p>◆ Joint/crack faulting: up to 1"</p> <p>◆ D-cracking: evident</p> <p>Patches: extensive, fair to poor condition</p> <p><i>Possible Action:</i></p> <p><i>Extensive full depth repairs</i></p> <p><i>Some full slab replacements</i></p>			<p>Joints: failed</p> <p>Settlement/heaves: extensive, severe</p> <p>Spalling (of slab cracks): extensive, severe</p> <p>Patches: extensive, failed condition</p> <p><i>Possible Action:</i></p> <p><i>Recycle or rebuild pavement</i></p>		
							<p>Concrete 1</p> <p>Pavement integrity: total loss</p> <p>Potholes: extensive</p> <p><u>Restricted speeds</u></p> <p><i>Possible Action:</i></p> <p><i>Total reconstruction</i></p>		

Contact Information

Roadsoft & LDC Technical Support: 906-487-2102

TAMC Coordinator: Roger Belknap, 517-230-8192
belknapr@michigan.gov

TAMC Website: michigan.gov/tamc

Framework Issues:

517-335-3741, ask for the TAMC Help Desk

PASER Data Submission via the CSS IRT Website

<https://milogintp.michigan.gov>



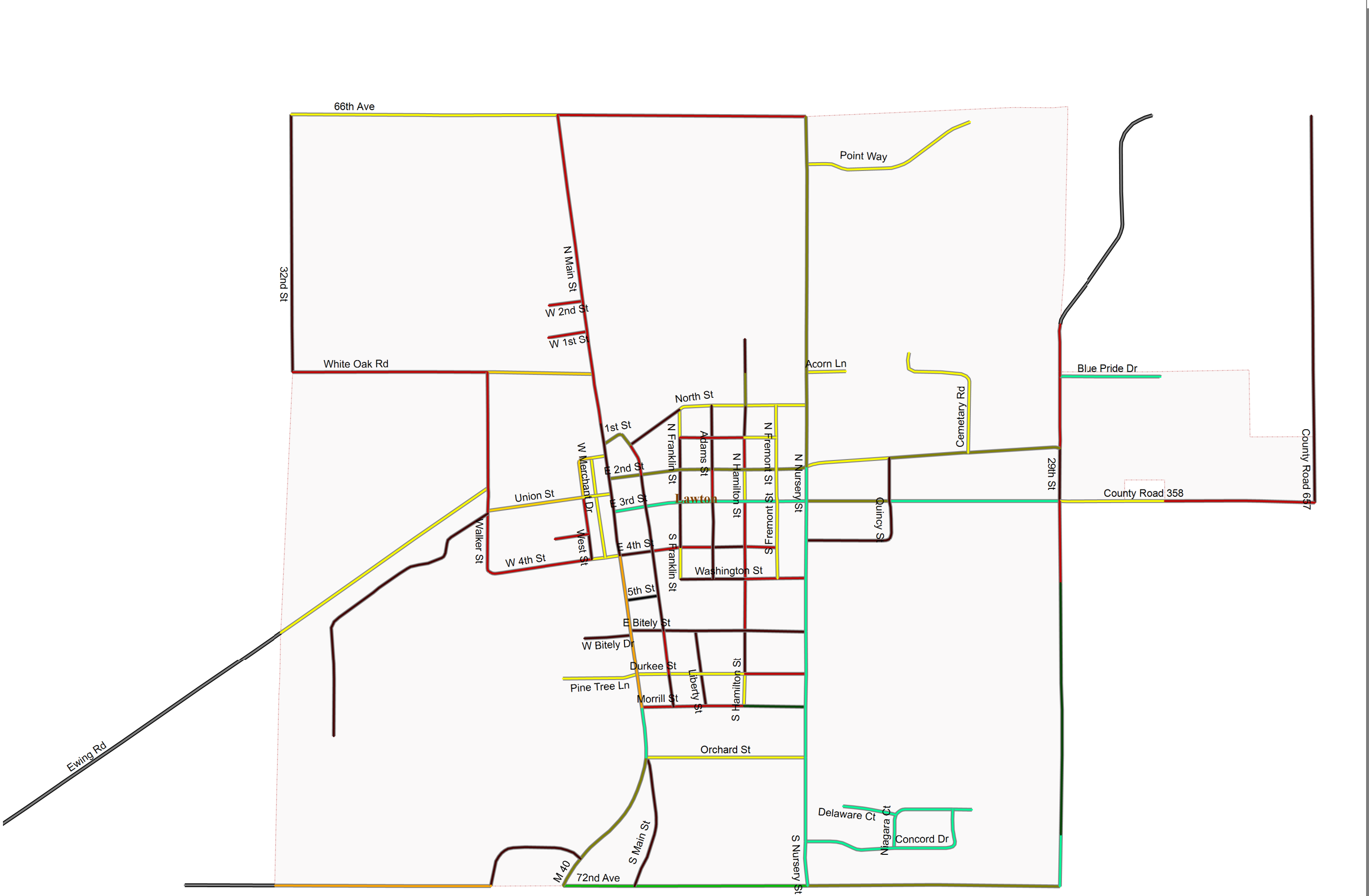
Michigan
Transportation Asset
Management Council



2019 PASER RATINGS



Village of Lawton

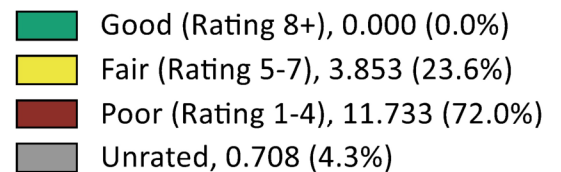
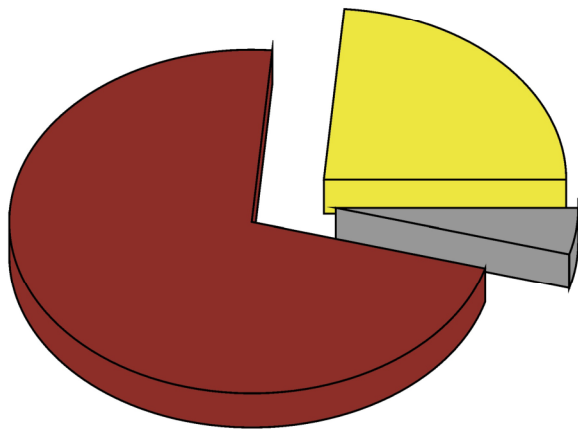


- Road
- 1 : Failed
 - 2 : Very Poor
 - 3 : Poor
 - 4 : Fair
 - 5 : Fair
 - 6 : Good
 - 7 : Good
 - 8 : Very Good
 - 9 : Excellent
 - 10: Excellent
 - default

Good/Fair/Poor Summary

Mileage Type: Centerline miles
Road Class: All Roads
Road Type: All Roads
Ownership: All Roads

Condition	Centerline Miles	Percentage
Good (Rating 8+)	0.000	0.00%
Fair (Rating 5-7)	3.853	23.65%
Poor (Rating 1-4)	11.733	72.01%
Unrated	0.708	4.35%
Total Miles:		16.294



Proposed Roadway Surface Treatments

Treatment	Category	Est. Cost/ Center Line Mile (\$)	Applicable PASER Rating	Final PASER Rating
Reconstruction	Reconstruction	1,300,000	1-3	10
3" Mill & Overlay	Rehabilitation	310,000	3-4	9
2" Overlay	Rehabilitation	230,000	5-6	9
Cape Seal	Preventative Maintenance	38,000	5-7	8
Crack Seal	Preventative Maintenance	3,000	7	8

Definitions:

Preventative Maintenance: Cost effective treatments performed to preserve existing roadways and slow future deterioration. Applied early in the service life of a road.

Rehabilitation: Improvements made on a roadway to restore surface conditions and increase service life. Generally applied near the mid-point of service life.

Reconstruction: Removal and replacement of the majority of the pavement structure. This includes improvement of the base or sub-base of a roadway.

Project Planner Detailed Projects By Year Report

Lawton (CityVillage)

Report Module: Planner Evaluation

Today's Date: Wednesday, March 23, 2022

Local Projects

Last Modified: 3/22/2022

Percent Inflation: 2

Number of Years: 11

Strategy/Filter Name: CIP Local

Strategy Filter: City Local

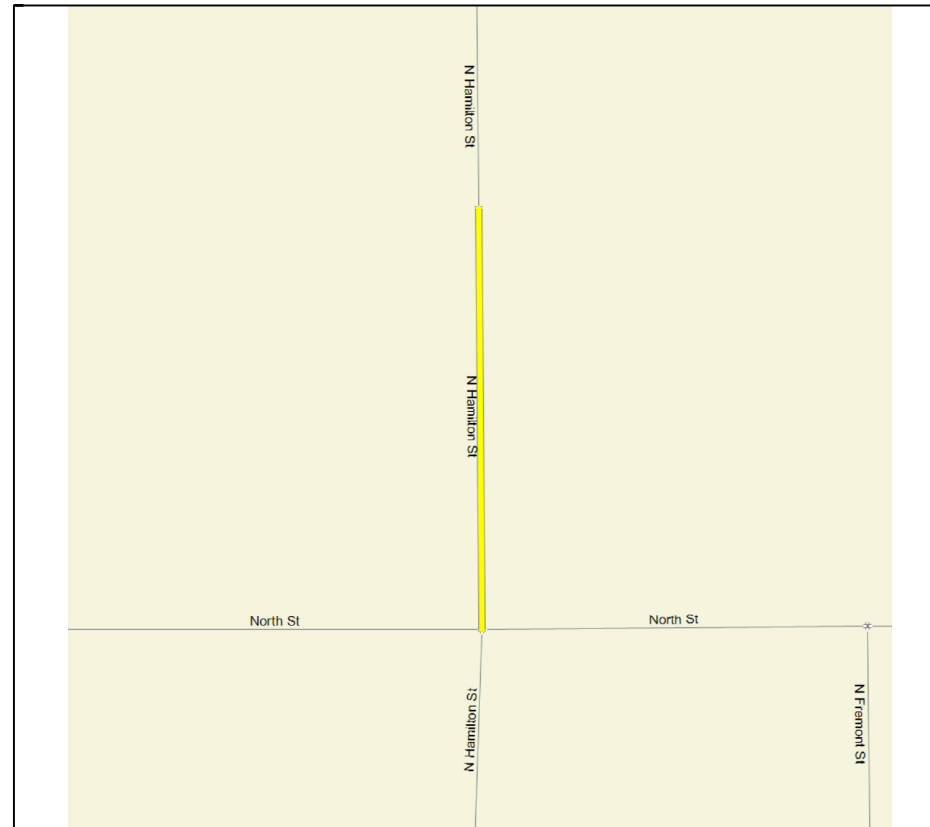
Plan Memo:

Project Planner Detailed Projects By Year Report

Planner Name: Local Projects

2022 Asphalt-Primary

Chip Seal+Fog



Project Planner Detailed Projects By Year Report

Planner Name: Local Projects

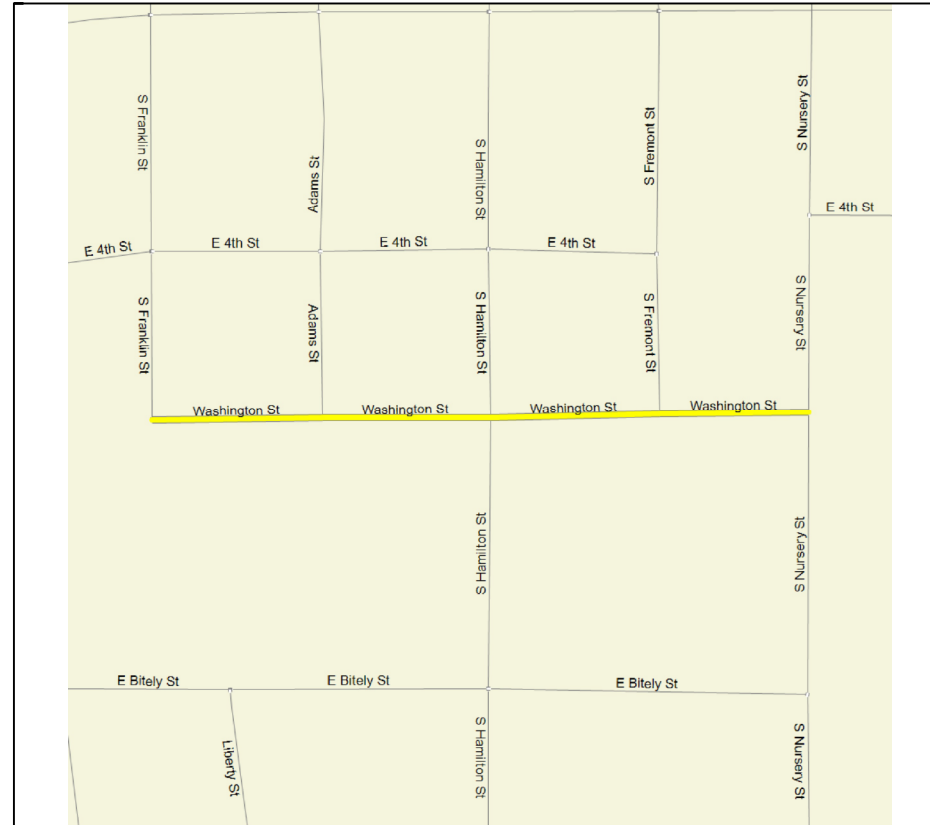
Project	Key	PR Number	Road Name	From/To Desc	Bmp/Emp	Length	Lanes	Lane Length	Width	Surface Cost
Project - 1		590201	S Hamilton St	North St	0.588	0.065	2	0.130	0.00	\$3,540
				[Surface Segment Split]	0.653					
				Chip Seal+Fog Totals:		0.065		0.13		\$3,540
				Asphalt-Primary Totals:		0.065		0.13		\$3,540
Year 2022 Totals:						0.065		0.13		\$3,540

Project Planner Detailed Projects By Year Report

Planner Name: Local Projects

2024 Asphalt-Primary

Reconstruction (No C&G)



Project Planner Detailed Projects By Year Report

Planner Name: Local Projects

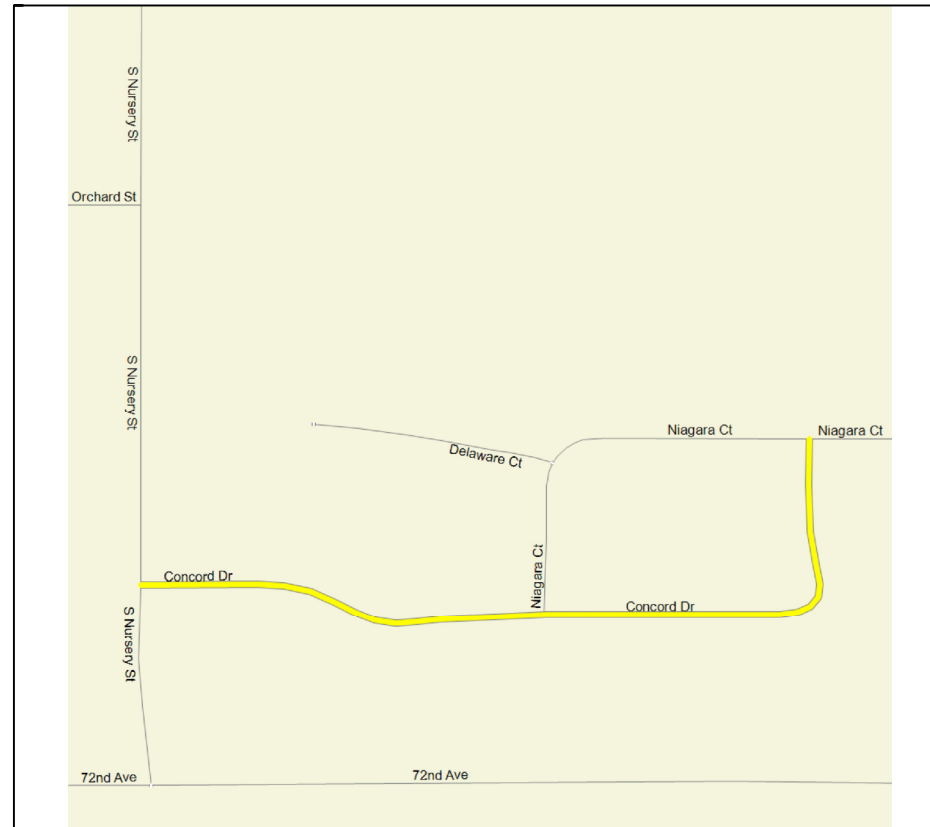
Project	Key	PR Number	Road Name	From/To Desc	Bmp/Emp	Length	Lanes	Lane Length	Width	Surface Cost
		583610	Washington St	Franklin Adams St	0.000 0.064	0.064	2	0.128	0.00	\$77,697
		583610	Washington St	Adams St S Hamilton St	0.064 0.126	0.062	2	0.124	0.00	\$75,269
		583610	Washington St	S Hamilton St S Fremont St	0.126 0.189	0.063	2	0.126	0.00	\$76,483
		583610	Washington St	S Fremont St Nursery	0.189 0.244	0.055	2	0.110	0.00	\$66,771
Reconstruction (No C&G) Totals:						0.244		0.488		\$296,221
Asphalt-Primary Totals:						0.244		0.488		\$296,221
Year 2024 Totals:						0.244		0.488		\$296,221

Project Planner Detailed Projects By Year Report

Planner Name: Local Projects

2025 Asphalt-Primary

Chip Seal+Fog



Project Planner Detailed Projects By Year Report

Planner Name: Local Projects

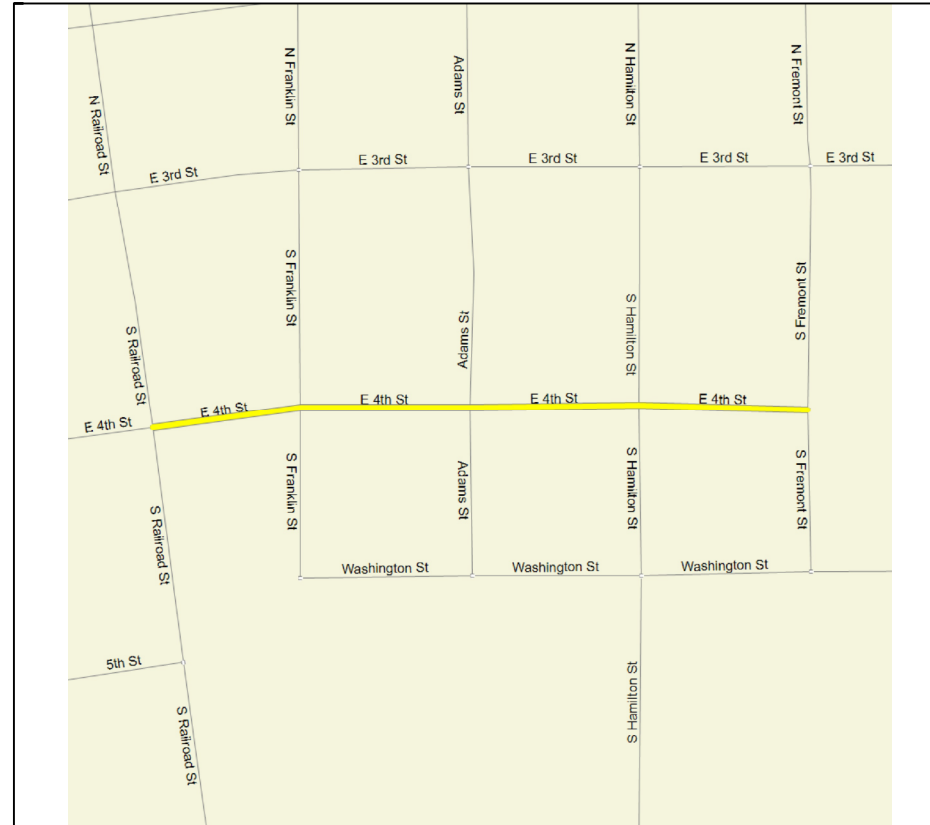
Project	Key	PR Number	Road Name	From/To Desc	Bmp/Emp	Length	Lanes	Lane Length	Width	Surface Cost
		583608	Concord Dr	Nursery	0.000	0.177	2	0.354	0.00	\$10,228
				Niagara Ct	0.177					
		583608	Concord Dr	Niagara Ct	0.177	0.188	2	0.376	0.00	\$10,864
				Niagara Ct	0.365					
				Chip Seal+Fog Totals:		0.365		0.73		\$21,092
				Asphalt-Primary Totals:		0.365		0.73		\$21,092
				Year 2025 Totals:		0.365		0.73		\$21,092

Project Planner Detailed Projects By Year Report

Planner Name: Local Projects

2026 Asphalt-Primary

Reconstruction (No C&G)



Project Planner Detailed Projects By Year Report

Planner Name: Local Projects

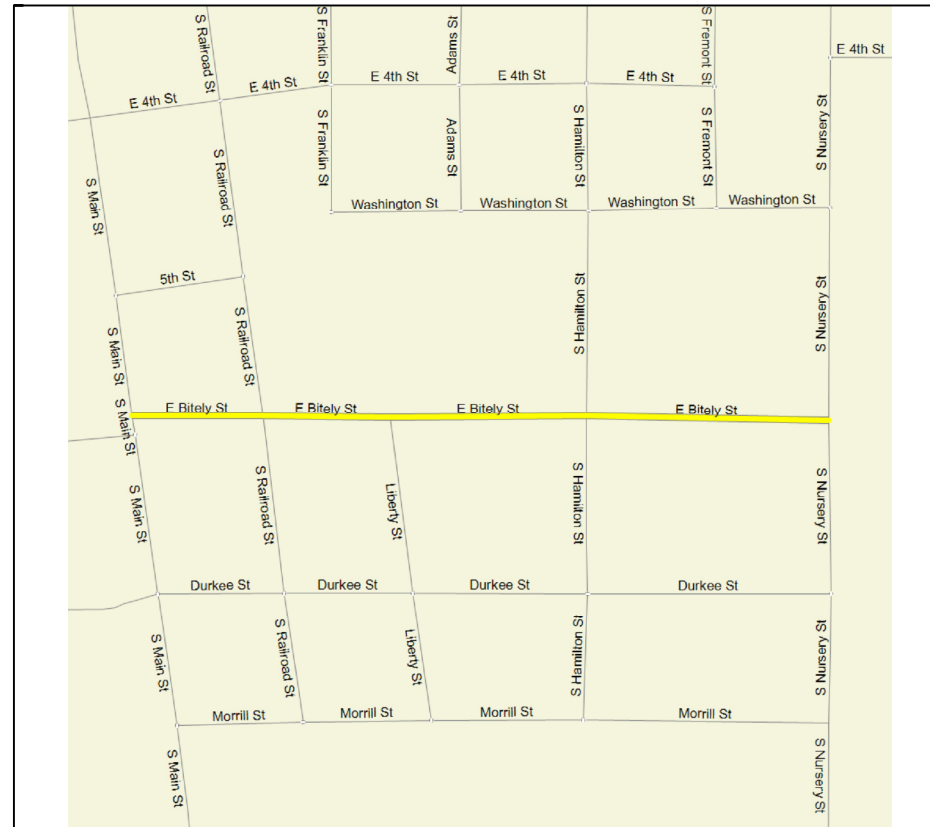
Project	Key	PR Number	Road Name	From/To Desc	Bmp/Emp	Length	Lanes	Lane Length	Width	Surface Cost
		580102	W 4th St	Railroad	0.324	0.055	2	0.110	0.00	\$69,469
				S Franklin St	0.379					
		580102	W 4th St	S Franklin St	0.379	0.062	2	0.124	0.00	\$78,310
				Adams St	0.441					
		580102	W 4th St	Adams St	0.441	0.063	2	0.126	0.00	\$79,573
				S Hamilton St	0.504					
		580102	W 4th St	S Hamilton St	0.504	0.062	2	0.124	0.00	\$78,310
				Fremont	0.566					
Reconstruction (No C&G) Totals:						0.242		0.484		\$305,663
Asphalt-Primary Totals:						0.242		0.484		\$305,663
Year 2026 Totals:						0.242		0.484		\$305,663

Project Planner Detailed Projects By Year Report

Planner Name: Local Projects

2030 Asphalt-Primary

Reconstruction (No C&G)



Project Planner Detailed Projects By Year Report

Project	Key	PR Number	Road Name	From/To Desc	Bmp/Emp	Length	Lanes	Lane Length	Width	Surface Cost
		3800030	E Bitely St	Main	0.000	0.064	2	0.128	0.00	\$87,500
				S Railroad St	0.064					
		3800030	E Bitely St	S Railroad St	0.064	0.063	2	0.126	0.00	\$86,133
				Liberty St	0.127					
		3800030	E Bitely St	Liberty St	0.127	0.096	2	0.192	0.00	\$131,250
				S Hamilton St	0.223					
		3800030	E Bitely St	S Hamilton St	0.223	0.119	2	0.238	0.00	\$162,695
				Nursery	0.342					
Reconstruction (No C&G) Totals:						0.342		0.684		\$467,578
Asphalt-Primary Totals:						0.342		0.684		\$467,578
Year 2030 Totals:						0.342		0.684		\$467,578
Report Totals:						1.258		2.516		\$1,094,093

Project Planner Detailed Projects By Year Report

Lawton (CityVillage)

Report Module: Planner Evaluation

Today's Date: Wednesday, March 23, 2022

Major Projects

Last Modified: 3/23/2022

Percent Inflation: 2

Number of Years: 11

Strategy/Filter Name: CIP Major

Strategy Filter: City Major

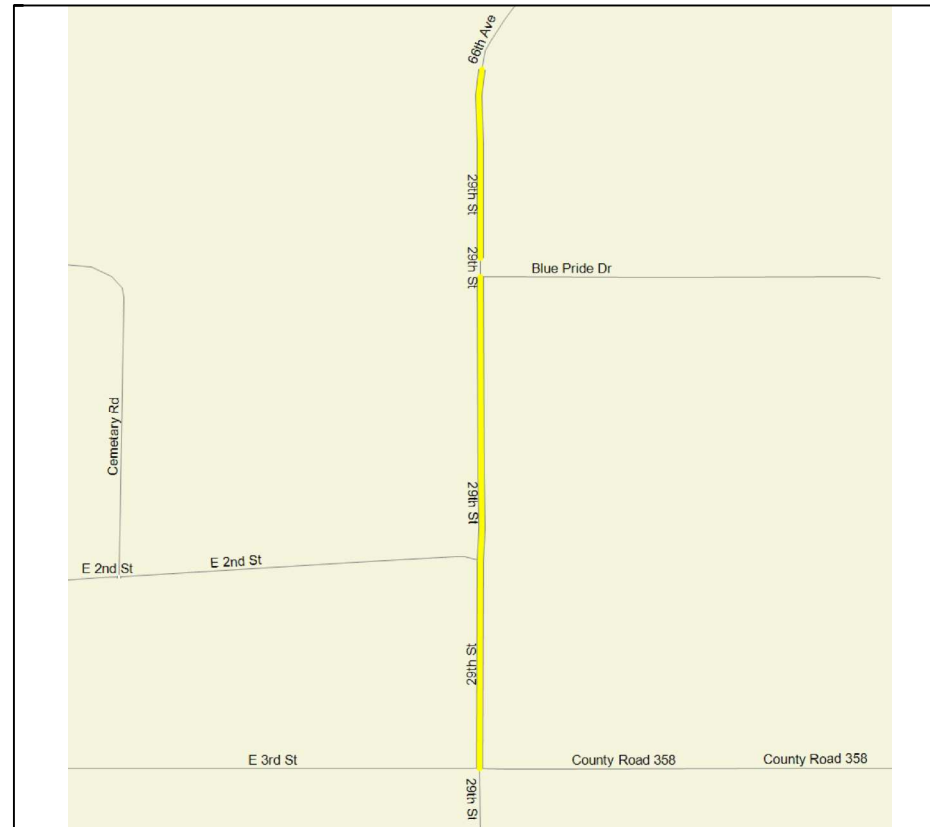
Plan Memo:

Project Planner Detailed Projects By Year Report

Planner Name: Major Projects

2023 Asphalt-Primary

Mill & Overlay - 2"



Project Planner Detailed Projects By Year Report

Planner Name: Major Projects

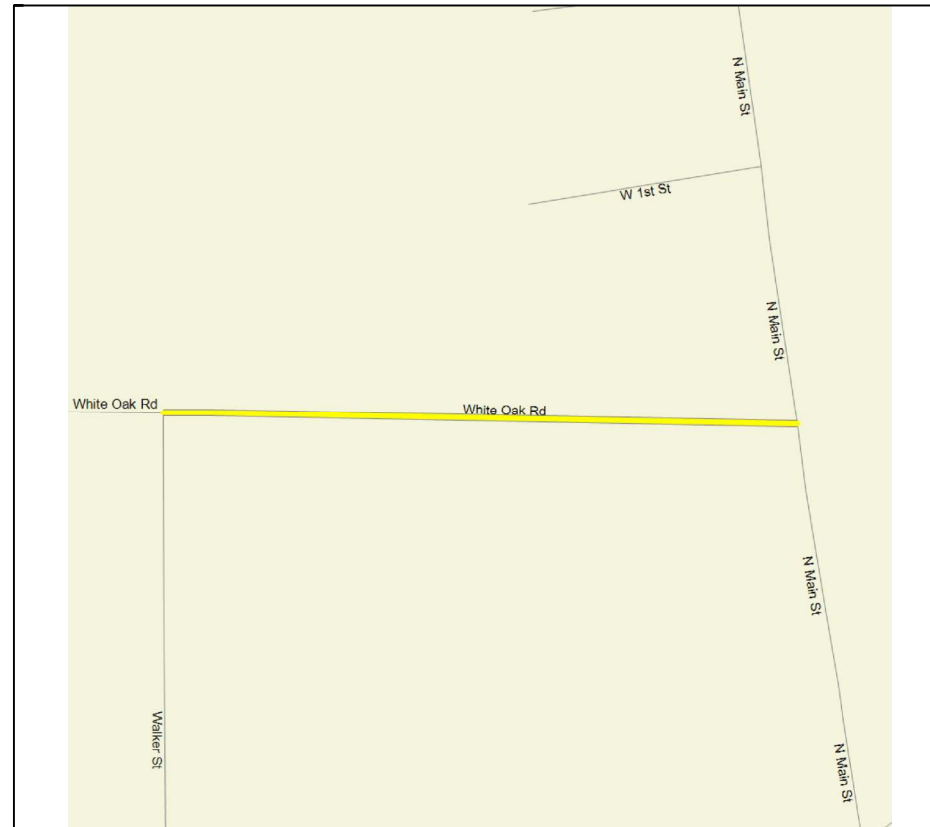
Project	Key	PR Number	Road Name	From/To Desc	Bmp/Emp	Length	Lanes	Lane Length	Width	Surface Cost
Project - 1		587909	29th St	County Road 358	0.753	0.103	2	0.206	20.00	\$29,422
				2nd	0.856					
		587909	29th St	2nd	0.856	0.140	2	0.280	20.00	\$39,991
				City/Twp Line	0.996					
		587909	29th St	2nd	1.005	0.094	2	0.188	20.00	\$26,851
				City/Twp Line	1.099					
MIII & Overlay - 2" Totals:						0.337		0.674		\$96,265
Asphalt-Primary Totals:						0.337		0.674		\$96,265
Year 2023 Totals:						0.337		0.674		\$96,265

Project Planner Detailed Projects By Year Report

Planner Name: Major Projects

2024 Asphalt-Primary

Mill & Overlay - 2"



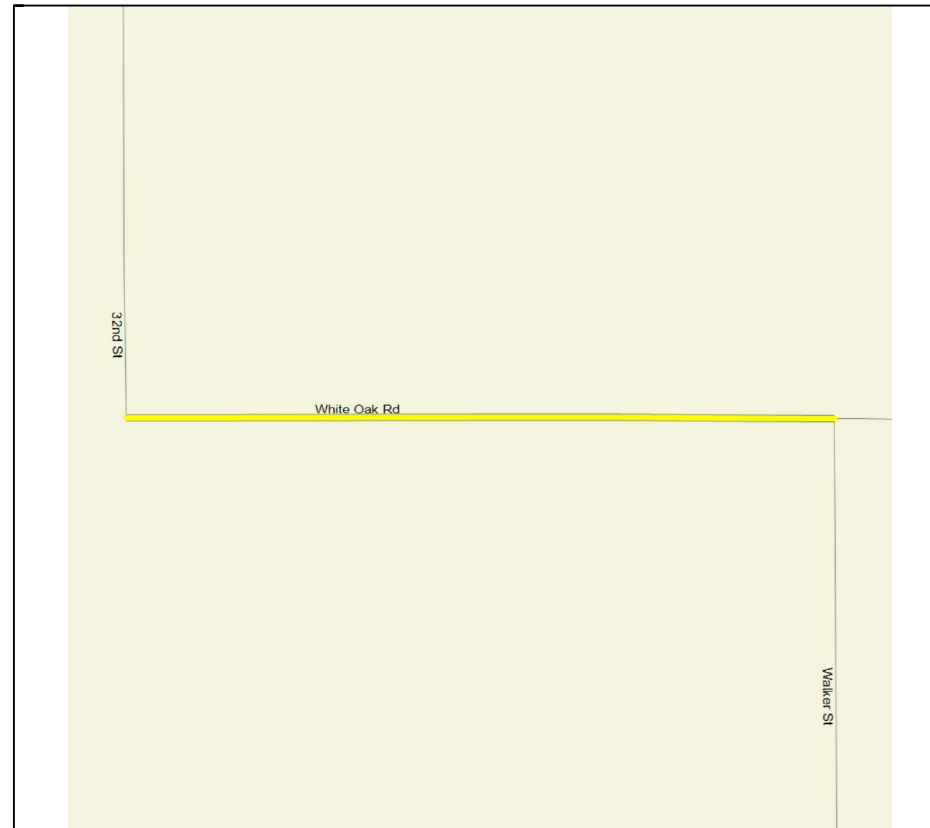
Project Planner Detailed Projects By Year Report

Planner Name: Major Projects

Project	Key	PR Number	Road Name	From/To Desc	Bmp/Emp	Length	Lanes	Lane Length	Width	Surface Cost
		583108	County Road 358	Walker	4.949	0.207	3	0.621	22.00	\$90,469
				Main	5.156					
Mill & Overlay - 2" Totals:						0.207		0.621		\$90,469

2024 Asphalt-Primary

Reconstruction (No C&G)



Project Planner Detailed Projects By Year Report

Planner Name: Major Projects

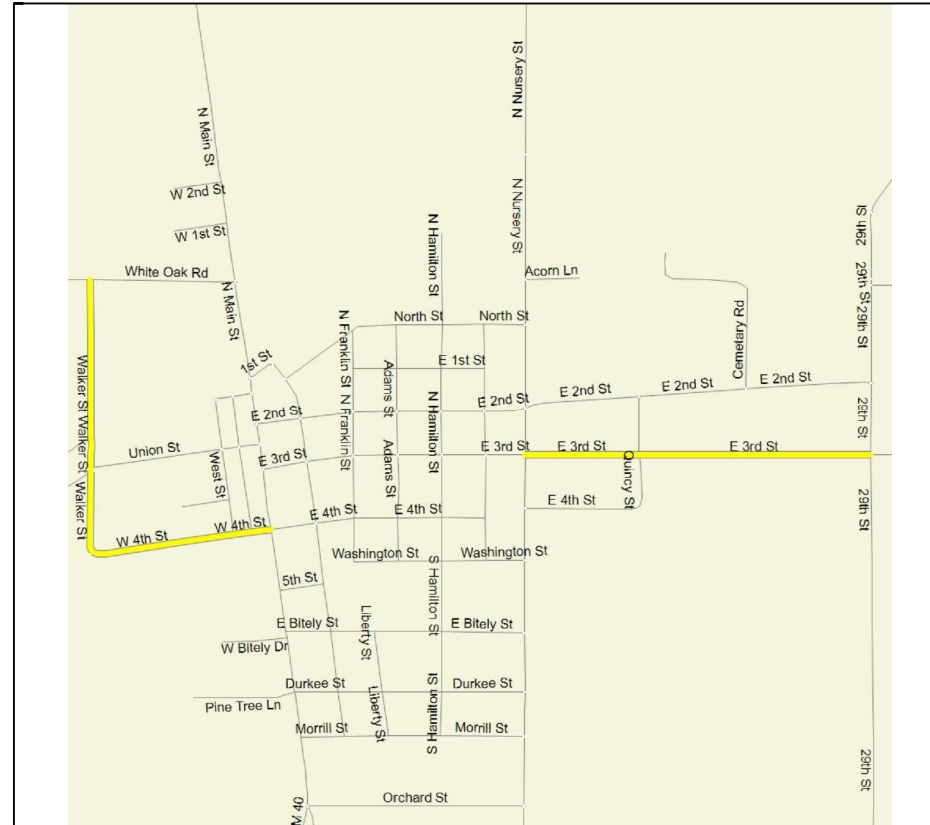
Project	Key	PR Number	Road Name	From/To Desc	Bmp/Emp	Length	Lanes	Lane Length	Width	Surface Cost
		583108	County Road 358	32nd	4.569	0.380	2	0.760	22.00	\$461,328
				Walker	4.949					
Reconstruction (No C&G) Totals:						0.38		0.76		\$461,328
Asphalt-Primary Totals:						0.587		1.381		\$551,797
Year 2024 Totals:						0.587		1.381		\$551,797

Project Planner Detailed Projects By Year Report

Planner Name: Major Projects

2025 Asphalt-Primary

Mill & Overlay - 2"



Project Planner Detailed Projects By Year Report

Planner Name: Major Projects

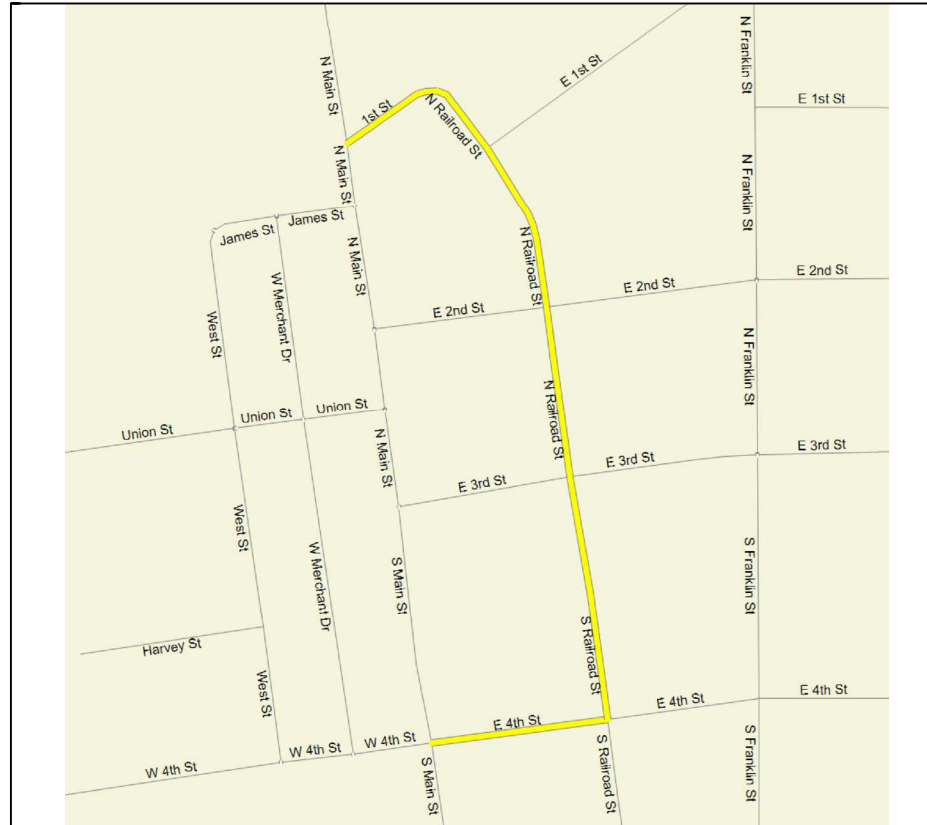
Project	Key	PR Number	Road Name	From/To Desc	Bmp/Emp	Length	Lanes	Lane Length	Width	Surface Cost
		580102	W 4th St	Walker West St	0.000 0.204	0.204	2	0.408	0.00	\$60,627
		580102	W 4th St	West St W Merchant Dr	0.204 0.231	0.027	2	0.054	0.00	\$8,024
		580102	W 4th St	W Merchant Dr E 4th St	0.231 0.259	0.028	2	0.056	0.00	\$8,321
		580103	County Road 358	Nursery Quincy	0.377 0.540	0.163	2	0.326	0.00	\$48,442
		580103	County Road 358	Quincy 29th	0.540 0.871	0.331	2	0.662	0.00	\$98,371
		580107	Walker St	4th Union St	0.000 0.114	0.114	2	0.228	0.00	\$33,880
		580107	Walker St	[Surface Segment Split] Amtrak	0.119 0.139	0.020	2	0.040	0.00	\$5,944
		580107	Walker St	Amtrak Ewing Rd	0.139 0.164	0.025	2	0.050	0.00	\$7,430
		580107	Walker St	Ewing Rd White Oak	0.164 0.390	0.226	2	0.452	0.00	\$67,166
MIII & Overlay - 2" Totals:						1.138		2.276		\$338,205
Asphalt-Primary Totals:						1.138		2.276		\$338,205
Year 2025 Totals:						1.138		2.276		\$338,205

Project Planner Detailed Projects By Year Report

Planner Name: Major Projects

2026 Asphalt-Primary

Reconstruction (No C&G)



Project Planner Detailed Projects By Year Report

Planner Name: Major Projects

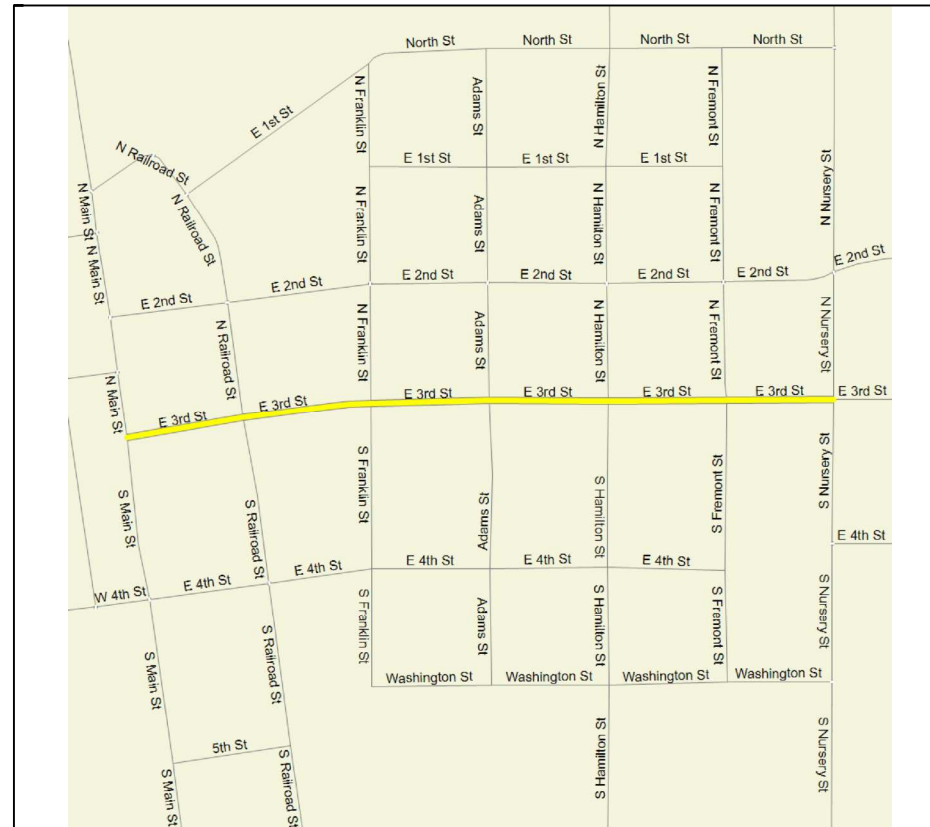
Project	Key	PR Number	Road Name	From/To Desc	Bmp/Emp	Length	Lanes	Lane Length	Width	Surface Cost
		580102	W 4th St	E 4th St Railroad	0.259 0.324	0.065	2	0.130	0.00	\$82,099
		590108	S Railroad St	4th N Railroad St & E 3rd St	0.307 0.396	0.089	2	0.178	0.00	\$112,413
		590108	S Railroad St	S Railroad St & E 3rd St E 2nd St	0.396 0.458	0.062	2	0.124	0.00	\$78,310
		590108	S Railroad St	E 2nd St E 1st St	0.458 0.521	0.063	2	0.126	0.00	\$79,573
		590108	S Railroad St	E 1st St 1st	0.521 0.548	0.027	2	0.054	0.00	\$34,103
		1885405	1st St	Main Railroad	0.000 0.038	0.038	2	0.076	0.00	\$47,997
Reconstruction (No C&G) Totals:						0.344		0.688		\$434,496
Asphalt-Primary Totals:						0.344		0.688		\$434,496
Year 2026 Totals:						0.344		0.688		\$434,496

Project Planner Detailed Projects By Year Report

Planner Name: Major Projects

2030 Asphalt-Primary

Reconstruction (No C&G)



Project Planner Detailed Projects By Year Report

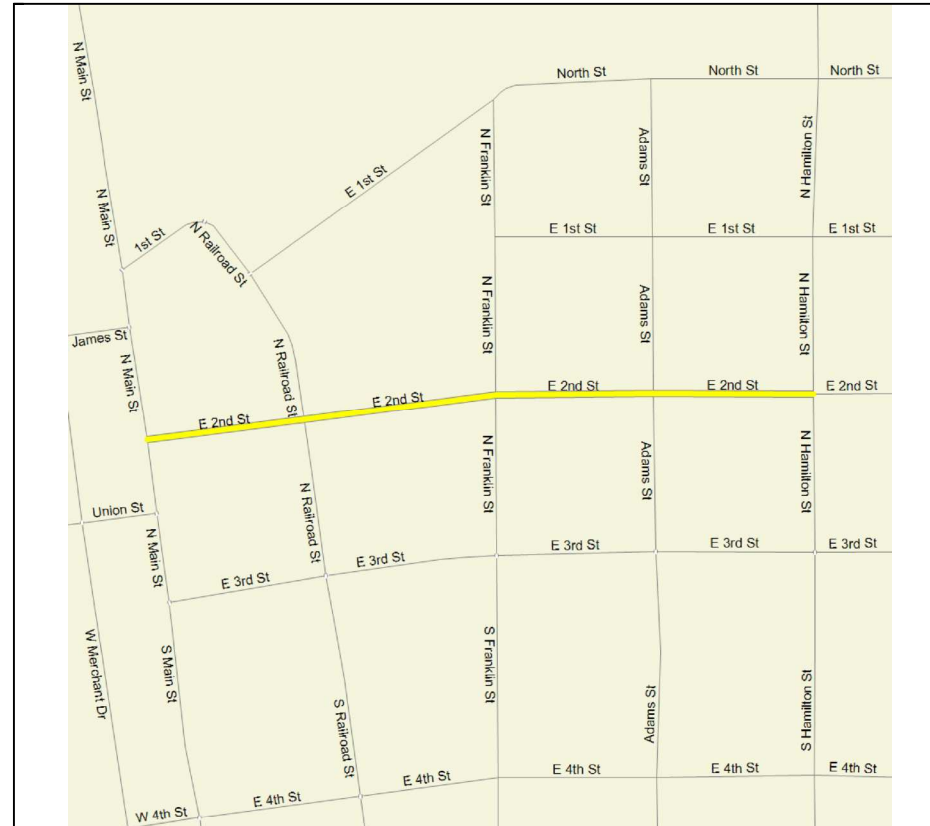
Planner Name: Major Projects

Project	Key	PR Number	Road Name	From/To Desc	Bmp/Emp	Length	Lanes	Lane Length	Width	Surface Cost
		580103	County Road 358	Main N Railroad St	0.000 0.063	0.063	2	0.126	0.00	\$86,133
		580103	County Road 358	N Railroad St S Franklin St	0.063 0.131	0.068	2	0.136	0.00	\$92,969
		580103	County Road 358	S Franklin St Adams St	0.131 0.194	0.063	2	0.126	0.00	\$86,133
		580103	County Road 358	Adams St Hamilton	0.194 0.257	0.063	2	0.126	0.00	\$86,133
		580103	County Road 358	Hamilton N Fremont St & S Fremont St	0.257 0.320	0.063	2	0.126	0.00	\$86,133
		580103	County Road 358	N Fremont St & S Fremont St Nursery	0.320 0.377	0.057	2	0.114	0.00	\$77,930
Reconstruction (No C&G) Totals:						0.377		0.754		\$515,429
Asphalt-Primary Totals:						0.377		0.754		\$515,429
Year 2030 Totals:						0.377		0.754		\$515,429

Project Planner Detailed Projects By Year Report

2031 Asphalt-Primary

Reconstruction (No C&G)



Project Planner Detailed Projects By Year Report

Project	Key	PR Number	Road Name	From/To Desc	Bmp/Emp	Length	Lanes	Lane Length	Width	Surface Cost
		580105	E 2nd St	Main	0.000	0.063	2	0.126	0.00	\$87,855
				N Railroad St	0.063					
		580105	E 2nd St	N Railroad St	0.063	0.076	2	0.152	0.00	\$105,984
				N Franklin St	0.139					
		580105	E 2nd St	N Franklin St	0.139	0.063	2	0.126	0.00	\$87,855
				Adams St	0.202					
		580105	E 2nd St	Adams St	0.202	0.063	2	0.126	0.00	\$87,855
				N Hamilton St	0.265					
Reconstruction (No C&G) Totals:						0.265		0.53		\$369,550
Asphalt-Primary Totals:						0.265		0.53		\$369,550
Year 2031 Totals:						0.265		0.53		\$369,550
Report Totals:						3.048		6.303		\$2,305,742

Appendix 3: Total Project Lists

TOTAL PROJECT LIST - Sorted By Bundled Projects

Below is a list of ALL proposed and/or desired projects across ALL Village owned assets from 2022 to 2031. The top section includes individual projects that have been bundled with other projects to create a larger project. These bundled projects are shown on the 'CIP Summary' sheet (Appendix 5). The projects highlighted light gray have been deemed a priority and are in the project plan for the given time frame. The remaining projects (unhighlighted) are still necessary. The remaining projects shall be considered at the time the given roadway is under construction or as the Village sees fit.

***See Appendix 4 for detailed cost estimates of all bundled projects.**

<i>Individual Project Number</i>	<i>Bundled Project Number</i>	<i>Project Type</i>	<i>Project Name</i>	<i>Year</i>	<i>*Individual Project Cost</i>
<i>Individual Projects Included in a Larger Bundled Project</i>					
4015	1	Water	Morrill Street Water Looping	2027	
1002	2	Streets - Major	Walker Street - Mill & Fill	2025	
1003	2	Streets - Major	W 4th Street - Mill & Fill	2025	
1004	2	Streets - Major	E 3rd Street - Mill & Fill	2025	
3018	2	Storm	4th Street West of West Street swGM-137	2025	
3019	2	Storm	Walker North of 4th Street swGM-149	2025	
3020	2	Storm	Walker South of Union swGM-151	2025	
3021	2	Storm	4th Street East of Walker - swGM-139	2025	
3025	2	Storm	swGM-138 4th Street East of Walker Street	2025	
3026	2	Storm	Walker Street East Side Across Union Street	2025	
4013	2	Water	Walker, & W 4th St Water Services	2025	
1012	3	Streets - Local	Washington Street - Reconstruction	2024	
4004	3	Water	Replace 4" Main on Washington St.	2024	
1006	4	Streets - Major	E 3rd Street - Roadway Improvements	2030	
4005	4	Water	Replace 4" Main on 3rd St.	2030	
1014	5	Streets - Local	E 4th Street - Reconstruction	2026	
4009	5	Water	Replace 4" Main on 4th St.	2026	
1015	6	Streets - Local	E Bitely Street - Reconstruction	2030	
2001	6	Sanitary	Bitely Main to Railroad	2030	
4007	6	Water	Replace 4" Main on Bitely St.	2030	
1001	7	Streets - Major	White Oak Road - Rehabilitation (Small Urban)	2024	
4014	7	Water	White Oak Water Services	2024	

1009	8	Streets - Major	2nd Street - Reconstruction	2031
3012	8	Storm	2nd Street at Hamilton Street	2031
4002	8	Water	Replace 4" Main on 2nd St.	2031
2031	9	Sanitary	Extension to M-40 / 66th	2028
4012	9	Water	Extension to M-40 / 66th	2028
2013	10	Sanitary	2nd St at Main St Intersection	2025
2016	10	Sanitary	Bitely East of Hamilton	2025
2017	10	Sanitary	Bitely St Between Hamilton St and Liberty St	2025
2018	10	Sanitary	Bitely St Between Liberty St and Railroad St	2025
2019	10	Sanitary	Durkee St Between S Main St and Railroad St	2025
2020	10	Sanitary	Durkee St Between S Railroad St and Liberty St	2025
2021	10	Sanitary	East Bitely St, West of S Hamilton St	2025
2023	10	Sanitary	Liberty St Between Durkee St and Bitely St	2025
2024	10	Sanitary	Lining N. Main South of White Oak	2025
2025	10	Sanitary	Lining S. Main Between Durkee and Morrill	2025
2027	10	Sanitary	North Main St north of the railroad tracks	2025
2028	10	Sanitary	North Main St, North of RR Tracks	2025
2030	10	Sanitary	South Main St Between 5th St and Bitely St	2025
3001	10	Storm	1st Street, West of Hamilton Street	2025
3002	10	Storm	3rd Street, East of Franklin Street	2025
3003	10	Storm	3rd Street, East of Railroad Street	2025
3004	10	Storm	Fremont Street, South of 2nd Street	2025
3005	10	Storm	Nursery Street, North of 4th Street	2025
3007	10	Storm	South of Railroad Tracks, West of Main Street	2025
3008	10	Storm	Union Street, West of Main Street	2025
3022	10	Storm	4th Street, West of West Street	2025
3023	10	Storm	Fremont Street, South of 3rd Street	2025
3024	10	Storm	Nursery Street, North of 3rd Street	2025
1007	11	Streets - Major	E 4th Street - Reconstruction	2026
1008	11	Streets - Major	Railroad Street - Reconstruction	2026
3016	11	Storm	Railroad Street, North of 2nd Street	2026
1010	12	Streets - Major	MDOT M-40 - Road / Streetscape Improvements	2023
2008	12	Sanitary	Re route sewer from east on 2nd St (MDOT M-40 Project)	2023
3029	12	Storm	MDOT M-40 - Storm Sewer Improvements	2023
4011	12	Water	MDOT M-40 - Water Improvements	2023

Remaining Individual Projects				
1005	Streets - Major	29th Street - Mill & Fill	2023	\$96,265
1011	Streets - Local	Hamilton Street - Chip Seal	2022	\$3,540
1013	Streets - Local	Concord Drive - Chip Seal	2025	\$21,092
2002	Sanitary	Portable Generator for Lift Station	2022	\$42,000
2003	Sanitary	Replace Decanter Seals (2) at WWTF	2022	\$36,000
2004	Sanitary	New Roof over WWTF	2022	\$17,000
2005	Sanitary	North Main St South of White Oak	2023	\$20,250
2006	Sanitary	North Main St, South of RR Tracks	2023	\$52,650
2007	Sanitary	Orchard East of Main	2023	\$29,700
2009	Sanitary	South Main St Between Durkee St and Morrill St	2023	\$16,200
2010	Sanitary	South Main St North of Orchard St	2023	\$8,100
2011	Sanitary	South Main St South of Morrill St	2023	\$8,100
2012	Sanitary	Replace Force Main from White Oak to Main	2025	\$82,350
2014	Sanitary	2nd St, West of 29th St	2028	\$10,800
2015	Sanitary	Alley South of 2nd St	2028	\$45,900
2022	Sanitary	Fremont St, North of 4th St	2028	\$13,500
2026	Sanitary	Merchant St, North of 2nd St	2028	\$14,850
2029	Sanitary	Quincy St, South of 3rd St	2028	\$13,500
3006	Storm	South of Railroad Tracks, North of Union Street	2022	\$78,300
3009	Storm	1st Street at Railroad Street	2022	\$6,750
3010	Storm	Walker Street from Welch Foods	2022	\$68,850
3011	Storm	Walker Street, South of White Oak Street	2022	\$74,250
3013	Storm	2nd Street, East of Fremont Street	2022	\$14,850
3014	Storm	2nd Street, East of Hamilton Street	2022	\$10,800
3015	Storm	2nd Street, East of Nursery Street	2022	\$9,450
3017	Storm	South Side of 2nd Street, West of Nursery Street	2022	\$10,800
3027	Storm	Root Cutting - 5 Yr Cycle	2025	\$27,000
3028	Storm	Root Cutting - 5 Yr Cycle	2030	\$27,000
4001	Water	Well #4 Cleaning and Overhaul	NA	\$13,000
4003	Water	Replace 4" Main on Franklin St.	NA	\$65,000
4006	Water	Repaint Water Tower	NA	\$114,000
4008	Water	Replace 4" Main on S. Hamilton St.	NA	\$142,500
4010	Water	Potholing Project	2022	\$130,400
4016	Water	Service Replacement Project 1	2025	\$189,000

4017	Water	Service Replacement Project 2	2027	\$189,000
4018	Water	Service Replacement Project 3	2029	\$189,000
4019	Water	Service Replacement Project 4	2030	\$189,000
5001	Facilities / Operation	Renovate Village Hall	NA	
5002	Facilities / Operation	Relocate DPW	NA	
6001	Parks	Recirculate Splash Pad	NA	
6002	Parks	Replace Kid's Dream Playground, Bathroom Upgrades	NA	
6003	Parks	Cemetery Expansion	NA	
6004	Parks	Develop Vineyard Square	NA	

TOTAL PROJECT LIST - Sorted By Asset

Below is a list of ALL proposed and/or desired projects across ALL Village owned assets from 2022 to 2031 sorted by the given Asset. Projects with a 'Bundled Project Number' are individual projects that have been bundled with other projects to create a larger project. These bundled projects are shown on the 'CIP Summary' sheet (Appendix 5). The projects highlighted light gray have been deemed a priority and are in the project plan for the given time frame. The remaining projects (unhighlighted) are still necessary. The remaining projects shall be considered at the time the given roadway is under construction or as the Village sees fit.

***See Appendix 4 for detailed cost estimates of all bundled projects.**

<i>Individual Project Number</i>	<i>Bundled Project Number</i>	<i>Project Type</i>	<i>Project Name</i>	<i>Year</i>	<i>*Individual Project Cost</i>
1001	7	Streets - Major	White Oak Road - Rehabilitation (Small Urban)	2024	
1002	2	Streets - Major	Walker Street - Mill & Fill	2025	
1003	2	Streets - Major	W 4th Street - Mill & Fill	2025	
1004	2	Streets - Major	E 3rd Street - Mill & Fill	2025	
1005		Streets - Major	29th Street - Mill & Fill	2023	\$96,265
1006	4	Streets - Major	E 3rd Street - Roadway Improvements	2030	
1007	11	Streets - Major	E 4th Street - Reconstruction	2026	
1008	11	Streets - Major	Railroad Street - Reconstruction	2026	
1009	8	Streets - Major	2nd Street - Reconstruction	2031	
1010	12	Streets - Major	MDOT M-40 - Road / Streetscape Improvements	2023	
1011		Streets - Local	Hamilton Street - Chip Seal	2022	\$3,540
1012	3	Streets - Local	Washington Street - Reconstruction	2024	
1013		Streets - Local	Concord Drive - Chip Seal	2025	\$21,092
1014	5	Streets - Local	E 4th Street - Reconstruction	2026	
1015	6	Streets - Local	E Bitely Street - Reconstruction	2030	
2001	6	Sanitary	Bitely Main to Railroad	2030	
2002		Sanitary	Portable Generator for Lift Station	2022	\$42,000
2003		Sanitary	Replace Decanter Seals (2) at WWTF	2022	\$36,000
2004		Sanitary	New Roof over WWTF	2022	\$17,000
2005		Sanitary	North Main St South of White Oak	2023	\$20,250
2006		Sanitary	North Main St, South of RR Tracks	2023	\$52,650
2007		Sanitary	Orchard East of Main	2023	\$29,700
2008	12	Sanitary	Re route sewer from east on 2nd St (MDOT M-40 Project)	2023	
2009		Sanitary	South Main St Between Durkee St and Morrill St	2023	\$16,200

2010		Sanitary	South Main St North of Orchard St	2023	\$8,100
2011		Sanitary	South Main St South of Morrill St	2023	\$8,100
2012		Sanitary	Replace Force Main from White Oak to Main	2025	\$82,350
2013	10	Sanitary	2nd St at Main St Intersection	2025	
2014		Sanitary	2nd St, West of 29th St	2028	\$10,800
2015		Sanitary	Alley South of 2nd St	2028	\$45,900
2016	10	Sanitary	Bitely East of Hamilton	2025	
2017	10	Sanitary	Bitely St Between Hamilton St and Liberty St	2025	
2018	10	Sanitary	Bitely St Between Liberty St and Railroad St	2025	
2019	10	Sanitary	Durkee St Between S Main St and Railroad St	2025	
2020	10	Sanitary	Durkee St Between S Railroad St and Liberty St	2025	
2021	10	Sanitary	East Bitely St, West of S Hamilton St	2025	
2022		Sanitary	Fremont St, North of 4th St	2028	\$13,500
2023	10	Sanitary	Liberty St Between Durkee St and Bitely St	2025	
2024	10	Sanitary	Lining N. Main South of White Oak	2025	
2025	10	Sanitary	Lining S. Main Between Durkee and Morrill	2025	
2026		Sanitary	Merchant St, North of 2nd St	2028	\$14,850
2027	10	Sanitary	North Main St north of the railroad tracks	2025	
2028	10	Sanitary	North Main St, North of RR Tracks	2025	
2029		Sanitary	Quincy St, South of 3rd St	2028	\$13,500
2030	10	Sanitary	South Main St Between 5th St and Bitely St	2025	
2031	9	Sanitary	Extension to M-40 / 66th	2028	
3001	10	Storm	1st Street, West of Hamilton Street	2025	
3002	10	Storm	3rd Street, East of Franklin Street	2025	
3003	10	Storm	3rd Street, East of Railroad Street	2025	
3004	10	Storm	Fremont Street, South of 2nd Street	2025	
3005	10	Storm	Nursery Street, North of 4th Street	2025	
3006		Storm	South of Railroad Tracks, North of Union Street	2022	\$78,300
3007	10	Storm	South of Railroad Tracks, West of Main Street	2025	
3008	10	Storm	Union Street, West of Main Street	2025	
3009		Storm	1st Street at Railroad Street	2022	\$6,750
3010		Storm	Walker Street from Welch Foods	2022	\$68,850
3011		Storm	Walker Street, South of White Oak Street	2022	\$74,250
3012	8	Storm	2nd Street at Hamilton Street	2031	

3013		Storm	2nd Street, East of Fremont Street	2022	\$14,850
3014		Storm	2nd Street, East of Hamilton Street	2022	\$10,800
3015		Storm	2nd Street, East of Nursery Street	2022	\$9,450
3016	11	Storm	Railroad Street, North of 2nd Street	2026	
3017		Storm	South Side of 2nd Street, West of Nursery Street	2022	\$10,800
3018	2	Storm	4th Street West of West Street swGM-137	2025	
3019	2	Storm	Walker North of 4th Street swGM-149	2025	
3020	2	Storm	Walker South of Union swGM-151	2025	
3021	2	Storm	4th Street East of Walker - swGM-139	2025	
3022	10	Storm	4th Street, West of West Street	2025	
3023	10	Storm	Fremont Street, South of 3rd Street	2025	
3024	10	Storm	Nursery Street, North of 3rd Street	2025	
3025	2	Storm	swGM-138 4th Street East of Walker Street	2025	
3026	2	Storm	Walker Street East Side Across Union Street	2025	
3027		Storm	Root Cutting - 5 Yr Cycle	2025	\$27,000
3028		Storm	Root Cutting - 5 Yr Cycle	2030	\$27,000
3029	12	Storm	MDOT M-40 - Storm Sewer Improvements	2023	
4001		Water	Well #4 Cleaning and Overhaul	NA	\$13,000
4002	8	Water	Replace 4" Main on 2nd St.	2031	
4003		Water	Replace 4" Main on Franklin St.	NA	\$65,000
4004	3	Water	Replace 4" Main on Washington St.	2024	
4005	4	Water	Replace 4" Main on 3rd St.	2030	
4006		Water	Repaint Water Tower	NA	\$114,000
4007	6	Water	Replace 4" Main on Bitely St.	2030	
4008		Water	Replace 4" Main on S. Hamilton St.	NA	\$142,500
4009	5	Water	Replace 4" Main on 4th St.	2026	
4010		Water	Potholing Project	2022	\$130,400
4011	12	Water	MDOT M-40 - Water Improvements	2023	
4012	9	Water	Extension to M-40 / 66th	2028	
4013	2	Water	Walker, & W 4th St Water Services	2025	
4014	7	Water	White Oak Water Services	2024	
4015	1	Water	Morrill Street Water Looping	2027	
4016		Water	Service Replacement Project 1	2025	\$189,000
4017		Water	Service Replacement Project 2	2027	\$189,000

4018	Water	Service Replacement Project 3	2029	\$189,000
4019	Water	Service Replacement Project 4	2030	\$189,000
5001	Facilities / Operation	Renovate Village Hall	NA	
5002	Facilities / Operation	Relocate DPW	NA	
6001	Parks	Recirculate Splash Pad	NA	
6002	Parks	Replace Kid's Dream Playground, Bathroom Upgrades	NA	
6003	Parks	Cemetery Expansion	NA	
6004	Parks	Develop Vineyard Square	NA	

TOTAL PROJECT LIST - Sorted By Year

Below is a list of ALL proposed and/or desired projects across ALL Village owned assets from 2022 to 2031 sorted by year. Projects with a 'Bundled Proejct Number' are individual projects that have been bundled with other projects to create a larger project. These bundled projects are shown on the 'CIP Summary' sheet (Appendix 5). The projects highlighted light gray have been deemed a priority and are in the project plan for the given time frame. The remaining projects (unhighlighted) are still necessary. The remaining projects shall be considered at the time the given roadway is under construction or as the Village sees fit.

***See Appendix 4 for detailed cost estimates of all bundled projects.**

<i>Individual Project Number</i>	<i>Bundled Project Number</i>	<i>Project Type</i>	<i>Project Name</i>	<i>Year</i>	<i>*Individual Project Cost</i>
1011		Streets - Local	Hamilton Street - Chip Seal	2022	\$3,540
2002		Sanitary	Portable Generator for Lift Station	2022	\$42,000
2003		Sanitary	Replace Decanter Seals (2) at WWTF	2022	\$36,000
2004		Sanitary	New Roof over WWTF	2022	\$17,000
3006		Storm	South of Railroad Tracks, North of Union Street	2022	\$78,300
3009		Storm	1st Street at Railroad Street	2022	\$6,750
3010		Storm	Walker Street from Welch Foods	2022	\$68,850
3011		Storm	Walker Street, South of White Oak Street	2022	\$74,250
3013		Storm	2nd Street, East of Fremont Street	2022	\$14,850
3014		Storm	2nd Street, East of Hamilton Street	2022	\$10,800
3015		Storm	2nd Street, East of Nursery Street	2022	\$9,450
3017		Storm	South Side of 2nd Street, West of Nursery Street	2022	\$10,800
4010		Water	Potholing Project	2022	\$130,400
1010	12	Streets - Major	MDOT M-40 - Road / Streetscape Improvements	2023	
2008	12	Sanitary	Re route sewer from east on 2nd St (MDOT M-40 Project)	2023	
3029	12	Storm	MDOT M-40 - Storm Sewer Improvements	2023	
4011	12	Water	MDOT M-40 - Water Improvements	2023	
1005		Streets - Major	29th Street - Mill & Fill	2023	\$96,265
2005		Sanitary	North Main St South of White Oak	2023	\$20,250
2006		Sanitary	North Main St, South of RR Tracks	2023	\$52,650
2007		Sanitary	Orchard East of Main	2023	\$29,700
2009		Sanitary	South Main St Between Durkee St and Morrill St	2023	\$16,200
2010		Sanitary	South Main St North of Orchard St	2023	\$8,100
2011		Sanitary	South Main St South of Morrill St	2023	\$8,100

1012	3	Streets - Local	Washington Street - Reconstruction	2024
4004	3	Water	Replace 4" Main on Washington St.	2024
1001	7	Streets - Major	White Oak Road - Rehabilitation (Small Urban)	2024
4014	7	Water	White Oak Water Services	2024
1002	2	Streets - Major	Walker Street - Mill & Fill	2025
1003	2	Streets - Major	W 4th Street - Mill & Fill	2025
1004	2	Streets - Major	E 3rd Street - Mill & Fill	2025
3018	2	Storm	4th Street West of West Street swGM-137	2025
3019	2	Storm	Walker North of 4th Street swGM-149	2025
3020	2	Storm	Walker South of Union swGM-151	2025
3021	2	Storm	4th Street East of Walker - swGM-139	2025
3025	2	Storm	swGM-138 4th Street East of Walker Street	2025
3026	2	Storm	Walker Street East Side Across Union Street	2025
4013	2	Water	Walker, & W 4th St Water Services	2025
2013	10	Sanitary	2nd St at Main St Intersection	2025
2016	10	Sanitary	Bitely East of Hamilton	2025
2017	10	Sanitary	Bitely St Between Hamilton St and Liberty St	2025
2018	10	Sanitary	Bitely St Between Liberty St and Railroad St	2025
2019	10	Sanitary	Durkee St Between S Main St and Railroad St	2025
2020	10	Sanitary	Durkee St Between S Railroad St and Liberty St	2025
2021	10	Sanitary	East Bitely St, West of S Hamilton St	2025
2023	10	Sanitary	Liberty St Between Durkee St and Bitely St	2025
2024	10	Sanitary	Lining N. Main South of White Oak	2025
2025	10	Sanitary	Lining S. Main Between Durkee and Morrill	2025
2027	10	Sanitary	North Main St north of the railroad tracks	2025
2028	10	Sanitary	North Main St, North of RR Tracks	2025
2030	10	Sanitary	South Main St Between 5th St and Bitely St	2025
3001	10	Storm	1st Street, West of Hamilton Street	2025
3002	10	Storm	3rd Street, East of Franklin Street	2025
3003	10	Storm	3rd Street, East of Railroad Street	2025
3004	10	Storm	Fremont Street, South of 2nd Street	2025
3005	10	Storm	Nursery Street, North of 4th Street	2025
3007	10	Storm	South of Railroad Tracks, West of Main Street	2025
3008	10	Storm	Union Street, West of Main Street	2025

3022	10	Storm	4th Street, West of West Street	2025	
3023	10	Storm	Fremont Street, South of 3rd Street	2025	
3024	10	Storm	Nursery Street, North of 3rd Street	2025	
1013		Streets - Local	Concord Drive - Chip Seal	2025	\$21,092
2012		Sanitary	Replace Force Main from White Oak to Main	2025	\$82,350
3027		Storm	Root Cutting - 5 Yr Cycle	2025	\$27,000
4016		Water	Service Replacement Project 1	2025	\$189,000
1014	5	Streets - Local	E 4th Street - Reconstruction	2026	
4009	5	Water	Replace 4" Main on 4th St.	2026	
1007	11	Streets - Major	E 4th Street - Reconstruction	2026	
1008	11	Streets - Major	Railroad Street - Reconstruction	2026	
3016	11	Storm	Railroad Street, North of 2nd Street	2026	
4015	1	Water	Morrill Street Water Looping	2027	
4017		Water	Service Replacement Project 2	2027	\$189,000
2031	9	Sanitary	Extension to M-40 / 66th	2028	
4012	9	Water	Extension to M-40 / 66th	2028	
2014		Sanitary	2nd St, West of 29th St	2028	\$10,800
2015		Sanitary	Alley South of 2nd St	2028	\$45,900
2022		Sanitary	Fremont St, North of 4th St	2028	\$13,500
2026		Sanitary	Merchant St, North of 2nd St	2028	\$14,850
2029		Sanitary	Quincy St, South of 3rd St	2028	\$13,500
4018		Water	Service Replacement Project 3	2029	\$189,000
1006	4	Streets - Major	E 3rd Street - Roadway Improvements	2030	
4005	4	Water	Replace 4" Main on 3rd St.	2030	
2001	6	Sanitary	Bitely Main to Railroad	2030	
1015	6	Streets - Local	E Bitely Street - Reconstruction	2030	
4007	6	Water	Replace 4" Main on Bitely St.	2030	
3028		Storm	Root Cutting - 5 Yr Cycle	2030	\$27,000
4019		Water	Service Replacement Project 4	2030	\$189,000
1009	8	Streets - Major	2nd Street - Reconstruction	2031	
3012	8	Storm	2nd Street at Hamilton Street	2031	
4002	8	Water	Replace 4" Main on 2nd St.	2031	
4001		Water	Well #4 Cleaning and Overhaul	NA	\$13,000
4003		Water	Replace 4" Main on Franklin St.	NA	\$65,000

4006	Water	Repaint Water Tower	NA	\$114,000
4008	Water	Replace 4" Main on S. Hamilton St.	NA	\$142,500
5001	Facilities / Operation	Renovate Village Hall	NA	
5002	Facilities / Operation	Relocate DPW	NA	
6001	Parks	Recirculate Splash Pad	NA	
6002	Parks	Replace Kid's Dream Playground, Bathroom Upgrades	NA	
6003	Parks	Cemetery Expansion	NA	
6004	Parks	Develop Vineyard Square	NA	
4007	Water	Repaint Water Tower	NA	\$114,000
4009	Water	Replace 4" Main on S. Hamilton St.	NA	\$142,500
5001	Facilities / Operation	Renovate Village Hall	NA	
5002	Facilities / Operation	Relocate DPW	NA	
6001	Parks	Recirculate Splash Pad	NA	
6002	Parks	Replace Kid's Dream Playground, Bathroom Upgrades	NA	
6003	Parks	Cemetery Expansion	NA	
6004	Parks	Develop Vineyard Square	NA	

Appendix 4: Detailed Cost Estimates

ENGINEER'S ESTIMATE

PROJECT #1: **Morrill Street Water Looping**

CLIENT: **Village of Lawton**

DATE: January 5, 2022

Overview - This project is necessary to loop the water main along Morrill Street between Hamilton Street and Liberty Street to increase water quality and redundancy.

Water Looping - This project includes approximately 420' of 6" water main to loop the water main between Hamilton and Liberty Street. It is assumed the water main will be placed along the south side of the roadway and involves removing 5 ft of pavement. Also included in this estimate is slope protection and traffic control.

Priority (entire project):

Need

Morrill Street Extension Project			Year:	2027
<i>Quantity</i>	<i>Unit</i>	<i>Item</i>	<i>Unit Price</i>	<i>Total</i>
1 LS		General Items (Mob, Grading, Pavt Mrkgs, Signage, Etc.)	@ \$ 25,000	\$ 25,000
420 FT		Water Main, DI, 6 inch	@ 85	35,700
2 EA		Gate Valve and Box, 6 inch	@ 1,350	2,700
2 EA		Connect to Existing Main, 6 inch	@ 3,000	6,000
260 SYD		Aggregate Base, 8 inch	@ 20	5,200
260 SYD		HMA Surface, Rem	@ 5	1,300
60 TON		HMA, LVSP	@ 80	4,800
420 SYD		Restoration	@ 3	1,260
1 LS		Traffic Control	@ 5,000	5,000
50 CYD		Subgrade Undercutting, Type II	@ 25	1,250
Subtotal:			-	\$ 88,210
Construction Contingency & Engineering:			40%	\$35,284
Project Total:				\$123,500

ENGINEER'S ESTIMATE

PROJECT #2: **Walker, W 4th, & E 3rd Street Project**

CLIENT: **Village of Lawton**

DATE: **March 24, 2022**

Overview - The water service replacements are required per EGLE guidelines. The roadways are in poor / fair condition and are due for a mill and fill. There is a large amount of storm sewer improvements along the roadways that were identified in the SAW report. The storm sewer improvements will assist in extending the life of the roadway and ensuring proper drainage.

Road Mill & Fill and Water Services - This project involves a mill and fill of 2 inches and is located on Walker Street (from White Oak to 4th), W 4th Street (from Walker to Main), and E 3rd Street (from Nursery to 29th Street). In addition to the mill and fill, water services along the roadways shall be replaced and the roadway restored prior to the road improvements. Prior to the mill and fill, storm sewer along Walker and E 4th street is proposed. Also, included in this estimate is slope protection and traffic control.

Priority (Water Services): Absolute
Priority (Storm Sewer): Need
Priority (Roadway Mill and Fill): Need

Road Length (White Oak):	1040 FT
Assumed Road Width (White Oak):	34 FT
Road Length (Walker):	2050 FT
Assumed Road Width (Walker):	22 FT
Road Length (W 4th):	1350 FT
Assumed Road Width (W 4th):	36 FT
Road Length (E 3rd):	810 FT
Assumed Road Width (E 3rd):	34 FT
Assumed Water Service Pavt Removal Area:	5 SYD
Assumed HMA Thickness (Restoration & Mill / Fill):	2 Inches

<i>Water Service Replacements:</i>			Year:	2025
<i>Quantity</i>	<i>Unit</i>	<i>Item</i>	<i>Unit Price</i>	<i>Total</i>
7	EA	Water Serv, Long	@ \$ 2,250	\$ 15,750
24	EA	Water Serv, Short	@ 2,000	48,000
31	EA	Water Serv, Private	@ 3,750	116,250
160	SYD	Aggregate Base, 8 inch	@ 20	3,200
160	SYD	HMA Surface, Rem	@ 5	800
20	TON	HMA, LVSP	@ 80	1,600
400	SYD	Restoration	@ 3	1,200
Subtotal:			-	186,800
Construction Contingency & Engineering:			15%	\$28,020
Project Total:				\$214,900

<i>Roadway Mill & Fill:</i>				
1	LS	General Items (Mob, Pavt Mrkgs, Signage, Etc.)	@ \$ 25,000	\$ 25,000

ENGINEER'S ESTIMATE

17400	SYD	Cold Milling HMA Surface	@	3	43,500
1920	TON	HMA, LVSP	@	80	153,600
1	LS	Traffic Control	@	30,000	30,000
Subtotal:					- 252,100
Construction Contingency & Engineering:					30% \$75,630
Project Total:					\$327,800

Additional Storm Sewer Improvements:

1560	FT	Sewer, Rem	@	25	\$ 39,000
730	FT	18" Storm Sewer	@	75	54,750
760	FT	24" Storm Sewer	@	85	64,600
70	FT	30" Storm Sewer	@	95	6,650
1390	SYD	Aggregate Base, 8 inch	@	20	27,800
1390	SYD	HMA Surface, Rem	@	5	6,950
230	TON	HMA, LVSP	@	80	18,400
Subtotal:					- 218,150
Construction Contingency & Engineering:					30% \$75,630
Project Total:					\$293,800

Watermain Total (Public):					70,550
Watermain Total (Private):					116,250
Water Total:					186,800
Roadway					252,100
Storm Sewer					218,150
Roadway Total:					470,250
Contingency & Engineering Total:					179,280
PROJECT TOTAL:					\$ 836,500

ENGINEER'S ESTIMATE

PROJECT #3: **Washington Street Improvements Project**

CLIENT: **Village of Lawton**

DATE: **March 24, 2022**

Overview - This project is identified on the WAMP and involves up-sizing the current 4" water main to conform with current standards. The roadway is in poor condition and shall be reconstructed during the water main improvements.

Road Reconstruction and Water Main - This project is located on Washington Street from Franklin to Nursery. It includes approximately 1000' of water main replacement, water service replacement, sidewalk ramp replacement, and road reconstruction. Also, included in this estimate is slope protection and traffic control.

Priority (Water Improvements):

Need

Priority (Roadway Reconstruction):

Need

Total Road Length:			1280 FT	
Assumed Road Width:			24 FT	
Assumed Trench Width (for Pavt Removal):			5 FT	
Assumed HMA Thickness:			4 Inches	
Water Improvements:			Year:	2024
Quantity	Unit	Item	Unit Price	Total
1000	FT	Water Main, DI, 6 inch	@ \$ 85	\$ 85,000
3	EA	Hydrant, Rem	@ 550	1,650
3	EA	Hydrant, Valve and Box, 6 inch	@ 4,250	12,750
3	EA	Gate Valve and Box, 6 inch	@ 1,350	4,050
3	EA	Connect to Existing Main, 4 inch	@ 2,500	7,500
1	EA	Connect to Existing Main, 6 inch	@ 3,000	3,000
6	EA	Water Serv, Short	@ 2,000	12,000
11	EA	Water Serv, Long	@ 2,250	24,750
17	EA	Water Serv, Private	@ 3,750	63,750
560	SYD	Aggregate Base, 8 inch	@ 20	11,200
560	SYD	HMA Surface, Rem	@ 5	2,800
130	TON	HMA, LVSP	@ 80	10,400
560	SYD	Restoration	@ 3	1,680
Subtotal:			-	240,530
Construction Contingency & Engineering:			30%	\$72,159
Project Total:				\$312,700

Roadway Reconstruction:

1	LS	General Items (Mob, Grading, Pavt Mrkgs, Signage, Etc.)	@ \$ 60,000	\$ 60,000
2860	SYD	Aggregate Base, 8 inch	@ 20	57,200
2860	SYD	HMA Surface, Rem	@ 5	14,300
630	TON	HMA, LVSP	@ 80	50,400
9	EA	Sidewalk Ramp Replacement	@ 950	8,550

ENGINEER'S ESTIMATE

720 SYD Restoration	@	3	2,160
1 LS Traffic Control	@	30,000	30,000
50 CYD Subgrade Undercutting, Type II	@	25	1,250
Subtotal:		-	223,860
Construction Contingency & Engineering:		30%	\$67,158
Project Total:			\$291,100

<i>Watermain Total (Public):</i>	176,780
<i>Watermain Total (Private):</i>	63,750
Water Total:	240,530
Roadway Total:	223,860
Contingency & Engineering Total:	139,317
PROJECT TOTAL:	\$ 603,800

ENGINEER'S ESTIMATE

PROJECT #4: **3rd Street Improvements Project**

CLIENT: **Village of Lawton**

DATE: **March 24, 2022**

Overview - This water improvements are on identified on the WAMP and involves up-sizing the current 4" water main to conform with current standards. The roadway is in fair condition and will potentially be due for a reconstruction at the time of water main improvements.

Road Mill & Fill and Water Main - This project is located on 3rd Street from Main Street to Nursery Street. It includes approximately 320' of water main replacement (Main to Railroad), water service replacement, and road restoration. In addition, all road way will be reconstructed. Also, included in this estimate is slope protection and traffic control.

Priority (Water Improvements): Need
Priority (Roadway Reconstruct): Want

Road Length:	1940 FT
Assumed Road Width:	30 FT
Assumed Trench Width (for Pavt Removal):	7 FT
Assumed HMA Thickness (Restoration & Mill / Fill):	4 Inches
Water Improvements:	Year: 2030
Quantity Unit Item Unit Price Total	
320 FT Water Main, DI, 6 inch	@ \$ 85 \$ 27,200
1 EA Gate Valve and Box, 6 inch	@ 1,350 1,350
1 EA Connect to Existing Main, 8 inch	@ 3,250 3,250
1 EA Connect to Existing Main, 12 inch	@ 3,400 3,400
10 EA Water Serv, Short	@ 2,000 20,000
13 EA Water Serv, Private	@ 3,750 48,750
250 SYD Aggregate Base, 8 inch	@ 20 5,000
250 SYD HMA Surface, Rem	@ 5 1,250
60 TON HMA, LVSP	@ 80 4,800
180 SYD Restoration	@ 3 540
Subtotal:	- 115,540
Construction Contingency & Engineering:	30% \$34,662
Project Total:	\$150,300

Roadway Reconstruction:

1 LS General Items (Mob, Grading, Pavt Mrkgs, Signage, Etc.)	@ \$ 75,000 \$ 75,000
6220 SYD Aggregate Base, 8 inch	@ 20 124,400
6220 SYD HMA Surface, Rem	@ 5 31,100
1370 TON HMA, LVSP	@ 80 109,600
2160 SYD Restoration	@ 3 6,480
1 LS Traffic Control	@ 30,000 30,000
Subtotal:	- 376,580

ENGINEER'S ESTIMATE

Construction Contingency & Engineering:	30%	\$112,974
Project Total:		\$489,600

<i>Watermain Total (Public):</i>	66,790
<i>Watermain Total (Private):</i>	48,750
Water Total:	115,540
Roadway Total:	376,580
Contingency & Engineering Total:	147,636
PROJECT TOTAL:	\$ 639,900

ENGINEER'S ESTIMATE

PROJECT #5: **4th Street Improvements Project**

CLIENT: **Village of Lawton**

DATE: **March 24, 2022**

Overview - This project is on identified on the WAMP and involves up-sizing the current 4" water main to conform with current standards. The roadway is in poor condition and shall be reconstructed during the water main improvements.

Road Reconstruction and Water Main - This project is located on 4th Street from Railroad Avenue to Fremont Street. It includes approximately 990' of water main replacement (Franklin to Fremont), water service replacement (entire length), sidewalk ramp replacement, and road reconstruction. Also, included in this estimate is slope protection and traffic control.

Priority (Water Improvements):

Need

Priority (Roadway Reconstruction):

Need

Road Length (Railroad Ave to Fremont):	1270 FT
Assumed Road Width (Main St to Railroad Ave):	24 FT
Assumed Trench Width (for Pavt Removal):	5 FT
Assumed HMA Thickness:	4 Inches

<i>Water Improvements:</i>			Year:	2026
<i>Quantity</i>	<i>Unit</i>	<i>Item</i>	<i>Unit Price</i>	<i>Total</i>
990	FT	Water Main, DI, 6 inch	@ \$ 85	\$ 84,150
1	EA	Hydrant, Rem	@ 550	550
1	EA	Hydrant, Valve and Box, 6 inch	@ 4,250	4,250
3	EA	Gate Valve and Box, 6 inch	@ 1,350	4,050
3	EA	Connect to Existing Main, 4 inch	@ 2,500	7,500
1	EA	Connect to Existing Main, 6 inch	@ 3,000	3,000
1	EA	Connect to Existing Main, 8 inch	@ 3,250	3,250
9	EA	Water Serv, Short	@ 2,000	18,000
13	EA	Water Serv, Long	@ 2,250	29,250
22	EA	Water Serv, Private	@ 3,750	82,500
550	SYD	Aggregate Base, 8 inch	@ 20	11,000
550	SYD	HMA Surface, Rem	@ 5	2,750
130	TON	HMA, LVSP	@ 80	10,400
550	SYD	Restoration	@ 3	1,650
Subtotal:			-	262,300
Construction Contingency & Engineering:			30%	\$78,690
Project Total:				\$341,000

Roadway Reconstruction:

1	LS	General Items (Mob, Grading, Pavt Mrkgs, Signage, Etc.)	@ \$ 55,000	\$ 55,000
2840	SYD	Aggregate Base, 8 inch	@ 20	56,800
2840	SYD	HMA Surface, Rem	@ 5	14,200

ENGINEER'S ESTIMATE

630 TON HMA, LVSP	@	80	50,400
26 EA Sidewalk Ramp Replacement	@	950	24,700
1 LS Traffic Control	@	30,000	30,000
50 CYD Subgrade Undercutting, Type II	@	25	1,250
Subtotal:		-	231,100
Construction Contingency & Engineering:		30%	\$69,330
Project Total:			\$300,500

<i>Watermain Total (Public):</i>	179,800
<i>Watermain Total (Private):</i>	82,500
Water Total:	262,300
Roadway Total:	231,100
Contingency & Engineering Total:	148,020
PROJECT TOTAL:	\$ 641,500

ENGINEER'S ESTIMATE

PROJECT #6: **Bitely Street Improvements Project**

CLIENT: **Village of Lawton**

DATE: **March 24, 2022**

Overview - This project is identified on the WAMP and involves up-sizing the current 4" water main to conform with current standards. The roadway is in poor condition and shall be reconstructed during the water main improvements.

Road Reconstruction and Water Main - This project is located on Bitely Street from Main Street to Nursery Street. It includes approximately 830' of water main replacement, water service replacement, sidewalk ramp replacement, and road reconstruction. Also, included in this estimate is slope protection and traffic control.

Priority (Water Improvements): Need
Priority (Roadway Reconstruction): Need

Total Road Length:			1780 FT	
Assumed Road Width:			24 FT	
Assumed Trench Width (for Pavt Removal):			5 FT	
Assumed HMA Thickness:			4 Inches	
Water / Sewer Improvements:			Year:	2030
Quantity	Unit	Item	Unit Price	Total
830	FT	Water Main, DI, 6 inch	@ \$ 85	\$ 70,550
4	EA	Gate Valve and Box, 6 inch	@ 1,350	5,400
1	EA	Connect to Existing Main, 6 inch	@ 3,000	3,000
1	EA	Connect to Existing Main, 12 inch	@ 3,400	3,400
11	EA	Water Serv, Short	@ 2,000	22,000
13	EA	Water Serv, Long	@ 2,250	29,250
24	EA	Water Serv, Private	@ 3,750	90,000
20	FT	8" Sewer	@ 85	1,700
470	SYD	Aggregate Base, 8 inch	@ 20	9,400
470	SYD	HMA Surface, Rem	@ 5	2,350
110	TON	HMA, LVSP	@ 80	8,800
470	SYD	Restoration	@ 3	1,410
Subtotal:			-	247,260
Construction Contingency & Engineering:			30%	\$74,178
Project Total:				\$321,500

Roadway Reconstruction:

1	LS	General Items (Mob, Grading, Pavt Mrkgs, Signage, Etc.)	@ \$80,000	\$ 80,000
4280	SYD	Aggregate Base, 8 inch	@ 20	85,600
4280	SYD	HMA Surface, Rem	@ 5	21,400
950	TON	HMA, LVSP	@ 80	76,000
9	EA	Sidewalk Ramp Replacement	@ 950	8,550
1510	SYD	Restoration	@ 3	4,530

ENGINEER'S ESTIMATE

1	LS	Traffic Control	@	40,000	40,000
50	CYD	Subgrade Undercutting, Type II	@	25	1,250
Subtotal:					- 317,330
Construction Contingency & Engineering:					30% \$95,199
Project Total:					\$412,600

Sewer Total:					1,700
Watermain Total (Public):					155,560
Watermain Total (Private):					90,000
Water / Sewer Total:					247,260
Roadway Total:					317,330
Contingency & Engineering Total:					169,377
PROJECT TOTAL:					\$ 734,100

ENGINEER'S ESTIMATE

PROJECT #7: **White Oak Improvements Project**

CLIENT: **Village of Lawton**

DATE: **March 24, 2022**

Overview - The water service replacements are required per EGLE guidelines. The roadway is in fair condition and will be due for a rehabilitation. The project will be implemented through the Paw Paw / Lawton Small Urban Group which receives Federal Funding.

Road Rehabilitation and Water Improvements - This project is located on White Oak Street from 32nd Street to Main St (M-40). The road rehabilitation consists of a mill and fill from Main St to Walker and crushing, shaping, and repaving the roadway from Walker to 32nd Street. In addition, the project includes water service replacements and minor water improvements. Included in this estimate is slope protection and traffic control.

Priority (Water Services): Absolute
Priority (Roadway Reconstruction): Need

Road Length (Main St to Walker):	1070 FT			
Assumed Road Width:	28 FT			
Assumed HMA Thickness:	2 Inches			
Road Length (Village Limits to Walker):	2010 FT			
Assumed Road Width:	26 FT			
Assumed HMA Thickness:	4 Inches			
Water Related Items:				
Year:	2024			
<i>Quantity</i>	<i>Unit</i>	<i>Item</i>	<i>Unit Price</i>	<i>Total</i>
8	EA	Water Serv, Short	@ 2,000	16,000
7	EA	Water Serv, Long	@ 2,250	15,750
15	EA	Water Serv, Private	@ 3,750	56,250
2	EA	Hydrant, Rem	@ 550	1,100
2	EA	Hydrant, Valve and Box, 6 inch	@ 4,250	8,500
170	SYD	Restoration	@ 3	510
Subtotal:			-	98,110
Construction Contingency & Engineering:			10%	\$9,811
Project Total:				\$108,000

Roadway Rehabilitation:

1	LS	General Items (Mob, Grading, Pavt Mrkgs, Misc Sewer, Etc.)	@ \$ 120,000	\$ 136,000
900	SYD	Aggregate Base, 8 inch	@ 20	18,000
3330	SYD	Cold Milling HMA Surface	@ 3	8,325
5810	SYD	HMA Base Crushing and Shaping	@ 6	34,860
1650	TON	HMA, LVSP	@ 80	132,000
3260	SYD	Restoration	@ 3	9,780
1	LS	Traffic Control	@ 30,000	30,000
100	CYD	Subgrade Undercutting, Type II	@ 25	2,500
Subtotal:			-	371,465
Construction Contingency & Engineering:			40%	\$148,586
Project Total:				\$520,100

ENGINEER'S ESTIMATE

Total Federal Participating (\$,444,372 to Max. Funds)	\$450,664
Total Non-Participating (Water Cost & Engineering)	\$177,309
STP-Urban Amount	\$302,640
HIP / Covid	\$81,204
Local Match (min \$60,528 to max funds)	\$66,820
Total Non-Participating (Water Cost & Engineering)	\$177,309
TOTAL PROJECT COST	\$627,972

ENGINEER'S ESTIMATE

PROJECT #8: **2nd Street Improvements Project**

CLIENT: **Village of Lawton**

DATE: **March 24, 2022**

Overview - This project is identified on the WAMP and involves up-sizing the current 4" water main to conform with current standards. The roadway is in fair condition but will be due for a reconstruction at this time during the water main improvements.

Road Reconstruction and Water Main - This project is located on 2nd Street from Main Street to Hamilton Street. It includes approximately 1350' of water main replacement (Main to Hamilton), water service replacement (entire length), sidewalk ramp replacement, minor storm sewer improvements, and road reconstruction. Also, included in this estimate is slope protection and traffic control.

Priority (Water Improvements): Need

Priority (Roadway Reconstruction): Need

Road Length:	1350 FT			
Assumed Road Width:	34 FT			
Assumed Trench Width (for Pavt Removal):	8 FT			
Assumed HMA Thickness:	4 Inches			
Water / Sewer Improvements:	Year: 2031			
Quantity	Unit	Item	Unit Price	Total
1375	FT	Water Main, DI, 6 inch	@ \$ 85	\$ 116,875
6	EA	Gate Valve and Box, 6 inch	@ 1,350	8,100
3	EA	Connect to Existing Main, 6 inch	@ 3,000	9,000
2	EA	Connect to Existing Main, 8 inch	@ 3,250	6,500
2	EA	Connect to Existing Main, 12 inch	@ 3,400	6,800
16	EA	Water Serv, Short	@ 2,000	32,000
13	EA	Water Serv, Long	@ 2,250	29,250
29	EA	Water Serv, Private	@ 3,750	108,750
1	LS	Misc. Utility Re-route (San & Water Main)	@ 20,000	20,000
1280	SYD	Aggregate Base, 8 inch	@ 20	25,600
1280	SYD	HMA Surface, Rem	@ 5	6,400
290	TON	HMA, LVSP	@ 80	23,200
770	SYD	Restoration	@ 3	2,310
Subtotal:			-	394,785
Construction Contingency & Engineering:			30%	\$118,436
Project Total:				\$513,300

Roadway Reconstruction:

1 LS	General Items (Mob, Grading, Pavt Mrkgs, Signage, Etc.)	@ \$ 50,000	\$ 50,000
3 EA	Dr Structure, 48 Inch dia	@ 3,500	10,500
60 FT	24" Storm Sewer	@ 85	5,100
3820 SYD	Aggregate Base, 8 inch	@ 20	76,400
3820 SYD	HMA Surface, Rem	@ 5	19,100

ENGINEER'S ESTIMATE

850 TON HMA, LVSP	@	80	68,000
35 EA Sidewalk Ramp Replacement	@	950	33,250
1 LS Traffic Control	@	30,000	30,000
50 CYD Subgrade Undercutting, Type II	@	25	1,250
Subtotal:		-	293,600
Construction Contingency & Engineering:		30%	\$88,080
Project Total:			\$381,700

Sewer Total:	35,600
Watermain Total (Public):	250,435
Watermain Total (Private):	108,750
Water / Sewer Total:	394,785
Roadway Total:	293,600
Contingency & Engineering Total:	206,516
PROJECT TOTAL:	\$ 895,000

ENGINEER'S ESTIMATE

PROJECT #9: **M-40 Sewer and Water Extension**

OWNER: **Village of Lawton**

DATE: January 5, 2022

Utility Extension - Cost estimate to extend water and sewer along M-40 north of Lawton Drain. The project shall tie into the sewer at the W 2nd Street and M-40 intersection extending north approximately 1,850 ft to 66th Street (Village Limits). A Lift Station shall be constructed on the north side of the Drain with forcemain to be bored under the Drain and discharging to the existing manhole at the 2nd St and Main St intersection. Water main shall be bored underneath the Drain.

Priority (Water / Sewer Extension):			Want	
Sewer and Water Extension			Year:	2028
Quantity	Unit	Item	Unit Price	Total
1	LS	Mobilization	@ \$25,000.00	\$25,000.00
1	LS	Traffic Control	@ 15,000.00	15,000.00
660	SYD	Pavt, Rem, Modified	@ 13	8,250.00
1	EA	Lift Station	@ 190,000	190,000.00
715	FT	Forcemain, 4 inch	@ 45	32,175.00
1,150	FT	8" Sewer	@ 85	97,750.00
10	EA	6" Wye	@ 600	6,000.00
10	EA	Sanitary Laterals	@ 1,250	12,500.00
3	EA	San Structure, 48 inch dia	@ 5,500	16,500.00
1	EA	Sanitary Manhole, Tap	@ 950	950.00
1	EA	Connect to Existing Main, 12 inch	@ 3,400	3,400.00
1	EA	Water Main, 12 inch, Cap	@ 1,750	1,750.00
205	FT	Directionally Drilled Water Main, 12 inch	@ 210	43,050.00
1,160	FT	Water Main, DI, 12 inch	@ 125	145,000.00
4	EA	Hydrant, Valve and Box, 6 inch	@ 4,250	17,000.00
3	EA	Gate Valve and Box, 12 inch	@ 3,500	10,500.00
660	SYD	Aggregate Base, 8 inch	@ 20	13,200.00
150	TON	HMA, LVSP	@ 80	12,000.00
970	SYD	Restoration	@ 3	2,910.00
Subtotal:			-	652,935
Construction Contingency & Engineering:			30%	\$195,881
Project Total:				\$848,900
Water Cost				\$ 258,880
Sewer Cost				394,055
Engineering and Contingency Split Between Assets:				97,950
Total Water:				\$ 356,830.00
Total Sewer:				\$ 492,005.00

ENGINEER'S ESTIMATE

PROJECT #10: **Root Cutting**

CLIENT: **Village of Lawton**

DATE: October 28, 2021

Root Cutting - From the SAW Projects completed in 2019, segments of the storm sewer and sanitary sewer were identified for root cutting to increase their useful life and ensure the system functions properly.

Root Cutting							Year:	2025
<i>Quantity</i>	<i>Unit</i>	<i>Item</i>	<i>System</i>	<i>Project Name from SAW</i>	<i>Project Number</i>		<i>Unit Price</i>	<i>Total</i>
1	LS	Mobilization	N/A	N/A	N/A	@	10,000	10,000
310	FT	Root Cutting	Storm	1st Street, West of Hamilton Street	3001	@	5	1,550
275	FT	Root Cutting	Storm	3rd Street, East of Franklin Street	3002	@	5	1,375
300	FT	Root Cutting	Storm	3rd Street, East of Railroad Street	3003	@	5	1,500
275	FT	Root Cutting	Storm	Fremont Street, South of 2nd Street	3004	@	5	1,375
405	FT	Root Cutting	Storm	Nursery Street, North of 4th Street	3005	@	5	2,025
270	FT	Root Cutting	Storm	South of Railroad Tracks, West of Main Street	3007	@	5	1,350
85	FT	Root Cutting	Storm	Union Street, West of Main Street	3008	@	5	425
85	FT	Root Cutting	Storm	Fremont Street, South of 3rd Street	3023	@	5	425
300	FT	Root Cutting	Sanitary	Bitely Street, Main to Railroad	2001	@	5	1,500
300	FT	Root Cutting	Sanitary	2nd Street, West of 29th Street	2014	@	5	1,500
255	FT	Root Cutting	Sanitary	Alley South of 2nd Street	2015	@	5	1,275
310	FT	Root Cutting	Sanitary	Bitely East of Hamilton	2016	@	5	1,550
515	FT	Root Cutting	Sanitary	Bitely St Between Hamilton St and Liberty St	2017	@	5	2,575
335	FT	Root Cutting	Sanitary	Bitely St Between Liberty St and Railroad St	2018	@	5	1,675
350	FT	Root Cutting	Sanitary	Durkee St Between S Main St and Railroad St	2019	@	5	1,750
320	FT	Root Cutting	Sanitary	Durkee St Between S Railroad St and Liberty St	2020	@	5	1,600
310	FT	Root Cutting	Sanitary	East Bitely St, West of S Hamilton St	2021	@	5	1,550
370	FT	Root Cutting	Sanitary	Fremont Street, North of 4th Street	2022	@	5	1,850
300	FT	Root Cutting	Sanitary	Liberty St Between Durkee St and Bitely St	2023	@	5	1,500
140	FT	Root Cutting	Sanitary	Merchant Street, North of RR Tracks	2026	@	5	700
300	FT	Root Cutting	Sanitary	Quincy Street, South of 3rd Street	2029	@	5	1,500

ENGINEER'S ESTIMATE

Subtotal:	-	40,550
Construction Contingency & Engineering:	20%	\$8,110
Project Total:		\$48,700

Total Sanitary Sewer:	\$	31,431
Total Storm Sewer:		17,269

ENGINEER'S ESTIMATE

PROJECT #10: **Sewer Lining**

CLIENT: **Village of Lawton**

DATE: **October 28, 2021**

Sewer Lining Overview - From the SAW Projects completed in 2019, segments of both the sanitary and storm sewer were identified to be lined to increase their useful life and ensure the system functions properly. Sewer lining is a non-disruptive way to rehabilitate the pipes in the sewer system.

Priority (entire project): Need

Project: Sewer Lining							Year:	2025
Quantity	Unit	Item	System	Project Name from SAW	Project Number		Unit Price	Total
1	LS	Mobilization	N/A	N/A	N/A	@	70,000	70,000
120	FT	10" Sewer Lining	Sanitary	2nd St at Main St Intersection	2013	@	70	8,400
310	FT	8" Sewer Lining	Sanitary	Bitely East of Hamilton	2016	@	60	18,600
515	FT	8" Sewer Lining	Sanitary	Bitely St Between Hamilton St and Liberty St	2017	@	60	30,900
335	FT	8" Sewer Lining	Sanitary	Bitely St Between Liberty St and Railroad St	2018	@	60	20,100
350	FT	8" Sewer Lining	Sanitary	Durkee St Between S Main St and Railroad St	2019	@	60	21,000
320	FT	8" Sewer Lining	Sanitary	Durkee St Between S Railroad St and Liberty St	2020	@	60	19,200
310	FT	8" Sewer Lining	Sanitary	East Bitely St, West of S Hamilton St	2021	@	60	18,600
300	FT	8" Sewer Lining	Sanitary	Liberty St Between Durkee St and Bitely St	2023	@	60	18,000
220	FT	8" Sewer Lining	Sanitary	Lining N. Main South of White Oak	2024	@	60	13,200
325	FT	8" Sewer Lining	Sanitary	Lining S. Main Between Durkee and Morrill	2025	@	60	19,500
215	FT	8" Sewer Lining	Sanitary	North Main St north of the railroad tracks	2027	@	60	12,900
155	FT	10" Sewer Lining	Sanitary	North Main St, North of RR Tracks	2028	@	70	10,850
325	FT	8" Sewer Lining	Sanitary	South Main St Between 5th St and Bitely St	2030	@	60	19,500
270	FT	12" Sewer Lining	Storm	4th Street, West of West Street	3022	@	80	21,600
85	FT	12" Sewer Lining	Storm	Freemont Street, South of 3rd Street	3023	@	80	6,800
285	FT	15" Sewer Lining	Storm	Nursery Street, North of 3rd Street	3024	@	100	28,500
Subtotal:							-	357,650
Construction Contingency & Engineering:							30%	\$107,295
Project Total:								\$465,000
Total Sanitary Sewer:								\$ 372,641
Total Storm Sewer:								92,359

ENGINEER'S ESTIMATE

PROJECT #11: **Railroad & E 4th Street Improvements Project**

CLIENT: **Village of Lawton**

DATE: **March 24, 2022**

Overview - The roadways are in poor condition and is due for a reconstruction. In addition, there is minor storm sewer replacement to be addressed during the road reconstruction that was identified in the SAW.

Road Reconstruction - This project is located on E 4th Street (from Main to Railroad) and on Railroad Street (from E 4th to 1st). The project involves a full roadway reconstruct, minor storm sewer improvements, traffic control, and restoration.

Priority (Storm Sewer): Need

Priority (Roadway Reconstruction): Need

Road Length (E 4th):	300 FT
Assumed Road Width (E 4th):	36
Road Length (Railroad):	1275
Assumed Road Width (Railroad):	32 FT
Assumed HMA Thickness:	4 Inches
Roadway Reconstruction:	Year: 2026
1 LS General Items (Mob, Grading, Pavt Mrkgs, Signage, Etc.)	@ \$ 50,000 \$ 50,000
5740 SYD Aggregate Base, 8 inch	@ 20 114,800
5740 SYD HMA Surface, Rem	@ 5 28,700
1270 TON HMA, LVSP	@ 80 101,600
40 FT 15" Storm Sewer	@ 65 2,600
20 FT 36" Storm Sewer	@ 105 2,100
1 EA Dr Structure, 48 Inch dia	@ 3,500 3,500
1 LS Re-route Water and Misc Pipe	@ 7,500 7,500
1750 SYD Restoration	@ 3 5,250
1 LS Traffic Control	@ 30,000 30,000
100 CYD Subgrade Undercutting, Type II	@ 25 2,500
Subtotal:	- 348,550
Construction Contingency & Engineering:	30% \$104,565
Project Total:	\$453,200

Roadway	332,850
Storm Sewer	15,700
Roadway Total:	348,550
Contingency & Engineering Total:	104,565
PROJECT TOTAL:	\$ 453,200

ENGINEER'S ESTIMATE

PROJECT #11: **MDOT Streetscape Project - M-40**
 CLIENT: **Village of Lawton**
 DATE: **January 14, 2022**

MDOT Streetscape - This project includes roadwork along M-40 from the northern Village limits to the souther Village limits. In addition, the project involves major roadway improvements, storm and sanitary sewer improvements, culvert replacement, watermain, and a streetscape thru the downtown corridor.

MDOT Streetscape Project					Year:	2023					
Category / JN	Prop Work	Funds Breakdown			Total	CE Cost			Total Project Cost		
JN 200641		Fed	State	Local		Fed	State	Local	Fed	State	Local
1	Road Work	93.54%	6.46%	0.00%	\$6,962,365	\$819,481	\$56,594	\$ -	\$7,332,077	\$506,363	\$0
		\$6,512,596	\$449,769	\$ -							
2	Culvert Work	93.54%	6.46%	0.00%	\$530,860	\$62,483	\$4,315	\$ -	\$559,049	\$38,609	\$0
		\$496,566	\$34,294	\$ -							
3	Streetscape, Water main, Sanitary	0.00%	0.00%	100.00%	\$1,376,363	\$ -	\$ -	\$173,188	\$0	\$0	\$1,549,552
		\$ -	\$ -	\$1,376,363							
5	Shared Storm	81.85%	1.45%	16.70%	\$720,799	\$74,236	\$1,315	\$15,147	\$664,210	\$11,767	\$135,520
		\$589,974	\$10,452	\$120,373							
200641 Total		\$7,599,136	\$494,514	\$1,496,737	\$9,590,387	\$956,201	\$62,225	\$188,335	\$8,555,337	\$556,739	\$1,685,072
JN 213171	Ped Safety Improvements	56.53%	0.00%	43.47%	\$432,173	\$30,873	\$ -	\$23,740	\$275,180	\$0	\$211,606
		\$244,307	\$0	\$187,865							
TOTAL COST		\$7,843,443	\$494,514	\$1,684,602	\$10,022,559	\$987,073	\$62,225	\$212,075	\$8,830,516	\$556,739	\$1,896,677

Approx. Fund Allocations:				
Category / JN	Fund			
	Other	Water	Sewer	Total
3	1,049,552	400,000	100,000	\$1,549,552
5	135,520			\$135,520
JN 213171	211,606			\$211,606
Total	1,396,677	400,000	100,000	\$1,896,677

*36 water services are included between Category 1 & 3. The cost shown does NOT include the cost to replace the private side of the water service.

ENGINEER'S ESTIMATE

PROJECT: **Re-Occuring Water Service Replacements**

CLIENT: **Village of Lawton**

DATE: **March 24, 2022**

Water Service Replacements - The projects below involve replacing lead water services with copper per State requirements. All lead service lines must be replaced per the State requirements by the end of 2040. Depending on where the water main is located, the service replacements will most likely require some road removal and replacement. In addition, based on roadway condition, we have determined to either reconstruct the whole roadway, mill and fill the roadway, or, at a minimum, restore the road over the water services. Go here for more information on the Lead Copper Rule -->

https://www.michigan.gov/egle/0,9429,7-135-3313_3675_3691-9677--,00.html

Summary of Water Services

Total Water Services	487
Service Replacements per Year	25

Assumed Water Service Pavt Removal Area:	5 SYD
Assumed HMA Thickness (Restoration):	4 Inches
Average Service Cost:	\$ 6,000
Average Restoration Cost:	\$ 300

Water Services:

Year	Project	Services	Unit Price	Total
2023	MDOT Streetscape Project	36	*N/A	
2024	Washington Street Improvements Project	17	*N/A	
2024	White Oak Improvements Project	15	*N/A	
2025	Walker, W 4th, & E 3rd Street Project	31	*N/A	
2025	Service Replacements Project 1**	25	\$ 6,300	\$ 189,000
2026	4th Street Improvements Project	22	*N/A	
2027	Service Replacements Project 2**	25	\$ 6,300	\$ 189,000
2029	Service Replacements Project 3**	25	\$ 6,300	\$ 189,000
2029	Service Replacements Project 4**	25	\$ 6,300	\$ 189,000
2030	3rd Street Improvements Project	13	*N/A	
2030	Bitely Street Improvements Project	24	*N/A	
2031	2nd Street Improvements Project	29	*N/A	

Total Cost from 2022 to 2041**:	487	6,300	\$ 3,681,720
Approximate Cost Per Year**:	20 years		\$184,086

*Service replacement cost included in project cost. See project estimates for detailed cost breakdown.

**Cost includes 20% extra for contingency, engineering, etc.

ENGINEER'S ESTIMATE

PROJECT: **Potholing Water Services for DSMI**

CLIENT: **Village of Lawton**

DATE: **October 28, 2021**

Potholing Water Services - As a part of the Lead Copper Rule, the State is requiring each Water Supply to complete a Distribution System Materials Inventory (DSMI). The purpose is to characterize, record, and maintain a comprehensive inventory of service line materials on both public and private property. Due to lack of records, the exact materials of individual services are unknown. Many of the Village's services are likely lead, with potential 10% of the services being copper. Since the locations of the copper are unknown, the Village must pothole and verify the material of 20% of all water services. Go here for more information on the Lead Copper Rule --> https://www.michigan.gov/egle/0,9429,7-135-3313_3675_3691-9677--,00.html

Potholing Project			Year:		2022
<i>Quantity</i>	<i>Unit</i>	<i>Item</i>		<i>Unit Price</i>	<i>Total</i>
98	EA	Two Documented Attempts to Contact	@	45	4,410
98	EA	Internal Inspection	@	40	3,920
10	EA	Potholing Service Shutoffs Under Pavement	@	675	6,750
88	EA	Potholing Service Shutoffs NOT Under Pavement	@	300	26,400
98	EA	Potholing Service to Main Connections Under Pavement	@	600	58,800
Subtotal:				-	100,280
Construction Contingency & Engineering:				30%	\$30,084
Project Total:					\$130,400

Appendix 5: Communitywide Capital Improvement Plan Summary

CIP Summary

Fund	Asset	Project Name	Total Cost	Private Cost	Public Cost	Year	Priority	Bundled Project Number	2022	2023	2024	2025	2026	2027	2028	2029	2030	2031			
Sewer	Sewer	MDOT Streetscape Project	\$ 40,000			2023	Absolute	12	40,000												
	Sewer	Root Cutting	31,431			2025	Need	10	31,431												
	Sewer	Sewer Lining	372,641			2025	Need	10	372,641												
	Sewer	M-40 Sewer and Water Extension	492,005			2028	Want	9	492,005												
	Sewer	Bitely Street Improvements Project	1,700			2030	Need	6	1,700												
Total			937,777						-	40,000	-	404,072	-	-	492,005	-	1,700	-			
Water	Water	MDOT Streetscape Project	\$ 540,000	140,000	400,000	2023	Absolute	12	540,000												
	Water	Walker, W 4th, & E 3rd Street Project	214,900	116,250	98,650	2025	Absolute	2	214,900												
	Water	Washington Street Improvements Project	312,700	63,750	248,950	2024	Need	3	312,700												
	Water	3rd Street Improvements Project	150,300	48,750	101,550	2030	Need	4	150,300												
	Water	4th Street Improvements Project	341,000	82,500	258,500	2026	Need	5	341,000												
	Water	2nd Street Improvements Project	513,300	108,750	404,550	2031	Need	8	513,300												
	Water	M-40 Sewer and Water Extension	356,830	-	356,830	2028	Want	9	356,830												
	Water	White Oak Improvements Project	108,000	56,250	51,750	2024	Absolute	7	108,000												
	Water	Bitely Street Improvements Project	319,800	90,000	229,800	2030	Need	6	319,800												
	Water	Morrill Street Water Looping	123,500		123,500	2027	Need	1	123,500												
	Water	Potholing Water Services for DSMI	130,400	-	130,400	2022	Absolute	N/A	130,400												
	Water	Service Replacement Project 1	189,000	93,750	95,250	2025	Absolute	N/A	189,000												
	Water	Service Replacement Project 2	189,000	93,750	95,250	2027	Absolute	N/A	189,000												
	Water	Service Replacement Project 3	189,000	93,750	95,250	2029	Absolute	N/A	189,000												
	Water	Service Replacement Project 4	189,000	93,750	95,250	2030	Absolute	N/A	189,000												
Total			3,866,730	1,081,250	2,785,480				130,400	540,000	420,700	403,900	341,000	312,500	356,830	189,000	659,100	513,300			
Local Streets	Roads	Washington Street Improvements Project	\$ 291,100			2024	Need	3	291,100												
	Roads	4th Street Improvements Project	300,500			2026	Need	5	300,500												
	Roads	Bitely Street Improvements Project	412,600			2030	Need	6	412,600												
	Storm	Sewer Lining	92,359			2025	Need	10	92,359												
Total			1,096,559						-	-	291,100	92,359	300,500	-	-	-	412,600	-			
Major Streets	Roads	Walker, W 4th, & E 3rd Street Project	\$ 327,800			2025	Need	2	327,800												
	Storm	Walker, W 4th, & E 3rd Street Project	293,800			2025	Need	2	293,800												
	Storm	Root Cutting	\$ 17,269			2025	Need	10	17,269												
	Roads	3rd Street Improvements Project	489,600			2030	Want	4	489,600												
	Roads	Railroad & E 4th Street Improvements Project	437,500			2026	Need	11	437,500												
	Storm	Railroad & E 4th Street Improvements Project	15,700			2026	Need	11	15,700												
	Roads	White Oak Improvements Project	136,128			2024	Need	7	136,128												
	Roads / Storm	2nd Street Improvements Project	381,700			2031	Need	8	381,700												
Total			2,099,497						-	-	136,128	638,869	453,200	-	-	-	489,600	381,700			
Other	Roads / Storm / Streetscape	MDOT Streetscape Project	1,396,677			2023	Absolute	12	1,396,677												

Summary of Cost

Asset	Priority	Proposed Timing	Cost	Notes
Water	Absolute	2022-2031	2,319,300	Includes approx. 287 water service replacements, MDOT Streetscape, and Potholing Project.
Water	Absolute	2032-2041	1,260,000	Includes replacing the remaining water services.
Water	Need / Want	2022-2031	1,547,430	Involves replacing 4" water mains prior to completing water services, extending water north on M-40, & WM looping.
Water	Need / Want	2032-2041	400,000	Involves replacing 4" water mains prior to completing water services.
Sewer	Absolute	2022-2031	40,000	MDOT Streetscape
Sewer	Need / Want	2022-2031	897,777	Includes sewer lining project, extending sewer north on M-40, and misc improvements



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