



*"City of Tradition and Progress"*  
**Capital Improvements Plan**  
**2016/2017-2021/2022**



**Sanitary Sewer**



**Road Rehabilitation**

**CITY OF FARMINGTON HILLS**  
**CAPITAL IMPROVEMENTS PLAN**  
**2016/2017 – 2021/2022**

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**Capital Improvements Plan  
Schedule**

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Planning Commission Public Hearing March 24, 2016

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# **CAPITAL IMPROVEMENTS PLAN 2016/2017-2021/2022**

## **INTRODUCTION/LEGAL AUTHORITY**

The Capital Improvements Plan (CIP) is an essential planning tool for the development of the social, physical, and economic well being of the City of Farmington Hills. This plan is the first step in an organized effort to strengthen the quality of public facilities and services and provide a framework for the realization of community goals and objectives as envisioned in the City's Master Plan for Future Land Use as adopted by the Planning Commission.

In a practical sense, the CIP process allows the City to identify, prioritize and implement capital projects over multiple years. Public improvements originating from the CIP process have served to improve the quality of life for all Farmington Hills residents. As the community matures, policy makers will look to the CIP for answers in addressing public needs. This year's plan continues in that tradition.

Legal authority for capital improvement planning is found in state law. Specifically, Act 33 of the Public Acts of 2008, the Michigan Planning Enabling Act provides:

“To further the desirable future development of the local unit of government under the master plan, a planning commission, after adoption of the master plan, shall annually prepare a capital improvements program of public structures and improvements, unless the planning commission is exempted from this requirement by charter or otherwise. If the planning commission is exempted, the legislative body either shall prepare and adopt a capital improvements program, separate from or as a part of the annual budget, or shall delegate the preparation of the capital improvements program to the chief elected official or a non-elected administrative official, subject to final approval by the legislative body. The capital improvements program shall show those public structures and improvements, in the general order of their priority, that in the commission's judgment will be needed or desirable and can be undertaken within the ensuing six-year period. The capital improvements program shall be based upon the requirements of the local unit of government for all types of public structures and improvements. Consequently, each agency or department of the local unit of government with authority for public structures or improvements shall upon request furnish the planning commission with lists, plans and estimates of time and cost of those public structures and improvements.”

Moreover, the City Charter, Sections 3.07 and 6.08, indicates that the City Manager shall have the responsibility of submitting a Capital Improvements Plan to the City Council.

## **CIP GOAL**

TO PLAN FOR AND GUIDE NEEDED CAPITAL IMPROVEMENTS AND EXPENDITURES IN A FISCALLY SOUND MANNER AND TO ENSURE THAT THESE IMPROVEMENTS ARE CONSISTENT WITH THE GOALS AND POLICIES OF THE CITY OF FARMINGTON HILLS AND THE EXPECTATIONS OF ITS RESIDENTS.

## **DEFINITION: BUDGET VS. PLAN**

The Capital Improvements Plan identifies all major capital projects with cost estimates anticipated in both capital and future operating costs over a six-year period. The program is intended to serve existing and anticipated development in the City. All CIP projects are listed on a priority basis and reflected by fiscal year within the plan. The plan also includes an indication for providing the financial means for implementing the projects.

The representations contained in this plan reflect input from the City's administration. The actual budgets, however, for the designated years are determined annually by the City Council in accordance with the City Charter and State law. The Council may add, delete, or otherwise change priorities as they deem necessary within the annual budget review and approval process.

Each year as a capital budget is implemented, the next five-year cycle is reevaluated and an additional year is added to comprise a six-year plan. Capital improvements beyond the sixth year are occasionally identified in the future column for tracking purposes.

## **CAPITAL IMPROVEMENTS PLANNING - AN OVERVIEW**

Capital improvements' planning involves, to varying degrees, the following steps:

- **Inventory** - an assessment and compilation of existing and future project needs.
- **Financial Analysis** - an analysis of all existing and potential fiscal resources.
- **Determining Priorities** - the task of comparing needs and desired projects against financial resources and other criteria.
- **Establishing Goals and Objectives** - Asking the Questions: What do we want to accomplish? How can we get there? And how do we pay for it?
- **Develop a Schedule** - look at a logical sequence, relating needs with financial resources.
- **Gain Approval** - from appropriate local officials, other funding or cooperating agencies and, most importantly, residents of the community.
- **Implement the Plan** - incorporate the first year of the capital plan into the next operating budget.
- **Review and Update** - each year review and update both the capital budget and six-year plan.

One of the more difficult tasks in developing a capital improvements plan is the establishment of priorities, i.e., selecting one project over another when financial resources are limited. The criteria used in establishing priorities include:

- Protecting life and property
- Maintaining public health and safety
- Maintaining public property
- Replacing obsolete facilities
- Providing public convenience and comfort
- Providing effective and efficient public services
- Reducing operating costs
- Enhancing recreational value
- Enhancing economic value
- Improving social, cultural and aesthetic value
- Making prudent use of limited financial resources

## **ADVANTAGES OF CAPITAL IMPROVEMENTS PLANNING**

The Capital Improvements Plan provides numerous advantages. The following programming advantages are considered the most important:

- Planning calls attention to the unmet needs of the City and stimulates corrective action. Residents are able to provide public input and critical review of the City's long-range plans.
- Planning for future needs ensures that projects will benefit the entire community. Residents can see what they are getting for their tax dollars.
- Planning can help bring about a better balance to project funding among public agencies and departments.
- Planning can eliminate the possibility of duplication of effort involving time and money between various local public agencies and improve project scheduling.
- Planning enables the community to effectively take advantage of anticipated and unanticipated State and Federal grants.
- Planning can provide decision makers with sound justification for needed improvements based on the comprehensiveness of the process.
- Planning future needs allows the community to stabilize tax rates over a period of years by anticipating funding requirements.
- Planning provides the required lead-time for designing and engineering improvements in advance of actual needs.

## **ONGOING COSTS**

Many capital improvements require ongoing operational and/or maintenance costs. The City's 1995 Management Audit identified the need for operational impact statements in the Capital Improvements Plan. Those statements are contained within the CIP tables of capital improvements. While referenced in the CIP, individual departments would assume these costs in their operating budgets.

## **CIP SCHEDULE**

The following schedule serves as a guide for development, review and approval of the Capital Improvements Plan.

- In accordance with Section 6.08 of the City Charter, the City Manager shall submit to the Council a five-year projection in such detail as the Council may require and outline major capital expenditures or projects that are planned for the City.
- In November/December of each year the City Council may provide its input to the City Manager relative to capital needs, priorities, projects, and changes that it would like to see evaluated or reevaluated in preparation for the updating of the City's Capital Improvements Plan.
- Act 33 of the Public Acts of 2008 provides that the City Planning Commission shall annually prepare a six-year plan of public structures and improvements.
- In January and February of each year, the City Manager and Planning Commission shall jointly review the past year's capital budget and six-year projection of capital improvements. At this time preparation of an updated Capital Improvements Plan is initiated for the ensuing six-year period.
- In March of each year, the Planning Commission shall hold a public hearing to review the Capital Improvement Plan and gather public input prior to adoption of the plan.
- By the first meeting in April, the City Manager and Planning Commission shall submit to the City Council a Capital Improvements Plan. This may take the form of a single plan, joint plan, or separate plans; depending on the degree of consensus as to projects, priorities, and methods of financing.
- The City Council will consider the recommended Capital Improvements Plan as transmitted by the Planning Commission and City Manager and approve a capital improvement fund budget along with the general City operating budget no later than its first meeting in June.

## **CIP CRITERIA**

The CIP is a planning tool and not a promise of funding. Significant capital projects are identified with cost estimates and prioritized. Lesser capital expenditures for such things as municipal vehicles and pavement repair are anticipated in the City's general budget.

The following criteria are used to include a capital project or expenditure within the CIP:

- The project must impact the City-at-large or address a major need within the City in some specific way.
- The project represents a public facility.
- The project represents a physical improvement.
- The project requires the expenditure of at least \$25,000. Some CIP projects under \$25,000 may be included if they are part of a larger network or system of improvements.

From year to year, CIP projects are subject to change in response to community needs and available funding. Cost estimates for projects contained herein are based on current dollars, adjusted for inflation in the out years.

## **FINANCING OVERVIEW**

Government, like private industry, must generate adequate revenues to fund operations, capital improvements, and debt retirement. Revenues available to local government are fees, user charges, state and federal revenue sharing including grants and taxation.

Capital improvements can be financed through internal financing (pay as you go) or debt financing. The two approaches are explained below.

### **Internal Financing**

Under this approach, capital projects are financed from monies dedicated specifically for capital improvements. Annual tax levies and fund balances can be used to implement capital projects. Funding may be derived from:

- Approved City Budget.
- Dedicated millage above the Charter limit approved by the voters.
- Existing capital improvement funds.
- Energy and Environmental Sustainability Fund
  - This revolving fund has been created to provide a source of funding specifically targeted towards energy and environmental projects that fall outside of normal capital replacement, maintenance or other related programs. This fund was originally capitalized through grant funding and utility rebates and is sustained through collecting a portion of the energy savings realized through the City's energy efficiency efforts.

## **Tax Increment Financing (TIF)**

For projects located in the Grand River Corridor Improvement Authority (CIA), tax increment revenues can be used to fund projects outlined in the City Council approved CIA Development Plan or to support related debt financing.

## **Debt Financing**

The following debt financing instruments are available:

**Limited Tax General Obligation (LTGO) Bonds.** The City, without voter approval, may pledge revenues from its remaining charter millage plus existing fund balance to provide for principal and interest payments on bonds issued. If, in the future, the unused charter millage and fund balance prove insufficient to meet debt service requirements, the City's operating budget would be required to meet the debt service payments.

**Unlimited Tax General Obligation (UTGO) Bonds.** With voter approval, the City can issue bonds, which pledge the City's unlimited taxing power to meet any debt service requirements of the bond issue.

**Special Assessment Bonds.** Bonds issued in anticipation of the payment of special assessments may be an obligation of a special assessment district, or districts, or may be both an obligation of a special assessment district, or districts, and a general obligation of the City.

**Voter Approved Earmarked Millage.** Voter approved millage can be utilized partially for projects on a pay-as-you-go basis. The remaining dedicated millage can be pledged to meet debt service payments on projects funded through debt issues.

**Lease Purchase Agreements.** This method involves a contractual agreement with a private developer/investor who finances the project and leases it back to the local unit of government until the debt is fully retired, at which time ownership reverts to the City.

**Capital Lease/Installment Loans.** Most commonly used for vehicles and equipment, like a lease purchase agreement, per Act 99, this method allows for a three party agreement between the City, the vendor/contractor and financial/lending institution.

## **IMPACT OF LEGISLATION ON TAXING AUTHORITY**

Property tax revenue is derived from tax rate and State Equalized Value of all taxable properties in the City. An increase in combined State Equalized Value can be due to either actual new construction or inflation on existing real estate. During periods of inflation on real estate, communities were able to generate increased tax revenues while keeping tax rates stable. "Automatic" increases in revenues generated from taxes precipitated a constitutional amendment in 1978.

The Headlee Amendment was approved by the State's electorate in 1978 as a constitutional amendment to limit the automatic increase in tax revenue caused by ever-increasing property values. This limitation allows tax revenue to increase only as high as the Consumer Price Index (CPI) plus the value of new construction. This limitation applies to the current Farmington Hills authorized charter millage limit of 10 mills. Otherwise stated, if property values increase more than the CPI, the tax rate must be rolled back so the resulting revenue does not exceed the increase in CPI. Debt existing prior to the passage of this constitutional amendment and voter approved debt issued since the legislation is exempt from this limitation.

In 1994, the State electorate approved a state constitutional amendment commonly known as "Proposal A." This amendment limited increases in the taxable value of existing real property on a per parcel basis to the lesser of 5% or the CPI. Once existing property was transferred or sold, property values for tax purposes could be raised to 50% of fair market value. This effectively limited increases in tax revenue for municipalities to the CPI, if it was less than 5%, and new construction values.

## **SUSTAINABILITY STUDY**

In April 2006, the City engaged a consultant to produce a sustainability study for Farmington Hills. This report and recommendation was received by the City in November of 2006. The following is a compilation of those recommendations contained within the study which may have an impact on capital programming within the City:

- It is recommended that the existing Costick Activities Center be remodeled and upgraded, with a strong design element.
- It is recommended that the Costick Activities Center be enhanced by expansion for theater and the arts.
- It is recommended that a sculpture park be developed to enhance the Costick Activities Center.
- It is recommended that Orchard Lake Road between Twelve and Fourteen Mile Roads be redeveloped as a six-lane boulevard.
- It is recommended that the City adopt a plan to pave all streets by 2025.
- It is recommended that Middlebelt Road be improved, allowing for left turn lanes throughout its course in the City.
- It is recommended that Twelve Mile Road be improved to a four-lane road from the East to the West side of Farmington Hills.
- It is recommended that the first bicycle path connect the Costick Activities Center, City Hall, Heritage Park, the Skating and Soccer Center and the South Business District.
- It is recommended that the City develop a well-designed signage program to be installed at entries establishing an identity for the community.
- It is recommended, as road improvements are made, that a uniquely designed lighting system be installed, particularly in the Orchard Lake Road corridor.
- It is recommended that the new traffic circle and appropriate entry signage at the intersection of Fourteen Mile and Orchard Lake Roads be the north side anchor for

the Central Business District. (The design and look of this entry to Farmington Hills will be very important to image and attractiveness).

- It is recommended that a street and streetscape improvement program be implemented for the City's industrial/business parks.
- It is recommended that the City pursue very high design standards for future capital improvement projects.

## **ACCOMPLISHMENTS**

The following list identifies projects either completed or initiated this past year.

### **Drainage**

- Minnow Pond Drain Crossing on Drake Road. Replace twin metal culverts with concrete box culvert.
- Rockdale Culvert Replacement - Replaced existing culvert with new concrete box culvert.
- Lamar Culvert Extension – extend existing twin culvert to allow better pedestrian access along road.
- Independence Commons Storm Sewer – Clean out, repair, replace, reline and rehabilitate (as needed) existing storm sewer.

### **Sanitary Sewer**

- Installed sanitary sewer line on Drake Road, at Dewberry.
- Sanitary sewer upgrades:
  - Lining –134 runs totaling 30,530 LF
  - Excavation repairs –3 totaling 79 LF
  - Spot liner repairs –38 totaling 205 LF
  - Manhole rehabilitation –78
  - Pump station repairs –6

### **Water main**

- Replaced existing 4” and 6” water main in portions of Grand River Homes Subdivision (Phase 2).
- Installed new 8” water main on Drake Road between Westwood and just north of Springhill.

### **Public Facilities**

- A three phase building renovation plan was developed for the Police Department's aging facility. The last phase of this multi-year project was completed in 2015.

Phase three revitalization plan included redesigning the basement space. The renovation impacted the men's and women's locker rooms, storage rooms, south stairwell, basement HVAC, exercise room, exterior stairs, second floor locker room, second floor restrooms, Evidence Technician Lab, fire alarm system and jail security access door.

- The locker room updates included new restroom toilets, sinks, shower facilities, and larger lockers designed to fit today's modern police gear.
  - Storage areas were redesigned for secure storage, general storage and uniform storage.
  - Updates the police building's south stairwell included wallpaper removal, drywall repair the area was repainted and a rusted non-functioning heating unit was replace.
  - The non-working rooftop HVAC unit that serviced the basement was replaced.
  - The exercise room was reconfigured to combine two small rooms into one large.
  - The exterior wooden staircase was replaced with a metal non-slip stair structure that is compliant with current building codes.
  - The fire alarm system and control panel was replaced with modernized wiring system and additional warning strobes.
- The Police Department's Panasonic Toughbook 74s, purchased in 2009, were replaced with Dell Latitude 12" Rugged Extreme Notebooks. These Notebooks are used by police officers to access law enforcement databases.
  - Body armor worn by police officers has a federally mandated five year replacement schedule. In 2011 the Police Department replaced its entire inventory of body armor; the body armor currently issued to 88 sworn members reached its "end of life" in 2016. In addition to the current body armor system, this replacement project included the acquisition of an exterior vest carrier system (vest will be worn over the officer's uniform shirt) for all of the sworn members of the department. Partial funding was received from the Federal Bullet Proof Vest Grant Program.
  - Phase One of Fire Station #4's driveway/parking repairs and catch basins at Stations 1, 2, and 3 were completed.
  - Fire Department completed the construction of the Battalion Chief's office at Station 5.
  - Fire Department completed the purchase of training room chairs and tables and continuing to purchase other furnishings for Stations 1, 2, 4, and 5.
  - Brine Making System upgrade at DPW (completed in 2015).
  - Replacement of 4 overhead garage doors including electric openers and fire alarm upgrades at the DPW facility.
  - Storage, Winter Maintenance and Secondary Containment (completed in 2015).
  - Currently working with Central Services to complete required HVAC upgrades.

- Recommend IT/Central Services pursue a scheduling software program for both Fire and Police Departments that allows time cards to be uploaded into InforumGold/Eden payroll system.
- ADA Funds were used to construct a new entry way at the Farmington Hills Ice Arena and address to trip hazards at various fire facilities.
- All exterior lights have been replaced with energy and operationally efficient LED light fixtures.

### City Clerk's Office

The State Bureau of Elections (BOE) has distributed a state-wide Request for Proposals (RFP) for new Election Equipment. Currently there is some funding available through the Help America Vote Act (HAVA) but not enough to cover a state-wide purchase. Additional funding has been requested and the legislature is currently reviewing that request and has indicated that there may be more monies earmarked for this purpose. The BOE has suggested that communities plan on funding a portion of the equipment purchase in order to meet state-wide needs and in light of no action to date from the legislature to dedicate additional funding.

The new equipment roll out will most likely occur in 2017. However, the State BOE is still going through the RFP process.

### Sidewalks

- Gill Road east side, Colfax to Nine Mile Road.
- Fourteen Mile Roads, south side, Claymore to west of Farmington Road.
- Fourteen Mile Road, south side, from Inkster Road north to just east of Chatsworth.
- Drake Road, east side from Muer Cove to Dewberry and in front of 31000 Drake Road.

### Transportation

- Reconstruct Thirteen Mile Road, Haggerty Road to Halsted Road.
- Reconstruct Thirteen Mile Road, Farmington Road to Orchard Lake Road.
- Reconstruct Gill Road, Eight Mile to Nine Mile Road.
- Reconstruct Colfax from Farmington Road to Gill Road.
- Resurfaced Drake Road from Twelve Mile Road to Howard Road.
- Resurfaced Gill from Nine Mile Road to Lytle.

- Resurfaced Lytle Road from Gill Road to Drake Road.
- Road Improvement for Woodbrook Subdivision.
- Road Improvement for Orchard West Subdivision.
- Road Improvement for Independence Commons Subdivision.
- Road Improvement for Briarhill Subdivision.
- Road Improvement for Hollywood, Westhill Woods and Tarabusi Grand River Gardens Area Subdivisions.
- Fourteen Mile Road and Orchard Lake Road Roundabout.
- Resurface Inkster Road from Thirteen Mile Road to Fourteen Mile Road.
- Upgrade traffic signal of Thirteen Mile Road at Drake Road.

### **Equipment**

- Replaced the existing sewer vacuum truck.
- Replaced the existing front-end loader.
- Replaced a tandem-axle dump truck including a slip-in salt spreader.
- Purchased a dump body for the existing 5-yard hook-loading dump truck.
- Refurbished several pieces of existing equipment.
- Fire Department is currently reviewing bids (consortium) for rescues and medics vehicles.

### **Parks and Recreation**

- Baseball and soccer field improvements including infield materials, fence repairs, grading, soil and seeding at various baseball and soccer fields.
- Purchased two GMC Canyon pickup trucks (one truck with plow).
- Purchased one 3 yard dump truck.
- Purchased 50 gallon ride on sprayer.
- Purchased a 60" ZTR Utility Mower.
- Purchased JD 2653 Utility Reel Mower
- Purchased a Cushman HD 3-Wheel Utility Cart

- Purchased a Toro Greens Mower.
- Purchased and installed one 30-ton HVAC unit and two 15-ton HVAC units at the Costick Activities Center.
- Replaced an irrigation pump station at the pond at Founder's Sports Park.
- Replaced electric golf cart fleet at Farmington Hills Golf Club.
- Completed Ice Arena enhancements including rebuilding ice compressor, Zamboni room floor, LED scoreboard, shower tile, new digital video recording security system, dehumidification system and boiler.
- Constructed new ADA sliding door entryway at Ice Arena.
- Constructed new playground structure with ADA accessible pathways at Old Towne Park.
- Costick Center C parking lot rehabilitation – full reconstruct (Summer 2016)

# DRAINAGE

## Drain Construction



## Drain Edge



## DRAINAGE

In June of 1980 the City Council commissioned the preparation of a Master Storm Drainage Plan. The plan treated the storm water as a resource rather than a liability. Utilization of existing open drainage systems and use of detention basins along major streams were considered. The plan suggested the design and use of pipes and streams that were much smaller and less expensive than those designed to just "pass through" as much storm water as was generated. The plan proposed to manage existing flows from streams thereby ensuring that the City's development would not cause flooding in downstream communities.

In October of 1981, a significant storm caused flooding throughout the City. Many inadequacies of the City's storm drainage system were revealed. The storm reinforced the importance of City Council's decision to develop a Master Storm Drainage Plan.

The City Council formally approved the Master Storm Drainage Plan in December of 1986. Many of the projects contained herein are consistent with that plan. Since the plan depends on detention basins for a number of the proposed improvements, acquiring the land as soon as possible is imperative. Without these detention sites, many of the proposed improvements would be impossible and would require selection of next best, and more expensive options.

The projects contained herein reflect improvements to major and minor drainage courses outlined in the Master Storm Drainage Plan and are supplemented by storm water quality considerations required under the City's National Pollutant Discharge Elimination System (NPDES) storm water permit. As the City's rapid growth nears its end, emphasis is redirected from responding to new development to maintaining or improving the aging systems that are now in place. This involves actively participating in repairs and improvements of minor drainage courses that traverse both public and private property. In this way, a functional drainage system is ensured for all areas of the City. Priority criteria are:

- Integrating water quantity issues with water quality issues
- Immediate flood peak reduction to solve the most significant flooding concerns
- Integration with other improvements including water main, sanitary sewer, paving, and building construction
- Ensuring the continued development and redevelopment of the City
- Encouragement of riparian stewardship and maintenance

## **Development of a Drainage Program**

Prioritization of drainage improvements has a tendency to be cyclical when viewed with other capital needs. This is due to the fact that most systems in the City function well during periods of normal rainfall. Usually, years pass between significant rain events. The result is to minimize required improvements during normal weather, especially in light of the high cost associated with many of the individual drainage projects. However when a major rain event occurs the community demands accelerated improvements, and the cycle begins again. The major rain storms of 1981, 1989, 1993, 1997, 1998 and 2014 are evidence of this fact.

In order to safeguard against these significant rain events, a consistent, uniform, and aggressive program is necessary. This allows much of the major capital expense and effort to be distributed over the years and ensures continued improvement saving millions of dollars in flood damage in the future and promoting an improved quality of life.

## **Maintenance**

Calls for maintenance have increased over the years. Many of the City's subdivisions have open spaces and retention systems that are in need of repair or improvement. Without ongoing inspection and maintenance failures will occur. Once initiated, these maintenance programs will generate a number of projects for which capital funding will be required. The City will also consider, when appropriate, the possible mitigation of wetlands within the overall drainage system.

## **Federal Requirements**

The City is required to install various improvements in accordance with the U. S. Clean Water Act. This Act requires the issuance of a National Pollutant Discharge Elimination System (NPDES) permit commonly called an MS4 Permit, for all communities over 10,000 in population. Farmington Hills has the required permit issued by the Michigan Department of Environmental Quality (MDEQ). The City continues to explore approaches that would establish the best management practices. This includes community outreach and education about Federal storm water requirements, and an illicit discharge detection and elimination program. The City is working with the MDEQ, Oakland County, Wayne County, and the Alliance of Rouge Communities to implement a program that is most beneficial to Farmington Hills and other communities in the Rouge River Watershed. Part of the program is a document called a Storm Water Pollution Prevention Initiative (SWPPI). This document is required under the City's NPDES permit and outlines specific improvements that must be done to meet Federal requirements. In addition, Farmington Hills has an obligation to conduct an IDEP (Illicit Discharge and Elimination Program) which is an ongoing effort to prevent and eliminate illegal outlets into the City's drainage systems. Key to cooperation and watershed planning is the City's participation in the Alliance of Rouge Communities, a cooperative venture ensuring that all 40 communities and three counties contained in the Rouge River Watershed continue to work together. All projects contained herein are consistent with the City's Federal permit.

## **PROPOSED DRAINAGE PROJECTS**

### **1 Storm Water Management Plan (SWMP)**

An NPDES permit was obtained from the MDEQ. As a requirement of the permit, a watershed management plan is needed. A major component of this plan is the Storm Water Pollution Prevention Initiative. The Pollution Prevention Initiative requires that certain projects and procedures be adopted that will ultimately lead to a cleaner Rouge River in accordance with the Federal Clean Water Act. Projects may include erosion controls in the open watercourses in Farmington Hills and siltation basins to remove suspended sediment from storm water.

### **2 Storm Water GIS**

This project involves the identification of areas in the City where storm system features have not been acquired to date and locating plans for these areas where available. The additional plans will be digitized and storm features will be added to the GIS storm sewer layer as required under the NPDES permit.

### **3 IDEP Elimination Program**

Under the current NPDES storm water permit, the City has a continuous requirement to identify and remove illegal discharges into City owned drainage systems. This includes sanitary system corrections, drainage system sampling and monitoring, education programs, pollution investigative efforts, etc, that are related to the City owned drainage system.

### **4 Miscellaneous Drain Construction and Improvements**

This involves construction and improvements of storage facilities, pipe and culvert enclosures and channel improvements throughout most of the drainage districts in the City. It also includes projects that are necessitated from inspection programs.

### **5 Open Channel Maintenance Program**

Ninety-percent of the City's drainage system is in open channels. Most of these major drainage courses have not been cleaned since their original construction. This program represents a continuous program for maintenance of these drainage courses.

### **6 Miscellaneous Major Culvert Replacement & Repair**

This involves emergency replacement and repair of major culverts in the public right-of-way.

### **7 Miscellaneous Storm Sewer Repair**

Throughout this City many subdivision are being considered for Directed Special Assessments. In addition, several of the areas where the roads are not candidates for local reconstruction have storm sewers in need of rehabilitation. The storm sewer system in

these areas as determined by the DPS will be televised and inspected. If deemed necessary an appropriate cleaning, repair, replacement, lining and rehabilitation program will be implemented at the time of or prior to the road reconstruction.

## **8 Drake Road Culvert Replacement**

The existing twin 11' x 7' culvert under Drake Road is failing and in need of replacement. An 18' x 7' concrete box culvert is being considered.

## **9 Omenwood, Geraldine and Medbury Culvert Improvement**

The Main Ravine tributary crosses all of these roads west of Middlebelt Road. The crossings were installed in the 1980s and in need of replacement and/or repair/upgrade. Concrete pipe alternatives are being considered where metal pipes exist for a more long term replacement and improved end treatment is being looked at.

## **10 North Bell, Randall to Ruth**

This project provides for enclosure and channel improvement from Randall west to Ruth. The culvert must be upsized at Orchard Lake and Randall.

## **11 Storm Modeling and Master Plan Update & Asset Management Plan**

The State of Michigan recently made \$450 million dollars available to communities to assist them in addressing stormwater and wastewater issues and construct improvements. Communities were allowed to submit requests of up to \$2 million dollars. If successful in obtaining grant dollars the first million dollars is provided at 90/10 match and the second million dollars is provided at a 75/25 match. This funding will be used, in part, to update the City's Master Storm Drainage Plan adopted by the City in 1986 to incorporate modern storm water best management practices involving quantity, quality, and sustainability techniques. In addition, the monies will be used to develop an asset management program so that the City can more strategically fund and schedule storm drainage improvements.

## **12 Quaker Valley Road Culvert Replacement**

This project includes the improvement of the two areas along Quaker Valley Road where the Minnow Pond Drain crosses. The existing 48" concrete culvert to the east of Quaker Valley Lane and the 14' by 7' metal arch culvert to the east of Hunter's Row. Both are reaching the end of their useful life due to joint separations and pipe deterioration.

## **13 Woodcreek Hills Subdivision Drainage**

The existing road culverts in the Woodcreek Hills Subdivision are reaching their design life and appear to be undersized. This project includes the replacement of five culverts along with the extension of their lengths in order to allow for an improved road crossing and the elimination of existing guardrail.

**14 Brittany Culvert Replacement**

This project provides for the improvement of the culvert crossing at Brittany Drive. The two existing 144” diameter culverts need to be replaced and a 20’ x 12’ box culvert is proposed. The installation will improve channel flow, minimize siltation and allow for an updated road crossing.

**15 Rollcrest/North Ravines**

Included in this project is the construction of a retention area at the Rollcrest Pond and a channel cleanout from the Rollcrest Pond south to Twelve Mile. A portion of this stream will be enclosed due to the limited right-of-way available and some of the downstream pipe system may have to be upsized. The crossing of Twelve Mile and cleanout of the drain just north of Twelve Mile has been completed.

**16 Minnow Pond Drain, Thirteen Mile and Mirlon**

This project is for replacement of the culvert under Mirlon St. The existing culvert is experiencing erosion and is undersized. This project will be coordinated through the Oakland County Water Resources Commission.

**17 Brookhill Subdivision Drainage**

This subdivision has most of its roadside ditches enclosed by homeowners without proper culvert sizing or surface drainage. The result is frequent surface flooding and standing water. The project would be financed through a special assessment to the benefiting properties.

**18 Fendt Channel Improvement**

Clean out drainage channel from Fendt, west of Gill, to Eight Mile to prevent flooding.

**19 Minnow Pond at Halsted**

This project includes the improvement of the Minnow Pond Drain at Fourteen Mile and Halsted and provides for the raising of Halsted to eliminate the flooding that occasionally occurs.

**20 Caddell Drain Improvements - Phase II**

Phase II of the Caddell Drain Improvements includes the southern portions of the water course including the 4 elliptical culverts that cross under the intersection of Nine Mile and Drake. These projects will be coordinated through the Oakland County Water Resources Commission as portions of the Caddell Drain are outside the City.

**21 Mirlon Driveway Culvert**

This project is for the replacement of an existing driveway bridge located along the Minnow Pond Drain, east of Mirlon Street. The bridge and foundation will be considered for removal and replacement. A large box culvert may be necessary.

**22 Harwich Dr. Drainage Improvement**

Currently storm water runoff from Harwich Drive travels across a residential side yard and is currently causing erosion issues along the property. The project would include the installation of a storm sewer from the right-of-way down to the Pebble Creek.

**23 Windwood Pointe Subdivision Drainage**

The subdivision's storm sewer system is routed through three side yard properties and discharges to the Upper Rouge River. The existing pipe and structures between the roadway and the outlet are showing signs of deterioration and ultimately may need replacement.

**24 North Bell, Eight Mile to Randall**

This project provides for enclosure and channel improvement from Eight Mile north to Randall. The project may vary with the results from the pilot Master Storm Water Plan in the North Bell Creek.

**25 North Bell, Ruth to Farmington City Limit**

This project provides for the improvement of the channel from Ruth to Farmington. Included are improvements to the main channel and the construction of a retention basin just east of the Farmington City limit. Coordination with the City of Farmington will be required since a portion of the watercourse is located outside Farmington Hills. The project may vary with the results from the pilot Master Storm Water Plan in the North Bell Creek.

**26 Staman Acres Storm Water Relief**

Currently the Staman Acres subdivision and surrounding areas have inadequate drainage. A solution is made more difficult by downstream watercourses that do not have the capacity to receive the storm water flows generated by the subdivision. The project proposes to manage the capacity of existing watercourses within the subdivision while protecting downstream properties.

**DRAINAGE**

Reference No.	PROJECT	TOTAL COST	CITY COST	MAINTENANCE COSTS	PROJECTED FUNDING & SOURCE	Figures shown are in thousands of dollars						
						2016/17	2017/18	2018/19	2019/20	2020/21	2021/22	FUTURE
1	Storm Water (SWMP)	300,000	300,000	NC	100% City	50 CF	50 CF	50 CF	50 CF	50 CF	50 CF	
2	Storm Water GIS	150,000	150,000	NC	100% City	25 CF	25 CF	25 CF	25 CF	25 CF	25 CF	
3	IDEP Elimination Program	180,000	180,000	NC	100% City	30 CF	30 CF	30 CF	30 CF	30 CF	30 CF	
4	Miscellaneous Drain Construction and Improvements	600,000	600,000	NC	100% City	100 CF	100 CF	100 CF	100 CF	100 CF	100 CF	
5	Open Channel Maintenance Program	600,000	600,000	NC	100% City	100 CF	100 CF	100 CF	100 CF	100 CF	100 CF	
6	Miscellaneous Major Culvert Replacement & Repair	300,000	300,000	NC	100% City	50 CF	50 CF	50 CF	50 CF	50 CF	50 CF	
7	Miscellaneous Storm Sewer Repair	1,200,000	TBD	NC	City / SAD	200 CF	200 CF	200 CF	200 CF	200 CF	200 CF	
8	Drake Road Culvert Replacement	1,500,000	1,500,000	NC	96.08 City 2.68 RCO 1.24 MDOT	1,500 CF						
9	Omenwood, Geraldine and Medbury Culvert Improvement	150,000	150,000	NC	100% City		150 CF					
10	North Bell, Randall to Ruth	1,048,000	1,048,000	1,500 AC	100% City		1,048 CF					
11	Storm Modeling and Master Plan Update & Asset Management Plan	1,235,000	142,000	NC	10% City 90% S			142 CF				
12	Quaker Valley Road Culvert Replacement	1,000,000	1,000,000	NC	100% City			1,000 CF				
13	Woodcreek Hills Subdivision Drainage	2,860,000	2,860,000	NC	100% City				2,860 CF			
14	Brittany Culvert Replacement	776,000	776,000	NC	100% City					776 CF		
15	Rollcrest/North Ravines	436,000	436,000	1,500 AC	100% City					436 CF		
16	Minnow Pond Drain, Thirteen Mile and Mirlon	220,000	211,000	NC	96% City 4% O							211 CF
17	Brookhill Subdivision Drainage	936,000	188,000	NC	20% City 80% SAD							188 CF
<b>SUB TOTAL:</b>		<b>\$13,491,000</b>	<b>\$10,441,000</b>	<b>\$3,000</b>		<b>2,055</b>	<b>1,753</b>	<b>1,697</b>	<b>3,415</b>	<b>1,767</b>	<b>555</b>	<b>399</b>

SAD: Special Assessment District  
 NC: No Change  
 O: Other  
 S: State  
 CF: Capital Fund  
 AC: Annual Cost  
 TBD: To be Determined

\* This chart shows the identified public structures and improvements in the general order of their priority.

**DRAINAGE**

Reference No.	PROJECT	TOTAL COST	CITY COST	MAINTENANCE COSTS	PROJECTED FUNDING & SOURCE	Figures shown are in thousands of dollars									
						2016/17	2017/18	2018/19	2019/20	2020/21	2021/22	FUTURE			
18	Fendt Channel Improvement	125,000	125,000	NC	100% City										125 CF
19	Minnow Pond at Halsted	3,500,000	3,500,000	10,000 AC	100% City										3,500 CF
20	Caddell Drain Improvements - Phase II	1,000,000	600,000	NC	60% City 40% O										600 CF
21	Mirion Driveway Culvert	102,000	102,000	NC	100% City										102 CF
22	Harwich Dr. Drainage Improvement	92,000	92,000	NC	100% City										92 CF
23	Windwood Pointe Subdivision Drainage	241,000	121,000	NC	50% City 50% O										121 CF
24	North Bell, Ruth to Farmington City Limit	1,069,000	1,069,000	3,500 AC	100% City										1,069 CF
25	North Bell, Eight Mile to Randall	800,000	800,000	3,000 AC	100% City										800 CF
26	Staman Acres Storm Water Relief	1,200,000	1,200,000	5,000 AC	100% City										1,200 CF
	<b>SUB-TOTAL:</b>	<b>\$8,129,000</b>	<b>\$7,609,000</b>	<b>21,500</b>		<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>7,609</b>
	<b>PAGE 1 SUB-TOTAL:</b>	<b>\$13,391,000</b>	<b>\$10,441,000</b>	<b>\$3,000</b>		<b>2,055</b>	<b>1,753</b>	<b>1,697</b>	<b>3,415</b>	<b>1,767</b>	<b>555</b>	<b>555</b>	<b>555</b>	<b>399</b>	
	<b>TOTAL:</b>	<b>\$21,520,000</b>	<b>\$18,050,000</b>	<b>\$24,500</b>		<b>2,055</b>	<b>1,753</b>	<b>1,697</b>	<b>3,415</b>	<b>1,767</b>	<b>555</b>	<b>555</b>	<b>555</b>	<b>8,008</b>	

SAD: Special Assessment District  
 NC: No Change  
 O: Other  
 S: State

CF: Capital Fund  
 AC: Annual Cost

\* This chart shows the identified public structures and improvements in the general order of their priority.

# SANITARY SEWER



**Sanitary  
Sewer  
Rehabilitation**



## SANITARY SEWERS

### Sanitary Sewers

The major goal of the capital expenditures in this area is to provide adequate trunkline capability to serve both existing and future development. With the completion of the Ten Mile Rouge sewer in 1980, all trunklines have been installed; however, some areas of the City still do not have connecting sewer segments which are needed to provide access to public sanitary sewer. These segments are usually funded by a development or the City at large. The construction of the localized laterals is generally provided by the Charter provision requiring local benefiting properties to pay the associated cost (special assessment process). This results in the establishment of a special assessment district. In the future, Federal watershed requirements may mandate accelerated programs for local sanitary sewer construction. A portion of these anticipated costs will be financed by various sanitary sewer funds.

An exception to the special assessment financing is a payback that may be necessitated as a result of a paving, resurfacing or widening project where proper construction practices would dictate that the sanitary sewer lateral should be installed first. In these instances, a payback would be established to recover the cost at a future date when connections are made.

Any remaining work that would be done on sanitary sewers involves the rehabilitation of existing sewers with City water and sewer funds. Since this does not provide new service, there would be no application of the Charter provision. This type of work was begun in 1990 with the Evergreen/Farmington improvements where sewers were replaced and relief lines constructed. In addition, the City is currently under an Administrative Consent Order (ACO), from the MDEQ that may require additional improvements to be made in the future restricting the amount of outflow from the City of Farmington Hills into the sewer system.

The MDEQ has also issued an ACO for the entire Evergreen Farmington Sewage Disposal System (EFSDS). The EFSDS is a major sewer interceptor system that transports sewage from 15 Oakland County communities to the Detroit Water and Sewer System for treatment. The ACO requires a series of Long Term Corrective Action Plan (LTCAP) improvements for the EFSDS. These improvements are intended to address system capacity shortfalls and compliance with the MDEQ's sanitary sewer overflow policy. LTCAP project construction is anticipated from 2014-2022. It is anticipated that the City will be assessed a share of these project costs based on capacity needs.

## **PROPOSED SANITARY SEWER PROJECTS**

### **1 Sanitary Sewer Rehabilitation Program**

The sanitary sewage collection and conveyance system within the City is aging, resulting in cracks and defects within the pipes and manhole structures. These defects allow clear water Infiltration/Inflow (I/I) to enter the collection system, introducing the possibility of basement flooding, and the undermining of pipes, manhole structures and roads. In addition to the potential for property damage and risk to public health, Oakland County Water Resources Commission (OCWRC) has moved to a flow based method of billing communities for sewage disposal. This change in billing practice will result in higher sewage bills for communities that have high I/I.

In order to minimize these impacts, the Department of Public Services, with the assistance of the OCWRC, has implemented a proactive, on-going program that consists of two phases. The first phase includes cleaning, video inspecting, and assessing the condition of our sanitary system. The second phase uses the information gathered in phase 1 to identify, budget for and schedule the rehabilitation and/or replacement needs of the system. Areas with documented problems will be targeted first, with a proactive citywide program to follow. The ultimate goal is to have an ongoing sewer maintenance and rehabilitation program that is cost effective and protects the public health and property of our residents.

### **2 Evergreen/Farmington LTCAP Upgrade – Middlebelt Transport and Storage Tunnel and Utley Area Sanitary Sewer Isolation**

The Evergreen/Farmington LTCAP upgrade program is being conducted by the Oakland County Water Resources Commissioner's Office on a system-wide basis. As one of the communities using the Evergreen/Farmington system, the City would be responsible for a share of the project costs. The current proposal offered by the Water Resources Commissioner reduces earlier cost projections and utilizes grants and loans obtained by the Water Resources Commissioner. The system has been rigorously evaluated and a capital improvement plan has been proposed for construction between 2014 – 2022. The first project planned as part of the LTCAP improvements is the Middlebelt Transport and Storage Tunnel and Utley Sanitary Sewer Isolation project. The tunnel project will eliminate known sanitary sewer overflows within the City and provide for future planned growth. The existing Utley sanitary sewer will be disconnected from the Evergreen/Farmington Middlebelt Interceptor and rerouted in order to eliminate the potential of basement flooding in the City's local system.

### **3 Wastewater Asset Management Plan**

The State of Michigan recently made \$450 million dollars available to communities to assist them in addressing storm water and wastewater issues. Each community may request \$ 2 million dollars. If successful in obtaining grant dollars, the first million dollars is provided at 90/10 match and the second million dollars is provided at a 75/25 match. This funding will be used, in part, to develop an asset management plan, asset criticality and risk assessment; and life cycle cost analysis.

### **4 Evergreen/Farmington LTCAP Upgrade – Eight Mile Road Storage Tank**

In addition to the Middlebelt Storage Tunnel project, the Evergreen/Farmington LTCAP upgrade program also includes construction of two storage tanks along Eight Mile Road. These tanks would manage sanitary flows needed to meet the ACO requirements.

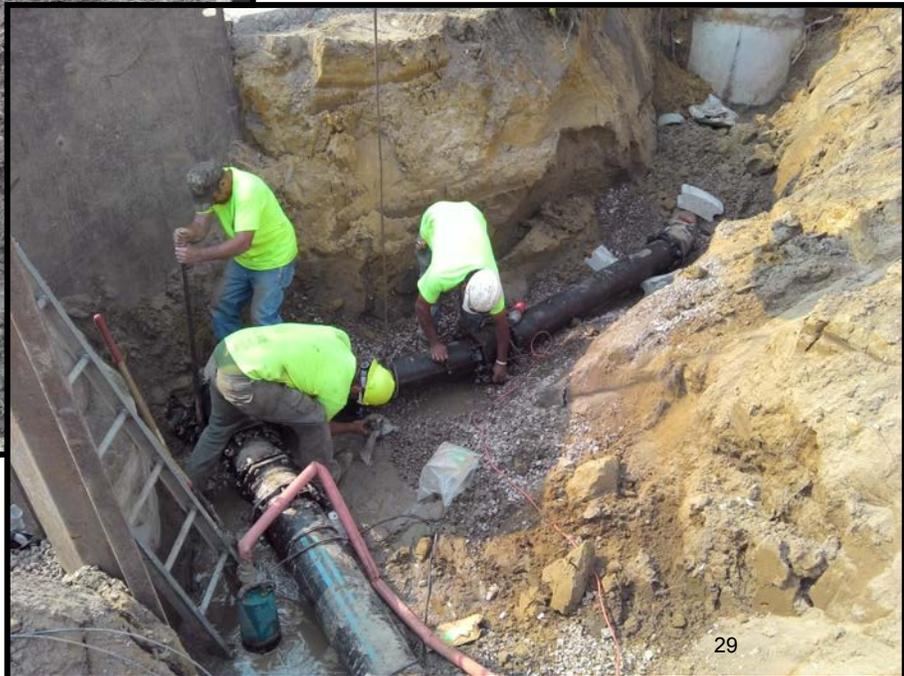
SANITARY SEWERS

Reference No.	SANITARY SEWER PROJECT	TOTAL COST	CITY COST	MAINTENANCE COSTS	PROJECTED FUNDING & SOURCE	Figures shown are in thousands of dollars.						
						2016/17	2017/18	2018/19	2019/20	2020/21	2021/22	FUTURE
1	Sanitary Sewer Rehabilitation Program	3,000,000	3,000,000	NC	100% City	500 SS	500 SS	500 SS	500 SS	500 SS	500 SS	
2	Evergreen/Farmington LTCAP Upgrade - Middlebelt Transport and Storage Tunnel and Utley Area Sanitary Sewer Isolation	46,600,000	25,210,000	NC	51% City 49% O	25,210 SS						
3	Wastewater Asset Management Plan	1,210,000	302,000	NC	75% State 25% City			302 SS				
4	Evergreen/Farmington LTCAP Upgrade - Eight Mile Road Storage Tank	17,625,000	10,250,000	NC	58% City 42% O		10,250 SS					
<b>TOTAL:</b>		<b>68,435,000</b>	<b>38,762,000</b>			<b>25,710</b>	<b>10,750</b>	<b>802</b>	<b>500</b>	<b>500</b>	<b>500</b>	<b>0</b>

SS: Sewerage  
O: Other  
NC: No Change

\* This chart shows the identified public structures and improvements in the general order of their priority.

# WATERMAIN



**Watermain  
Replacement**

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## **WATER MAINS**

### **Water Main**

With the completion of the Northwest Water Pressure District transmission lines in 1976, a potable water supply capability has been provided to the entire City. Although some minor transmission lines are still required, all areas now have the option of installing local services and fire protection through the use of payback agreements and special assessment districts.

A challenge exists in the older areas of the City. In these areas, water mains require frequent and expensive maintenance due to main breaks. Repairs require digging up and replacing worn out facilities. The City has in place a replacement program for just this challenge. As with other maintenance activities, this work does not require financing through a special assessment district. Funding is provided through the City's water funds.

The City worked with the office of the Oakland County Water Resources Commissioner and determined that a storage facility is appropriate for the City of Farmington Hills. Construction is complete and the tank has been operational since June, 2014. The master water main model has been systematically updated to include this facility and the plan has been revised to include necessary projects on a prioritized basis.

## **PROPOSED WATER MAIN PROJECTS**

### **1 Miscellaneous upgrades to the Water System**

These improvements are a result of the ongoing operation and maintenance efforts that may arise during any given fiscal year. They will be evaluated based on deficiencies in flow, pressure, or fire fighting needs.

### **2 Grand River Homes, replace existing 4" & 6" with 8", Phase 3**

This area is in the neighborhood west of Middlebelt Road and south of Grand River Avenue. The project also includes replacement of water mains in commercial areas adjacent to Grand River. There are frequent water main breaks in the area. The existing 4" and 6" water main that is located in rear yards would be replaced with 8" water main in the public road right-of-way to improve system reliability and ease of maintenance. Replacing the existing 4" and 6" water main with new improved 8" water main (8" is the smallest size that can be installed under current standards), will also improve fire protection in this area. Currently Phase 1 and 2 including all subdivision roads north of Grand River and west of Middlebelt Road are completed or under construction. Phase 3 includes the gravel roads south of Grand River. They are targeted for replacement in the next water main replacement program.

### **3 Grayling, Waldron and Dresden, replace Existing 4" & 6" with 8"**

This commercial and industrial area east of Middlebelt Road and south of Grand River, has a water main in poor condition. There are frequent water main breaks in the area. The existing 6" water main would be replaced with 8" water main to improve system reliability and the Dresden line would be looped into the water main on Willow at Scotten. Replacing the existing 6" water main with new improved 8" water main (8" is the smallest size that can be installed under current standards), will also improve the fire protection in this area.

### **4 Villa Capri Subdivision, replace existing 6" & 8" with 8"**

This is in the neighborhood west of Inkster Road and south of Nine Mile Road. It is an area of older pipe built in the 1950s with frequent water main breaks. The existing 6" and 8" water main would be replaced with 8" water main. The existing 12" water main would be replaced with 12" water main. These replacements will improve system reliability. Replacing the existing 6" water main with new improved 8" water main (8" is the smallest size that can be installed under current standards), will also improve the fire protection in this area.

### **5 Westbrooke Plaza Water Main Replacement**

This commercial area is located on the south side of 13 Mile Road, between Orchard Lake Road and Lorikay Street. It is an area of older pipe built in the 1950's and when a break occurs, it affects multiple commercial properties. The existing 6" would be replaced and possibly relocated with an 8" (8" is the smallest size that can

be installed under current standards) to provide improved fire protection and system reliability in this area.

**6 Kimberley Subdivision, replace existing 6" and 8" with 8" & 12"**

This is in the residential neighborhood west of Middlebelt Road and north of Eleven Mile Road. It is an area of older pipe built in the 1950s with frequent water main breaks. Existing 6" and 8" water main on Middlebelt will be replaced with a 12" water main, connecting the existing 30" on Eleven Mile with an existing 12" on Middlebelt. The existing 6" and 8" water main would be replaced with 8" water main to improve system reliability. Replacing the existing 6" water main with new improved 8" water main (8" is the smallest size that can be installed under current standards), will also improve the fire protection in this area.

**7 Kendallwood No. 1, replace existing 6" & 8" with 8"**

This is in the residential neighborhood west of Farmington Road and north of Twelve Mile Road. It is an area of older pipe built in the 1950s with frequent water main breaks. The existing 6" and 8" water main would be replaced with 8" water main to improve system reliability. Replacing the existing 6" water main with new improved 8" water main (8" is the smallest size that can be installed under current standards), will also improve fire protection in this area.

**8 Kendallwood No. 2 and No. 3, replace existing 6" & 8" with 8"**

This is in the residential neighborhood east of Farmington Road and north of Twelve Mile Road. It is an area of older pipe built in the 1950s with frequent water main breaks. The existing 6" and 8" water main would be replaced with 8" water main to improve system reliability. Replacing the existing 6" water main with new improved 8" water main (8" is the smallest size that can be installed under current standards), will also improve fire protection in this area.

**9 Kirkside, Westerleigh, Nottingwood, Nestlewood, replace existing 6" with 8"**

This is in the residential neighborhood east of Farmington Road and south of Thirteen Mile Road. It is an area of older pipe built in the 1950s with frequent water main breaks. The existing 6" water main would be replaced with 8" water main to improve system reliability. Replacing the existing 6" water main with new improved 8" water main (8" is the smallest size that can be installed under current standards), will also improve the protection in this area.

**10 Community Well Conversion**

Currently within the City there are four private well systems that serve subdivisions. Conversion to a public system is anticipated as a response to homeowner requests for the following areas:

- Franklin Knolls Subdivision

- Woodbine Subdivision
- Old Farm Colony Subdivision
- Pasadena Park Subdivision

**11 Westbrooke Manor Subdivision, replace existing 6” & 8” with 8”**

This is in the residential neighborhood west of Orchard Lake Road and south of Thirteen Mile Road. It is an area of older pipe built in the 1950s with frequent water main breaks. The existing 6” and 8” water main would be replaced with 8” water main to improve system reliability. Replacing the existing 6” water main with new improved 8” water main (8” is the smallest size that can be installed under current standards), will also improve fire protection in this area.

**12 Cora Water Main, north of Fink**

This residential street currently does not have water main and there are several long spaghetti connections. The project will include installing a new 8” water main from the intersection of Cora and Fink and extending it approximately 400 feet north. The new main will also improve fire protection in this area.

**13 Colwell Water Main, Shiawassee to Sedalia**

This residential street currently does not have water main and there are many properties with long spaghetti connections which run across neighboring properties. The project will include installing a new 8” water main from the corner of Sedalia and Colwell and looping the water main north to the existing water main on Shiawassee. The new main will also improve fire protection in this area.

**WATER MAINS**

Reference No.	WATER MAIN PROJECT	TOTAL COST	CITY COST	MAINTENANCE COSTS	PROJECTED FUNDING & SOURCE	Figures shown are in thousands of dollars.						
						2016/17	2017/18	2018/19	2019/20	2020/21	2021/22	FUTURE
1	Miscellaneous upgrades to the Water System	600,000	600,000	NC	100% City	100 WS	100 WS	100 WS	100 WS	100 WS	100 WS	
2	Grand River Homes, Replace existing 4" & 6" with 8", Phase 3	985,000	985,000	NC	100% City	985 WS						
3	Grayling, Waldron and Dresden, Replace existing 4" & 6" with 8"	800,000	800,000	NC	100% City		800 WS					
4	Villa Capri Subdivision, Replace existing 6" & 8" with 8"	2,400,000	2,400,000	NC	100% City			800 WS	1,600 CF			
5	Westbrooke Plaza Water Main Replacement	335,000	335,000	NC	100% City					335 CF		
6	Kimberley Subdivision, Replace existing 6" & 8" with 8" & 12"	3,500,000	3,500,000	NC	100% City							3,500 WS
7	Kendallwood No. 1, Replace existing 6" & 8" with 8"	4,700,000	4,700,000	NC	100% City							4,700 WS
8	Kendallwood No. 2 and No. 3 Subdivision, Replace existing 6" & 8" with 8"	4,200,000	4,200,000	NC	100% City							4,200 WS
9	Kirkside, Westerleigh, Nottingwood, Nestlewood, Replace existing 6" with 8"	1,500,000	1,500,000	NC	100% City							1,500 WS
10	Community Well Conversion	2,270,000	0	NC	100% SAD							
11	Westbrooke Manor Subdivision, Replace existing 6" & 8" with 8"	2,600,000	2,600,000	NC	100% City							2,600 WS
12	Cora Water Main, north of Fink	225,000	225,000	NC	100% SAD							225 WS
13	Colwell Water Main, Shiawassee to Sedalia	425,000	425,000	NC	100% City							425 WS
<b>TOTAL:</b>		<b>\$24,540,000</b>	<b>\$22,270,000</b>			<b>1,085</b>	<b>900</b>	<b>900</b>	<b>1,700</b>	<b>435</b>	<b>100</b>	<b>17,150</b>

SAD: Special Assessment District  
 WS: Water System Fund  
 NC: No Change

\*This chart shows the identified public structures and improvements in the general order of their priority.

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# PUBLIC FACILITIES



**Municipal  
Complex**



## **PUBLIC FACILITIES**

Adequate building space is required to both maintain the City's existing services as well as provide for critical new services. This portion of the CIP addresses the need for buildings and improvements in the following areas: Fire, Police, and City Hall. All involve improvements to existing facilities, the construction of new facilities and purchase and maintenance of equipment, in an attempt to maintain and improve the current level of service.

### **PROPOSED PUBLIC FACILITY PROJECTS**

#### **1 BARRIER FREE (ADA) Improvements**

The City conducted a survey of architectural barriers in its buildings, facilities, and parks in the spring and summer of 2008. The survey identified physical barriers in City buildings, facilities, and parks built prior to 1992 based on Michigan Barrier Free Design standards. Recognizing that the City has limited funds and cannot immediately make all buildings, facilities, and parks fully accessible, the City has prioritized barriers based on a barrier's level of impact on a person's ability to access City facilities and/or programs.

#### **2 City-Wide Technology**

The City completed a Technology Master Plan that included the installation of a WAN/LAN in 1998. Various enterprise wide software applications have been installed including land file, recreation registration, financial management, document imaging and the creation of a city website and employee intranet.

During Fiscal Year 2015/2016 the following upgrades were completed;

- Desktop PC's(200 units) and software were upgraded to MS Windows 7 as support for MS XP ended in April 2014.
- The City website and intranet were revised and upgraded.
- Card access system at DPW, Police, Fire and Costick Center were combined into one networked database.
- Migrated the SQL cluster into VMWare.
- Began converting microfilm and microfiche files to document imaging. Reviewing business processes to immediately convert paper to digital imagery or to receive documents electronically.
- In 2013 City Council approval was received to implement a Software Scheduling solution. Competing priorities (Farmington EVIP) and adequate funding has not been provided to make this initiative viable. \$200,000 has been requested in the 2016/17 CIP and an additional \$60,000 per year would be required for ongoing support for this program.

### **3 Digitizing of Microfiche and Microfilm**

The Department of Public Services has thousands of recorded drawings on microfiche and microfilm. These images contain decades of irreplaceable information on commercial and residential developments as well as municipal projects. They contain detailed information on the City's water, sewer, storm drainage systems, and road system. The City's microfilm and microfiche reader is over 20 years old, is no longer serviceable, and therefore, obsolete. Funding from this effort would be used to convert all existing microfiche and microfilm information into digital images. These images will then become easily accessible through the City's Laserfiche system, further leveraging the City's investment in the Laserfiche system, as well as improving employee efficiency when looking for this record information.

Bids were solicited and will be awarded in early 2016. The initial priority will be placed on imaging the microfiche and microfilm.

### **4 Energy and Environmental Sustainability Investments**

Numerous opportunities remain throughout City facilities to decrease energy use, deploy renewable energy and implement other energy and environmental initiatives. Investing in sustainability reduces city operating costs and hedges against the rising cost of energy. In most cases, investments in energy efficiency can have a positive impact on operation and maintenance budgets allowing funds to be redeployed to other priorities. Projects to be targeted as Energy and Environmental Sustainability Funds or grants allow include:

- Lighting Upgrades: Various Locations.
- Energy Efficiency Upgrades (Non-Lighting): Various Locations.
- Building Envelope Improvements: Various Locations.
- Alternative Fueled Vehicles and Infrastructure Deployment (Charging Stations): Municipal Complex, Costick Center, Golf Course and Heritage Park.

### **5 Air Conditioning Replacements**

HVAC systems at seven City facilities are impacted by the pending phase-out of R-22 refrigerant. R-22 is a hydrochlorofluorocarbon subject to EPA mandates. R-22 refrigerant will not be manufactured or imported after January 1, 2020. Replacement of these systems will be required at some point in the future.

### **6 Improved Phone System**

The City Hall complex phone system was replaced in mid-2003 and included the Costick Activities Center and the Division of Public Works facilities. One integrated system now allows for reduced ongoing costs for maintenance, local/long distance services and building-to-building communications. The

phone system at the Parks and Golf Maintenance facility was replaced in 2006. The voicemail system was replaced with an Avaya Audix product.

The Michigan Public Services Commission has issues new rules for multiline telephone systems (MLTS) effective December 31, 2016. The new rules require that any building have its own street address, containing an occupied area of 7,000 square feet, on multiple floors, the MLTS operator shall identify the specific location of each communications device including street address and building floor. The cities existing phone system cannot accommodate this requirement.

## **7 Gateway Signage at Entrances to the City on Major Roads**

The existing entrance/gateway signs were installed over 18 years ago. Many have since been damaged and removed. This project includes planning, design, and installation of new signage.

## **8 ELECTION EQUIPMENT**

The current election equipment is over 10 years old. The City has 46 M-100 tabulators, which are used at the polling locations and for the absent voter counting board and 27 ADA units. Michigan Election Law requires one ADA unit to be located in every polling location.

The cost per unit is estimated at \$5,500 and the state has suggested that local communities budget between \$2,500 and \$3,000 per unit.

## **9 DPW Building Roof Replacement**

The current DPW facility was built in 1997. Staff has been battling leaks throughout the facility for several years. The current rubber membrane roof has now separated from the structure. Old auto tires are being used as weights to keep the membrane in place until the roof can be replaced. The roof replacement is proposed for FY 16/17 at an estimated cost of \$290,000.

## **10 DPW Vehicle Storage Garage Re-Painting**

The vehicle storage garage was built in 1997, which was the last year in which the interior was painted. Many of the steel beams and girders have substantial corrosion and dirt accumulation. In order to preserve the facility, a commercial cleaning and re-painting is necessary. The cleaning and re-painting is proposed for FY 16/17 at an estimated cost of \$80,000.

## **11 Salt Storage Dome Re-Roof**

The DPW salt storage dome was constructed in 1998. It has a 3,700-ton capacity, which is a little more than one-half of the City's annual salt use. The roof is reaching the end of its life and needs to be replaced. The re-roof project is proposed for FY 16/17 at an estimated cost of \$95,000.

**12**     **Exterior Wayfinding at City Hall Municipal Campus**

Installation of wayfinding signage to direct visitors to services at the Municipal Campus.

**13**     **Citywide Facilities Audit**

This project involves performing a comprehensive property condition assessment at City-owned facilities. The assessment would result in a prioritized budget for asset management needs that could be programed in future years.

**14**     **Police Department Cell Plumbing Replacement**

The existing plumbing system in the Police Department Cell Block area is becoming obsolete with only one source for replacement parts. This project would include replacement of main gate valves, supply plumbing, fixtures, and restoration.

**15**     **Police Exterior Updates**

A three phase building renovation plan was developed for updating the police facility. The last phase of this multi-year project was completed in 2015. The 15/16 Capital Improvement Plan delineated funding for Police Building Updates for the fiscal year 2016/2017. The project title was changed to Police Exterior Updates and the requested funding remain in the fiscal year 2016/2017.

The police building’s parking lots allow full undeterred access to sensitive areas that affect employee safety and facility security. Open access to these areas expose city vehicles, containing high value equipment, to intentional property crimes. Access control improvements would be designed to decrease accessibility to these sensitive areas and improve employee safety and property security.

Area Police Departments have experienced safety and security related issues at their facilities. These issues include; open carry advocates conducting hostile encounters, persons with mental health issues engaging police employees, vandalism, theft, assault, trespassing and compromised undercover operations. Farmington Hills has also experienced problems resulting from breeches in security. This project would include new signage, vehicle access controls, and pedestrian access controls.

## **16 Police and Fire 911 Call Processing Equipment (CPE) Replacement**

The 911 CPE is in need of replacement to enable interaction with Next Generation 911 IP- based emergency call and control system, commonly referred to as an Emergency Services IP Network (ESInet), compliant with standards defined by the National Emergency Number Association (NENA) document 08-003, commonly referred to as the NENA i3 standards. This replacement would include the current five work stations located in the Police Department's Communications Section. Benefits of this replacement include:

- Call routing based on geo location
- NextGen 911 data transferring capability
- IP Based interoperability

Oakland County CLEMIS has awarded this project to Emergency Call Works, and has mandated that the replacement be completed during FY 16/17 for all Oakland County Public Safety Answering Points (PSAP's).

## **17 Replacement of the recording system for all emergency police and fire telephone calls and radio transmissions to and from the 911 center**

Due to the mandated replacement of the Call Processing Equipment (CPE) in the Police Department's Communications Section, current recording hardware and software will become obsolete, necessitating its replacement. It will be necessary for this project to coincide with the replacement of the CPE

## **18 Police Officer Body Worn Camera System**

Current, and developing technology, is providing law enforcement with new and more comprehensive methodology to record daily incidents and documentation necessary for management of the Department training and litigation avoidance. This project will provide for the acquisition of a camera system that will include cameras worn by officers and the infrastructure necessary for video management. A major objective of this project will include obtaining a system that will integrate with the Department's in-car camera technology currently in place. This project is dependent on new technology, not yet available for purchase, that will provide an integrated car and body camera system, wireless downloading, adequate battery life and integrated video retention system.

## **19 Police and Fire Communications Section workstation upgrade**

New dispatcher workstations are necessary to accommodate the 911 Call Processing Equipment (CPE) and replacement of the radio system. Current workstations were installed in 1999 and were not designed to accommodate the number and size of video monitors required for the new systems. Modern dispatch console workstations offer improvements such as:

- Dual height adjustments which allow the dispatcher to stand or sit while working
- Custom monitor placement
- Individual climate control

## **20 Complete Radio System Replacement**

As the existing mobile and portable radio equipment will not be County supported after December 31, 2017, the system, in its entirety will be in need of replacement. While Oakland County has expressed intent to develop financial plans to ensure funding availability, the County has made notification that local governments should plan for funding responsibility for this project. The Oakland County administration suggests that the actual replacement period will be in 2018-2020.

## **21 Mobile Command Post Vehicle**

The Police Department's current Mobile Command Post Vehicle is currently — 16 years old and will need replacement in the near future. Mechanical failures are becoming more frequent. The Mobile Command Post Vehicle's technology has become outdated and current implementation of the Incident Command System requires more space for personnel in the current vehicle than is available. A new Mobile Command Post Vehicle would offer mechanical reliability, updated technologies, and the option for more space for personnel when Incident Command is utilized.

## **22 Fire Station Improvements**

Fire stations 1, 2, 4, and 5 are in need of a network of interior improvements. These stations are all over 17 years old. Currently, various cabinets, countertops, carpet, includes interior modifications to accommodate a 24 hour operation. This is reflected in 2016/2017. The estimated total for this project is \$175,000.

The concrete aprons, driveways, sidewalks and parking lots are deteriorating at fire stations 1, 2, 4 and 5 and are in need of replacement and/or repairs. This is reflected in 2016/2017. The estimated total for this project is \$85,000.

## **23 ERP/Financial Software**

In late 2004 the City implemented its first in house ERP/Financial software solution – Eden Systems Inform Gold. The City has added some new modules including paperless payroll but with all technology solutions there are new and better products available. Each year the maintenance contract for Inform Gold, now Tyler Technology, increases making it prudent to consider replacing Inform Gold.

Fire and Police Departments have recommended to IT/Central Services pursue a scheduling software program for both Fire and Police Departments that allows time cards to be uploaded into Inforum Gold/Eden payroll system.

## **24 Police Department Master Keying**

This project involves replacing the existing hard keying systems at the Police Department with a new Master Keying System. The existing security system at the Police Department employs several different lock and key brands, some of which are original to the building. Replacing worn locks and keys, replacing locks with unaccounted for keys, and removing the potential for unauthorized key reproduction may increase building security.

**PUBLIC FACILITIES**

Reference No.	PROJECT	TOTAL COST	CITY COST	MAINTENANCE COSTS	PROJECTED FUNDING & SOURCE	Figures shown are in thousands of dollars.						FUTURE
						2016/17	2017/18	2018/19	2019/20	2020/21	2021/22	
1	Barrier Free (ADA) Improvements	150,000	150,000	NC	100% City	25 CF	25 CF	25 CF	25 CF	25 CF	25 CF	
2	City-Wide Technology	2,450,000	2,450,000	35,000 AC	100% City	600 CF	400 CF	400 CF	350 CF	350 CF	350 CF	On Going
3	Digitizing of Microfiche and Microfilm	300,000	300,000	NC	100% City	50 CF	50 CF	50 CF	50 CF	50 CF	50 CF	On Going
4	Energy and Environmental Sustainability Investments	180,000	180,000	Reduction	100% City	30 CF	30 CF	30 CF	30 CF	30 CF	30 CF	On Going
5	Air Conditioning Replacements	300,000	300,000	NC	100% City	50 CF	50 CF	50 CF	50 CF	50 CF	50 CF	
6	Improved Phone System	650,000	650,000	30,000 AC	100% City	650 CF						
7	Gateway Signage at Entrances to the City on Major Roads	150,000	150,000	NC	100% City	75 CF	75 CF					
8	Election Equipment	410,500	219,000	NC	53% City 47% HAVA	219 CF						
9	DPW Roof Replacement	290,000	290,000	NC	100% City	290 CF						
10	DPW Vehicle Storage Garage Re-Painting	80,000	80,000	NC	100% City	80 CF						
11	Salt Storage Dome Re-roof	95,000	95,000	NC	100% City	95 CF						
12	Exterior Wayfinding at City Hall Municipal Campus	50,000	50,000	NC	100% City	50 CF						
13	City Wide Facilities Audit	80,000	80,000	NC	100% City	80 CF						
14	Police Department Cell Plumbing Replacement	30,000	30,000	NC	100% City	30 CF						
15	Police Exterior Updates	100,000	100,000	NC	100% City	100 CF						
16	911 Call Processing Equipment Replacement	200,000	200,000	NC	100% City	200 CF						
17	911 Recording System	40,000	40,000	NC	100% City	40 CF						
18	Police Officer Body Worn Camera System	200,000	200,000	NC	100% City	200 CF						
19	Police and Fire Communications Section Workstation upgrade	150,000	150,000	NC	100% City		150 CF					
20	Complete Radio System Replacement	250,000	250,000	NC	100% City		250 CF					
21	Mobile Command Post Vehicle	300,000	300,000	NC	100% City			300 CF				
22	Fire Station Improvements	510,000	510,000	NC	100% City	260 CF				250 CF		
23	ERP/Financial Software	1,000,000	1,000,000	75,000 AC	100% City					1000 CF		
24	Police Department Master Keying	30,000	30,000	NC	100% City							30 CF
<b>TOTAL:</b>		<b>\$7,995,500</b>	<b>\$7,804,000</b>	<b>\$140,000</b>		<b>3,124</b>	<b>1,030</b>	<b>855</b>	<b>505</b>	<b>1,755</b>	<b>505</b>	<b>30</b>

CF: Capital Fund  
AC: Annual Cost  
NC: No Change

\* This chart shows the identified public structures and improvements in the general order of their priority.

# SIDEWALKS



On going Sidewalk improvements



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## SIDEWALKS

The need to provide safe pedestrian travel along major traffic corridors has long been a priority of the City Council. Certain corridors generate considerable pedestrian traffic. Shopping centers, schools, recreation areas, and other major developments generate pedestrian traffic. To promote safe pedestrian travel, the City must identify those areas in need of sidewalks or extensions to existing pedestrian networks. The School Board has also indicated their support for sidewalks at various school locations. It remains Farmington Hills policy, however, to treat walkways across school frontages as a requirement of the school district.

Sidewalk aesthetics is also considered. The City has many designated Historic District sites located on major roads. The use of brick pavers is encouraged to enhance and highlight the historic character of these sites.

In recent years, with Federal Aid funded road improvements the City has been able to include and install large sections of sidewalk on select major thoroughfares with our pavement projects. Developers have also installed sidewalks as a requirement of development. In both cases, sidewalk "gaps" have resulted. The City is then faced with filling in these gaps. These sidewalk projects can provide the City with the opportunity to connect larger pedestrian networks, existing developments with one another and other traffic generators at relatively low cost. Annually, pedestrian traffic generators and sidewalk gaps are identified and continue to be a priority and are included in this plan.

In 2013, sidewalks included in the CIP were re-evaluated using a systematic approach. Essentially sidewalks are assigned point values based on several variables including, access to schools, connectivity to shopping, municipal facilities, etc. Also, we assigned values that considered items such as ease of construction, availability to right-of-way, funding sources, funding availability, connectivity, etc. Also included within this section is a proposal for a non-motorized Master Plan. This plan would provide recommendations for in-road facilities, sidewalks, trails, road crossings, priority considerations, funding for future implementations.

In addition to the sidewalks, a program is proposed to modify existing walks to provide for a minimum width of eight feet so they can be used for non-motorized pathways. This fulfills a requirement in the gas and weight tax legislation for the funding and maintenance of our road system (Act 51).

A high priority of the CIA is to better integrate the Rouge River into economic development projects along the corridor and to develop a shared-use pathway along the river that better connects corridor users. The conceptual vision for the pathway is a 6 – 8 foot wide path that traverses approximately 10,000 lineal feet of river frontage with markers placed every ¼ mile and an interpretive kiosk at each end of the trail.

The following Bike Path System Map identifies all existing sidewalk infrastructure and includes a proposed bike path system for the City.

See the following table for proposed sidewalk/ pathway projects including locations and funding schedule.

SIDEWALKS

Reference No.	PROJECT	TOTAL COST	CITY COST	MAINTENANCE COSTS	PROJECTED FUNDING & SOURCE	Figures shown are in thousands of dollars.						
						2016/17	2017/18	2018/19	2019/20	2020/21	2021/22	FUTURE
1	Sidewalk replacement along major roads including brick paver repair/replace	600,000	600,000	NC	100% City	100 CF	100 CF	100 CF	100 CF	100 CF	100 CF	
2	Non-motorized Master Plan	100,000	100,000	NC	100% City	100 CF						
3	Middlebelt, west side, Ten Mile to Juneau Lane	52,000	52,000	NC	100% City	52 CF						
4	Fourteen Mile, south side, Pear Ridge to Clubhouse	240,000	240,000	NC	100% City	240 CF						
5	Eleven Mile Road, south side, Orchard Lake to Middlebelt	330,000	66,000	NC	80% Fed 20% City		66 CF					
6	Inkster, west side, Twelve Mile to I-696	324,000	324,000	NC	100% City		324 CF					
7	Inkster Road, west side, Nine Mile to Eleven Mile Road	978,000	978,000	NC	100% City			489 CF	489 CF			
8	Eleven Mile, north side, Old Homestead to Farmington Hills, Golf Club	135,000	135,000	NC	100% City			135 CF				
9	Farmington, east side, between Thirteen and Fourteen Mile	272,000	272,000	NC	100% City				272 CF			
10	Inkster Road from Eleven Mile to the north end of the I-696 over pass	262,000	262,000	NC	100% City					262 CF		
11	Power, east side, Ten Mile to Eleven Mile	876,000	876,000	NC	100% City						876 CF	
12	Halsted, west side, Nine Mile to Windwood, City ROW only	86,000	86,000	NC	100% City							86 CF
13	Thirteen Mile, south side, Drake to Valley Bend	162,000	162,000	NC	100% City							162 CF
<b>SUB-TOTAL:</b>		<b>\$4,417,000</b>	<b>\$4,153,000</b>	<b>\$0</b>		<b>492</b>	<b>490</b>	<b>724</b>	<b>861</b>	<b>362</b>	<b>976</b>	<b>248</b>

CF: Capital Fund  
AC: Annual Costs  
NC: No Change  
CDBG: Community Development Block Grant

\* This chart shows the identified public structures and improvements in the general order of their priority.

SIDEWALKS

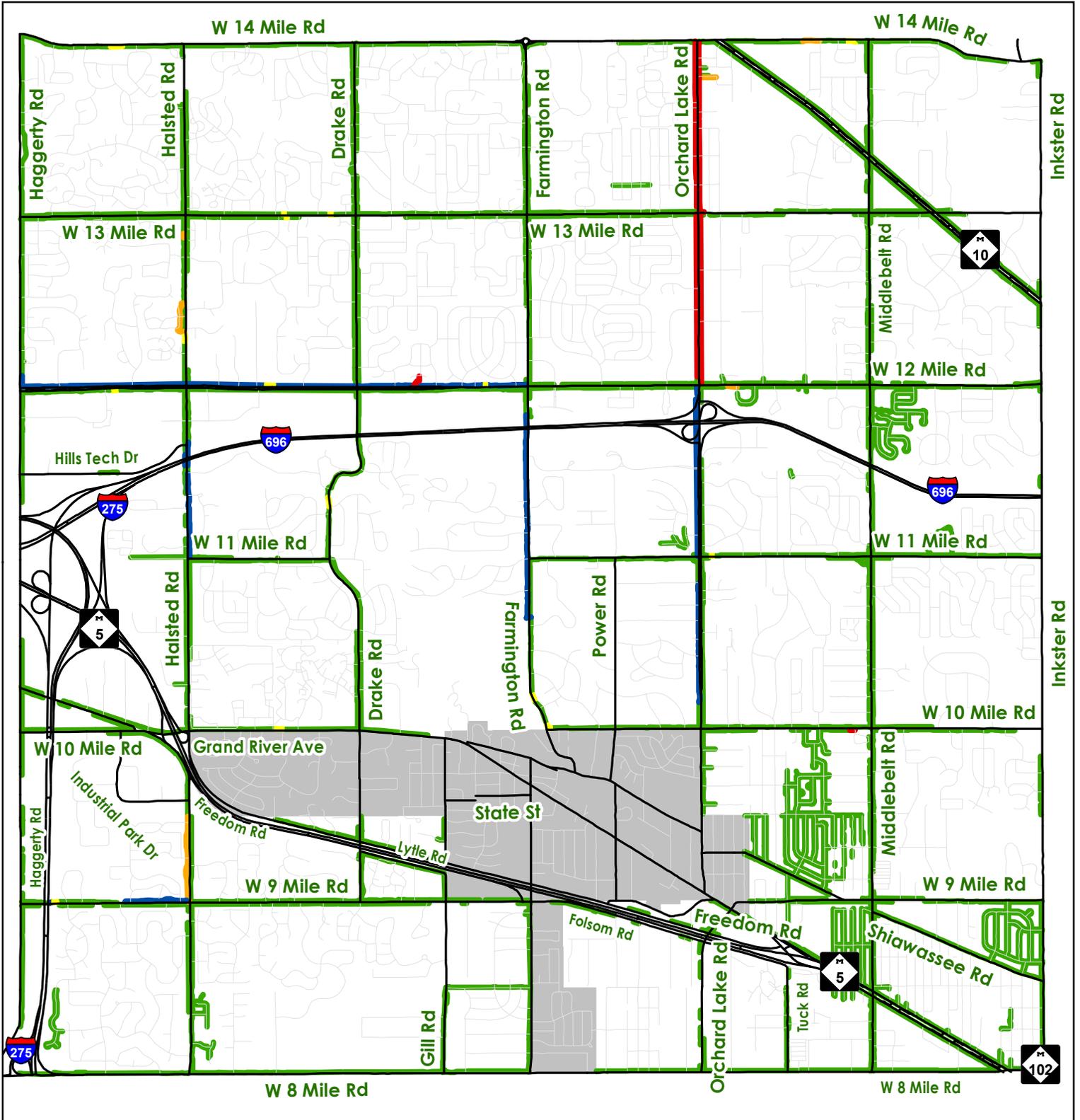
Reference No.	PROJECT	TOTAL COST	CITY COST	MAINTENANCE COSTS	PROJECTED FUNDING & SOURCE	Figures shown are in thousands of dollars.						
						2016/17	2017/18	2018/19	2019/20	2020/21	2021/22	FUTURE
14	Rouge River Trail	125,000	0	NC	100% TIF							0
15	Inkster Road, west side, Thirteen Mile to Old Colony Street	372,000	372,000	NC	100% City							372 CF
16	Folsom, south side, Orchard Lake to Power	315,000	158,000	NC	50% City 50% CDBG							158 CF
17	Orchard Lake Road, east side, Folsom to Grand River	440,000	0	NC	100% CDBG							0 CF
18	Ten Mile, south side, Stoney Creek to Inkster	319,000	160,000	NC	50% City 50% CDBG							160 CF
19	Halsted Road, east side, Brookwood to Fourteen Mile Road	371,000	371,000	NC	100% City							371 CF
20	Nine Mile, south side, Drake to Farmington	393,000	197,000	NC	50% City 50% CDBG							197 CF
21	Nine Mile, south side, Heather Ridge to Acadia Way	74,000	74,000	NC	100% City							74 CF
22	Folsom, south side, Tuck to Orchard Lake Road	810,000	405,000	NC	50% City 50% CDBG							405 CF
23	Hills Tech Bike Path **	802,000	802,000	NC	100% City							802 CF
24	Country Club, Haggerty to Twelve Mile	575,000	575,000	NC	100% City							575 CF
25	Halsted Road, Twelve Mile to Hills Tech Drive upgrade to Bike Path	576,000	576,000	NC	100% City							576 CF
26	Haggerty, east side, Hills Tech Drive to Country Club Drive **	476,000	476,000	NC	100% City							476 CF
	<b>SUB-TOTAL:</b>	<b>\$5,648,000</b>	<b>\$4,166,000</b>			<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>4,166</b>
	<b>PAGE 1 SUB-TOTAL:</b>	<b>\$4,417,000</b>	<b>\$4,153,000</b>	<b>\$0</b>		<b>492</b>	<b>490</b>	<b>724</b>	<b>861</b>	<b>362</b>	<b>976</b>	<b>248</b>
	<b>TOTAL:</b>	<b>\$10,065,000</b>	<b>\$8,319,000</b>	<b>\$0</b>		<b>492</b>	<b>490</b>	<b>724</b>	<b>861</b>	<b>362</b>	<b>976</b>	<b>4,414</b>

CF: Capital Fund  
AC: Annual Cost  
NC: No Change  
TIF: Tax Increment Financing  
CDBG: Community Development Block Grant

\*\* This is subject to additional grant money funding or other funding source

# Sidewalk Locations

## City of Farmington Hills, Michigan

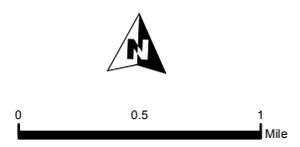


SOURCE: City of Farmington Hills, 2016  
Oakland County GIS, 2016

**Legend**

**Sidewalks**

	8' concrete		5' asphalt
	8' brick		5' brick
	5' concrete		8' asphalt



DISCLAIMER: Although the information provided by this map is believed to be reliable, its accuracy is not warranted in any way. The City of Farmington Hills assumes no liability for any claims arising from the use of this map.

# TRANSPORTATION

## Paving





## TRANSPORTATION

Major thoroughfares can be improved by providing greater capacity and efficiency. This is accomplished by improving intersections and roadway sections. Intersections are improved by the installation of through and turning lanes, curbs and realignments. Many of the major two-lane and three-lane thoroughfares are over capacity, creating lengthy backups of traffic especially at peak hours. These roadway sections are considered for expansion in order to minimize congestion and improve turning movements. In addition, major road repair is an essential component of a well-managed transportation system. Major road repairs usually involve base reconstruction and resurfacing.

Local roads also require attention. Recent paving and resurfacing programs have done much to reduce maintenance costs and improve the local road system. The success of these programs is in large part due to the CIP process and residents' support of financing local road improvements through special assessment districts. Once paved, local roads require on-going scheduled maintenance to ensure their longevity.

The gas and weight tax, commonly referred to as Act 51 road funds, is the primary source of revenue collected by the State. Those funds have not been able to keep pace with the demands for improvement to an aging road system. Costs for labor, material, and equipment to improve roads have increased. Budget constraints at the State and County levels have shifted a disproportionate financial burden on municipalities and as a result, a road millage was put on the ballot and approved by the residents of Farmington Hills during the November 2014 Election. This funding is essential to maintain and improve the quality of the City road network.

### Major Roads

The Department of Public Services has developed a list of major road and intersection improvements that are recommended to satisfy the needs of the motoring public in Farmington Hills. The City has also identified safety improvements that must be completed to satisfy issues of poor alignment, varying roadway widths, and non-continuous pavements.

The list of major road projects was prepared using data received from various sources. The data includes projects previously planned but not constructed, resident input, pavement evaluation (PASER Rating) asset management principles, traffic counts along major roads, plans by the Road Commission for Oakland County, and ongoing plans for major road and freeway improvements which are still under consideration. The 1998 Mobility Study for Farmington Hills has also identified specific projects. In general, the projects outlined in this year's CIP provide the following benefits to the community:

- Assure that roadways provide improved efficiency and safety for motorists.
- Assure that intersections minimize traffic congestion and allow for smooth handling of turning movements.
- Minimize lengthy backups of traffic especially during the peak hours of the day.

- Make traveling more convenient and safe by providing paved roadways in place of gravel roadways.
- Maintain the natural features when possible while improving the roadways.
- Integrate Road Commission for Oakland County plans with City plans to have a coordinated and efficient street system.
- Correct intersection alignment for improved traffic flow and possible reduction in traffic accidents.
- Reduce the environmental impact of dust and noise pollution.
- Reduce road maintenance cost.
- Use best practices and asset management principles to increase the life of existing pavements and improve the condition of the network as a whole.
- Improve access to freeways by examining the effectiveness of the interchanges.
- Coordinate road improvements with the City's Master Plan for Future Land Use.

### **Local Roads**

Historically, the residents have initiated local road improvements. Many miles of local roads have been reconstructed through the special assessment district process. The success of this approach is dependent upon the residents initiating a paving project in accordance with City Charter. Typically, the City participates up to 20% of the paving cost (per City Charter).

Based on the road millage that was recently approved in November of 2014 funds will be available for the local match as well as additional preventative maintenance treatments. Extending the life of existing pavement as well as improving the overall quality of the entire network is the goal of the City.

## **PROPOSED TRANSPORTATION PROJECTS**

### **1 Gravel to Paved, Special Assessment Districts**

Funds are recommended each year in the CIP to encourage residents to improve their areas by initiating road improvement projects with the use of a special assessment district. The City has participated up to the maximum 20% allowed by charter. The cost shown represents an ongoing program to pave some local roads each year.

### **2 Local Road Rehabilitation, Special Assessment Districts, see Local Road SAD Spreadsheet**

The City has participated in 20% of the cost of local road rehabilitation in accordance with the Charter. There are a number of local roads in subdivisions that have severely deteriorated asphalt and concrete pavements. Continued participation by the City gives incentive to the residents and reduces the long-term maintenance cost of local roads.

In the last year City Council has adopted a directed special assessment policy for local roads which is a City initiated road program.

Local road systems with a PASER rating of 2.75 or less are prioritized and placed in a program that will consider their reconstruction in the upcoming years. These prioritized ratings are reviewed on a regular basis. The updated list of Local Road SAD considerations are on a 5-year projection and are included directly after the Major Road Transportation CIP spreadsheet.

### **3 Tri-Party**

The Tri-Party program provides one-third funding from each of the following: City, Road Commission for Oakland County and Oakland County Board of Commissioners. This funding is typically in the \$150,000 range on an annual basis and is sometimes allowed to accrue over several years to help fund a larger project. Requirements are that the work be on a County road. Currently we are funding part of the City's share of the Fourteen Mile/Orchard Lake/Northwestern Highway Roundabout.

### **4 Capital Preventative Maintenance Projects, see Capital Preventative Maint Sheet**

These projects are intended to provide a nonstructural, thin overlay on a major roadway to cost effectively extend its useful life. It may include a milling off of the surface and some base repair.

### **5 I-275, north of Five Mile through I-696**

Pavement reconstruction, bridge deck repair and ramp repair throughout the job limits. This project is scheduled for completion in late 2016.

**6 Industrial/Commercial Road Rehabilitation, Special Assessment Districts, see Industrial/Commercial SAD Spreadsheet**

This is similar to the Local Road SAD process, but modified to accommodate commercial properties as directed by City Council. Work on these roads will be directed through the SAD process for roads with a PASER rating less than 2.75. The City will participate 20% of the project cost.

**7 Orchard Lake Boulevard, Thirteen to Fourteen Mile – ROW and Construction**

Widening of Orchard Lake to allow for a four-lane boulevard cross-section with landscaped median will follow the original commitments from the Road Commission's Northwestern Connector improvement. This portion of the Orchard Lake project uses the funding commitment from Grand Sakwa, developer, for the entire local share that was provided as part of the City's Planned Unit Development agreement with Grand Sakwa for the North Orchard Place development. Preliminary designs are currently being developed in order to complete the environmental analysis and eventually proceed with a final scope and project design. Tentatively a narrow median boulevard with roundabouts at Thirteen Mile Road, at Firwood, also just north of Ravine and also at the signalized intersection just south of Ludden appear to be in the preferred alternative.

**8 Eleven Mile Road, Orchard Lake to Middlebelt**

Reconstruction of this mile of roadway.

**9 Halsted Road, I-696 to Twelve Mile Road**

Reconstruction of this mile of roadway.

**10 Thirteen Mile, Middlebelt to Inkster Road**

Reconstruction of this mile of roadway.

**11 Power Road, Ten Mile to Eleven Mile Road**

Reconstruction of this mile of roadway.

**12 Shiawassee, West City limits to Inkster Road**

Reconstruction of this mile of roadway.

### 13 Grand River Corridor Improvement Authority (CIA) Projects

The approved Grand River CIA Development Plan outlines \$10 to 18 million in investments to be made in programs and projects throughout the Grand River Corridor over a 30 year period beginning in 2014. Projects are based on the Grand River Corridor Vision Plan which identifies implementation strategies aimed at improving the appearance, function, economic opportunities, and health of this important transportation and business corridor. Grand River Avenue is an MDOT arterial roadway.

- **Implementation of Transportation Plan (has recently completed)**  
MDOT will begin conducting a roadway scoping project beginning in early 2015. This was the first step in a long process of working with the community to assess transportation and economic needs and to begin evaluating alternative road designs. The CIA is committed to improving the function of Grand River with multimodal, pedestrian, and circulation improvements, particularly at the M5 Interchange, identified as priorities. Although many of these improvements may not be seen during this CIP cycle, there is particular interest in fast tracking investments located within the Botsford Focus Area.

- **Focus Area Improvements**  
The Grand River Vision Plan identifies three (3) focus areas: 1) Botsford Focus Area, 2) Grand River North Focus Area (Westriver Center), and 3) Grand River South Area (land bounded by Grand River, Orchard Lake, and M-5). With significant investment being made on the Botsford Hospital Campus beginning in 2015, there is strong interest in implementing focus area improvements within the Botsford Focus Area within the next few years.

Botsford Focus Area improvements would consist of approximately 5,700 linear feet of street frontage. Improvements may include pedestrian lighting, street trees, landscaping, street furniture and related appurtenances that help support creating a “medical campus” feel in the focus area.

- **Improve Road Crossings at Key Locations**  
There are currently only three (3) road crossings along the entire 2+ mile stretch of Grand River Avenue. The Grand River Vision Plan identifies an additional five (5) road crossings that should be considered to improve pedestrian safety and non-motorized transportation. Improvements may include adding traffic signals, narrowing crossing distances and other related enhancements. Any improvements would need MDOT approval.

### 14 Thirteen Mile Road, Halsted to Drake

Reconstruction of this mile of roadway.

**15 Eleven Mile Road, Middlebelt to Inkster**

Reconstruction of this mile of roadway.

**16 Twelve Mile Widening, Inkster to Middlebelt**

One improvement being considered is the installation of a five-lane pavement from Inkster to Middlebelt. This would complete the improvement of Twelve Mile from Telegraph west to the M-5 interchange west of Haggerty. This currently is the only remaining two-lane segment of Twelve Mile from Beck to Jefferson at Lake St. Clair.

**17 Nine Mile/ Halsted Intersection Improvements**

Although this intersection was originally intended to be improved as a roundabout, it was removed from consideration when project costs far exceeded the grant that the City received. The City has now reapplied for grant funding for a roundabout at this location. The grant was denied and funding or a specific design has not been identified. A roundabout at this location is currently being evaluated.

**18 Ten Mile/Grand River/M-5 Phase Two**

The first phase was completed with the installation of a loop ramp and a northwest-bound off-ramp. The second phase would complete the entire project. This includes the widening or addition of a bridge over the freeway and the installation of a boulevard section for Grand River. Several options were identified in the recent Grand River Scoping Project completed by MDOT.

**19 Thirteen Mile Widening, Middlebelt to Orchard Lake**

One improvement under consideration is installation of a five-lane pavement cross-section from Middlebelt to Orchard Lake Road.

**20 Orchard Lake Boulevard, Twelve to Thirteen Mile**

Widening of Orchard Lake using the marginal access drives to allow for a four-lane boulevard cross-section with landscaped median will follow the Northwestern Connector improvement.

**21 Weighmaster Eyebrow**

The Police Department has requested a paved level eyebrow along the side of the road for the City's weighmaster to weigh trucks as part of their motor carrier enforcement. Funding has yet to be identified.

**22 Thirteen Mile Road, Drake to Farmington Intersection Improvements**

Reconstruction of this mile of roadway.

**23 Nine Mile, Drake to Gill Reconstruction**

Reconstruction of this mile of roadway.

**24-26 GRAND RIVER, TEN MILE TO EIGHT MILE ROAD (In collaboration with Item #13 - Grand River Corridor Improvement Authority (CIA))**

MDOT recently completed a scoping project of the Grand River corridor from Ten Mile Road to Eight Mile Road. This project was broke down into three sections, as listed and includes road reconstruction modifications to the load alignment and improved geometrics, bridgework, pedestrian upgrades and more. Farmington and Farmington Hills have hired services from consulting engineers to evaluate several alternatives at key locations within the project limits. Funding is not programmed for this project at this time.

**27 Tuck Road, Folsom to Eight Mile Road**

Reconstruction of this mile of roadway.

**TRANSPORTATION**

Reference No.	PROJECT	TOTAL COST	CITY COST	MAINTENANCE COSTS	PROJECTED FUNDING & SOURCE	Figures shown are in thousands of dollars.						
						2016/17	2017/18	2018/19	2019/20	2020/21	2021/22	FUTURE
1	Gravel to Paved, Special Assessment Districts	2,400,000	480,000	NC	80% SAD 20% City	80 WG	80 WG	80 WG	80 WG	80 WG	80 WG	
2	Local Road Rehabilitation, Special Assessment Districts (See Local Road SAD Spreadsheet)	60,000,000	12,000,000	NC	80% SAD 20% City	2,000 WG	2,000 WG	2,000 WG	2,000 WG	2,000 WG	2,000 WG	
3	Tri-Party TBD	900,000	300,000	NC	33% City 33% OC 33% RCOC	50 WG	50 WG	50 WG	50 WG	50 WG	50 WG	
4	Capital Preventative Maintenance Projects (See Capital Preventive Maint Sheet)	4,375,000	4,375,000	NC	100% City	750 WG	1000 WG	875 WG	750 WG	1,000 WG		
5	I-275 north of Five Mile through I-696 Interchange	80,000,000	714,000	NC	90% FG 5% MDOT 1.0 % City 4.0% other	714 WG						
6	Industrial/Commercial Rd Rehabilitation Special Assessment Districts (See Industrial/Commercial SAD Spreadsheet)	12,920,000	2,578,000	NC	20% City 80% SAD		375 WG	345 WG	200 WG	200 WG	288 WG	1,170 WG
7	Orchard Lake Boulevard, Thirteen to Fourteen Mile - ROW & Construction	23,800,000	1,660,000	NC	70% FG 10% RCOC 13% Tri 7% City		450 WG	510 WG		700 WG		
8	Eleven Mile Road, Orchard Lake to Middlebelt	1,850,000	550,000		70% FG 30% City		550 WG					
9	Halsted, I-696 to Twelve Mile	1,450,000	1,450,000	NC	100% City				1,450 WG			
11	Power Road, Ten Mile to Eleven Mile Road	1,100,000	1,100,000	NC	100% City							1,100 WG
12	Shiawassee, W. City limits to Inkster Road	2,000,000	2,000,000	NC	100% City							2,000 WG
13	Grand River Corridor Improvement Authority (CIA) Projects	10,000,000	0	NC	100% TIF							
14	Thirteen Mile Road, Halsted to Drake	1,900,000	1,900,000	NC	100% City							1,900 WG
<b>SUB-TOTAL:</b>		<b>\$202,695,000</b>	<b>\$29,107,000</b>	<b>0</b>		<b>3,594</b>	<b>4,505</b>	<b>3,860</b>	<b>4,530</b>	<b>4,030</b>	<b>2,418</b>	<b>6,170</b>

FG: Federal Grant  
 O: Other  
 OC: Oakland County  
 NC: No Change  
 Tri: Tri Party Funding  
 RCOC: Road Commission for Oakland County  
 WG: Weight & Gas Revenue  
 SAD: Special Assessment District  
 TIF: Tax Increment Financing  
 MDOT: Michigan Department of Transportation

\* This chart shows the identified public structures and improvements in the general order of their priority.

**TRANSPORTATION**

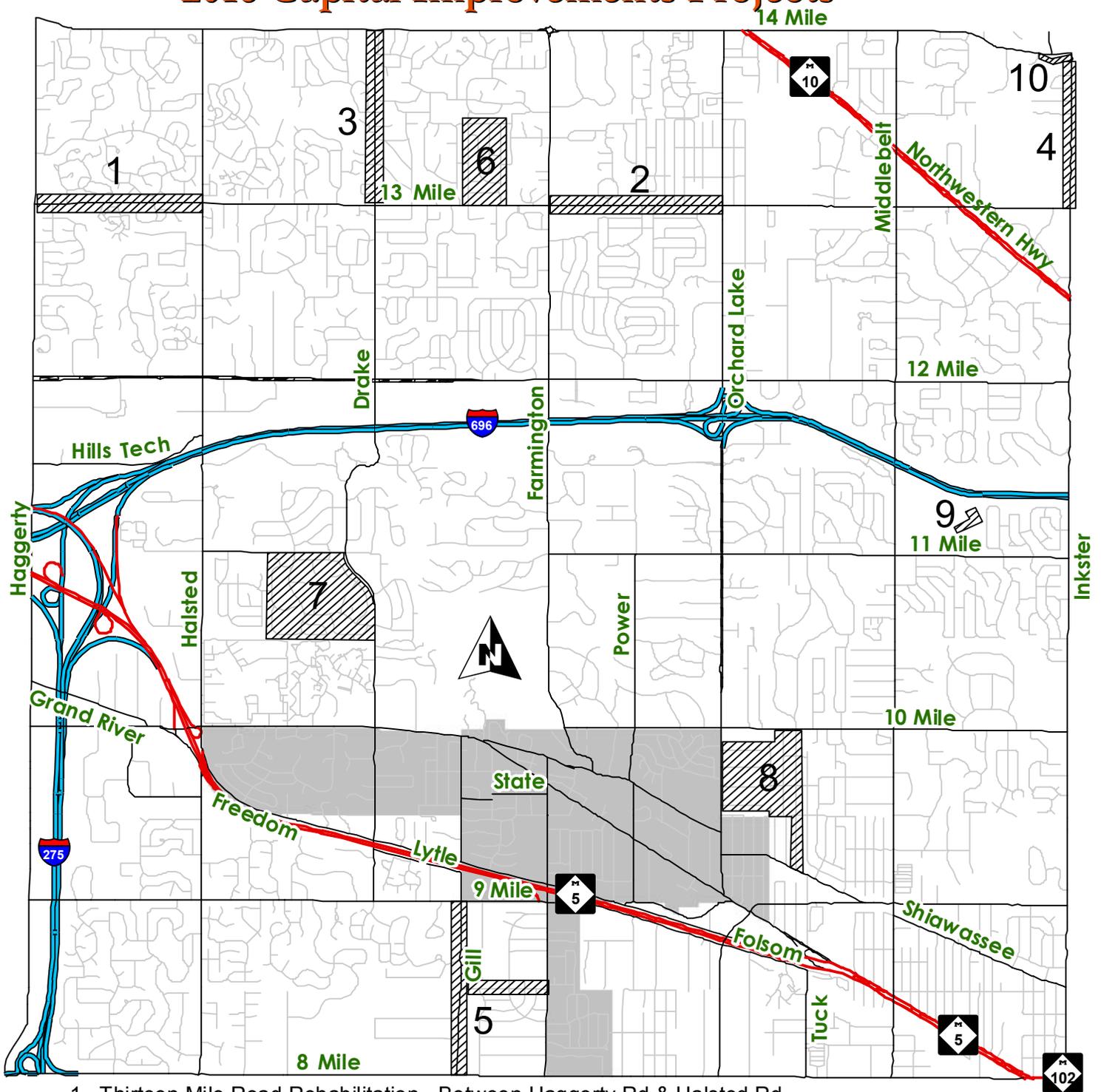
Reference No.	PROJECT	TOTAL COST	CITY COST	MAINTENANCE COSTS	PROJECTED FUNDING & SOURCE	Figures shown are in thousands of dollars.					2021/22	FUTURE
						2016/17	2017/18	2018/19	2019/20	2020/21		
15	Eleven Mile Road, Middlebelt to Inkster	1,850,000	1,850,000	NC	100% City							1,850 WG
16	Twelve Mile Widening, Inkster to Middlebelt	8,500,000	850,000	NC	80% FG 10% RCOC 10% City							850 WG
17	Nine Mile/Halsted Intersection Improvements	1,600,000	800,000	NC	50% FG/SG 50% City							800 WG
18	Ten Mile/Grand River/M-5 Phase Two	20,000,000	250,000	NC	1.25% City 98.75% SG							250 WG
19	Thirteen Mile Widening, Middlebelt to Orchard Lake	8,650,000	2,600,000	NC	70% FG 30% City							2600 WG
20	Orchard Lake Boulevard, Twelve to Thirteen Mile	25,000,000	6,250,000	NC	50% FG 25% RCOC 25% City							6,250 WG
21	Weighmaster Eyebrow	400,000	400,000	NC	100% City							400 WG
22	Thirteen Mile Road, Drake to Farmington	1,900,000	1,900,000	NC	100% City							1,900 WG
23	Nine Mile Road, Drake to Gill, Reconstruction	790,000	790,000	NC	100% City							790 WG
24	Grand River, Ten Mile to Shiawassee	28,600,000	715,000	NC	90% FG 5% MDOT 2.57% other 2.57% City							715 WG
25	Grand River, Shiawassee to M-5 end	20,700,000	518,000	NC	90% FG 5% MDOT 2.57% other 2.57% City							518 WG
26	Grand River, M-5 to Eight Mile	17,500,000	438,000	NC	90% FG 5% MDOT 2.57% other 2.57% City							438 WG
27	Tuck Road, Folsom to Eight Mile Road	1,000,000	1,000,000	NC	100% City							1000 WG
<b>PAGE 2 SUB-TOTAL:</b>		<b>\$136,490,000</b>	<b>\$18,361,000</b>	<b>\$0</b>		<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>18,361</b>
<b>PAGE 1 SUB-TOTAL:</b>		<b>\$202,695,000</b>	<b>\$29,107,000</b>	<b>0</b>		<b>3,594</b>	<b>4,505</b>	<b>3,860</b>	<b>4,530</b>	<b>4,030</b>	<b>2,418</b>	<b>6,170</b>
<b>TOTAL:</b>		<b>\$339,185,000</b>	<b>\$47,468,000</b>	<b>\$0</b>		<b>3,594</b>	<b>4,505</b>	<b>3,860</b>	<b>4,530</b>	<b>4,030</b>	<b>2,418</b>	<b>24,531</b>

FG: Federal Grant  
 CO: Other  
 RCOC: Road Commission for Oakland County  
 SG: State Grant

WG: Weight & Gas Revenue  
 AC: Annual Costs  
 NC: No Change

\* This chart shows the identified public structures and improvements in the general order of their priority.

# City of Farmington Hills Department of Public Services 2016 Capital Improvements Projects



- 1 - Thirteen Mile Road Rehabilitation - Between Haggerty Rd & Halsted Rd
- 2 - Thirteen Mile Road Rehabilitation - Between Farmington Rd & Orchard Lake Rd
- 3 - Drake Road Rehabilitation - Between Thirteen Mile Rd & Fourteen Mile Rd
- 4 - Inkster Rd Mill & Fill - Between Thirteen Mile Rd & Fourteen Mile Rd
- 5 - Gill Rd Between 8 Mile & 9 Mile and Colfax St. Between Gill & Farmington, Road Rehabilitation
- 6 - Briar Hill Subdivision Road Rehabilitation
- 7 - Independence Commons Subdivision Road Rehabilitation
- 8 - Hollywood Subdivision & Westhill Woods & Tarabusi Grand River Area Subdivision Road Rehabilitation
- 9 - Costick Center Parking Lot C Rehabilitation
- 10 - Fourteen Mile Rd Sidewalk - Between Chatsworth & Inkster Rd South

## LOCAL ROADS

- 1 **Flemings Roseland Park**  
Reconstruction of neighborhood streets.
- 2 **Tarabusi Grand River Gardens (Concrete)**  
Reconstruction of neighborhood streets.
- 3 **Woodcreek Hills Subdivision**  
Reconstruction of neighborhood streets.
- 4 **Supervisor's Plat of Quaker Valley Farms**  
Reconstruction of neighborhood streets.
- 5 **Tarabusi Roseland Gardens**  
Reconstruction of neighborhood streets.
- 6 **Farmington Heights Subdivision (HMA)**  
Reconstruction of neighborhood streets.
- 7 **Pleasant Valley Farms #1**  
Reconstruction of neighborhood streets.
- 8 **Oakland Hills Orchard**  
Reconstruction of neighborhood streets.
- 9 **Supervisor's Plat #13**  
Reconstruction of neighborhood streets.

- 10 **Fendt's Hilldale Subdivision**  
Reconstruction of neighborhood streets.
- 11 **Westlake Subdivision (HMA)**  
Reconstruction of neighborhood streets.
- 12 **Supervisor's Middlebelt & Ten Mile Road Plat #2**  
Reconstruction of neighborhood streets.
- 13 **Heritage Hills**  
Reconstruction of neighborhood streets.
- 14 **Westlake Subdivision (Concrete)**  
Reconstruction of neighborhood streets.
- 15 **Farmington Acres**  
Reconstruction of neighborhood streets.
- 16 **Drake Farm Subdivision**  
Reconstruction of neighborhood streets.
- 17 **Farmington View Subdivision**  
Reconstruction of neighborhood streets.
- 18 **Stone Creek Subdivision (HMA)**  
Reconstruction of neighborhood streets.
- 19 **Fairway Hills**  
Reconstruction of neighborhood streets.

- 20 **Supervisor's Subdivision # 8**  
Reconstruction of neighborhood streets.
- 21 **Jefferson**  
Reconstruction of neighborhood streets.
- 22 **Assessor's Grand River Homes State Subdivision (HMA)**  
Reconstruction of neighborhood streets.
- 23 **Grand River Homes Subdivision (HMA)**  
Reconstruction of neighborhood streets.
- 24 **Supervisor's Subdivision # 4**  
Reconstruction of neighborhood streets.
- 25 **Assessor's Grand River Homes State Subdivision (Concrete)**  
Reconstruction of neighborhood streets.
- 26 **Richland Gardens Subdivision**  
Reconstruction of neighborhood streets.
- 27 **Wedgewood Commons**  
Reconstruction of neighborhood streets.
- 28 **Normandy Hills**  
Reconstruction of neighborhood streets.
- 29 **J M Cox Estates**  
Reconstruction of neighborhood streets.

- 30**    **Arbor Park Subdivision**  
Reconstruction of neighborhood streets.
- 31**    **Camelot Courts Subdivision**  
Reconstruction of neighborhood streets.
- 28**    **Krave’s Grand River Homes**  
Reconstruction of neighborhood streets.
- 32**    **Farmington Hills Subdivision**  
Reconstruction of neighborhood streets.
- 33**    **Meadowbrook Heights Subdivision**  
Reconstruction of neighborhood streets.
- 34**    **Farm Meadows Subdivision**  
Reconstruction of neighborhood streets.
- 35**    **Alt Plat of Grand River Farms**  
Reconstruction of neighborhood streets.
- 36**    **Coventry**  
Reconstruction of neighborhood streets.
- 37**    **Woodland Trails Subdivision**  
Reconstruction of neighborhood streets.
- 38**    **Stone Creek Subdivision (Concrete)**  
Reconstruction of neighborhood streets.

- 39 **Halsted Estates Condos**  
Reconstruction of neighborhood streets.
- 40 **Assessor's Richland State Subdivision**  
Reconstruction of neighborhood streets.
- 41 **Stolz Subdivision**  
Reconstruction of neighborhood streets.
- 42 **Supervisor's Subdivision # 1**  
Reconstruction of neighborhood streets.
- 43 **Franklin Forest Subdivision**  
Reconstruction of neighborhood streets.
- 44 **Canterbury West**  
Reconstruction of neighborhood streets.
- 45 **William Shaw Subdivision**  
Reconstruction of neighborhood streets.
- 46 **Franklin Oaks**  
Reconstruction of neighborhood streets.
- 47 **Grand Gardens (Olde Town/Meadowbrook Heights)**  
Reconstruction of neighborhood streets.
- 48 **TBD**  
Local Road Paving

**LOCAL ROADS**

Reference No.	PROJECT	TOTAL COST	CITY COST	MAINTENANCE COSTS	PROJECTED FUNDING & SOURCE	Figures shown are in thousands of dollars.						
						2016/17	2017/18	2018/19	2019/20	2020/21	2021/22	FUTURE
1	Flemings Roseland Park	\$1,050,000	\$210,000	NC	80% SAD 20% City	210 M						
2	Tarabusi Grand River Gardens (Concrete)	\$1,090,000	\$218,000	NC	80% SAD 20% City	218 M						
3	Woodcreek Hills Sub	\$1,400,000	\$280,000	NC	80% SAD 20% City	280 M						
4	Supervisor's Plat of Quaker Valley Farms	\$1,150,000	\$230,000	NC	80% SAD 20% City	230 M						
5	Tarabusi Roseland Gardens	\$1,490,000	\$298,000	NC	80% SAD 20% City	298 M						
6	Farmington Heights Sub (HMA)	\$200,000	\$40,000	NC	80% SAD 20% City	40 M						
7	Pleasant Valley Farms #1	\$420,000	\$84,000	NC	80% SAD 20% City	84 M						
8	Oakland Hills Orchard	\$960,000	\$192,000	NC	80% SAD 20% City	192 M						
9	Supervisor's Plat #13	\$390,000	\$78,000	NC	80% SAD 20% City	78 M						
10	Fendt's Hilldale Sub	\$390,000	\$78,000	NC	80% SAD 20% City	78 M						
11	Westlake Sub (HMA)	\$605,000	\$121,000	NC	80% SAD 20% City	121 M						
12	Supervisor's Middlebelt & Ten Mile Rd. Plat #2	\$894,000	\$178,800	NC	80% SAD 20% City	179 M						
13	Heritage Hills	9,330,000	\$1,866,000	NC	80% SAD 20% City		1866 M					
14	Westlake Sub (Concrete)	4,960,000	\$992,000	NC	80% SAD 20% City			992 M				
15	Farmington Acres	530,000	\$106,000	NC	80% SAD 20% City			106 M				
16	Drake Farm Sub	214,000	\$42,800	NC	80% SAD 20% City			43 M				
<b>SUB-TOTAL:</b>						<b>2,008</b>	<b>1,866</b>	<b>1,141</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>

SAD: Special Assessment District  
M: Millage

\* This chart shows the identified public structures and improvements in the general order of their priority.

**LOCAL ROADS**

Reference No.	PROJECT	TOTAL COST	CITY COST	MAINTENANCE COSTS	PROJECTED FUNDING & SOURCE	Figures shown are in thousands of dollars.						
						2016/17	2017/18	2018/19	2019/20	2020/21	2021/22	FUTURE
17	Farmington View Sub	230,000	\$46,000	NC	80% SAD 20% City		46 M					
18	Stone Creek Sub (HMA)	293,000	\$58,600	NC	80% SAD 20% City		59 M					
19	Fairway Hills	162,000	\$32,400	NC	80% SAD 20% City		32 M					
20	Supervisor's Sub #8	349,000	\$69,800	NC	80% SAD 20% City		70 M					
21	Jefferson	82,000	\$16,400	NC	80% SAD 20% City		16 M					
22	Assessor's Grand River Homes State Sub (HMA)	56,000	\$11,200	NC	80% SAD 20% City		11 M					
23	Grand River Homes Sub (HMA)	20,000	\$4,000	NC	80% SAD 20% City		4 M					
24	Supervisor's Sub #4	70,000	\$14,000	NC	80% SAD 20% City		14 M					
25	Assessor's Grand River Homes State Sub (Concrete)	362,000	\$72,400	NC	80% SAD 20% City		72 M					
26	Richland Gardens Sub	2,780,000	\$556,000	NC	80% SAD 20% City		556 M					
27	Wedgewood Commons	3,134,000	\$626,800	NC	80% SAD 20% City			627 M				
28	Normandy Hills	916,000	\$183,200	NC	80% SAD 20% City			183 M				
29	J M Cox Estates	296,000	\$59,200	NC	80% SAD 20% City			59 M				
30	Arbor Park Sub	560,000	\$112,000	NC	80% SAD 20% City			112 M				
31	Camelot Courts Sub	3,760,000	\$752,000	NC	80% SAD 20% City			752 M				
32	Krave's Grand River Heights	1,425,000	\$285,000	NC	80% SAD 20% City			285 M				
32	Farmington Hills Sub	890,000	\$178,000	NC	80% SAD 20% City				178 M			
33	Meadowbrook Heights Sub	571,000	\$114,200	NC	80% SAD 20% City					114 M		
34	Farm Meadows Sub	1,360,000	\$272,000	NC	80% SAD 20% City					272 M		
35	Alt Plat of Grand River Farms	403,000	\$80,600	NC	80% SAD 20% City					81 M		
	<b>PAGE 2 SUB-TOTAL:</b>	<b>\$17,719,000</b>	<b>\$3,543,800</b>			<b>0</b>	<b>0</b>	<b>880</b>	<b>2,018</b>	<b>645</b>	<b>0</b>	<b>0</b>
	<b>PAGE 1 SUB-TOTAL:</b>	<b>\$25,073,000</b>	<b>\$5,014,600</b>			<b>2,008</b>	<b>1,866</b>	<b>1,141</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>
	<b>TOTAL:</b>	<b>\$42,792,000</b>	<b>\$8,558,400</b>			<b>2,008</b>	<b>1,866</b>	<b>2,021</b>	<b>2,018</b>	<b>645</b>	<b>0</b>	<b>0</b>

SAD: Special Assessment District  
M: Millage

\* This chart shows the identified public structures and improvements in the general order of their priority.

**LOCAL ROADS**

Reference No.	PROJECT	TOTAL COST	CITY COST	MAINTENANCE COSTS	PROJECTED FUNDING & SOURCE	Figures shown are in thousands of dollars.						
						2016/17	2017/18	2018/19	2019/20	2020/21	2021/22	FUTURE
36	Coventry	280,000	\$56,000	NC	80% SAD 20% City				56 M			
37	Woodland Trails Sub	620,000	\$124,000	NC	80% SAD 20% City				124 M			
38	Stone Creek Sub (Concrete)	400,000	\$80,000	NC	80% SAD 20% City				80 M			
39	Halsted Estates Condos	192,000	\$38,400	NC	80% SAD 20% City				38 M			
40	Assessor's Richland State Sub	200,000	\$40,000	NC	80% SAD 20% City				40 M			
41	Stolz Sub	137,000	\$27,400	NC	80% SAD 20% City				27 M			
42	Supervisor's Sub #1	24,000	\$4,800	NC	80% SAD 20% City				5 M			
43	Franklin Forest Sub	510,000	\$102,000	NC	80% SAD 20% City				102 M			
44	Canterbury West	390,000	\$78,000	NC	80% SAD 20% City				78 M			
45	William Shaw Sub	113,000	\$22,600	NC	80% SAD 20% City				23 M			
46	Franklin Oaks	301,000	\$60,200	NC	80% SAD 20% City				60 M			
47	Grand Gardens (Olde Town/Meadowbrook Heights)	200,000	\$40,000	NC	80% SAD 20% City				40 M			
48	TBD	2,000,000	\$400,000	NC	80% SAD 20% City						400 M	
	<b>PAGE 3 SUB-TOTAL:</b>	<b>\$5,367,000</b>	<b>\$1,073,400</b>			<b>0</b>	<b>0</b>	<b>0</b>	<b>673</b>	<b>400</b>	<b>0</b>	<b>0</b>
	<b>PAGE 2 SUB-TOTAL:</b>	<b>\$17,719,000</b>	<b>\$3,543,800</b>			<b>0</b>	<b>0</b>	<b>880</b>	<b>2,018</b>	<b>645</b>	<b>0</b>	<b>0</b>
	<b>PAGE 1 SUB-TOTAL:</b>	<b>\$25,073,000</b>	<b>\$5,014,600</b>			<b>2,008</b>	<b>1,866</b>	<b>1,141</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>
	<b>TOTAL:</b>	<b>\$48,159,000</b>	<b>\$9,631,800</b>			<b>2,008</b>	<b>1,866</b>	<b>2,021</b>	<b>2,018</b>	<b>1,318</b>	<b>400</b>	<b>0</b>

SAD: Special Assessment District  
M: Millage

\* This chart shows the identified public structures and improvements in the general order of their priority.

## **INDUSTRIAL/COMMERCIAL ROADS**

**1 COUNTRY CLUB CORPORATE PARK**

Reconstruction of industrial/commercial roadways.

**2 FARMINGTON HILLS IRO PARK NORTH**

Reconstruction of industrial/commercial roadways.

**3 FARMINGTON INTERCHANGE INDUSTRIAL PARK**

Reconstruction of industrial/commercial roadways.

**4 NORTH INDUSTRIAL DRIVE**

Reconstruction of industrial/commercial roadways.

**5 SUPERVISOR'S PLAT # 11 (HATHAWAY STREET)**

Reconstruction of industrial/commercial roadways.

**6 FARMINGTON RESEARCH & INDUSTRIAL CENTER (INDOPLEX COURT)**

Reconstruction of industrial/commercial roadways.

**7 FARMINGTON FREEWAY INDUSTRIAL PARK, 1, 2 AND 3**

Reconstruction of industrial/commercial roadways.

**INDUSTRIAL/COMMERCIAL ROADS**

Reference No.	PROJECT	TOTAL COST	CITY COST	MAINTENANCE COSTS	PROJECTED FUNDING & SOURCE	Figures shown are in thousands of dollars.						
						2016/17	2017/18	2018/19	2019/20	2020/21	2021/22	FUTURE
1	Country Club Corporate Park	1,900,000	375,000	NC	80% SAD 20% City		375 M					
2	Farmington Hills IRO Park North	430,000	85,000	NC	80% SAD 20% City			85 M				
3	Farmington Interchange Industrial Park	1,300,000	260,000	NC	80% SAD 20% City			260 M				
4	North Industrial Drive	1,000,000	200,000	NC	80% SAD 20% City				200 M			
5	Supervisor's Plat # 11 (Hathaway)	1,000,000	200,000	NC	80% SAD 20% City					200 M		
6	Farmington Research & Industrial Center Indoplex Court	1,440,000	288,000	NC	80% SAD 20% City						288 M	
7	Farmington Freeway Industrial Park, 1, 2 and 3	5,850,000	1,170,000	NC	80% SAD 20% City							1170 M
<b>TOTAL:</b>		<b>\$12,920,000</b>	<b>\$2,578,000</b>			<b>0</b>	<b>375</b>	<b>345</b>	<b>200</b>	<b>200</b>	<b>288</b>	<b>1,170</b>

SAD: Special Assessment District  
M: Millage

\* This chart shows the identified public structures and improvements in the general order of their priority.

## **CAPITAL PREVENTIVE MAINTENANCE**

**1 DRAKE ROAD, TWELVE MILE TO THIRTEEN MILE ROAD**

Maintenance overlay to rehabilitate and prolong the service life of this roadway.

**2 DRAKE ROAD, GRAND RIVER TO ELEVEN MILE ROAD**

Maintenance overlay to rehabilitate and prolong the service life of this roadway.

**3 HALSTED ROAD, GRAND RIVER TO ELVEN MILE ROAD**

Maintenance overlay to rehabilitate and prolong the service life of this roadway.

**4 NINE MILE ROAD, WEST OF CITY LIMITS TO MIDDLEBELT**

Maintenance overlay to rehabilitate and prolong the service life of this roadway.

**5. FOURTEEN MILE, MIDDLEBELT TO INKSTER ROAD**

Maintenance overlay to rehabilitate and prolong the service life of this roadway.

**6. TBD**

Project to be determined.

CAPITAL PREVENTIVE MAINTENANCE

Reference No.	PROJECT	TOTAL COST	CITY COST	MAINTENANCE COSTS	PROJECTED FUNDING & SOURCE	Figures shown are in thousands of dollars.						
						2016/17	2017/18	2018/19	2019/20	2020/21	2021/22	FUTURE
1	Drake Road, Twelve Mile to Thirteen Mile Road	1,000,000	1,000,000	NC	100% City	1000 M						
2	Drake Road, Grand River to Eleven Mile Road	875,000	875,000	NC	100% City		875 M					
3	Halsted Road, Grand River to Eleven Mile Road	750,000	750,000	NC	100% City			750 M				
4	Nine Mile Road, west city limits to Middlebelt	1,000,000	1,000,000	NC	100% City				1000 M			
5	Fourteen Mile, Middlebelt to Inkster Road	1,000,000	1,000,000	NC	100% City					1000 M		
6	TBD	1,000,000	1,000,000	NC	100% City						1000 M	
<b>TOTAL:</b>		<b>\$5,625,000</b>	<b>\$5,625,000</b>			<b>1,000</b>	<b>875</b>	<b>750</b>	<b>1,000</b>	<b>1,000</b>	<b>1,000</b>	<b>0</b>

SAD: Special Assessment District  
M: Millage

\* This chart shows the identified public structures and improvements in the general order of their priority.

# EQUIPMENT



**DPW and Fire  
Equipment**



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## **DIVISION OF PUBLIC WORKS (DPW) EQUIPMENT PURCHASES**

At the end of the service life of heavy equipment there is a specific salvage value and a cost of replacement for that piece of equipment. Because of the expense of major equipment purchases for the DPW, a continuous provision must be made from year to year to replace worn out and unserviceable equipment. The items contained in this plan have an individual value of a minimum of \$25,000. This does not include any equipment purchases that would be handled as part of the normal operating budget.

### **PROPOSED DPW EQUIPMENT PURCHASES**

#### **1 2016/2017 Equipment**

- 5-Yard Dump Truck with slip-in V-Box -Replacement (\$220,000)
- 10-Yard Dump Truck with slip-in V-Box – Replacement (\$260,000)
- Mechanical Street Sweeper – Replacement (\$270,000)
- Sewer Camera – Replacement as a Hook Loader Attachment (\$100,000)
- Refurbish Equipment (\$50,000)

#### **2 2017/2018 Equipment**

- 5-Yard Dump Truck with slip-in V-Box –Replacement (\$240,000)
- 10-Yard Dump Truck with slip-in V-Box – Replacement (\$270,000  
\$208,000)
- Sidewalk Utility Vehicle – Addition (\$108,000)
- Mini Front-end Loader – Replacement (\$115,000)
- Sign Truck – Replacement (\$158,000)
- Refurbish existing Equipment (\$50,000)

### **3**     **2018/2019 Equipment**

- 5-Yard Dump with slip-in V-Box – Replacement/upgrade to 10-Yard Dump (\$280,000)
- 10-Yard Dump with slip-in V-Box – Replacement (\$270,000)
- Backhoe – Replacement (\$260,000)
- Refurbish existing Equipment (\$50,000)
- 3-Yard Dump Truck – Replacement (\$118,000)
- Mechanic Service Truck – Replacement (\$135,000)

### **4**     **2019/2020 Equipment**

- 5-Yard Dump Truck with slip in V-Box – Replacement (\$260,000)
- 10-Yard Dump Truck with Slip-in V-Box – Replacement (\$282,000)
- Wood Chipper – Replacement (\$90,000)
- Fork Lift – Replacement (\$55,000)
- Refurbish existing Equipment (\$50,000)
- Sewer Jet Truck Conversion to Hook-Load Attachment - Replacement (\$190,000)

### **5**     **2020/2021 Equipment**

- 10-yard Live Bottom Truck – Replacement (\$304,000)
- Cold Patch Trailer – Replacement (\$80,000)
- 3-yard Crew-Cab Dump Truck – Replacement (\$130,000)
- Refurbish existing Equipment (\$50,000)
- Gradall excavator – Replacement (\$495,000)

### **6**     **2021/2022 Equipment**

- Two 10-Yard Live Bottom Truck – Replacement (\$632,000)
- Refurbish existing Equipment (\$50,000)
- Road Grader – Replacement (\$307,000)

**DPW EQUIPMENT**

Reference No.	PROJECT	TOTAL COST	CITY COST	MAINTENANCE COSTS	PROJECTED FUNDING & SOURCE	Figures shown are in thousands of dollars.						
						2016/17	2017/18	2018/2019	2019/20	2020/21	2021/22	FUTURE
1	DPW Equipment	900,000	900,000	NC	100% City	900 CF						
2	DPW Equipment	921,000	921,000	NC	100% City		921 CF					
3	DPW Equipment	1,113,000	1,113,000	NC	100% City			1,113 CF				
4	DPW Equipment	927,000	927,000	NC	100% City				927 CF			
5	DPW Equipment	1,059,000	1,059,000	NC	100% City					1,059 CF		
6	DPW Equipment	988,000	988,000	NC	100% City						988 CF	
<b>TOTAL:</b>		<b>\$5,908,000</b>	<b>\$5,908,000</b>			<b>900</b>	<b>921</b>	<b>1,113</b>	<b>927</b>	<b>1,059</b>	<b>988</b>	<b>0</b>

CF: Capital Fund  
 NC: No Change

\* This chart shows the identified public structures and improvements in the general order of their priority.

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## **FIRE APPARATUS PURCHASES**

The Fire Department utilizes a combination of full-time and call-back personnel to provide Advanced Life Support (ALS), rescue and fire suppression services out of five fire stations located strategically throughout the City.

The DPW maintenance staff continues to provide vital input on the replacement of our fleet vehicles based on their experience and maintenance records. This advice is reflected in the schedule given below for the replacement of those vehicles listed by year.

The fire department rotates its vehicles based on use. Station 5 responds on all incidents throughout the community during nights, weekends and holidays. Therefore, acquisition of new apparatus is assigned to station 5 and the older vehicle is rotated to one of the satellite stations. This has proven very beneficial to extend vehicle life.

## **PROPOSED FIRE APPARATUS PURCHASES**

### **1 2016/2017 Fire Equipment and Apparatus**

- Purchase replacement for Rescue 3 (\$265,000)
- Purchase replacement for Rescue 4 (\$265,000)
- Purchase replacement for Engine 33 (\$577,000)
- Vehicle refurbishment (\$50,000)

### **2 2017/2018 Fire Equipment and Apparatus**

- Purchase replacement for Battalion Chief Vehicle (\$78,000)
- Purchase replacement for Ladder #2 (\$850,000)
- Purchase replacement for Medic #4 (\$172,000)
- Vehicle refurbishment (\$50,000)
- Purchase replacement extrication equipment Ladder #2 (\$30,000)

### **3 2018/2019 Fire Equipment and Apparatus**

- Purchase replacement for Medic #5 (\$179,000)
- Purchase replacement Self Contained Breathing Apparatus (\$350,000)
- Purchase replacement of Ladder #1- (\$884,000)
- Vehicle refurbishment (\$50,000)

### **4 2019/2020 Fire Equipment and Apparatus**

- Purchase replacement Mobile Computers (\$140,000)
- Purchase replacement for Engine #1 (\$624,000)
- Purchase replacement SCBA air compressor for Station 1 (\$35,000)
- Purchase replacement for Medic #1 (\$186,000)
- Vehicle refurbishment (\$50,000)

**5**      **2020/2021 Fire Equipment and Apparatus**

- Purchase replacement for Rescue #2 (\$276,000)
- Purchase replacement for Rescue #1 (\$276,000)
- Purchase replacement for Ladder #4 (\$919,360)
- Vehicle Refurbishment (\$50,000)

**6**      **2021/2022 Fire Equipment and Apparatus**

- Purchase replacement for Medic #3 (\$194,000)
- Purchase replacement for Medic #4 (\$194,000)
- Purchase replacement for Rescue #3 (\$287,000)
- Purchase replacement for Rescue #4 (\$287,000)
- Purchase replacement Engine (\$649,000)
- Vehicle Refurbishment (\$50,000)

**FIRE EQUIPMENT**

Reference No.	PROJECT	TOTAL COST	CITY COST	MAINTENANCE COSTS	PROJECTED FUNDING & SOURCE	Figures shown are in thousands of dollars.						
						2016/17	2017/18	2018/19	2019/20	2020/21	2021/22	FUTURE
1	Fire Equipment and Apparatus	1,157,000	1,157,000	NC	100% City	1,157 CF						
2	Fire Equipment and Apparatus	1,180,000	1,180,000	NC	100% City		1,180 CF					
3	Fire Equipment and Apparatus	1,463,000	1,463,000	NC	100% City			1,463 CF				
4	Fire Equipment and Apparatus	1,035,000	1,035,000	NC	100% City				1,035 CF			
5	Fire Equipment and Apparatus	1,521,000	1,521,000	NC	100% City					1,521 CF		
6	Fire Equipment and Apparatus	1,661,000	1,661,000	NC	100% City						1,661 CF	
<b>TOTAL:</b>		<b>8,017,000</b>	<b>8,017,000</b>	<b>NC</b>		<b>1,157</b>	<b>1,180</b>	<b>1,463</b>	<b>1,035</b>	<b>1,521</b>	<b>1,661</b>	<b>0</b>

CF: Capital Fund

NC: No Change

\* This chart shows the identified public structures and improvements in the general order of their priority.

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# PARKS AND RECREATION

## PARKS AND ACTIVITIES



**OLDE TOWN  
PARK**

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## **PARKS AND RECREATION**

The Parks and Recreation section of the CIP has been developed by extracting the action plan from the City's 2008 & 2014 Parks and Recreation Master Plans as well as adding the funding available in the Parks Millage approved by the voters in August, 2008.

The Parks and Recreation Master Plan is required to be prepared in accordance with the Michigan Department of Natural Resources' guidelines. This plan includes a comprehensive review of existing recreation services and facilities, an assessment of citywide recreation opportunities and deficiencies, and identification of long-term recreation goals.

### **PROPOSED PARKS AND RECREATION PROJECTS**

#### **1 Maintenance Equipment and Operations**

Funds are being provided on an annual basis for equipment and general facility upkeep to maintain the expanded infrastructure that has been created. Added in operations for the Special Services Department will be trail and way finding signs for all Parks and Facilities throughout the City. (\$40,000)

#### **2 Heritage Park Historic Buildings**

Improvements and upkeep will continue on the Historic Building in Heritage Park including the Stables, Barn, Spicer House, Caretaker's House, Day Camp Building and the Longacre House. Approved in the 2015-16 capital request was an office expansion at the Nature Center to accommodate additional staff, as well as replacement of the entry window at the Nature Center. The window and office project will be completed in 2016-2017 along with replacement of the Nature Center roof. Also Spicer House boiler replacement and structural support work (\$258,000).

#### **3 Parks & Golf Vehicles 2016/17**

- ¾ ton 4 x 4 Pickup Truck with snow plow (\$37,000).
- Truck, Canyon Pickup - Baseball (\$26,000) 2 of 3
- Trailer, 3 yard dump (\$20,000),

#### **4 Parks & Golf Equipment 2016/17**

- Parks Equipment (\$77,000)
  - JD 1600 Wide Area Mower
  - 60" ZTR Utility Mower -2 of 6
- Golf Equipment (\$67,000)
  - Greens Roller
  - Blower
  - Verdict Greens Mower
  - Range Equipment (Picker, change machine and mats)

## **5 Ice Arena Improvements**

Capital funds will continue to be utilized to update and repair Ice Arena infrastructure and equipment (\$100,00).

## **6 Costick Center Improvements**

Replace boiler systems in Mechanical Room 8 that control and supply heat distribution to Wexford hall, the Northwest Corridor and Conway Hall (\$275,000). Replace office and hallway carpeting (\$30,000). Paint and tuck-point exterior (\$25,000). Replace domestic boiler (\$19,800).

## **7 Founders Park Parking Lot Lights and Playground**

- 2015-16 approved CIP included lights added to the parking lot directly adjacent to the paved lots and the lot next to Riley Skate Park. The project will be completed during the 2016-17 year along with exterior security cameras, electronic display sign and playground structure (\$300,000).

## **8 Parking Lot Improvements-Costick A & B Lot and Entry Drives**

Matching grant opportunities may be available for the following projects through the Michigan Natural Resources Trust Fund (MNRTF) and/or the Land and Water Conservation Fund (LWCF).

- Parking lot repaving and entry drive resurfacing for Costick Center (\$900,000).

## **9 Farmington Hills Golf Club Tee Repair**

Repairs and changes to #5 Tees, #6 Ladies Tee and #13 Tee (\$30,000)

## **10 Acquisition of Park Land**

Various parcels of land could be purchased for parks and/or recreation opportunities, particularly in the northwest and southeast quadrants of the City.

## **11 Costick Center Pool and Performing Arts Space**

A multi-purpose space will be added to the existing facility to house the City's theatre programs, concerts, dances, programs, and special events. Improvements and expansion of the Costick Center Pool will include locker room renovations, mechanical upgrades, a zero-depth entry pool and other water features.

**PARKS & RECREATION**

Reference No.	PROJECT	TOTAL COST	CITY COST	MAINTENANCE COSTS	PROJECTED FUNDING & SOURCE	Figures shown are in thousands of dollars.						
						2016/17	2017/18	2018/19	2019/20	2020/21	2021/22	FUTURE
1	Maintenance Equipment and Operations	225,000	225,000	NC	100% City	40 CF	40 CF	40 CF	35 PM	35 PM	35 PM	
2	Heritage Park Historic Buildings	418,000	418,000	NC	100% City	248 CF; 10 PM	40 CF	30 PM	30 PM	30 PM	30 PM	
3	Parks & Golf Vehicles 2016/17	683,000	683,000	NC	100% City	83 CF	120 CF	120 CF	120 CF	120 CF	120 CF	
4	Parks & Golf Equipment 2016/17	644,000	644,000	NC	100% City	77 CF; 67 GF	100 CF	100 CF	100 CF	100 CF	100 PM	
5	Ice Arena Improvements	600,000	600,000	NC	100% City	100 IF	100 IF	100 IF	100 IF	100 IF	100 IF	
6	Costick Improvements	1,100,000	1,100,000	NC	100% City	320 CF; 30 PM	150 CF					
7	Founders Park Parking Lot Lights and Playground	190,000	190,000	NC	100% City	190 CF						
8	Parking Lot Improvements - Costick A & B Lot and Entry Drives	900,000	540,000	NC	100% City	540 CF						
9	Farmington Hills Golf Club Tee Repairs	38,000	38,000	NC	100% City	38 CF						
10	Acquisition of Park Land	1,500,000	1,500,000	NC	100% City							1,500 PM
11	Costick Center Pool and Performing Arts Space	6,000,000	6,000,000	155,000 AC	100% City							6,000 PM
<b>TOTAL:</b>		<b>\$12,298,000</b>	<b>\$11,938,000</b>	<b>\$155,000</b>		<b>1743</b>	<b>550</b>	<b>540</b>	<b>535</b>	<b>535</b>	<b>535</b>	<b>7,500</b>

O: Other  
 PM: Parks Millage  
 AC: Annual Costs  
 NC: No Change  
 CF: Capital Fund  
 SG: State Grant  
 GF: Golf Fund  
 IF: Ice Fund

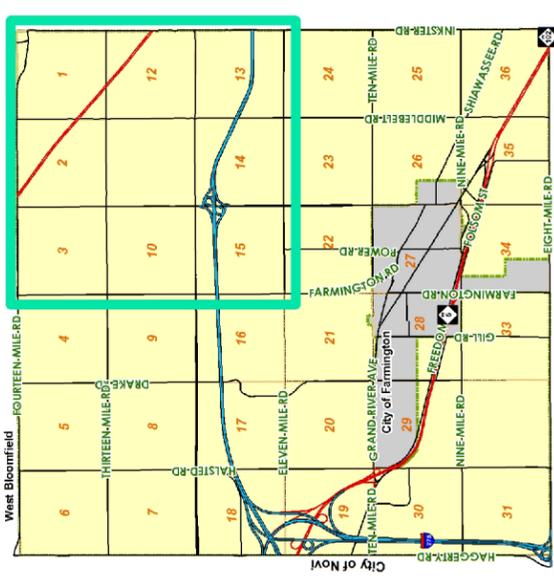
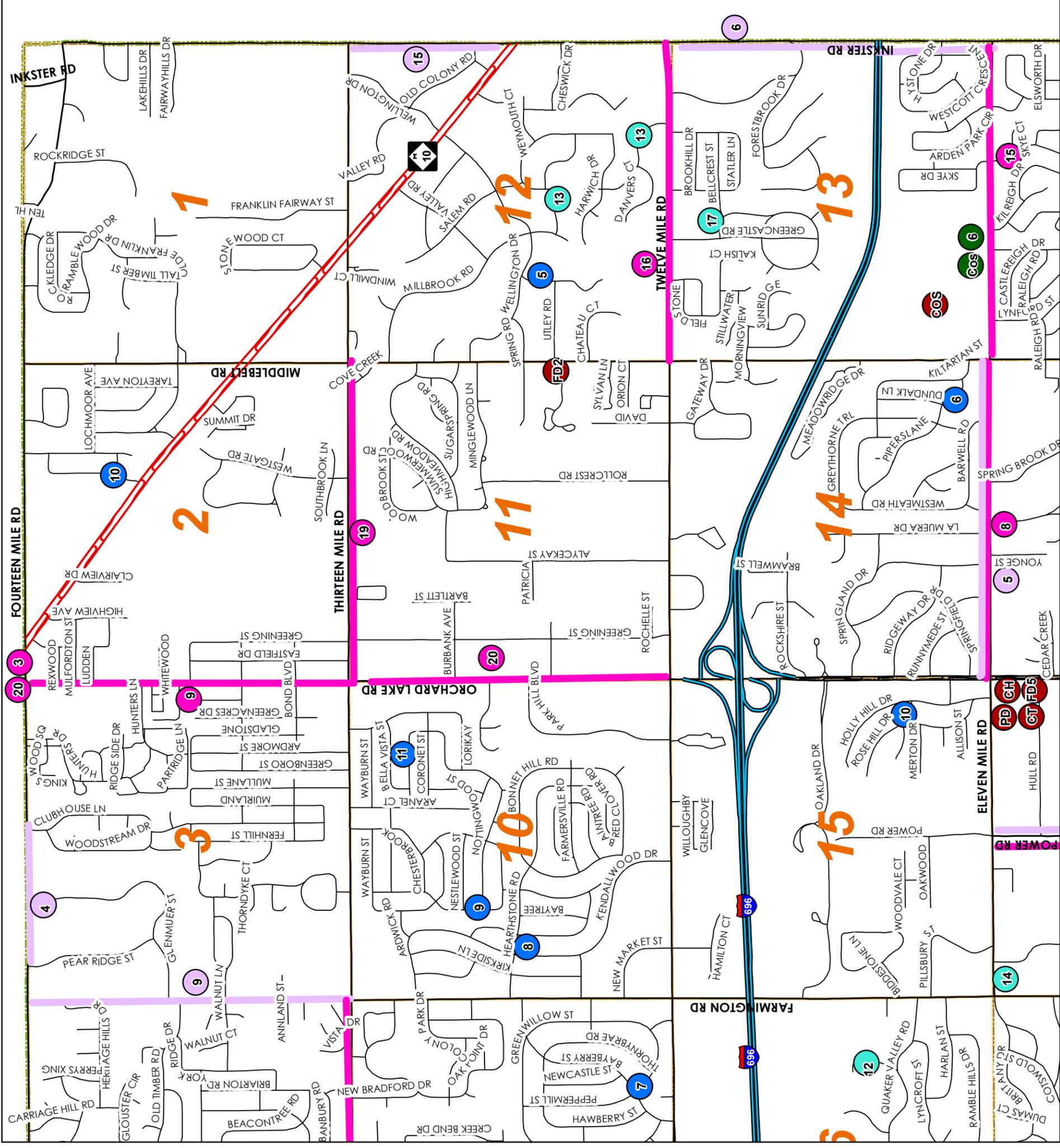
\* This chart shows the identified public structures and improvements in the general order of their priority.

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# CIP Projects 2016/2017 to 2021/2022

## Legend

- Drainage
- Watermain
- Public Facilities
- Sidewalk
- Transportation
- Parks and Recreation



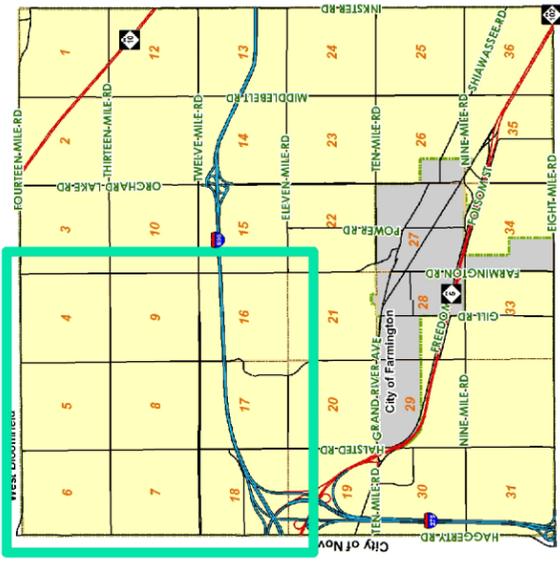
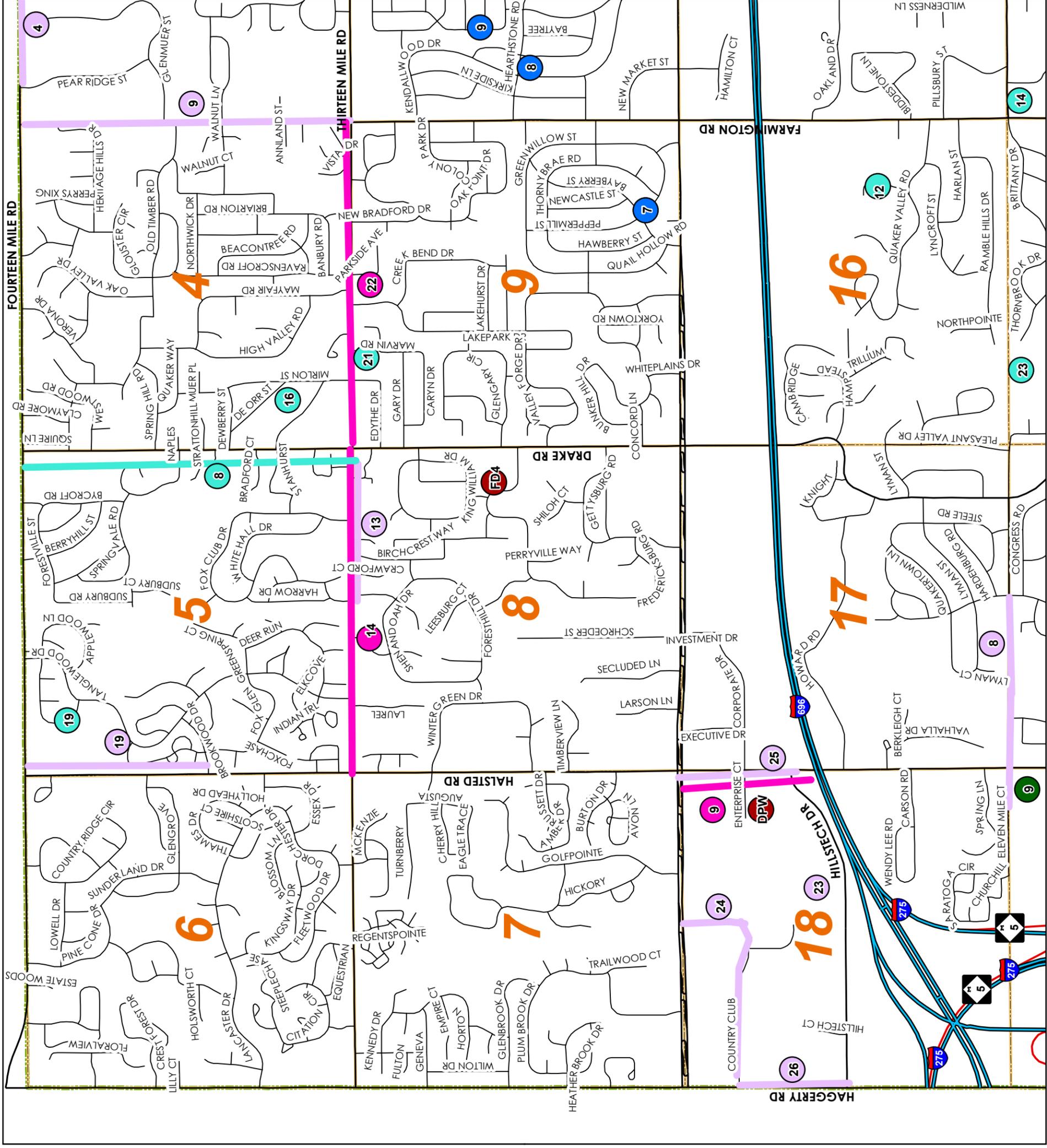
SOURCE: City of Farmington Hills, 2013  
Oakland County GIS, 2013

DISCLAIMER: Although the information provided by this map is believed to be reliable, its accuracy is not warranted in any way. The City of Farmington Hills assumes no liability for any claims arising from the use of this map.

# CIP Projects 2016/2017 to 2021/2022

**Legend**

- Drainage
- Watermain
- Public Facilities
- Sidewalk
- Transportation
- Parks and Recreation



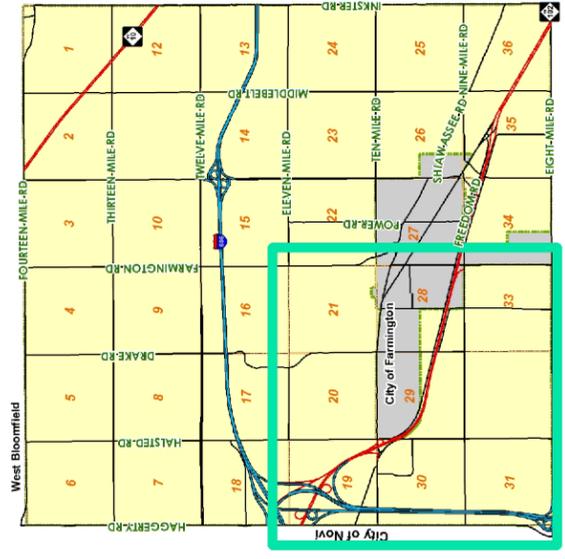
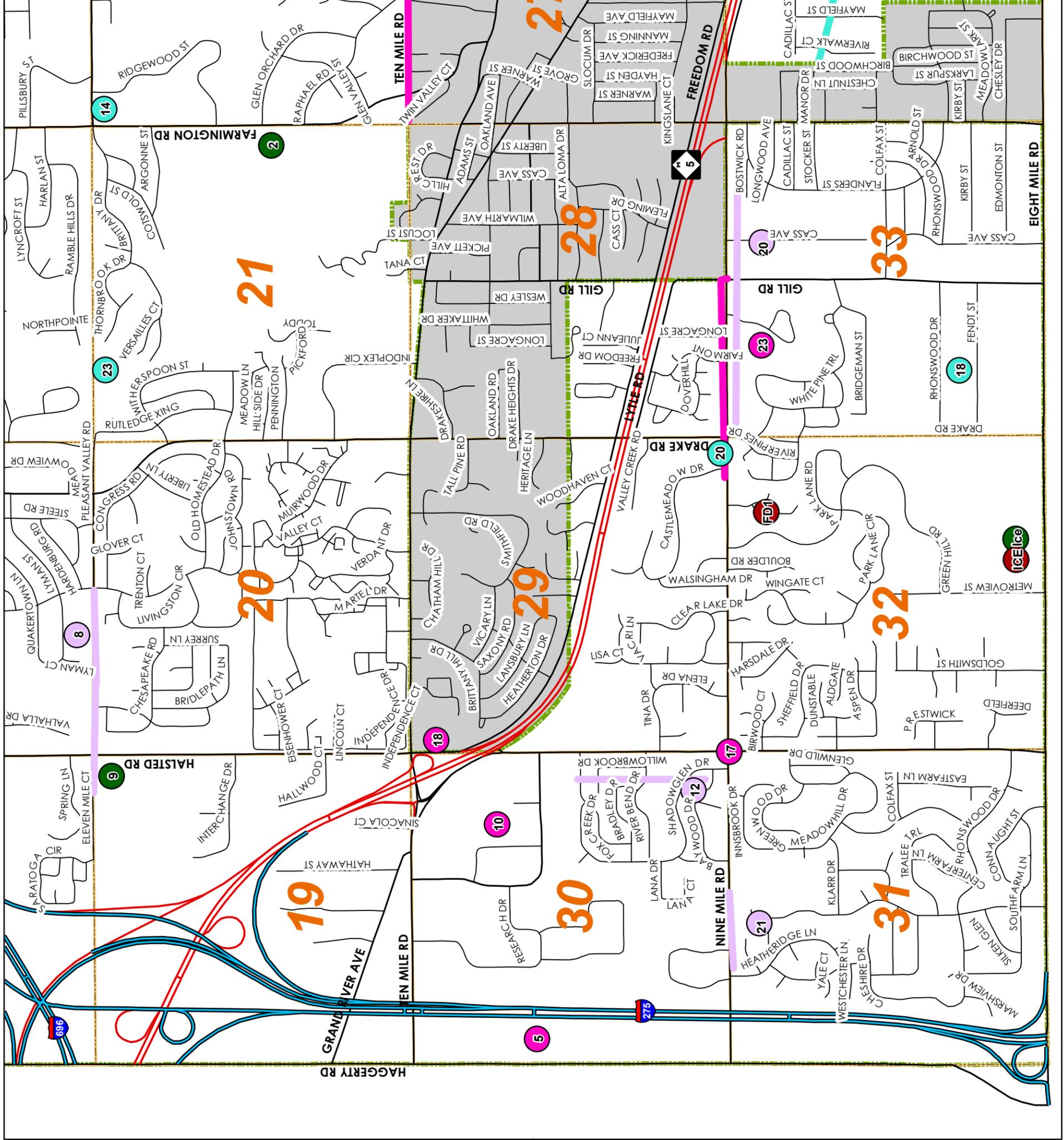
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# CIP Projects 2016/2017 to 2021/2022

**Legend**

-  Drainage
-  Watermain
-  Public Facilities
-  Sidewalk
-  Transportation
-  Parks and Recreation



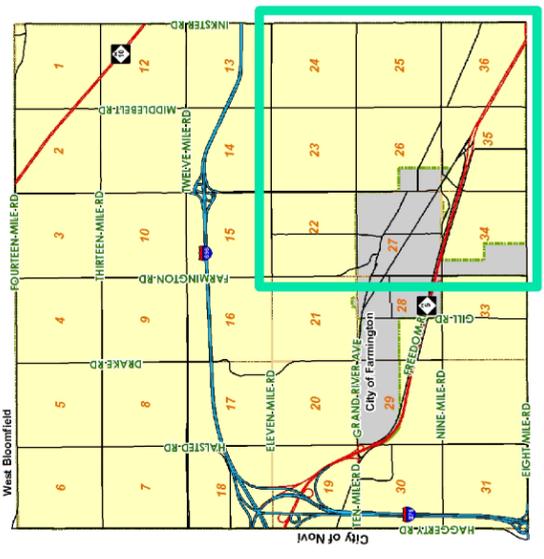
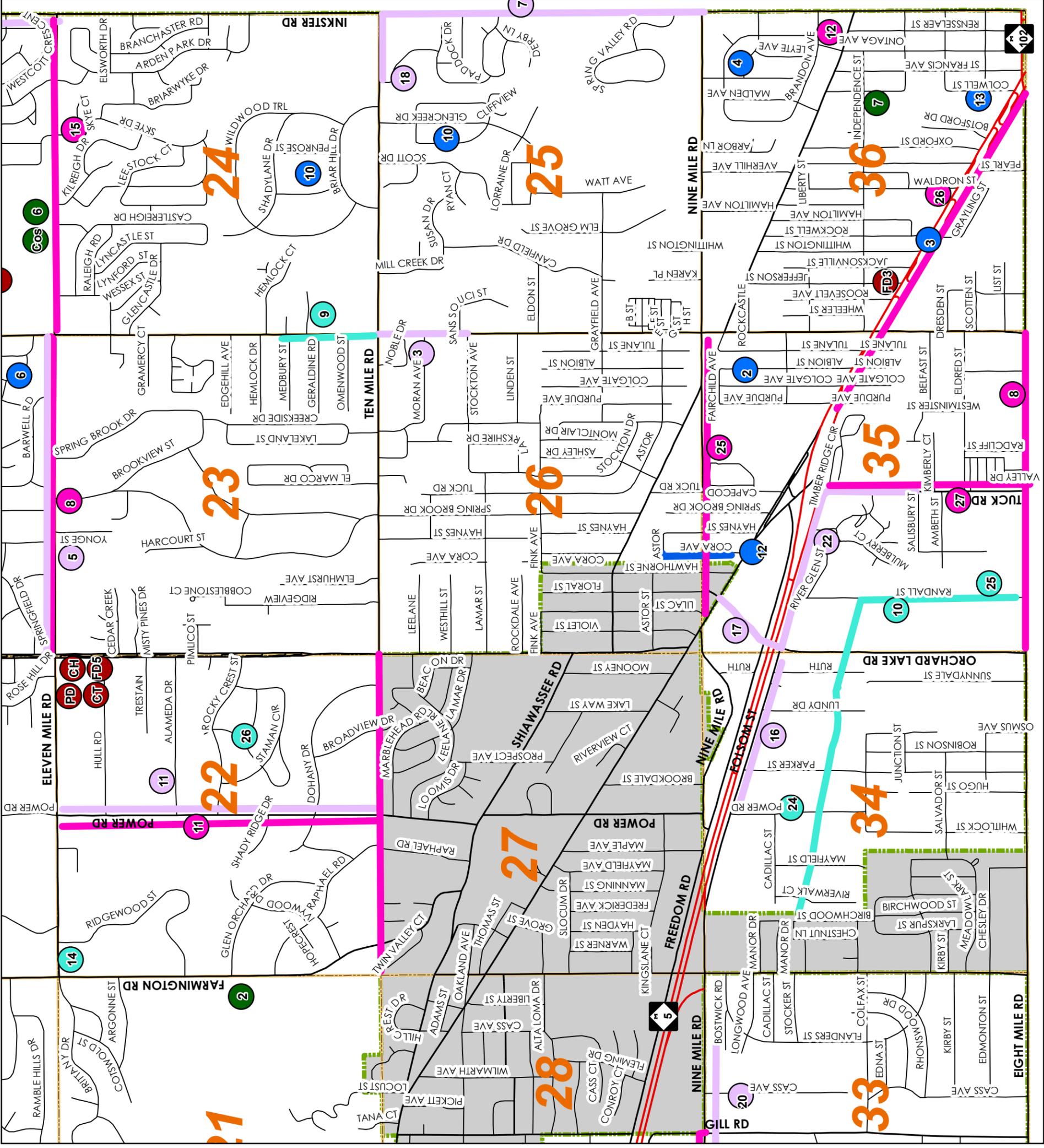
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# CIP Projects 2016/2017 to 2021/2022

## Legend

- Drainage
- Watermain
- Public Facilities
- Sidewalk
- Transportation
- Parks and Recreation



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