



2022-2026 CIP Report

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Glossary

BOWC.....	Board of Water Commissioners
CIP	Capital Improvement Plan/Program/Project (depending on context)
CS.....	Consultant Services
DLBA.....	Detroit Land Bank Authority
DPS	Detroit Public Schools Community District
DTE	Detroit Edison
DWRF.....	Drinking Water Revolving Fund
DWSD	Detroit Water and Sewerage Department (Department)
DWS.....	Department of Water Supply
FY.....	Fiscal Year
GRDC	Grandmont Rosedale Development Corporation
GLWA	Great Lakes Water Authority (Authority)
GSI	Green Stormwater Infrastructure
I&E	Improvement and Extension
MBO	Master Bond Ordinance
NPDES.....	National Pollutant Discharge Elimination System
PASER	Pavement Surface Evaluation and Rating
PDD.....	Planning and Development Department
PW	Public Works
SRF.....	State Revolving Fund
URT	Upper Rouge Tunnel
WS	Water System



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EXECUTIVE SUMMARY

January 1, 2016 marked a new era for the Detroit Water and Sewerage Department (DWSD). The creation of the Great Lakes Water Authority (GLWA), a regional supplier of water and wastewater treatment services, led to the evolution of DWSD as a retail only service provider for the City of Detroit. The new DWSD is solely focused on ensuring affordability and improving service to Detroit customers. Over the past five years, the department has implemented compassionate customer service through staff training and launched the Water Residential Assistance Program. Through improved business practices and outreach efforts to reduce delinquent bills, the department increased the collection rate to 92% (up from 77% in January 2016). This increased collection rate, is equivalent to approximately \$4 million dollars for every percentage point. Increased collections were made possible by offering customers multiple avenues to make payments, including mail, online, in-person, by kiosk, or by phone, as well as through outreach efforts at community partners such as faith-based organizations. As of March 2020, the department no longer processes in-person payments due to the COVID-19 pandemic.

Improved collections allows the department to invest more in the operations, maintenance, renewal and replacement of the water and sewer infrastructure. With respect to operations and maintenance, DWSD has cleaned more than 30,000 catch basins in a 3 year time span; ensured a 98% availability rate for operable fire hydrants, resolved more than 90% of running water complaints in 2 days or less; and repaired 87% of broken water mains reported by customers in 4 days or less. In addition, the department has become

completely paperless, implementing Cityworks for work order management. However, Cityworks would be useless without the investment in updating the Geographic Information System (GIS) which contains the data on the size, length, installation date, location, etc. of the DWSD water and sewer infrastructure. DWSD crews have been trained to use tablets in the field to update the GIS maps.

DWSD launched an aggressive program to renew 1% of the systems infrastructure in July 2017 with the launch of the \$500 million Capital Improvement Program Management Office (CIPMO). The engineering, stormwater management group, construction and facilities teams updated standard details, specifications, and standard operating procedures for all capital construction. This included implementation of e-builder, a construction project management software platform, which digitized the entire construction administration process. All schedules, submittals, invoices, change orders, meeting minutes, and daily inspection reports are housed in e-builder. This allows for more transparency across DWSD divisions such as finance and legal. These efforts involved Public Affairs in creating new procedures for outreach prior to, during and after construction projects and preventative maintenance work.

DWSD also updated the process by which projects are chosen for replacement, creating a water risk model that accounts for break history, probability of lead service lines, materials of construction, age of pipe, capacity, available fire flow etc. and a sewer risk model that includes basement back up complaints, materials of construction, capacity, untreated combined sewer overflow discharge, age of pipe etc. Both models include categories for investments in an area by other municipal agencies (city, state and federal); private corporations or the philanthropic community.

DWSD also performs condition assessments to determine the specific renewal or replacement needs for water and sewer infrastructure. This new program has resulted in the following for calendar years 2018 through 2020:

- 66 Miles of water main replaced (22 miles per year, up from 5 miles per year in 2016)
- 50 miles of sewer lined (17 miles per year, up from 3 miles per year in 2016)
- 1,100 full lead service line replacements
- 75 Miles of water main assessed
- 295 miles of sewer main assessed
- 240 sewer segment capital rehabilitation repairs

DWSD also began an aggressive program to implement green stormwater infrastructure (GSI) for stormwater management in accordance with its National Pollutant Discharge Elimination System (NPDES) Permit issued by the Michigan Department of Energy, Great Lakes, and Environment (EGLE). The permit requires the department to spend \$50 million on GSI implementation by 2029. This requirement was included in the 2008 permit and as of January 2016 the department had only invested \$1.3 million in GSI including demolition of vacant structures in the Brightmoor neighborhood and planting trees throughout Rouge Park and in various westside neighborhoods. At the end of calendar year 2020, the department has constructed 16 GSI projects which manage 61.5 million gallons of stormwater annually. These projects have a capital investment of nearly \$20 million. This included the 2020 project that transformed 10 medians on Oakman Boulevard into bioretention, managing 37 million gallons of stormwater annually. The department's largest GSI project to date will begin construction this calendar year in the Far West neighborhood adjacent to Rouge Park. This project will

manage stormwater for a 218 acre area with detention ponds located in the park. The project is valued at more than \$30 million and will allow the department to meet its permit obligation by 2027; two years earlier than required.

Motivated by visionary leadership and resolute fortitude, DWSD team has been able to accomplish unimaginable heights in five short years. The work has been possible because of a concerted effort to focus on our customers. DWSD proudly presents the 2022 to 2027 Five-Year Capital Improvement Program

I. OVERVIEW

SECTION 1 DETROIT WATER AND SEWERAGE DEPARTMENT

Detroit Water and Sewerage Department (DWSD) is one of the largest water and sewer utilities in the United States, serving more than 235,000 accounts that includes a residential population of nearly 700,000. DWSD's water network consists of more than 2,700 miles of water main and nearly 3,000 miles of sewer collection piping. DWSD has a rich history as a public utility dating back to 1836. Today, DWSD focuses on improving the service of account holders in the city of Detroit. This includes deployment of kiosks for bill payment throughout the city, use of "Improve Detroit" (See-Click-Fix) to report water and sewer issues, and stronger partnerships with other city agencies to address citizen's issues. The source water in the Detroit area is obtained from two sources: Lake St. Clair and the Detroit River.

On January 1, 2016, the City of Detroit began leasing regional water and sewer infrastructure, as well as water and wastewater treatment facilities, to the Great Lakes Water Authority (GLWA). The regional system, built by DWSD, serves 126 municipalities in seven southeast Michigan counties. The agreement between DWSD and GLWA includes a \$50 million annual lease payment for 40 years to replace and rehabilitate DWSD's aging water and sewer system. DWSD continues to retain ownership of the regional assets.

The governance structure of the Authority gives suburban water and sewer customers a substantial collaborative role in the direction of one of the largest water and wastewater utilities in the nation. While GLWA manages and operates all regional water and wastewater wholesale services, DWSD and the other customers retain control of the local water and sewer services within their respective borders. DWSD also acts as an agent of GLWA with respect to rate-setting,

billing, collecting and enforcing local retail charges in the City of Detroit.

1.1. Governance and Board Members

The seven members of the Board of Water Commissioners (BOWC) are appointed by and serve at the pleasure of the Mayor of the City of Detroit. In addition to the qualifications established in the December 15, 2015 Court Order, the City's Charter: (i) prohibits any member of the Board from being a City official or employee, or a principal or employee of a contractor of the City, (ii) requires that a member of the Board be a citizen of the United States and a resident of the State of Michigan, and all seven current commissioners are Detroit residents, appointed by the Mayor.

Four committees have been established: (i) Customer Service, (ii) Human Resources, (iii) Finance, and (iv) Capital Improvement Program and Operations Committee. The BOWC currently consists of:

- *Michael Einheuser, Chairman*
- *Mary E. Blackmon, Vice Chairperson*
- *Lane Coleman, Commissioner*
- *John Henry Davis, Commissioner*
- *Linda D. Forte, Commissioner*
- *Jane C. Garcia, Commissioner*
- *Jonathan C. Kinloch, Commissioner*

1.2. Management Team

To meet the needs of Detroit's residents and businesses, DWSD is led by a Management Team consisting of:

- *Gary A. Brown, Director*
- *Palencia Mobley, P.E., Deputy Director and Chief Engineer*

- *Samuel Smalley, P.E., Chief Operating Officer*
- *Thomas Naughton, Chief Financial Officer*
- *Dan Rainey, Chief Information Officer*
- *Debra Pospiech, General Counsel*

1.3. Service Area and Customer Relationships

The service area of DWSD is primarily the city of Detroit. This includes more than 235,000 customers in a 139-square mile area. However, DWSD does have approximately 200 suburban retail customers. Suburban retail customer are those who lie outside the incorporated limits of the city but are served by the DWSD's local water or sewer infrastructure. DWSD is committed to serving all of its customers, both residential and non-residential, with superior service.

SECTION 2 CAPITAL IMPROVEMENT PLAN

The DWSD Capital Improvement Program (CIP) annually compiles, evaluates and guides future capital investment in programs and projects that will upgrade the Department's aging water distribution and wastewater collection system infrastructure, stormwater management infrastructure, facility improvement and upgrades, as well as the various vehicle and equipment procurements that supports the DWSD systems over a five year timeframe. The CIP ensures mandated projects and rehabilitation of assets necessary to meet permit obligations, funding sources and other regulatory requirements are aligned. Based upon the execution of programs and projects identified in the CIP, existing levels of service currently provided will be met or exceeded.

This CIP should be considered a planning document – the CIP is a dynamic and evolving plan that requires continual review and adjustments as needs become more defined throughout the year. The estimates indicated in the early years of the report are likely more precise than those in the later years. All of which help plan the capital program cash flow needs. The project descriptions and summaries represent a brief synopsis of the entire project scope;

these descriptions are generally more precise for ongoing active projects than for planned new projects, where specific project activities may have yet to be determined.

DWSD has developed a CIP for the next five years that is within the range of \$75 to \$100 million, annually, to accelerate the pace of infrastructure renewal. In fact, the CIP is a major component of the City's larger capital investment strategy designed to:

- Renew and rehabilitate Detroit infrastructure and neighborhoods
- Reconfigure systems to reflect demographic trends and emerging urban plans
- Re-landscape the urban environment to embrace the "greening of Detroit"

A centerpiece of the CIP was the implementation of a CIP program management organization (CIPMO) with responsibility to coordinate and execute capital project planning and implementation across public agencies and private utilities responsible for infrastructure and community development. DWSD through the CIPMO is establishing a sustainable and repeatable process for capital project development and delivery, through updated design standards and utilization of a group of standard Engineers Joint Contract Documents Committee (EJCDC) series documents for construction and professional services. This has been a multi-year process that is intended to produce an annual program that is scalable to relate to DWSD's planned capital budget and infrastructure co-ordination across the City.

As the CIPMO established improved business process workflows, developed standard operating procedures, implemented a cloud based technology infrastructure and delivered designs and construction bid packages, parallel work continued by DWSD staff to implement water, sewer and green stormwater infrastructure projects. DWSD has and will continue to make investments in

equipment, facilities, and technology to improve the level of service to its customers and maximize the life of its assets. Field Engineering Services (FES), which is responsible for water and sewer CIP delivery, is now focusing on transitioning efforts of the CIPMO to internal staff over a two-year period.

DWSD also developed and submitted to State of Michigan Environment, Great Lakes and Energy (EGLE) an Asset Management Program that satisfies the requirements outlined in the Safe Drinking Water Act 1976 PA 399 as amended; R 325 11606. The categories include Asset Inventory, Criticality Assessment, Level of Service Goals, Capital Improvement Plan, Funding Structure and Rate Methodology.

2.1. Calendar

The following are some important dates regarding the DWSD 2022-2026 CIP.

Date	Description
February 2, 2021	Submitted FY2022-2026 CIP Preliminary Draft to GLWA as per Lease Agreement
February 17, 2021	Board of Water Commissioners Meeting- Presented FY2022-2026 CIP Preliminary Draft
April 21, 2021	Present Board of Water Commissioners Meeting- submit draft of FY2022-2026 CIP
May 19, 2021	Board of Water Commissioners Meeting- Proposed Approval of FY2022-2026 CIP
June 25, 2021	Submit BOWC Approved FY2022-2026 CIP to GLWA, FRC and City of Detroit
July 1, 2021	Effective Date of FY 2022-2026 CIP

2.2. Funded Portion of the Programs

The source of funds for the CIP include revenue financing also known as the Improvement & Extension (I&E) fund, bond proceeds, loan, and grant opportunities.

This plan spans a 5-year period from fiscal year 2022 through 2026. The CIP is used as a cash flow prediction and serves as the basis for timing the need for bond proceeds or low-interest loans from the State (SRF) and Drinking Water Revolving Fund (DWRf). Some construction projects are currently funded from prior bond sales settled at bifurcation with GLWA. The sale of bonds and loan applications are authorized jointly by the DWSD and GLWA boards.

DWSD will continue to explore new and creative ways of seeking additional funding, including applying for grants from federal, state and nonprofit organizations.

The CIP review process also includes an extensive review of the total project, or “lifetime” budget, which reflects historical spending prior to, during, and beyond the current 5-year period. The goal of the Department’s capital financing strategy is to align capital project financing sources with multiple objectives including: (1) recovering the costs of capital investment over the useful life of the capital assets; (b) minimizing the impact of the capital programs on water and sewage revenue requirements; (c) protecting and enhancing the Department’s financial position; and (d) minimizing financial impacts through orderly phased implementation. The potential funding source identified for each project is subject to change based upon the systems need and financial resources available at the time.

2.3. Internal Development Process

The CIP development process begins in the fall of each year. The Finance Department’s Asset Management Group sends out CIP request packages and instructions to the Executive Management Team requesting submission of projects and updates to existing

Project Status	Description
New	Project that has never been included in a previous CIP.
Not Yet Started	Project that has been included in the previous CIP, has never had expenditures charged to it and does not have an assigned Oracle Fusion Project Number. Pre-development planning or preliminary engineering in progress.
Under Procurement	Project that has an assigned Oracle Fusion Project Number and has not been issued a Notice to Start Work. Detailed design completed.
Active	Project that has an assigned Oracle Fusion Project Number in the financial system, a Notice to Start Work has been issued, had expenditures in the last fiscal year and has projected expenditures of more than \$100,000 in the current fiscal year. Construction is active or implementation started.
On-Hold	Project that has been suspended, may or may not have an assigned Oracle Fusion Project Number, experienced expenditures or no expenditures in the previous fiscal year(s), and/or has no projected expenditures in the current fiscal year or future fiscal years.
Pending Close-out	Project that has an assigned Oracle Fusion Project Number, a Notice to Start Work has been issued, has projected expenditures for the current fiscal year equal to \$100,000 or less - with no future projected expenditures and has reached substantial completion.

projects. The packages are due back late October then compiled for further internal reviews and financial analysis. Projects are prioritized based on historical trends for those assets as well as service levels. Once developed the CIP is introduced to the BOWC Committees for further review and final approval.

2.4. Project Status Description

A status is assigned to each project within the CIP to show the high level progress from planning to completion. Some projects are divided into multiple phases or categories based upon the contract type. As such, each phase of a multiple phase project will have its own status and contract number. Descriptions of each particular status are provided in Table I-1.

Table I-1. Project Status Descriptions

2.5. Project Categories

Some construction projects are broken up into several phases related to how the particular project will be delivered and managed. Categories may be grouped to align with work to be performed within each individual phase. Individual categories are identified and named below, however, in reality several categories may exist for each phase. In this case, this implies the same vendor, under one contract, will be performing multiple categories of the overall project. The current project categories are identified below.

- S- Study
- D- Design
- C- Construction
- CA- Construction Assistance
- DB- Design and Build
- DBA- Design Build Assistance
- CM- Construction Management
- MOU- Memorandum of Understanding Agreements
(coordination with other City of Detroit departments, utilities
or other agencies)
- PO- Purchase Order

CIP Types

Multiple CIP types are necessary to distinguish the differences in intent of how a particular CIP is to be used. This CIP contains three primary CIP types; Project, Program and Allowance. A typical project that has a specific scope and timeframe is considered a Project. Whereas Programs and Allowances do not have specifically developed scopes and typically extend over many years. Allowances are necessary for utility operations due to the unanticipated nature of pipeline and equipment failures that require immediate repair and rehabilitation to continuously meet level of service requirements. Table I-2 CIP Types defines each CIP Type.

Table I-2. CIP Types

CIP Type	Description
Project	A "Project" consists of the replacement and/or rehabilitation of specific capital assets within a finite timeframe and scope.
Program	A "Program" consists of the replacement and/or rehabilitation of specific capital assets on an ongoing or recurring basis. The program scope and/or projected expenses may vary from year-to-year depending on the needs identified within the program and as newly established programs develop consistent schedules, requirements and history over time. Although not typically identified in the CIP futures years projected expenses, these programs will typically be funded in perpetuity.
Allowance	An "Allowance" consists of unanticipated replacement and/or rehabilitation of currently unidentified capital assets. Engineering studies, evaluations, testing, construction assistance directly related to the unforeseen replacement or rehabilitation are also included in the projected expenses.

II. CAPITAL IMPROVEMENT PLAN

SECTION 1 APPROVAL PROCESS

The CIP development and approval process begins with the approval of the previous year's CIP. The CIP process is a substantial level of effort that involves many people throughout the Department. Modifications, adjustments and improvements are being continuously considered and vetted internally and externally, in coordination with other City of Detroit agencies, utilities, or other system customers. Projects and programs that ultimately get funded within the CIP are typically identified based upon master planning or condition/need assessment efforts. Projects also are identified internally based upon the needs of engineers, operations or maintenance staff. The process typically begins in the fall of each year where project managers review project needs through the completion of the Capital Improvement Plan Project Proposal (CIPPP). CIPPP's are due to the Chief Engineer by the end of October. At this time, the Chief Engineer will make requests to Finance to issue CIP numbers for each project that can be added as new projects to the CIP. Preparation of a draft of the CIP and back-up documentation is reviewed internally with Management, and other city agencies as required. DWSD's CIP upcoming capital budget is submitted to the City of Detroit, Office of the Chief Financial Officer in November for presentation to the Detroit City Council for the City's five year CIP Budget.

The Preliminary Draft CIP is introduced to the BOWC no later than its February Capital Improvement Committee meeting. An approval version of the CIP is presented to the BOWC by its May meeting. In accordance to the Lease Agreement with GLWA the DWSD preliminary draft CIP is submitted to the GLWA Chief Planning Officer and Manager of Capital Programs on February 1. If necessary an updated version will be adopted by the BOWC at its February meeting, and a final CIP document will be submitted to GLWA on

March 1. At this point, it is expected that the CIP approval process coincides with the overall budget development process.

SECTION 2 FINANCIAL PLAN INTRODUCTION

The Fiscal Year 2022-2026 CIP is planned for approval submission to the Board in May 2021. The following table details the planned expenditures and the projected funding sources for the Fiscal Year 2022-2026 CIP. Expenditures are focused on replacement, installation and/or abandonment of existing water mains, replacement of inoperable fire hydrants, rehabilitation of sewer systems, management of storm water with green infrastructure, upgrades to information technology systems, replacing aging equipment and vehicles, as well as rehabilitation of facilities that support the operation of the utility. The Department will finance its ongoing CIP with proceeds of existing bonds, future bond issues by the GLWA on behalf of DWSD, lease payments from GLWA, federal and state grants, loans and revenues of the Water Supply and Sewer System.

The DWSD CIP financing plan balances a number of objectives to support the Departments' mission to efficiently deliver the best retail water and sewer services in partnership with our customers through excellence in service and collaboration. Those objectives include the following.

- ✓ Working with a cross-functional team, identify and fund prioritized capital improvements to ensure a sustainable system.
- ✓ Recover the costs of capital investment over the useful lives of the capital assets.
- ✓ Minimize the financial impact of the capital programs on system customers.

- ✓ Protect and enhance the Departments' financial position.

The DWSD works with the Authority to draw upon four sources of revenue for its capital improvement plan.

1. **Bond Proceeds:** The Authority uses an incremental method of funding long-lived capital projects through a bond financing program rather than funding all projects in advance. The Authority issues revenue bonds pursuant to Michigan Public Act 94 of 1933 (the Revenue Bond Act). The Act provides a pledge of "net revenues" for the payment of the bond principal and interest. "Net revenues" means the revenues of the system remaining after deducting the reasonable expenses of administration, operation, and maintenance of the system.
2. **Revenue Financed Capital:** Based upon ongoing expense, capital, and revenue optimization efforts, the DWSD is able to build reserves to fund pay-as-you go capital for shorter-lived and lower-dollar capital expenditures.
3. **Federal Loan Programs:** The Authority's sources of funding includes lower cost financing programs including the State Revolving Fund (SRF) Loan program and the Drinking Water Revolving Fund (DWRf) Loan program. The lease agreement with the City of Detroit provides for use of SRF and DWRf for the benefit of the City of Detroit Local System. While the Authority is responsible for the debt service on bonds issued to finance capital improvements to the DWSD Local Water and Sewer System, the annual principal and interest requirements are included in the revenue requirements assigned to the City of Detroit retail customer class.
4. **Grants:** The DWSD utilizes public grants programs such as those available from the Environmental Protection Agency, Housing and Urban Development, as well as nonprofit organizations who fund programs in partnership with DWSD through the Detroit Economic Growth Corporation. DWSD

will continue to pursue opportunities which meet the mission of the organization to provide safe drinking water, reliable customer service and environmental integrity.

To ensure proper accountability of funding sources and uses, the Department utilizes two funds for its capital program for each system: the Construction Bond Fund and the Improvement & Extension (I&E) Fund.

- ✓ **Construction Bond Fund:** This fund represents the proceeds of bond issuances for the purposes of financing capital improvements.
- ✓ **Improvement & Extension Fund:** I&E fund is defined by the Water and Sewer Service Agreements as the "fund used for improvements, enlargements, extensions or betterment" of the System. Cash receipts of the Department are transferred into the I&E Fund pursuant to a flow of funds after commitments are met for a monthly allocation of System operations and maintenance expense, debt service, pension, water residential assistance program, budget stabilization fund, and extraordinary repair and replacement fund as administered by a trustee.

It should be noted that the basis of accounting for the CIP is the accrual basis. Under this basis of accounting, revenues are recognized when earned and measurable regardless of when collected; and expenses are recorded, or accrued, on a matching basis when incurred. Accrued expenses are expected to be paid in a subsequent accounting period. For purposes of this CIP, expenses and expenditures are used interchangeably.

SECTION 3 SUMMARY CIP FINANCIAL PLAN REVIEW & ANALYSIS

The FY 2022 – FY 2026 capital improvement plan provides for \$216 million of water system improvements and \$210 million of sewer system improvements over the five year planning cycle.

Table II-1. CIP Categories

Category Summary	% of 5-Year Spend	FY 2021	FY 2022	FY 2023	FY 2024	FY 2025	FY 2026	Total 5-Year 2022-2026
Water Main	33%	42,985	50,680	40,000	21,750	15,750	10,750	138,930
Sewer Line Replacement	30%	28,367	46,918	32,525	21,025	14,000	14,000	128,468
CIPMO	1%	8,280	5,590	-	-	-	-	5,590
Green Infrastructure	12%	12,470	14,773	11,723	8,843	9,995	6,995	52,329
Central Services	10%	23,912	13,970	8,235	6,500	6,500	6,500	41,705
Meters/ Fire Hydrants	3%	8,767	8,701	1,000	1,000	1,000	1,000	12,701
Repair/Restoration	11%	20,973	13,113	11,000	12,800	8,720	1,000	46,633
	100%	145,754	153,745	104,483	71,918	55,965	40,245	426,356
Water	59.1%	86,080	80,661	54,918	37,800	27,720	15,000	216,099
Sewer	40.9%	59,674	73,083	49,566	34,118	28,245	25,245	210,257
	100.0%	145,754	153,745	104,483	71,918	55,965	40,245	426,356

SECTION 4 THE PROJECT PROCESS

4.1. Project Identification

Currently, projects to be considered for inclusion in each year of the CIP are identified by the subject matter expert engineers, project managers or operations managers. These engineers and managers utilize available institutional knowledge, data, operations and maintenance reports, need and condition assessments and master plans to identify the project need. Many come from projects that are already in the planning process or have been designed but not yet constructed. Others were recommended by staff or chosen based on work being planned by the public works, planning, parks and recreation, or the housing and revitalization departments in the City of Detroit. Some are driven by regulatory requirements. Some originated from several sources.

4.2. Project Proposals

DWSD has a CIP project proposal template which is used to provide the background/history for the project, proposed and alternative solutions, along with the budget and schedule for a project. The process by which projects are submitted and evaluated for inclusion in the CIP has been revamped under CS-1812 CIPMO. DWSD now manages all of its water and sewer CIP works through cloud based platform, e-Builder; with all program related tracking information, key performance indicators and documents submittals done in this project management information system. Over the next fiscal year, DWSD intends to have all other divisions manage their CIP within e-Builder.

In addition, the CIPMO in conjunction with the Field Services PMO has developed an asset management program for DWSD to use to select and prioritize projects for inclusion in the CIP. This ability to forecast the tentative assessment, design and construction timelines for neighborhoods is a valuable piece of the information sharing done under the Infrastructure Coordination Team, which consists of other

City of Detroit Agencies (e.g. DPW) and private sector utilities (e.g. DTE).

4.3. Project Prioritization

In the 2021-2026 CIP, projects are prioritized based on a risk model that provides a data-driven quantitative framework for both water and sewer assets, ensuring that risk assessments are defensible, consistent, and repeatable. Asset risk is computed and then aggregated on a neighborhood basis. Finally, priority neighborhoods are selected by overlaying neighborhood risk with strategic and planning-level criteria (external factors) such as Strategic Neighborhood Fund (SNF) areas, Department of Public Works (DPW) projects, federally funded projects, and previous Capital Improvement Program Management Organization (CIPMO) work. The risk model will continue to evolve over time, reflecting improvements in existing data and new data sources as well as changes due to DWSD's desired representation, understanding, and tolerance of business risk.

With respect to green stormwater infrastructure, a variety of factors are used to determine the priority of a project. This includes, reports of street flooding, basement backup claims data, community engagement/neighborhood participation, and site location. As of this CIP, projects in the Upper Rouge Tunnel have a higher priority than those in other areas of the city.

Inherent in the prioritization process is the ability to leverage dollars in an efficient way. Thus, when and where possible projects may be worked into the capital construction programs of DPW, DTE, or other agencies such as Wayne County and the State of Michigan Department of Transportation.

III. CAPITAL IMPROVEMENT PROJECTS

The DWSD CIP is organized by three categories: water system, sewer system, and centralized services. Projects in the water category are primarily for water main replacements, residential metering and the fire hydrant replacement program. Projects in the sewer category include rehabilitation of the sewer infrastructure and green stormwater infrastructure. Centralized services are allowances that facilitate improvements that benefit the support of both the water and sewer business with the purchase of fleet and heavy equipment, rehabilitation and improvements to facilities, and information technology upgrades to facilitate operations and implementation of the capital programs. The following pages provide an overview of the projects types in each category and individual project descriptions for most of the projects in this CIP.

There are 40 projects listed in the water portion of this CIP. This includes 32 Field Services projects and programs, 4 water meter replacement related program, a fire hydrant replacement program, and 3 Central Services projects. Following this explanatory portion is a list of the projects with estimated costs, a set of maps displaying locations where the work for the projects will take place, and a list of the locations of the projects on the map.

1.1. Water Field Services

On the following pages, there are maps which denote the water main replacement projects in this year's CIP. DWSD has 6 active construction contracts, two of which will be completed before FY22 begins. These projects at their completion will result in the reconstruction of nearly 20 miles of water main. There are 4 projects in the procurement phase which at their completion will result in the reconstruction of 22 miles of water main.

In addition, there are 200 miles of pipe that are being evaluated for inclusion in future construction contracts. Of this, 75 miles are designed but may not meet all the criteria to warrant replacement at

this time. The remaining 125 miles are segments of main submitted by the Field Services Maintenance and Repair Division for replacement or have been submitted by DPW as roads that will be resurfaced in the 2021 and 2022 construction season. Once awarded, DWSD will use a consultant engineering firm, Contract CS-1921, to design water mains. Based on previous project sizes, DWSD anticipates the new water main replacement contracts identified to begin in FY22 and beyond to replace 20 miles of water main annually.

Contract CS-1812 as discussed previously, will accelerates the renewal rate of water main replacement to 30 to 45 miles per year. The pilot areas that are being evaluated by the CIPMO are also shown in the following pages. **Page XX**

Customer Meter Replacement Program

DWSD replaces customer meters annually. There are more than 200,000 meters in the DWSD service area. Meters range in size from 5/8" to less than 24" in diameter. Meters are replaced for a variety of reasons, including failure due to age or other malfunctions. Meters generally have a life expectancy of 10 to 20 years, but this varies based on the volume of water that passes through the meter, which increases the wear and tear on the mechanical components. Thus decreasing the accuracy of the meter, which in turn becomes non-revenue water. It is in DWSD's interest to proactively schedule planned replacement of meters and associated equipment to ensure accurate billing for water consumed. This also improve the accuracy of sewer billings as well.

DWSD will also investigate new metering technologies. Newer technologies have capabilities such as remote shut off which has the ability to reduce operations and maintenance cost associated with locating the curb stop to terminate service. This would ultimately

reduce surface restoration costs, when a curb stop has to be excavated to complete the shut.

1.2. Fire Hydrant Replacement Program

In FY17 DWSD began the implementation of a robust fire hydrant inspection, repair and replacement program in a partnership with the Detroit Fire Department (DFD). This program has resulted in DWSD replacing approximately 150 hydrants each year that are found inoperable from DFD conducting inspections. This program allowed DWSD to test the integration of the Geographic Information System (GIS) with the Work Asset Management (WAM) system and institute a paperless repair and replacement process. With this program, less than 3% of the 30,000 hydrants within the city are in need of repair. This program is also one component of the city's project to improve the city's Insurance Services Office (ISO) fire protection score. The City of Detroit received an ISO rating of Class 04 in 2015 and as a result of the cooperation and partnership between the two departments, the City of Detroit received an ISO rating of Class 02 in 2018.





Table III-1. Water CIP Projects

Total estimated cost (1000's)

Water Project List 2022-2026 CIP

Description	Status	Source of Funds	2021-22	2022-23	2023-24	2024-25	2025-26	2022-2026 CIP Total	Percent of CIP
WS-703 Water Main Replacement (33,820 LF)	C	I&E	-	-	-	-	-	-	0.0%
WS-704 Water Main Replacement -along Outerdrive	C	Bond	-	-	-	-	-	-	0.0%
WS-705 Water Main Replacement-2-sections	C	Bond	-	-	-	-	-	-	0.0%
WS-706 Water Main Replacement Wayne Co. Roads	C	Bond	-	-	-	-	-	-	0.0%
WS-707 Water Main Replacement- (20,000LF)	C	Loan (DWRf)	-	-	-	-	-	-	0.0%
WS-710 Water Main Replacement-Incl Wayne Co Roads	A	Loan (DWRf)	1,000	100	-	-	-	1,100	0.5%
WS-711 Water Main Replacement- Incl Jefferson Streetscape	A	Loan (DWRf)	4,200	1,000	-	-	-	5,200	2.4%
WS-712 Water Main Replacement-Cornerstone Village	A	I&E/Bond	7,630	3,500	-	-	-	11,130	5.2%
WS-713 Water Main Replacement-Jefferson/Chalmers	N	DWRf	7,500	7,500	-	-	-	15,000	6.9%
WS-714 Water Main Replacement-MDOT Streetscape	C	DWRf	-	-	-	-	-	-	0.0%
WS-715 Pilot Areas-Riverdale, Minock, Miller & Rosedale	N	DWRf/I&E	6,900	7,000	3,000	-	-	16,900	7.8%
WS-718 WM New Center Commons & Virginia Park	N	DWRf/I&E	2,300	-	-	-	-	2,300	1.1%
DWS-907 Watermain & Sewer Rehab- North Rosedale Park	A	I&E/Bond	5,000	-	-	-	-	5,000	2.3%
WS-720 Watermain Replacement-Various Streets	N	I&E/Bond	3,100	6,000	3,000	-	-	12,100	5.6%
WS-721 Lead Service Line Replacement	N	I&E/Bond	6,000	5,000	-	-	-	11,000	5.1%
WS-723 Lead Service Line Replacement for Settlements	N	Grant/Legal Settlements	800	200	-	-	-	1,000	0.5%
WS-725 Watermain Replacement-Medical Ctr, Cultural Ctr & Midtown 30,000LF	N	DWRf/Bond	-	4,000	5,000	5,000	-	14,000	6.5%
WS-702 Repair & Replacement of Water Mains	A	I&E	-	-	-	-	-	-	0.0%
WS-708 Repair of Water Mains	A	I&E	-	-	-	-	-	-	0.0%
WS-717 Repair & Replacement of Water Mains (WS-702B)	N	I&E	4,000	3,000	3,000	3,000	-	13,000	6.0%
WS-719 Repair of Water Mains (WS-708/WS-702A)	N	I&E	-	-	2,000	2,000	-	4,000	1.9%
DWS-902 Repair of Pavement (break repair)	A	I&E	1,920	-	-	-	-	1,920	0.9%
DWS-904 Repair of Lawns (break repair)	A	I&E	1,500	-	-	-	-	1,500	0.7%
DWS-919 (replace DWS-902)	N	I&E	4,080	6,800	6,800	2,720	-	20,400	9.4%

C = Closed, A = Active, P = Procurement, N = New, H = On Hold



Total estimated cost (1000's)

Water Project List 2022-2026 CIP (Cont'd)

Description	Status	Source of Funds	2021-22	2022-23	2023-24	2024-25	2025-26	2022-2026 CIP Total	Percent of CIP
PC-808 West Warren (Constance at Rouge Park/Tireman Sawyer PH III)	P	I&E	4,000	3,700	-	-	-	7,700	3.6%
CS-1909A -Condition Assessments-High Priority Neighborhoods	N	I&E	250	-	-	-	-	250	0.1%
CS-1921 Watermain/Sewer Design	N	I&E	1,000	1,000	1,000	-	-	3,000	1.4%
CS-1923 Third Party Inspection (Water & Sewer)	N	I&E	750	750	750	-	-	2,250	1.0%
CS-1947 Condition Assessment Sherwood Forest,	N	I&E	250	250				500	0.2%
CS-1812 Professional Engineering and Construction Services for CIPMO	A	I&E/Bond	2,795	-	-	-	-	2,795	1.3%
Construction Program Management Allowances	N	I&E	-	-	1,000	750	750	2,500	1.2%
Watermain Program Allowances	N	I&E	-	-	8,000	10,000	10,000	28,000	13.0%
PC-803B Meter Installation	A	I&E	-	-	-	-	-	-	0.0%
Water Meter Replacement Program	A	I&E	451	750	750	750	750	3,451	1.6%
Fire Hydrant Replacement Program	A	I&E	250	250	250	250	250	1,250	0.6%
CS-1925 Itron Migration -MIU Replacement	A	I&E	5,931	-	-	-	-	5,931	2.7%
CS-1926 Itron Migration Project Management	A	I&E	2,069	-	-	-	-	2,069	1.0%
Vehicle, Heavy Equipment, and Equipment Purchases	A	I&E	1,335	1,500	1,500	1,500	1,500	7,335	3.4%
Information Technology	A	I&E	1,890	1,618	750	750	750	5,757	2.7%
Facility Improvement Allowance	A	I&E	3,761	1,000	1,000	1,000	1,000	7,761	3.6%
TOTALS			80,661	54,918	37,800	27,720	15,000	216,099	100.0%

C = Closed, A = Active, P = Procurement, N = New, H = On Hold



SECTION 2

SECTION 2 SEWER

There are 40 projects listed in the Sewer portion of this CIP. This includes 11 Green Infrastructure projects and programs, 26 Field Services projects and programs, and 3 Central Services projects and programs. Following this explanatory portion is a list of the projects with estimated costs, a map displaying locations of Green Infrastructure projects, and descriptive sheets for Green Infrastructure projects.

2.1. Sewer Field Services

DWSD has rehabilitated 15% of the 3,000 miles of sewer infrastructure through the non-invasive method of lining. In two previous fiscal years, the rate of renewal of the sewer infrastructure decreased due to financial constraints. With the execution of the lease agreement with GLWA, DWSD issued a new contract valued at \$20 million annually to rehabilitate the sewer system. Tasks are selected for the contractor based on water in basement claims and complaint data, as well as reports of cave-ins and sinkholes. The contractor will inspect via physical or robotic means and provide photo or video evidence of the results. The contractor will also submit a report with recommendations for rehabilitation of the sewer and manholes. DWSD will review all results and reports and issue a notice to proceed with the work as approved by the project engineer.

2.2. Combined Sewer Overflow (CSO) Control

Grey CSO Control

GLWA operates all wet weather (combined sewer overflow) facilities and associated appurtenances which serve DWSD and other Authority customers. There are 6 retention treatment basins and 3 screening and disinfection facilities. Of these only one facility, the Belle Isle CSO, solely serves the City of Detroit. Any grey CSO control

projects will be found in the GLWA CIP document. DWSD's share of the cost for projects is allocated in the annual charges assigned by GLWA to its customers. Based on the 1999 Rate Settle Agreement, DWSD customers pay 83% of the cost for CSO facilities deemed to primarily serve the City of Detroit; with the exception of the Belle Isle CSO facility of which the cost is borne 100% by Detroit ratepayers.

Green Stormwater Infrastructure for CSO Control

In 2008, DWSD was set to construct a tunnel to parallel the Rouge River to provide storage of combined sewage to eliminate untreated discharges. However due to financial constraints, the nearly \$1 billion tunnel project was replaced with a \$50 million GSI program. The issuance of the March 2013 NPDES Permit resulted in a commitment by DWSD to implement green stormwater infrastructure in the Upper Rouge Tunnel area of Detroit. The permit requires a \$30 million investment by 2019 with the remaining \$20 million investment completed by 2029.

The permit also includes a goal to remove 2.8 million gallons of stormwater from the combined sewer system. To date, projects implemented by DWSD, designed to manage the 2-year, 24-hour event (i.e. 2.34" of rainfall), have removed about 1.5 million gallons of stormwater in the URT. City wide, removal of impervious cover via demolitions and construction of GI practices on private property in conjunction with DWSD projects is estimated to remove 3 billion gallons of stormwater from the system annually.

In previous years, the DWSD CS-1522 GI Program Manager has issued the construction contracts for projects; however, in an effort to meet the spending requirements of the permit, DWSD will bid and award the remaining projects. Descriptions of both active construction projects and those in the design phase which will be procured this fiscal year are provided on the pages that follow.

2.3. Pump Stations

There are four wastewater pump stations 3 of which service the City of Detroit only; (1) Belle Isle, (2) Fischer, and (3) Woodmere. (4) Bluehill serves Detroit and suburban customers. GLWA operates and maintains these pump stations via a shared service executed with DWSD. At this time, the need for capital investments in these facilities

has not been identified. Upon receipt of the annual maintenance report from GLWA, DWSD will determine needs and program projects accordingly.

Table III 6. Sewer Projects

Total estimated cost (1000's)

Sewer Project List 2022-2026 CIP

Description	Status	Source of Funds	2021-22	2022-23	2023-24	2024-25	2025-26	2022-2026 CIP Total	Percent of CIP
DWS-903 Inspection and Rehabilitation of Sewers City Wide	A	I&E/ Bond	7,000	-	-	-	-	7,000	3.4%
DWS-907 North Rosedale Park	A	I&E/ Bond	1,013	-	-	-	-	1,013	0.5%
DWS-908 Cornerstone Village Sewer Rehab	A	I&E/ Bond	2,693	-	-	-	-	2,693	1.3%
DWS-909 Sewer Condition assessments throughout City	C	I&E	-	-	-	-	-	-	0.0%
DWS-910- Sewer Condition Assessments High Priority	C	I&E	-	-	-	-	-	-	0.0%
DWS-916 Sewer Improvements in High Priority Neighborhoods	A	SRF/ Bond	2,600	-	-	-	-	2,600	1.2%
DWS-917 Sewer Improvement in Riverdale	N	SRF/ Bond	5,000	4,800	300	-	-	10,100	4.8%
DWS-918 Sewer Improvements in Rosedale	N	SRF/ Bond	4,450	450	-	-	-	4,900	2.4%
DWS-920 Inspection and Rehabilitation of Sewers City Wide (Replace DWS-903)	N	I&E	3,000	8,000	4,000	-	-	15,000	7.2%
DWS-921 Electrical Monitoring Upgrades at Belle Isle, Woodmere, Fischer Sewage Pump Stations	P	I&E	200	200	200	-	-	600	0.3%
DWS-926 Sewer Condition Assessments - West Village, Southwest Detroit, Michigan-Martin	P	I&E	-	2,500	2,500	-	-	5,000	2.4%

C = Closed, A = Active, P = Procurement, N = New, H = On Hold



Total estimated cost (1000's)

Sewer Project List 2022-2026 CIP

Description	Status	Source of Funds	2021-22	2022-23	2023-24	2024-25	2025-26	2022-2026 CIP Total	Percent of CIP
DWS-931 Roofing Upgrades at Sewage Pump Stations	P	I&E	325	325	275	-	-	925	0.4%
DWS-932 Large Sewer Improvements: Riverdale & Rosedale	P	I&E/Bond	4,400	400	-	-	-	4,800	2.3%
DWS-933 Corktown Sewer	C	I&E			-	-	-	-	0.0%
DWS-937 Sewer Replacement	N	DWRF/I&E	8,000	7,600	-	-	-	15,600	7.4%
DWS-938 Sewer Condition assessments throughout City (DWS-909)	N	DWRF/I&E	2,250	2,250				4,500	2.1%
DWS-939 Sewer Condition Assessments High Priority	N	DWRF/I&E	2,250	2,250				4,500	2.1%
Sewer Program Allowances	N	I&E	-	2,000	12,000	14,000	14,000	42,000	20.0%
CS-1812 Professional Engineering and Construction Services for Capital Improvement Program Management Organization	A	I&E/ Bond	2,795	-	-	-	-	2,795	1.3%
DWS-902 Repair of Pavement (break repair)	A	I&E	75	-	-	-	-	75	0.0%
DWS-904 Repair of Lawns (break repair)	A	I&E	338	-	-	-	-	338	0.2%
DWS-919 (replace DWS-902)	N	I&E	1,200	1,200	-	-	-	2,400	1.1%
Repair and Maintenance Allowance	N	I&E	-	-	1,000	1,000	1,000	3,000	1.4%
CS-1921 Watermain/Sewer Design	N	I&E	1,000	1,000	1,000	-	-	3,000	1.4%
CS-1923 Third Party Inspection (Water & Sewer)	N	I&E	750	750	750	-	-	2,250	1.1%
CS-1522 Green Infrastructure Program Management	C	I&E	-	-	-	-	-	-	0.0%
PC-799 Crowell Rec Center and EcoSite Modifications	C	I&E	3	-	-	-	-	3	0.0%
PC-808 West Warren (Constance at Rouge Park/Tireman Sawyer PH III)	N	I&E	10,040	7,650	6,280	3,995	995	28,960	13.8%
PC-808 Sewer Rehabilitation (Non GSI)	N	I&E	1,500	1,500				3,000	1.4%
PC-801A Oakman Blvd	A	I&E/ Bond	20	20	20	-	-	60	0.0%
PC-800 O'Shea Park	C	I&E	10	-	-	-	-	10	0.0%
PC-806 Charles H. Wright Academy	N	I&E	687	45	38	-	-	770	0.4%
North Rosedale (Edinborough)	N	I&E	3	3	-	-	-	6	0.0%
Capital Partnership Program	P	I&E	5	-	-	-	-	5	0.0%
Chandler Park Drive (CIPMP)	N	I&E	5	5	5	-	-	15	0.0%
Green Stormwater Infrastructure Construction Allowance	N	I&E	-	-	-	5,000	5,000	10,000	4.8%
CS-1884 Green Infrastructure Program Management	P	I&E	2,500	2,500	2,500	1,000	1,000	9,500	4.5%
Vehicle, Heavy Equipment, and Equipment Purchases	N	I&E	1,335	1,500	1,500	1,500	1,500	7,335	3.5%
Information Technology	N	I&E	1,890	1,618	750	750	750	5,757	2.7%
Facility Improvement Allowance	N	I&E	3,761	1,000	1,000	1,000	1,000	7,761	3.7%
TOTALS			73,083	49,566	34,118	28,245	25,245	210,257	100.0%

Information Technology

Descriptions	Type		2021-22
Security			
DWS-912 Video Security System Upgrades	Software	Addition	\$ 240,000
Customer Service			
CS-1917 EnQuesta Upgrade	Software	Software Maintenance	\$ 200,000
Operations			
Collaboration Software for Drainage & Records Management	Software	New Software Implementation	\$ 190,000
DWS-928 GPS for vehicles	Hardware/Equipment	New Hardware/Equipment Implementation	\$ 564,000
Misc. Equipment for AssetWorks	Hardware/Equipment	New Hardware/Equipment Implementation	\$ 50,000
Itron Replacement (staffing support)	Other IT Implementation	CIP IT STAFFING	\$ 600,000
CS-1952 Oracle Supply chain Management	Other IT Implementation	New Other IT Implementation Implementation	\$ 800,000
Information Technology			
Desktops	Hardware/Equipment	Hardware	\$ 50,000
Laptop Charging Stations	Hardware/Equipment	Hardware	\$ 5,000
Laptops	Hardware/Equipment	Hardware	\$ 10,000
Rugged Tablets/Laptops	Hardware/Equipment	Hardware	\$ 20,000
Tablets	Hardware/Equipment	Hardware	\$ 50,000
Low Voltage Wiring	Hardware/Equipment	New Hardware/Equipment Implementation	\$ 200,000
Phone System Migration to Avaya	Hardware/Equipment	New Hardware/Equipment Implementation	\$ 20,000
Printers	Hardware/Equipment	Hardware	\$ 30,000
Cityworks/AssetWorks/Records Implementation	Other IT Implementation	New Other IT Implementation Implementation	\$ 400,000
GIS Update As-Built Drawing Upgrades	Other IT Implementation	New Other IT Implementation Implementation	\$ 350,000
Total			\$ 3,779,000

Vehicle, Heavy Equipment, and Equipment

Descriptions	Type	QTY	Estimated Unit Cost	2021-22
Meter Operations			45,000	
F-350 Super Duty	Truck	1	45,000	45,000
Field Services Operations			1,935,000	
F150	Truck	6	45,000	270,000
F-450 Super Duty	Utility Truck	3	125,000	375,000
F-550 Super Duty	Utility Truck	5	130,000	650,000
5-Yard Dump-Salt Truck	Dump Truck	1	250,000	250,000
Mini-Excavator	Backhoe	2	150,000	300,000
Trailers for Mini Excavator	Trailer	2	30,000	60,000
Golf Cart	Vehicle	2	15,000	30,000
Fleet Operations			690,000	
SUV	Vehicle	5	32,000	160,000
Pool Vehicles	Vehicle	5	35,000	175,000
Golf Cart	Vehicle	2	15,000	30,000
F150	Truck	5	45,000	225,000
Passenger Vehicles	Vehicle	2	25,000	50,000
Confined Space Tripod	Equipment	2	12,500	25,000
Tampers/Compactors	Equipment	2	5,000	10,000
Underground Locators	Equipment	2	7,500	15,000
Total				2,670,000

FY 2022 Facility Improvements

Descriptions	Type	QTY	Unit Cost	2021-22
Roofing				
CSF/West/MOB	Roof replacement			3,000,000
Heating Units				
CSF	HVAC Units	10	150,000	500,000
West Payment	HVAC Rooftop Unit Replacement	2	15,000	30,000
MOB	Steam Improvements			15,000
MOB	Heat Improvement - Car Elevator area			36,000
Misc. HVAC Improvements	Auto Garage - Extra large Fans	6	20,000	120,000
Garage Door Replacement				
DWS-926 Overhead Doors CSF/ West Yard	Fabric Door Replacement	10	25,000	200,000
Interior Improvements				
Build Out	Interior Space Improvements			300,000
DWS-914 Flooring	Interior West Yard	10	100,000	250,000
Flooring	Exterior West Yard			150,000
2nd Floor Admin-Buildout	Design/Feasibility			50,000
DWS-927 Bathroom Improvements (Covid)	Design/Feasibility			150,000
Parking Lot Improvements				
LED Lights	Yards/Garage			200,000
Gate Operator	CSF & West Yard			20,000
Detroit Building Authority (DBA)	Consolidation, Renovations & Improvements			2,500,000
Total				\$ 7,521,000

IV. APPENDICES

APPENDIX A – PROJECT DESCRIPTIONS

APPENDIX B – MAPS OF CIP PROJECT BY COUNCIL DISTRICT

APPENDIX C – STREET TABLE OF CIP PROJECTS

DRAFT



APPENDIX A – PROJECT DESCRIPTIONS

DRAFT

CIP#1322

WS-703 Water Main Replacement

Status: Closed

Significance: Water main replacement

Location: Various

Scope of Work: Water main replacement at various locations in Detroit's west side. The work includes Oakman Blvd from Grand River to West Chicago, a length of residential water main adjacent to the St. John Hospital at McNichols and Schaefer, water main along Outer Drive from Grandville eastward through Southfield Freeway, Greenfield, and ending at Schaefer (Wayne County jurisdiction), Lahser from Seven Mile to Eight mile (Wayne County jurisdiction), and the water main along Outer Drive South of Plymouth adjacent to Rouge Park (Wayne County jurisdiction). Duration: 730 Calendar Days.

Street	Street Limit 1	Street Limit 2
W. Outer Drive	Plymouth	W. Chicago
W. Outer Drive	Whitcomb	Schaefer (North)
W. Outer Drive	Whitcomb	Schaefer (South)
W. Outer Drive	Rutherford	Winthrop (North)
W. Outer Drive	McNichols	Southfield (South)
W. Outer Drive	Southfield	Ferguson (North)
W. Outer Drive	Southfield	Ferguson (South)
W. Outer Drive	McNichols	Southfield (North)
W. Outer Drive	Greenfield	Whitcomb (South)
Stansbury	McNichols	Ardmore
Berg	Vassar	Leewin
Lahser	Seven Mile	Eight Mile
Oakman	Joy	Grand River
Algonac	Lappin	Manning

Project Cost Estimates

System	Status	Type	Start Date	Finish Date	Total Estimated Cost	Projected Expenditures by Fiscal Year				
						2021-22	2022-23	2023-24	2024-25	2025-26
Water	Closed	C	8/28/2017	12/31/2019	\$7,482,000					

CIP#1322

WS-704 Water Main Replacement – along Outerdrive

Status: Closed

Significance: Water main replacement along Outer Drive

Location: Outer Drive W, Vassar to Livernois

Scope of Work: Water main replacement along Outer Drive (Wayne County jurisdiction) from Vassar (north of Seven Mile and east of Schaefer) eastbound through Wyoming and ending at Livernois. Twenty thousand feet of mostly eight-inch water main (and 500 hundred feet of twelve- inch water main) replaced along both sides of Outer Drive. Duration: 730 Calendar Days.

Street	Street Limit 1	Street Limit 2
North Side & South Side		
Outer Drive	Ward St	Sorrento St
Outer Drive	Sorrento St	Steel St
Outer Drive	Steel St	Appoline St
Outer Drive	Appoline St	Meyers Rd
Outer Drive	Meyers Rd	Manor St
Outer Drive	Manor St	Monte Vista St
Outer Drive	Monte Vista St	Pinehurst St
Outer Drive	Pinehurst St	Mendota St
Outer Drive	Mendota St	Birwood St
Outer Drive	Birwood St	Griggs St
Outer Drive	Griggs St	Ilene St
Outer Drive	Ilene St	Washburn St
Outer Drive	Washburn St	Wyoming Ave
Outer Drive	Wyoming Ave	Cranbrook Ave
Outer Drive	Cranbrook Ave	Cherrylawn St
Outer Drive	Cherrylawn St	Northlawn St
Outer Drive	Northlawn St	Roselawn St
Outer Drive	Roselawn St	Greenlawn St
Outer Drive	Greenlawn St	Woodingham St
Outer Drive	Woodingham St	Santa Barbara St
Outer Drive	Santa Barbara St	Pennigton St
Outer Drive	Pennigton St	San Juan Dr
Outer Drive	San Juan Dr	Prairie St
Outer Drive	Prairie St	Monica St
Outer Drive	Monica St	Santa Rosa Dr
Outer Drive	Santa Rosa Dr	Santa Rosa Dr
Outer Drive	Santa Rosa Dr	Stoepel St
Outer Drive	Stoepel St	Livernois Ave

Project Cost Estimates

System	Status	Type	Start Date	Finish Date	Total Estimated Cost	Projected Expenditures by Fiscal Year				
						2021-22	2022-23	2023-24	2024-25	2025-26
Water	Closed	C	2/5/2018	2/5/2020	\$9,350,000					

CIP#1322

WS-705 Water Main Replacement – Eastside and Westside, Select Locations

Status: Closed

Significance: Water main replacement at various locations in Detroit's East and West side.

Location: Multiple

Scope of Work: Residential water main replacement at various locations in Detroit's east and west sides. On the west side, water main replacement work is targeted for multiple streets in the Hubbell-Lyndon Neighborhood and Whitcomb from the Winship neighborhood. On the east side, replacement water main will be installed at various location in the Outer Drive-Hayes neighborhood and also in Yorkshire Woods, Denby, and Moross-Morang. Duration: 730 Calendar Days.

Street	Street Limit 1	Street Limit 2
Robson	Grand River	Chalfonte
Strathmoor	Vassar	Eight Mile
Marlowe	Grand River	Chalfonte
Mark Twain	Fenkell	Lyndon
Ardmore	Intervale	Lyndon
Whitcomb	Outer Drive	Curtis
Mckinney	Grayton	Morang
Britain	Cadieux	Mckinney
Nottingham	Berkshire	Whittier
Lanark	Morang	Morros
Prevost	Pembroke	Seven Mile
Rutherford	Pembroke	Seven Mile
Whitehill	Grayton	Morang
Riad	Morang	Moross
Parkgrove	Morang	Kelly

Project Cost Estimates

System	Status	Type	Start Date	Finish Date	Total Estimated Cost	Projected Expenditures by Fiscal Year				
						2021-22	2022-23	2023-24	2024-25	2025-26
Water	Closed	C	8/13/2018	12/31/2020	\$12,839,000					

CIP#1322

WS-706 Water Main Replacement Wayne Co. Roads

Status: Closed

Significance: Replace existing water main along roadway within Detroit.

Location: Various

Scope of Work: Replacement of existing water main along mostly Wayne County roadway within Detroit and a few Detroit residential streets. The Wayne County streets are Tireman from Greenfield to Lodge (piping along the Detroit side of the Detroit/Dearborn municipal line), Warren Avenue from Parkland to Heyden (west side), Outer Drive from Dequindre to Mound (east side), and McNichols from Lodge to Schaefer (west side). The residential streets are a reach of Beaverland (north of Warren and west of Rouge Park), Stansbury (north of Outer Drive, west of Lodge), and Robson (south of Seven Mile and East of Greenfield). The overall work is replacement of 26,400 LF of mostly eight-inch and some twelve and sixteen-inch water main. Duration: 730 Calendar Days.

Street	Street Limit 1	Street Limit 2
West Warren Ave	Parkland	Heyden
Tireman	Greenfield	Hubbell
Robson	Curtis	Seven Mile
Stansbury	Outer Drive	Curtis
Beaverland	Sawyer	Tireman
East Outer Drive	Dequindre	Conley
McNichols	Schaefer	James Couzens

Project Cost Estimates

System	Status	Type	Start Date	Finish Date	Total Estimated Cost	Projected Expenditures by Fiscal Year				
						2021-22	2022-23	2023-24	2024-25	2025-26
Water	Closed	C	11/5/2018	6/31/2021	\$10,294,000					

CIP#1322

WS-707 Water Main Replacement – Select Streets Across Detroit

Status: Closed

Significance: Water main replacement in the MDOT jurisdiction

Location: Various

Scope of Work: Work includes Outer Drive north of Mack (Wayne County jurisdiction, east side), a residential street in Warrendale, four locations in northwest Detroit, and a pair of streets in central Detroit. Up to 20,000 LF of mostly eight-inch DI water main including two lengths of twelve inch DI main are replacing the existing pipe. Duration: 730 Calendar Days.

Street	Street Limit 1	Street Limit 2
Pembroke Ave	Lodge Fwy	Biltmore Street
Fullerton Ave	Dexter Avenue	Petoskey Street
E Outer Dr	Waveney Ave	Wallingford St
Brace street	Warren Ave	Paul Ave
Coyle street	Fenkell ave	Grand River Ave
Codding street	Grand River Ave	Margareta Street
Margareta street	Codding Ave	Shiawassee Street
Whitcomb street	Pembroke Ave	Vassar Dr

Project Cost Estimates

System	Status	Type	Start Date	Finish Date	Total Estimated Cost	Projected Expenditures by Fiscal Year				
						2021-22	2022-23	2023-24	2024-25	2025-26
Water	Active	C	4/15/19	6/30/21	\$15,982,000					

This is a drinking water revolving fund project.

CIP#1322,

WS-710 Water Main Replacement

Status: Active

Significance: Replacement of existing 8" through 12" Water main with 32,780 LF of 8" through 12" Ductile Iron Water Main along various streets of Wayne County right-of-way

Location: Schoolcraft, Five Points, West Chicago, Warren, Kelly Road, and Chandler Park Drive

Driver: Water main breaks are a frequent occurrence and they constitute a drain on the DWSD resources necessary to address these breaks, often times during inclement weather conditions. Water main breaks can also increase the potential public health risk from cross-connection contamination (bacteriological and/or chemical) resulting from reduced pressure or depressurized water mains during the repair.

Scope of Work: Replacement of 31,902 LF of 8" and 479 ft of 12" pipe with ductile iron water main and installed via trenching/open cut at select locations of Schoolcraft, Five Points, West Chicago, Warren Avenue, Chandler Park Drive, and Kelly Road. Includes lead service line replacements.

Challenges: Minimize disruption in neighborhood

Project Cost Estimates

System	Status	Type	Start Date	Finish Date	Total Estimated Cost	Projected Expenditures by Fiscal Year				
						2021-22	2022-23	2023-24	2024-25	2025-26
Water	Active	C	7/27/2020	7/26/2022	\$9,126,360	\$1,000,000	\$100,000			

This is a drinking water revolving funded project

CIP#1322

WS-711 Water Main Replacement

Status: Active

Significance: Replacement of existing six, eight, twelve-inch, and sixteen-inch water main including Gate Valves, Fire Hydrants, existing Lead (Pb) water services.

Location: Various across Detroit

Driver: Due to the age of these pipes, water main breaks are a constant occurrence and they constitute a drain on the DWSD resources necessary to address these breaks, often times during inclement weather conditions. Water main breaks can also increase the potential public health risk from cross-connection contamination (bacteriological and/or chemical) resulting from reduced pressure or depressurized water mains during the repair.

Scope of Work: Replacement of 41,079 LF of 8" to 16" water main with ductile iron pipe placed via trenching/open cut at various locations on E. Jefferson, Greenfield Road, Greenview, West Parkway, and the Northbound Southfield Service Drive including lead service line replacements.

Challenges: Minimizing disruption to neighborhoods.

Project Cost Estimates

System	Status	Type	Start Date	Finish Date	Total Estimated Cost	Projected Expenditures by Fiscal Year				
						2021-22	2022-23	2023-24	2024-25	2025-26
Water	Active	C	7/27/2020	7/22/2022	\$12,978,108	\$4,200,000	\$1,000,000			

This is a drinking water revolving funded project

CIP#1349

WS-712 Cornerstone Village Water (46,000 LF)

Status: Active

Significance: In-place rehabilitation/repair of existing water mains and associated assets

Locations: Cornerstone Village

Driver: Renew and rehabilitate Detroit infrastructure and neighborhoods based on CIPMO pilot study project

Scope of Work: Replacement or lining of approximately 46,000 linear feet of existing six, eight, twelve and sixteen-inch water main including gate valves, hydrants and replacement approximately 605 lead service lines. The project has an expected duration of 442 calendar days.

Challenges: Minimizing disruption to neighborhoods-

Project Cost Estimates:

System	Status	Type	Start Date	Finish Date	Total Estimated Cost	Projected Expenditures by Fiscal Year				
						2021-22	2022-23	2023-24	2024-25	2025-26
Water	Active	C	12/2/2019	6/23/2022	\$18,630,333	\$7,630,000	\$3,500,000			

CIP#1349

WS-713 Water Main Replacement - Jefferson Chalmers

Status: New

Significance: Water main replacement and rehabilitation within Jefferson Chalmers

Locations: Various streets within the Jefferson-Chalmers neighborhood of E. Detroit

Driver:

Scope of Work: Replacement or lining of existing water mains including gate valves, hydrants and replacement lead service lines. 121,000 LF of water main was assessed in 2018 with design work across 2019. The work is estimated as follows:

Pipe Bursting: 11,650 LF	DI pipe installation via trenching/open cut: 7,750 LF	Project Total: 36,730 LF
Horizontal Directional Drilling: 15,880 LF	Lining of existing 8-inch pipe: 1,450 LF	

The work also includes three canal crossings either as a HDD or Jack & Bore.

Challenges:

Project Cost Estimates

System	Status	Type	Start Date	Finish Date	Total Estimated Cost	Projected Expenditures by Fiscal Year				
						2021-22	2022-23	2023-24	2024-25	2025-26
Water	New	D			\$15,000,000	\$7,500,000	\$7,500,000			

This is a drinking water revolving funded project

Expenditures listed in the cost table are from the FY spreadsheets downloaded to E-Builder in Nov 2019.

CIP#1322

WS-714 Water Main Replacement - MDOT – Michigan Dept of Transportation (Grand River streetscape)

Street	Street Limit 1	Street Limit 2
Grand River North	Fenkell	Evergreen
Grand River South	Fenkell	Evergreen
Grand River North	Evergreen	W. McNichols
Grand River South	Evergreen	W. McNichols
Grand River North	W. McNichols	Berg
Grand River South	W. McNichols	Berg

Status: Closed

Significance: Water main work along Grand River Avenue that is part of the MDOT streetscape work.

Locations: Grand River between Fenkell Ave to Marene Street

Scope of Work: A total of 25,100 LF of eight thru sixteen inch DIWM is replacing existing six through sixteen-inch water main along both sides of Grand River from Fenkell Avenue to Marene Street just west of Lahser. The streetscape and water main work started in August 2019; water mains from the eastern limit of the work near Fenkell westward to Evergreen are complete. Remaining water main work will be completed NLT November 2020.

Challenges: This project is coordinated with MDOT in conjunction with their streetscape project along Grand River.

Project Cost Estimates:

System	Status	Type	Start Date	Finish Date	Total Estimated Cost	Projected Expenditures by Fiscal Year				
						2021-22	2022-23	2023-24	2024-25	2025-26
Water	Closed	C	7/24/2019	12/31/2020	\$8,609,000					

This is a drinking water revolving fund project.

CIP#1349

WS-715 Watermain replacements West Side Neighborhoods - Riverdale, Minock Park, Miller Grove and Rosedale

Status: New

Significance: New water mains and associated infrastructures will enhance the integrity of DWSD's water systems and ensure quality service to its customers

Locations: Various locations within the neighborhoods of Riverdale, Minock Park, Miller Grove, and Rosedale Park

Driver: The extensive history of Water Main leaks and breaks that have also exceeded their intended service life.

Scope of Work: Replacement or lining of approximately existing water main including gate valves, hydrants and replacement lead service lines. 591,000 LF of water main across all four neighborhoods have been condition assessed. The work across the neighborhoods are as follows:

Lining of Existing 8-inch mains: 4,400 LF	Horizontal Directional Drilling (HDD): 5,925 LF	Project total: 25,485 LF
Pipe Burst: 8,700 LF	Ductile Iron Pipe Installation via trenching/open cut: 6,460 LF	

Challenges:

Project Cost Estimates:

System	Status	Type	Start Date	Finish Date	Total Estimated Cost	Projected Expenditures by Fiscal Year				
						2021-22	2022-23	2023-24	2024-25	2025-26
Water	New	C	-	-	\$16,900,000	\$6,900,000	\$7,000,000	\$3,000,000		

This is a drinking water revolving funded project

CIP#

WS-718 Watermain replacements for New Center Commons and Virginia Park

Status: New

Significance:

Locations: Various Locations within neighborhoods of New Center Commons and Virginia Park

Driver:

Scope of Work: Replacement of approximately 9,516 linear feet of existing six, eight, twelve and sixteen-inch water main including gate valves, fire hydrants, approximately 1,575 linear feet of existing lead services, and all appurtenances required to complete the work. The Work across both neighborhoods are as follows:

Lining of Existing mains: none	Horizontal Directional Drilling (HDD): 5,580 LF	Project total: 9,516 LF
Pipe Burst: 1,272 LF	Ductile Iron Pipe Installation via trenching/open cut: 2,664 LF	

FYI: The scope of this project is smaller than a typical DWSD project, so has a duration of only one year.

Challenges:

Project Cost Estimates:

System	Status	Type	Start Date	Finish Date	Total Estimated Cost	Projected Expenditures by Fiscal Year				
						2021-22	2022-23	2023-24	2024-25	2025-26
Water	New	C	12/9/2020	12/8/2021	\$4,290,000	\$2,300,000				

This is a drinking water revolving funded project

CIP#

WS-720 Watermain Replacements – Various Streets

Status: New

Significance:

Location: Evergreen - Outer Drive, Grand River - St. Mary's, Grand River - I96, Warrendale, and Franklin Park neighborhoods of Detroit

Driver:

Scope of Work: Replacement of approximately 26,932 linear feet of existing six, eight, and twelve-inch water main including gate valves, fire hydrants, approximately 246 Lead (Pb) services at 14,106 linear feet in total, and all appurtenances required to complete the work. The Work across the neighborhoods is as follows:

Lining of Existing mains: none	Horizontal Directional Drilling (HDD): 14,906 LF	Project total: 26,932 LF
Pipe Burst: 4,857 LF	Ductile Iron Pipe Installation via trenching/open cut: 7,169 LF	

Challenges:

Project Cost Estimates

System	Status	Type	Start Date	Finish Date	Total Estimated Cost	Projected Expenditures by Fiscal Year				
						2021-22	2022-23	2023-24	2024-25	2025-26
Water	New	C	-	-	\$12,100,000	\$3,100,000	\$6,000,000	\$3,000,000		

CIP#1349

WS-721: Lead Service Line Replacement, Various Locations Throughout the City

Status: New

Significance: The City of Detroit has an estimated 80,000 + Lead (Pb) water services active within the municipal water system. Given the potential negative health impacts to water system customers, DWSD has been undertaking efforts in the replacement of these services. Per EPA and MI-EGLE requirements, Lead services are replaced from the water main all the way to the customer meter within their property (residence, commercial space, other). Normally, Lead replacements are integrated into water main replacement capital work, but not all water mains can be replaced over the next handful of years to capture all the outstanding Lead services. While the Lead services are expected to be within the older portions of Detroit, realistically, they can be located in any neighborhood, thus the scope of this project will be across the entirety of the Detroit water system.

Locations: Various

Driver:

Scope of Work: Replacement of Lead (Pb) water services of two-inches and less with Type K soft copper. Up to 2000 services will be replaced across several years with a combination of excavation and directional boring to minimize impacts upon customer properties.

Challenges:

Project Cost Estimates:

System	Status	Type	Start Date	Finish Date	Total Estimated Cost	Projected Expenditures by Fiscal Year				
						2021-22	2022-23	2023-24	2024-25	2025-26
Water	New	C	August 2021	August 2023	\$11,000,000	\$6,000,000	\$5,000,000			

CIP#

WS-723 Lead Service Line Replacement

Status: New

Significance:

Location: Various individual addresses across Detroit

Driver:

Scope of Work: Replacement of Lead (Pb) water service lines from the existing water main to the customer meter. The water services will be placed through directional boring so as to minimize disruption to the private property and keep excavation work limited to the green space between the sidewalk and nearby road curb. This work will be expressly within the properties of the Land Bank, Bridging Neighborhoods and other City of Detroit agencies that deal with property ownership, transfer, and management. These offices will request work be done by DWSD and the City Agencies will reimburse DWSD through MOU's established prior to work.

Challenges:

Project Cost Estimates

System	Status	Type	Start Date	Finish Date	Total Estimated Cost	Projected Expenditures by Fiscal Year				
						2021-22	2022-23	2023-24	2024-25	2025-26
Water	New	C	-	-	\$1,000,,000	\$800,000	\$200,000			

CIP#

WS-725 Watermain Replacements – Medical Ctr, Cultural Ctr, & Midtown 30,000LF

Status: New

Significance:

Location: Select water main replacement in the Midtown, Cultural Center, and Medical Center neighborhoods of Detroit

Driver:

Scope of Work: Water main replacement of approximately 63,000 LF of water main identified through field data gleaned through condition assessment work and subsequent evaluation of the networks through the DWSD Risk Assessment model.

Challenges:

Project Cost Estimates

System	Status	Type	Start Date	Finish Date	Total Estimated Cost	Projected Expenditures by Fiscal Year				
						2021-22	2022-23	2023-24	2024-25	2025-26
Water	New	C	-	-	\$14,000,000	-	\$4,000,000	\$5,000,000	\$5,000,000	

CIP#O&M

WS-702 Repair & Replacement of Water Mains

Status: Active

Significance: This is a hybrid contract with both repair and replacement work. The repair work is intended for emergency water main replacement without construction drawings.

Location: Various

Driver: During certain periods of the year, the DWSD experiences a significant increase in the number of water main breaks and leaks. This contract will supplement the DWSD maintenance forces in repair and replacements.

Scope of Work: Water main repair and replacement as-needed in the city of Detroit including but not limited to the replacement and installation of new water mains, water services, hydrants, valves, gate wells, gate boxes, thrust blocks, and other water main related work.

Challenges: Carefully exposing the failed sections of water main. Minimizing the disturbances to customers. Minimizing the interruption of water services to customers.

Project Cost Estimates

System	Status	Type	Start Date	Finish Date	Total Estimated Cost	Projected Expenditures by Fiscal Year				
						2021-22	2022-23	2023-24	2024-25	2025-26
Water	Active	C	2/1/2018	6/30/2021	\$17,429,100					

CIP#

WS-708 Repair of Water Mains

Status: Active

Significance: Repair of various sized water main due to significant increase in number of water main breaks and leaks.

Location: Various locations

Driver: Number of water main breaks and leaks in the water distribution system during critical time periods.

Scope of Work: Locate, expose and repair various sized water main breaks and leaks on existing water mains (up to 16"), services and the repair and replacement of hydrants, valves, stop boxes, road gate boxes and other appurtenances

Challenges: Minimizing disruptions to neighborhoods.

Project Cost Estimates

System	Status	Type	Start Date	Finish Date	Total Estimated Cost	Projected Expenditures by Fiscal Year				
						2021-22	2022-23	2023-24	2024-25	2025-26
Water	Active	C	10/22/2018	6/30/2021	\$8,002,800					

CIP#

WS-717 Repair & Replacements of Water Main (WS-702)

Status: Active

Significance: This is a hybrid contract with both repair and replacement work. The repair work is intended for emergency watermain replacement without construction drawings.

Location: Various

Driver: During certain periods of the year, the DWSD experiences a significant increase in the number of water main breaks and leaks. This contract will supplement the DWSD maintenance forces in repair and replacements.

Scope of Work: Water main repair and replacement as-needed throughout the city of Detroit including but not limited to the replacement and installation of new water mains, water services, hydrants, valves, gate wells, gate boxes, thrust blocks, and other water main related work.

Challenges: Carefully exposing the failed sections of water main. Minimizing the disturbances to customers. Minimizing the interruption of water services to customers.

Project Cost Estimates

System	Status	Type	Start Date	Finish Date	Total Estimated Cost	Projected Expenditures by Fiscal Year				
						2021-22	2022-23	2023-24	2024-25	2025-26
Water	New	C			\$14,000,000	\$4,000,000	\$3,000,000	\$3,000,000	\$3,000,000	

CIP#

WS-719 Repair of Water Mains (WS-708)

Status: Active

Significance: Repair of various sized water main due to significant increase in number of water main breaks and leaks.

Location: Various locations

Driver: Number of water main breaks and leaks in the water distribution system during critical time periods.

Scope of Work: Locate, expose and repair various sized water main breaks and leaks on existing water mains (up to 16”), services and the repair and replacement of hydrants, valves, stop boxes, road gate boxes and other appurtenances

Challenges: Minimizing disruptions to neighborhoods.

Project Cost Estimates

System	Status	Type	Start Date	Finish Date	Total Estimated Cost	Projected Expenditures by Fiscal Year				
						2021-22	2022-23	2023-24	2024-25	2025-26
Water	New	C			\$4,000,000	-	-	\$2,000,000	\$2,000,000	

CIP# O&M

DWS-902 Repair of Pavement (break repair)

Status: Active

Significance: To repair pavement, sidewalks, driveways, and curb cuts in various streets throughout the City of Detroit.

Location: Various

Driver: Work is done as a resulting of DWSD emergency maintenance and repair work.

Scope of Work: The work consists of trimming, removing, and replacing concrete sidewalks, driveways, and curbs. The object of the proposed contract consists of but is not limited to the removal of approximately 202,500 square yards of pavement cuts or patches; the replacement of 42,000 square yards of concrete, and 150,000 square yards of high early strength no slump concrete base. The removal and replacement of 360,000 square feet of sidewalk; 120,000 square feet of driveway, and 50,000 linear curb at various locations throughout the City of Detroit.

Challenges:

Project Cost Estimates

System	Status	Type	Start Date	Finish Date	Total Estimated Cost	Projected Expenditures by Fiscal Year				
						2021-22	2022-23	2023-24	2024-25	2025-26
Water	Active	C	8/8/2017	6/30/2021	\$20,129,000	\$1,920,000				
Sewer	Active	C	8/8/2017	6/30/2021	\$3,552,000	\$75,000				

CIP# O&M

DWS-904 Repair of Lawns (break repair)

Status: Active

Significance: To repair lawns, berms, and trees damaged due to maintenance of water system and green stormwater infrastructures vegetation management and irrigation services.

Location: Various

Driver: Work is done as a resulting of DWSD emergency maintenance and repair work, includes green infrastructure maintenance.

Scope of Work: The work consists of removing undesirable debris in existing soil, grading/leveling soil and replacing seeding with straw or placing sods. DWSD is a co-permittee with Great Lakes Water Authority (GLWA) of NPDES permit. DWSD and GLWA are jointly responsible for developing and implementing the Alternative Rouge River Combined Sewer Overflow (CSO) Control Program.

This work will include excavating and grading the damaged areas. The work will also include maintenance of green stormwater infrastructure vegetation sites.

Challenges:

Project Cost Estimates

System	Status	Type	Start Date	Finish Date	Total Estimated Cost	Projected Expenditures by Fiscal Year				
						2021-22	2022-23	2023-24	2024-25	2025-26
Water	Active	C	5/1/2018	4/30/2021	\$1,595,000	\$1,500,000				
Sewer	Active	C	5/1/2018	4/30/2021	\$1,063,000	\$338,000				

CIP#

DWS-919 (Replace DWS-902)

Status: Active

Significance: To repair pavement, sidewalks, driveways, and curb cuts in various streets throughout the City of Detroit.

Location: Various

Driver: Work is done as a resulting of DWSD emergency maintenance and repair work.

Scope of Work: The work consists of trimming, removing, and replacing concrete sidewalks, driveways, and curbs. The object of the proposed contract consists of but is not limited to the removal of approximately 202,500 square yards of pavement cuts or patches; the replacement of 42,000 square yards of concrete, and 150,000 square yards of high early strength no slump concrete base. The removal and replacement of 360,000 square feet of sidewalk; 120,000 square feet of driveway, and 50,000 linear curb at various locations throughout the City of Detroit.

Challenges:

Project Cost Estimates

System	Status	Type	Start Date	Finish Date	Total Estimated Cost	Projected Expenditures by Fiscal Year				
						2021-22	2022-23	2023-24	2024-25	2025-26
Water	New	C			\$20,400,000	\$4,080,000	\$6,800,000	\$6,800,000	\$2,720,000	
Sewer	New	C			\$2,400,000	\$1,200,000	\$1,200,000			

CIP#1353

PC-808 West Warren (Constance at Rouge Park/Tireman Sawyer PH III)

Status: New

Significance: Reduce volume to URT (outfalls 059-69, 072-075, 077, 079)

Location: Farwest Neighborhood; Constance & Parkland Street; Rouge Park

Driver: DWSD NPDES Permit No. MI0022802

Scope of Work: Provide the outlet for the Constance storm sewer constructed in Phase I as a large bioretention basin envisioned as both stormwater treatment and a park amenity constructed within the park to provide detention and water quality treatment. Project also includes a large open channel practice in the southern part of Rouge Park for the partial sewer separation for the area tributary to the Warren Outfall.

Challenges: Coordination with Friends of the Rouge for an acceptable GSI design and MDEQ approvals.



Project Cost Estimates

System	Status	Type	Start Date	Finish Date	Total Estimated Cost	Projected Expenditures by Fiscal Year				
						2021-22	2022-23	2023-24	2024-25	2025-26
Water	Procurement	C	2021	2026	\$7,700,000	\$4,000,000	\$3,700,000	-	-	-
Sewer (non GSI)	Procurement	C	2021	2026	\$3,500,000	\$1,500,000	\$1,500,000	-	-	-
Sewer	Procurement	C	2021	2026	\$28,960,000	\$10,040,000	\$7,650,000	\$6,280,000	\$3,995,000	\$995,000

CIP#1349

CS-1909A Water Main Condition Assessment Services Throughout the City of Detroit

Status: New

Significance: Hydrant flow test (approx. 620) C-factor tests (approx. 210), valve exercising (approx. 5,907), and leak detection test (approximately 1,234,407 LF).

Location: Various

Driver:

Scope of Work: The project will include evaluating the condition of approx. 1,230,000 lineal feet of pipes, all valves and certain hydrants within fifteen Detroit neighborhoods; and evaluating the condition approximately 351,671 lineal feet of pipes, valves and hydrants at various locations throughout the City of Detroit. The pipe test section will range in length, size and material including the following: 6-inch, 8-inch, and 12-inch diameter asbestos cement (AC), cast iron, concrete, ductile iron, high density polyethylene(HDPE), and steel material. RB: FYI, there is no PVC piping within any portion of the Detroit water system.

Challenges:

Project Cost Estimates

System	Status	Type	Start Date	Finish Date	Total Estimated Cost	Projected Expenditures by Fiscal Year				
						2021-22	2022-23	2023-24	2024-25	2025-26
Water	New	S	1/22/2021	9/24/2021	\$481,909	\$250,000				

CIP#

CS-1921 Watermain/Sewer Design

Status: New

Significance: Task Order as-needed design services to improve the water and sewer piping system within the City of Detroit. Improved contract documents such as Boiler Plate (in the EJCDC format) and technical specifications in the FormSpec style of specifications.

Location: Various

Driver: This contract will phase out the condition assessment, design and construction assistance work currently provided by CS-1812, CIPMO contract as needed.

Scope of Work: This project consists of water and sewer design tasks including, but not limited to, civil, structural, architectural, geotechnical, hydraulics, GIS and other services as identified in the individual Task Orders. Owner will evaluate and select qualified firms or project teams to perform water and sewer professional engineering services on a Task Order basis for a Contract duration of three (3) years with the payable Contract value not to exceed two million dollars (\$2,000,000.00) per fiscal year.

Challenges: Continue defined capital improvement programs for water main and sewer improvements.

Project Cost Estimates

System	Status	Type	Start Date	Finish Date	Total Estimated Cost	Projected Expenditures by Fiscal Year				
						2021-22	2022-23	2023-24	2024-25	2025-26
Water	New	D			\$3,000,000	\$1,000,000	\$1,000,000	\$1,000,000		
Sewer	New	D			\$3,000,000	\$1,000,000	\$1,000,000	\$1,000,000		

CIP#

CS-1923A Third Party Inspection (Water & Sewer)

Status: New

Significance: Task Order as-needed construction inspection and related services to improve the water and sewer infrastructure within the City of Detroit

Location: All DWSD Design Contracts

Driver: Provide inspection services to DWSD future construction projects and transition construction inspection services from CIPMO to this contract

Scope of Work: Construction Field Inspection, Field Surveying and Materials Testing by selected firms for use in future water & sewer Capital Improvement Projects.

Challenges: Continue capital improvement programs for water main and sewer infrastructure improvements.

Project Cost Estimates

System	Status	Type	Start Date	Finish Date	Total Estimated Cost	Projected Expenditures by Fiscal Year				
						2021-22	2022-23	2023-24	2024-25	2025-26
Water	New	CA			\$2,250,000	\$750,000	\$750,000	\$750,000		
Sewer	New	CA			\$2,250,000	\$750,000	\$750,000	\$750,000		

CIP#1349

CS-1812 Professional Engineering and Construction Services for CIPMO

Status: Active

Significance: Improve customer service and renew and rehabilitate Detroit's retail system infrastructure

Location: Various

Driver:

Scope of Work: The proposed contract is a major component of the City's larger capital investment strategy designed to:

- Renew and rehabilitate Detroit infrastructure and neighborhoods;
- Reconfigure systems to reflect demographic trends and emerging urban plans;
- Re-landscape the urban environment to embrace the "greening of Detroit".

The initiation and execution of projects under this CIPMO will be prioritized to effectively and efficiently improve customer service and renew and rehabilitate Detroit's retail system infrastructure. A centerpiece of the CIP is the development of a CIP program management organization (CIPMO) with responsibility to coordinate and execute capital project planning and implementation across multiple agencies responsible for infrastructure and community development.

Challenges:

Project Cost Estimates

System	Status	Type	Start Date	Finish Date	Total Estimated Cost	Projected Expenditures by Fiscal Year				
						2021-22	2022-23	2023-24	2024-25	2025-26
Water	Active	C/CA/D/S	7/10/2017	7/9/2022	\$28,703,000	\$2,795,000				
Sewer	Active	C/CA/D/S	7/10/2017	7/9/2022	\$28,703,000	\$2,795,000				

CIP#

CS-1925 Itron Migration – MIU Replacement

Status: New

Significance: Enhanced meter reading technology to support Consumption and Billing related activities. To modernize billing practices to improve meter reading, billing efficiency and accuracy to minimize/eliminate estimated bills.

Location: Detroit Service Area

Driver: Warranty Replacement

Scope of Work: DWSD Contract CS-1925 will implement Open Way Riva Solution as a warranty replacement of the existing Water SaveSource Solution implemented back in 2007. The project scope includes removal, decommissioning and disposal of the 200W SaveSource endpoints, as well as the SaveSource collector network and the installation of RIVA endpoints, RIVA software and RIVA network. The Open Way Riva Solution provides DWSD with meter readings to accurately bill our customers.

DWSD installed MIU's on each of its customer's properties and collection towers across the city to interface with the MIU's. The MIU's collect and transmit meter reading to collection towers which then transmit the meter reading into the billing system. There are currently 210,000 customer accounts with installed MIUs. MIU's have a warrantied life of 20 years and are reaching obsolescence due to manufacturing difficulties. It is in DWSD's interest to proactively schedule replacement of its equipment to mitigate customer impact.

Challenges: Seamlessly install and integrate the new system to avoid estimated bills.

Project Cost Estimates

System	Status	Type	Start Date	Finish Date	Total Estimated Cost	Projected Expenditures by Fiscal Year				
						2021-22	2022-23	2023-24	2024-25	2025-26
Water	New	C			\$13,500,000	\$5,931,000				

CIP#

CS-1926 Itron Migration Project Management

Status: New

Significance: Improve the life cycle management of Riva system Assets.

Location: Various

Driver:

Scope of Work: Successfully replace the existing Water SaveSource AMR with the Riva OpenWay AMI (Advanced Metering Infrastructure) system. Integrate the Riva module system into daily operating procedures to achieve and sustain a module availability rate of 98.5% and limit out of service for reading modules to no more than 3 consecutive months. Integrate the Riva system with DWSD operations. Improve the life cycle management of Riva system assets. Leverage the capabilities of the Riva network for Internet of Things (IT) applications.

Challenges:

Project Cost Estimates

System	Status	Type	Start Date	Finish Date	Total Estimated Cost	Projected Expenditures by Fiscal Year				
						2021-22	2022-23	2023-24	2024-25	2025-26
Water	New	CA	8/1/2020	7/31/2023	\$2,380,517	\$2,069,000				

PC-803B AMR Skilled Trade Labor

Status: New

Significance: Assistance with Small Meter Installations

Location: Citywide

Driver: Increased number of small meter installation appointments

Scope of Work: Contractual crews supporting the Meter Operations Division in installing small (less than = 2”) retail water meters and meter interface units (MIUs) for automatic meter reading (AMR) throughout the City of Detroit.

Challenges:

Project Cost Estimates

Type	Status	D-Design	Start Date	Finish Date	Total Estimated Cost	Projected Expenditures by Fiscal Year				
		C-Construction				2021-22	2022-23	2023-24	2024-25	2025-26
Water	New		4/8/2019	4/8/2022	1,884,998					

CIP#1304

Water Meter Replacement Program

Status: Active

Significance: This program will provide assistance with meter operations of the exchange, removal and repair of meters

Location: Various

Project Cost Estimates

System	Status	Type	Total Estimated Cost	Projected Expenditures by Fiscal Year				
				2021-22	2022-23	2023-24	2024-25	2025-26
Water	Active	C	\$3,451,000	\$451,000	\$750,000	\$750,000	\$750,000	\$750,000

CIP#1352

Fire Hydrant Replacement Program

Status: Active

Significance: To improve the level of service and sustain the progress made with the City of Detroit Insurance Service Office (ISO) 2018 assessment rating

Location:

Driver: With nearly 10% inoperable hydrants within the City at the onset of this program in 2015 and a previous level 4 ISO rating, replacement of inoperable hydrants was given priority and funding to reach national standards of 1.5% hydrant inoperability.

Scope of Work: With nearly 30,000 hydrants within that City that are annually inspected, DWSD needs sufficient supply of hydrants to replace and repair inoperable hydrants that are needed to maintain fire flow capability, accommodate the required wet demolition that is performed utilizing hydrant permits and prevent creating a backlog of replacing inoperable hydrants. With the efforts completed to date, DWSD and DFD can prioritize work by critical facility proximity, have institutionalized the hydrant inspection program and established a uniform database of hydrant assets.

Challenges:

Project Cost Estimates

System	Status	Type	Total Estimated Cost	Projected Expenditures by Fiscal Year				
				2021-22	2022-23	2023-24	2024-25	2025-26
Water	Active		\$1,250,000	\$250,000	\$250,000	\$250,000	\$250,000	\$250,000

CIP#448

DWS-903 Inspection and Rehabilitation of Sewers City

Status: Active

Significance: Provide as-needed inspection and in-place rehabilitation of selected sewers

Location: Various

Driver:

Scope of Work: Proposed Contract No. DWS-903 is a continuation of the scope of work being performed under the existing Contract Nos. DWS-889, DWS-890, DWS-900 and DWS-901. The purpose of this contract is to provide as-needed inspection and in-place rehabilitation of selected sewers primarily using the procedures, methods and equipment of the cured-in-place pipe lining process.

The existing Detroit Water and Sewerage Department (DWSD) sewer system within the City limits (approximately 3,000 miles of sewers ranging from 8" thru 168") is generally older than ninety-years. As a result of the sewers age, they are deteriorating at a faster rate. Some are near the point of collapsing, and immediate emergency action is often required. Sewer rehabilitation services are needed to repair plugged, damaged and collapsed sewers to avoid basement flooding, and maintain the flows within the wastewater collection system.

In the last rehabilitation/lining contracts, DWSD expended approximately \$9,000,000 per year. DWSD is planning to continue the rehabilitation of sewers and anticipates spending approximately \$20,000,000 per year to provide better service to the citizens of Detroit, and meet the needs of future City development. The rehabilitation/lining process will extend the life of a sewer by at least 50 years.

Challenges:

Project Cost Estimates

System	Status	Type	Start Date	Finish Date	Total Estimated Cost	Projected Expenditures by Fiscal Year				
						2021-22	2022-23	2023-24	2024-25	2025-26
Sewer	Active	C	12/11/2017	6/30/2021	\$65,000,000	\$7,000,000				

CIP#1349

DWS-907 Watermain and Sewer Rehabilitation & Replacement, North Rosedale Park

Status: Active

Significance: In-place rehabilitation/repair of existing sewers and replacement of water mains

Locations: North Rosedale Park

Driver: Renew and rehabilitate Detroit infrastructure and neighborhoods based on CIPMO pilot study project. DWSD NPDES Permit No. MI0022802

Scope of Work: Replacement of approximately 17,000 LF of 8" water main, replacement of 250 lead service lines and 31,000 LF of 8" to 33" replacement and lined Sewer and construction of 150 LF of Green Stormwater Infrastructure Bioretention. Installation of turf grass bioretention in the berm along Edinborough.



Proposed Street View

Challenges: Minimizing disruption to neighborhoods, includes improvements in backyard sewer easements. This work is to the sewer proper.

System	Status	Type	Start Date	Finish Date	Total Estimated Cost	Projected Expenditures by Fiscal Year				
						2021-22	2022-23	2023-24	2024-25	2025-26
Water	Active	C	12/2/2019	5/25/2022	\$7,819,000	\$5,000,000				
Sewer	Active	C	12/2/2019	5/25/2022	\$5,213,000	\$3,000,000				
Sewer (GSI)	Active	C	12/2/2019	5/25/2022	\$98,000	3,000	3,000			

CIP#1349

DWS-908 Sewer Rehabilitation & Replacement, Cornerstone Village

Status: Active

Significance: In-place rehabilitation/repair of existing sewers

Locations: Cornerstone Village

Driver: Renew and rehabilitate Detroit infrastructure and neighborhoods based on CIPMO pilot study project

Scope of Work: Rehabilitation of 42,000 LF of CIPP sewer lining, 1900 LF of trenchless point repair, 32,000 LF of sewer O&M, 550 LF of newly constructed sewer, 1,300 LF of external point repair, and 3,250 SF of Green Storm Water Infrastructure.

Challenges: Minimizing disruption to neighborhoods, includes improvements in backyard easements



Type	Status	D-Design C-Const.	Start Date	Finish Date	Total Estimated Cost	Projected Expenditures by Fiscal Year				
						2021-22	2022-23	2023-24	2024-25	2025-26
Sewer	Active	C	12/2/2019	12/1/2021	\$7,693,349	\$2,693,000				

CIP# 1349

DWS-909 Sewer Condition Assessment Services in Various Locations Throughout The City of Detroit

Status: Closed

Significance: Inspection and cleaning of Existing Sewer Systems

Locations: Various Streets throughout Detroit

Driver: Assessment of Detroit infrastructure and neighborhoods

Preliminary Scope of Work: 179,660 LF of Sewer cleaning, 317,673 LF of inspection, 802 manhole inspections and 2,200 catch basins

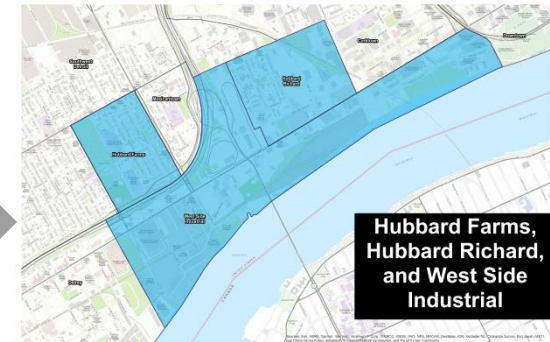
Challenges: Minimizing disruption to neighborhoods, includes improvements in backyard easements

Project Cost Estimates:

System	Status	Type	Start Date	Finish Date	Total Estimated Cost	Projected Expenditures by Fiscal Year				
						2021-22	2022-23	2023-24	2024-25	2025-26
Sewer	Closed	D	4/6/2020	4/5/2021	\$1,500,000					

CIP#1349

DWS-910 Sewer Condition Assessment Services in Hubbard Farms, Hubbard Richard, West Side Industrial, Midtown, North Corktown, and Various Streets



Status: Closed

Significance: Inspection and cleaning of Existing Sewer Systems

Locations: Hubbard Farms, Hubbard Richard, West Side Industrial, Midtown, North Corktown, and Various Streets

Driver: Assessment of Detroit infrastructure and neighborhoods

Scope of Work: 281,448 LF of Sewer cleaning, 714,053 LF of inspection, 2,792 manhole inspections and 2,316 catch basins

Challenges: Minimizing disruption to neighborhoods, includes improvements in backyard easements

System	Status	Type	Start Date	Finish Date	Total Estimated Cost	Projected Expenditures by Fiscal Year				
						2021-22	2022-23	2023-24	2024-25	2025-26
Sewer	Closed	C	4/6/2020	4/5/2021	\$3,007,120					

CIP#

DWS-916 Sewer Improvements At Piety Hill, Virginia Park, New Center Commons, Brester Homes, and Brewster Douglass (High Priority Neighborhoods)

Status: Active

Significance: In-place rehabilitation/repair of existing sewers

Location: Various

Driver: Renew and rehabilitate Detroit infrastructure and neighborhoods based on CIPMO pilot study project

Scope of Work: The work consists of the rehabilitation and replacement of approximately 30,815 LF of 6-inch to 75- inch sewer and manholes by external point repairs, trenchless point repairs, and CIPP lining. The work also includes approximately 18,536 LF of 6-inch to 78-inch of sewer cleaning without subsequent rehabilitation. In addition, the work includes the installation of 24 new manholes, eight new catch basins, and cleaning and repair of 76 manholes.

Challenges: Minimizing disruption to neighborhoods, includes improvements in backyard sewer easements. This work is to eliminate backup sewer

Project Cost Estimates

System	Status	Type	Start Date	Finish Date	Total Estimated Cost	Projected Expenditures by Fiscal Year				
						2021-22	2022-23	2023-24	2024-25	2025-26
Sewer	Active	C	12/16/2020	12/15/2021	\$4,732,017	\$2,600,000				

CIP#

DWS-917 Sewer Improvement in Riverdale

Status: New

Significance: Rehabilitation, replacement, and operation and maintenance interventions of buried sewer infrastructure in the Riverdale neighborhood that was identified in previous condition assessment work.

Location: Riverdale Neighborhoods

Driver: Renew and rehabilitate Detroit infrastructure and neighborhoods based on CIPMO pilot study project

Scope of Work: Typical sewer pipe repair improvements will include external point repairs (EPRs), trenchless point repairs (TPRs) such as lining and patching, and full segment lining. Operation and maintenance include activities such as cleaning and cutting and grinding taps. Manhole improvements include cleaning/flushing manholes, general spot repairs, benching and channel reconstruction, chimney reconstruction, spray lining, and replacing adjusters.

Challenges: Carefully exposing the failed sections of sewer. Minimizing the disturbances to customers.

Project Cost Estimates

System	Status	Type	Start Date	Finish Date	Total Estimated Cost	Projected Expenditures by Fiscal Year				
						2021-22	2022-23	2023-24	2024-25	2025-26
Sewer	New	C			\$10,100,000	\$5,000,000	\$4,800,000	\$300,000		

Riverdale Neighborhoods Map



CIP#

DWS-918 Sewer Improvement in Rosedale

Status: New

Significance:

Location: Rehabilitation, replacement, and operation and maintenance interventions of buried sewer infrastructure in the Rosedale Park neighborhood that was identified in previous condition assessment work.

Driver: Renew and rehabilitate Detroit infrastructure and neighborhoods based on CIPMO pilot study project

Scope of Work: Typical sewer pipe repair improvements will include external point repairs (EPRs), trenchless point repairs (TPRs) such as lining and patching, and full segment lining. Operation and maintenance include activities such as cleaning and cutting and grinding taps. Manhole improvements include cleaning/flushing manholes, general spot repairs, benching and channel reconstruction, chimney reconstruction, spray lining, and replacing adjusters.

Challenges: Carefully exposing the failed sections of sewer. Minimizing the disturbances to customers.

Project Cost Estimates

System	Status	Type	Start Date	Finish Date	Total Estimated Cost	Projected Expenditures by Fiscal Year				
						2021-22	2022-23	2023-24	2024-25	2025-26
Sewer	New	C			\$4,900,000	\$4,450,000	\$450,000			

CIP#

DWS-920 Inspection and Rehabilitation of Sewers Citywide (Replace DWS-903)

Status: New

Significance: Provide as-needed inspection, open cut repair and minimum in-place rehabilitation of failed sewers

Location: Various Locations Throughout the City of Detroit

Driver: The existing Detroit Water and Sewerage Department (DWSD) sewer system within the City limits (approximately 3,000 miles of sewers ranging from 6" thru 168") is generally older than ninety-years. As a result of the sewers age, they are deteriorating at a faster rate. Some are near the point of collapsing, and immediate emergency action is often required. Sewer rehabilitation services are needed to repair plugged, damaged and collapsed sewers to avoid basement flooding, and maintain the flows within the wastewater collection system

Scope of Work: The Proposed Contract DWS-920 is the replacement for DWS-903 but will be mostly limited to as needed inspection of sewers based on customers' complaints of water-in-basement, cave-in, etc. and the providing the required open cut repair and limited sewer lining.

Challenges:

Project Cost Estimates

System	Status	Type	Start Date	Finish Date	Total Estimated Cost	Projected Expenditures by Fiscal Year				
						2021-22	2022-23	2023-24	2024-25	2025-26
Sewer	New	C			\$15,000,000	\$3,000,000	\$8,000,000	\$4,000,000		

CIP#

DWS-921 Electrical Monitoring Upgrades at Belle Isle, Blue Hill, Woodmere, Fischer Sewage Pump Stations



Woodmere



Fischer



Belle Isle



Bluehill

Status: Procurement

Significance: With the installation of power quality metering upgrades at the pump stations operational efficiencies may be realized and implemented.

Location: Four (4) Sewage Pump Stations owned by DWSD

Driver: The pump stations do not currently have power quality metering that communicates with a Power Management System (PMS).

Scope of Work: The work includes, but not necessarily limited to the removal and replacement of PP-1 at the Belle Isle Pump Station, connecting the existing PM800 meter at the Fischer Pump Station to the Ovation DCS and PMS, and furnishing and installing power quality meters at both the Blue Hill Pump Station and Woodmere Pump Station.

Challenges:

Project Cost Estimates

System	Status	Type	Start Date	Finish Date	Total Estimated Cost	Projected Expenditures by Fiscal Year				
						2021-22	2022-23	2023-24	2024-25	2025-26
Sewer	Procurement	C			\$600,000	\$200,000	\$200,000	\$200,000		

CIP#

DWS-926 Sewer Condition Assessments – West Village, Southwest Detroit, Michigan-Martin

Status: Procurement

Significance: Assessment and inventory of DWSD assets to identify areas that need repair and/or rehabilitation

Location: West Village, Southwest Detroit, Michigan-Martin and Corktown

Driver: Sewer condition assessment in neighborhoods

Scope of Work: Sewer condition assessment services in West Village, Southwest Detroit, Michigan-Martin and Corktown. Includes but is not limited to assessment of 354,145 LF of sewers and inspection of approximately 1,400 manholes in order to conduct NASSCO compliant inspections for the purpose of recording structural and service defects.

Challenges: Carefully exposing the failed sections of sewer. Minimizing the disturbances to customers.

Project Cost Estimates

System	Status	Type	Start Date	Finish Date	Total Estimated Cost	Projected Expenditures by Fiscal Year				
						2021-22	2022-23	2023-24	2024-25	2025-26
Sewer	Procurement	C			\$5,000,000		\$2,500,000	\$2,500,000		

CIP#

DWS-931 Roofing Upgrades at Sewage Pump Stations

Status: Design

Significance: Reduce infrastructure damage and stop deteriorating conditions of the pump station structure and equipment

Location: Four (4) Sewage Pump Stations owned by DWSD

Driver: Proposed work led by the recent condition assessment of the pump stations.

Scope of Work: The work includes, but not necessarily limited to removal and replacement of existing build-up, membrane, metal, and or shingle type roofs, including all accessories such as flashing, expansion joints, roof drains/conductors and sealing cap stones to prevent water from penetrating the building envelop and causing water damage to the surrounding structure.

Challenges:

Project Cost Estimates

System	Status	Type	Start Date	Finish Date	Total Estimated Cost	Projected Expenditures by Fiscal Year				
						2021-22	2022-23	2023-24	2024-25	2025-26
Sewer	Design	C			\$650,000	\$325,000	\$325,000	\$275,000		

DWS-932 Large Sewer Improvements: Riverdale & Rosedale

Status: Procurement

Significance: In-place rehabilitation / repair of existing sewers

Location: Various locations in Riverdale and Rosedale Park

Driver: Renew and rehabilitate Detroit infrastructure and neighborhoods based on CIPMO pilot study project.

Scope of Work: The rehabilitation of large diameter sewers will include man-entry walk-through inspection, internal repairs, cleaning and site restoration.

Challenges: Carefully exposing the failed sections of water main. Minimizing the disturbances to customers.

Project Cost Estimates

System	Status	Type	Start Date	Finish Date	Total Estimated Cost	Projected Expenditures by Fiscal Year				
						2021-22	2022-23	2023-24	2024-25	2025-26
Sewer	Procurement	C			\$4,800,000	\$4,400,000	\$400,000			

CIP#

DWS-933 Corktown Sewer

Status: Closed

Significance:

Location: Corktown Sewer located between 1723 Lafayette Blvd. and 1700 Fort St. Detroit, MI 48216

Driver: Recent discovery of 95% sewer back-up caused for the need of sewer replacement, and the need for a downstream manhole.

Scope of Work: The solution was to install 145 linear feet of 24-inch sewer and bulkhead then flowable fill the 5-foot sewer segment west of 11th St. A new manhole on the west end (upstream) of the new sewer was installed and a catch basin was replaced.

A full concrete sewer encasement structure with a 6-foot opening (downstream manhole) was installed in lieu of an inline connection to the 5'-0" alley sewer in vacated 11th St between Lafayette and Fort St. The manhole is needed to facilitate lining of this 5'-0" sewer segment that leads into the Detroit River Interceptor (DRI) at Jefferson Ave.

Challenges: DWSD permits request for sewer taps.

Project Cost Estimates:

System	Status	Type	Start Date	Finish Date	Total Estimated Cost	Projected Expenditures by Fiscal Year				
						2021-22	2022-23	2023-24	2024-25	2025-26
Sewer	Closed	C	7/1/2020	6/30/2021	\$172,336					

CIP#

DWS-937 Sewer Replacement

Status: New

Significance: In-Place Rehabilitation/repair of Existing Sewers

Location: Hubbard Farms, Hubbard Richard, West Side Industrial, Midtown, North Corktown, and Various Streets Throughout the City of Detroit

Driver: Renew and rehabilitate Detroit infrastructure and neighborhoods based on CIPMO pilot study project

Scope of Work: The scope will be developed from the sewer assessment performed in the neighborhoods for DWS-909/938 and DWS-910/939

Challenges: Minimizing disruption to neighborhoods, includes improvements in backyard easements

Project Cost Estimates: For now, the Cost Estimate is shown below. However, more accurate cost estimate will be developed after sewer assessment determines the rehabilitation needs.

System	Status	Type	Start Date	Finish Date	Total Estimated Cost	Projected Expenditures by Fiscal Year				
						2021-22	2022-23	2023-24	2024-25	2025-26
Sewer	New	C			\$15,600,000	\$8,000,000	\$7,600,000			

CIP#

DWS-938 Sewer Condition Assessment throughout City (DWS-909)

Status: New

Significance: Inspection, cleaning and assessment of existing sewer systems

Location: Various locations throughout the City of Detroit

Driver: Assessment of Detroit infrastructure and neighborhoods

Scope of Work: Sewer cleaning in order to perform NASSCO compliant inspection of approximately using CCVT to record defects.

Challenges: Minimizing disruption to neighborhoods, includes improvements in backyard easements

Project Cost Estimates

System	Status	Type	Start Date	Finish Date	Total Estimated Cost	Projected Expenditures by Fiscal Year				
						2021-22	2022-23	2023-24	2024-25	2025-26
Sewer	New	C			\$4,500,000	\$2,250,000	\$2,250,000			

CIP#

DWS-939 Sewer Condition Assessment High Priority

Status: New

Significance: Inspection, cleaning and assessment of existing sewer systems

Location: Hubbard Farms, Hubbard Richard, West Side Industrial, Midtown, North Corktown, and Various Streets

Driver: Assessment of Detroit infrastructure and neighborhoods

Scope of Work: Cleaning approximately 101,788 LF of sewer in order to perform NASSCO compliant inspection of approximately 342,390 LF of sewer using CCVT to record defects.

Challenges: Minimizing disruptions to neighborhoods, includes improvements in backyard easements

Project Cost Estimates

System	Status	Type	Start Date	Finish Date	Total Estimated Cost	Projected Expenditures by Fiscal Year				
						2021-22	2022-23	2023-24	2024-25	2025-26
Sewer	New	C			\$4,500,000	\$2,250,000	\$2,250,000			



CIP#1353

CS-1522 Green Infrastructure Program Management

Status: Closed

Significance: To study, design and develop bid documents and provide construction oversight of green infrastructure techniques and implementation.

Location: Upper Rouge Tributary Area

Driver: DWSD NPDES Permit No. MI0022802

Scope of Work: To study, design and develop bid documents and provide construction oversight of green infrastructure implementation. Additionally, the consultant will be responsible for project administration, development of modeling, estimating, monitoring and tracking aspects of green infrastructure techniques.

Challenges: Program efforts include green infrastructure/stormwater management efforts that result in the reduction of CSO discharge from 17 outfalls in Upper Rouge Tributary Area.

Project Cost Estimates

Type	Status	Type	Start Date	Finish Date	Total Estimated Cost	Projected Expenditures by Fiscal Year				
						2021-22	2022-23	2023-24	2024-25	2025-26
Sewer	Closed	S/D/CA/C	Dec 2013	Dec 2022	\$16,000,000					

CIP#1353

PC-799 Crowell Rec Center and EcoSite Modifications

Status: Closed

Significance: Reduce volume to URT (outfalls 059-69, 072-075, 077, 079)

Location: Riverdale neighborhood (Crowell) and Warrendale neighborhood (EcoSites)

Driver: DWSD NPDES Permit No. MI0022802

Scope of Work: Construct permeable block pavement in the center parking spaces and two bioretention islands to collect runoff within and tributary to the north parking lot and the south parking lot. For EcoSites, modify 2 of 4 initial designs to divert runoff from opposite side of the street into bioretention cells to double the tributary area at a reasonable cost.

Challenges: Coordination of paving and plantings with recreation center usage.



Project Cost Estimates

Type	Status	D-Design C- Construction	Start Date	Finish Date	Total Estimated Cost	Projected Expenditures by Fiscal Year				
						2021-22	2022-23	2023-24	2024-25	2025-26
Sewer	Closed	C	Nov 2017	Dec 2022	\$847,000	\$3,000				

CIP# 1353

PC-801A Oakman Blvd

Status: Active -Construction Complete; Project in the Planting Maintenance Phase

Significance: Reduce volume to URT (outfalls 059-69, 072-075, 077, 079)

Location: Aviation neighborhood

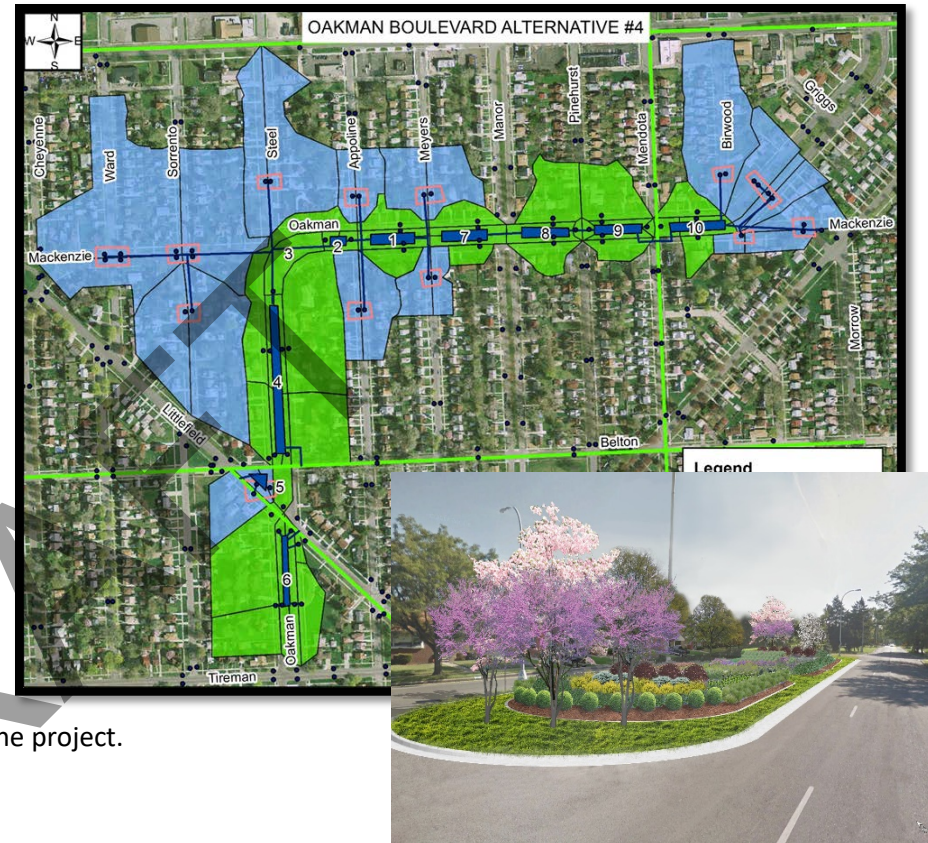
Driver: DWSD NPDES Permit No. MI0022802; basement back-ups

Scope of Work: Constructed a series of bioretention and underground storage practices within the median to manage runoff from 62.5 acres. The proposed work includes routing stormwater runoff from the tributary areas to either the surface practices within the median or to the sub-surface storage practices based on elevation of the influent.

Challenges: Coordination with combining GSI and water main into one project.

Project Cost Estimates

Type	Status	Project Type	Start Date	Finish Date	Total Estimated Cost	Projected Expenditures by Fiscal Year				
						2021-22	2022-23	2023-24	2024-25	2025-26
Sewer	Active	C	8/1/2019	8/1/2024	\$8,694,168	\$20,000	\$20,000	\$20,000		



CIP#1353

PC-800 O'Shea Park

Status: Active/Maintenance Period

Significance: Reduce volume to URT (outfalls 059-69, 072-075, 077, 079)

Location: Greenfield Road and I-96

Driver: DWSD NPDES Permit No. MI0022802

Scope of Work: Construction of approximately 14,000 square feet of a bioretention basin; will capture runoff from within the park and the majority of the flow along Capitol Street and Rutherford Street.

Challenges: Coordination with GSD for simultaneously occurring park renovation project.



Project Cost Estimates

Type	Status	D-Design C- Construction	Start Date	Finish Date	Total Estimated Cost	Projected Expenditures by Fiscal Year				
						2021-22	2022-23	2023-24	2024-25	2025-26
Sewer	Active	C	April 2018	Dec 2021	\$587,000	\$10,000				

CIP#1353

PC-806 Charles H Wright Academy

Status: New

Significance: Installation of large GSI that collect and manage stormwater.

Location: Charles Wright and Ludington Schools

Driver: DWSD NPDES Permit No. MI0022802

Scope of Work: Construct large scale GSI practices that collect and manage stormwater from Charles Wright. Overflow from the GSI practices is conveyed to the Upper Rouge River through sheet flow.

Challenges: Coordination with Detroit Public Schools for agreements and construction.



Project Cost Estimates

Type	Status	D-Design C-Construction	Start Date	Finish Date	Total Estimated Cost	Projected Expenditures by Fiscal Year				
						2021-22	2022-23	2023-24	2024-25	2025-26
Sewer	New	C/D	4/1/2021	4/1/2024	\$1,530,000	\$686,736	\$45,000	\$37,900		

CIP#1353

Chandler Park Drive (CIPMP)

Status: New

Significance: The stormwater management practice along Chandler Park drive will contribute to runoff reduction.

Location: Chandler Park Drive

Driver: Optimize the capacity in the sewer system through GSI implementation.

Scope of Work: Construct bioretention cells mirroring the natural landscape with a shallow grass swale in the planting strip between the sidewalk and road.

Challenges: N/A

Project Cost Estimates

Type	Description	Status	D-Design C- Construction	Start Date	Finish Date	Total Estimated Cost	Projected Expenditures by Fiscal Year				
							2021-22	2022-23	2023-24	2024-25	2025-26
Sewer	Chandler Park Drive	New	C	12/2/19		\$135,000	\$5,000	\$5,000	\$5,000		



Capital Partnership Program

St. Paul Tabernacle

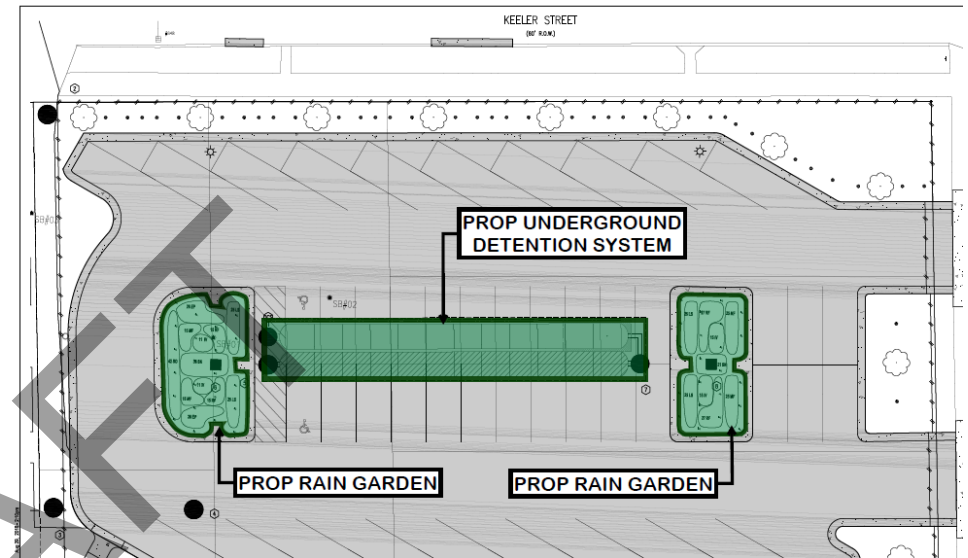
Status: Procurement

Driver: DWSD NPDES Permit No. MI0022802 - To help customer reduce the drainage charges and aid in reduction of stormwater flows to the sewer system.

Significance: Stormwater runoff reduction

Location: St. Paul Tabernacle

Scope of Work: The work consists of installation of green stormwater infrastructure (GSI), which includes approximately 5,000 cubic feet of underground arch detention system, two rain gardens and all associated storm sewer piping and structures. St. Paul Tabernacle will utilize the CPP funds to implement the stormwater management on the property.



Purpose: To comply with regulatory requirements and promote environmental sustainability, DWSD has initiated the Capital Partnership Program (CPP) that will leverage public resources to help customers finance implementation of stormwater management measures at their sites. The CPP provides for DWSD's payments through reimbursements of customer (non-residential) expenses of up to 50% of the cost of approved Green Stormwater Infrastructure (GSI) measures up to a maximum payment of \$50,000, subject to DWSD's CPP policy and administrative procedures. CPP provides up to \$5.0 million per year to fund installation of approved GSI projects

Challenges: N/A

Project Cost Estimates

Type	Status	D-Design C-Construction	Start Date	Finish Date	Total Estimated Cost	Projected Expenditures by Fiscal Year				
						2021-22	2022-23	2023-24	2024-25	2025-26
Sewer	New	D			\$175,000	\$5,000				

CIP#1353

CS-1884A Green Infrastructure Program Management

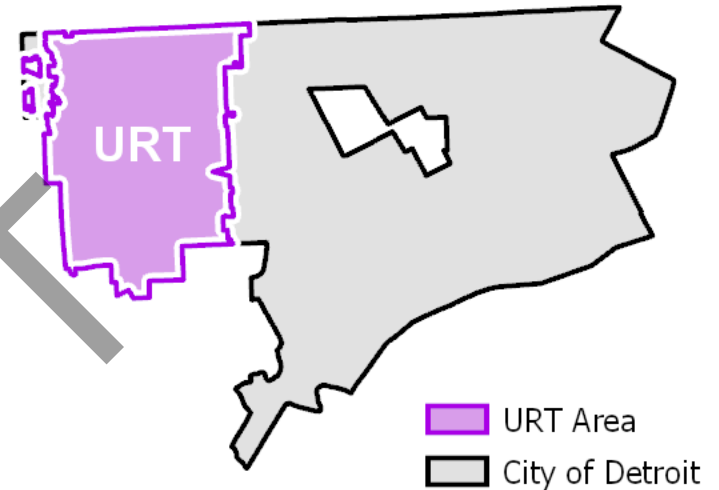
Status: Active

Significance: To comply with the DWSD NPDES Permit No. MI0022802 and reduce CSO events.

Location: Upper Rouge Tributary Area

Driver: DWSD NPDES Permit No. MI0022802

Scope of Work: To study, design and develop bid documentation and provide construction oversight of green infrastructure implementation. Additionally, the consultant will be responsible for project administration, development of modeling, estimating, monitoring and tracking aspects of green infrastructure techniques.



Challenges: To locate and install green infrastructure/stormwater management practices that result in the reduction of CSO discharge from 17 outfalls in Upper Rouge Tributary Area.

Project Cost Estimates

Type	Status	D-Design C-Construction	Start Date	Finish Date	Total Estimated Cost	Projected Expenditures by Fiscal Year				
						2021-22	2022-23	2023-24	2024-25	2025-26
Sewer	Active	S/D/CA	8/1/2019	8/1/2026	\$12,000,000	\$2,500,000	\$2,500,000	\$2,500,000	\$1,000,000	\$1,000,000

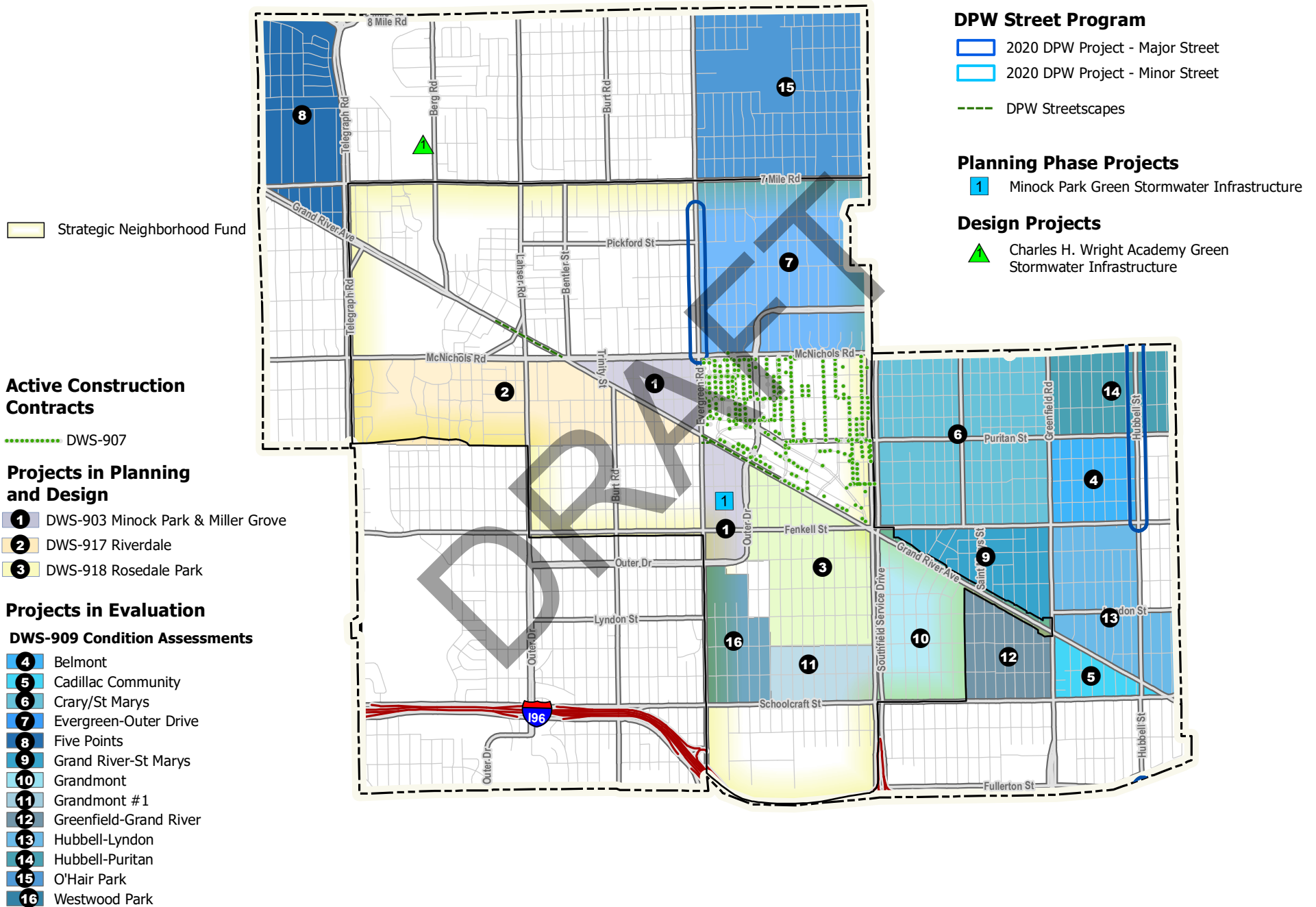


APPENDIX B – MAPS OF CIP PROJECT BY COUNCIL DISTRICT

DRAFT

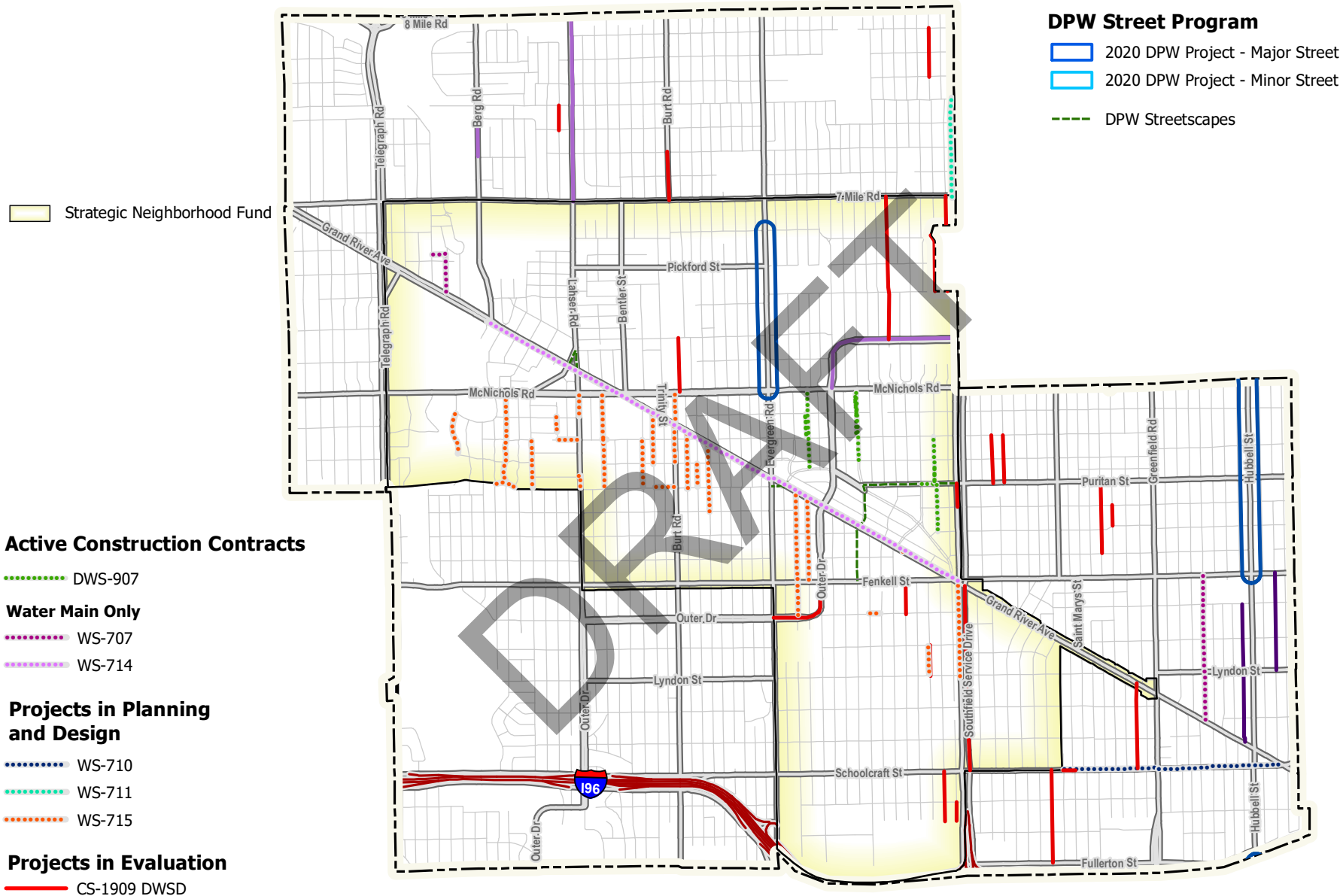
DWSD Capital Improvement Plan FY2022 Projects - Sewer

District 1 Active Projects, Condition Assessment/Evaluation, Planning, and Design

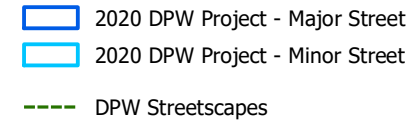


DWSD Capital Improvement Plan FY2022 Projects - Water

District 1 Active Projects, Condition Assessment/Evaluation, Planning, and Design

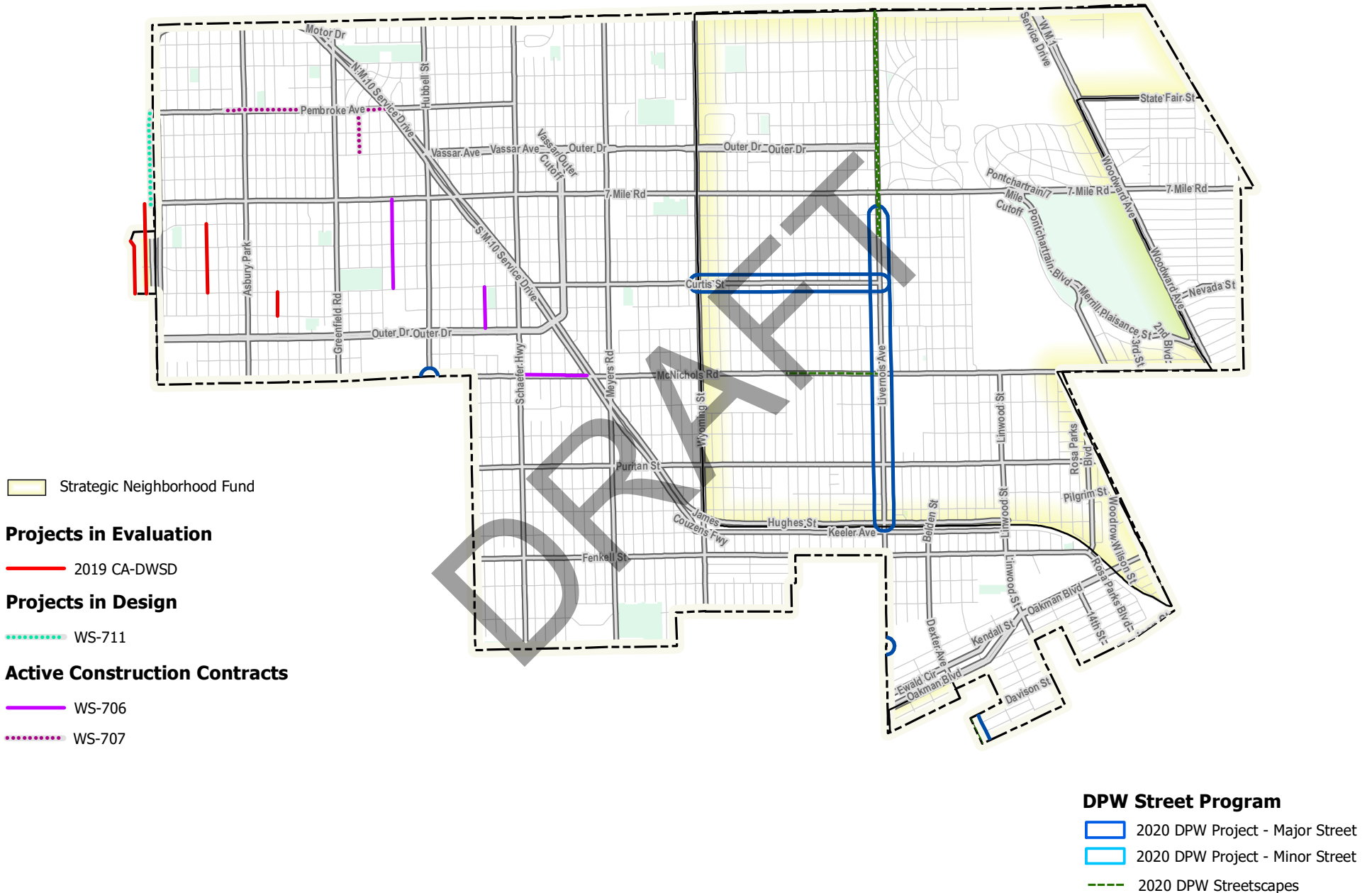


District 2 Active Projects, Condition Assessment/Evaluation, Planning, and Design



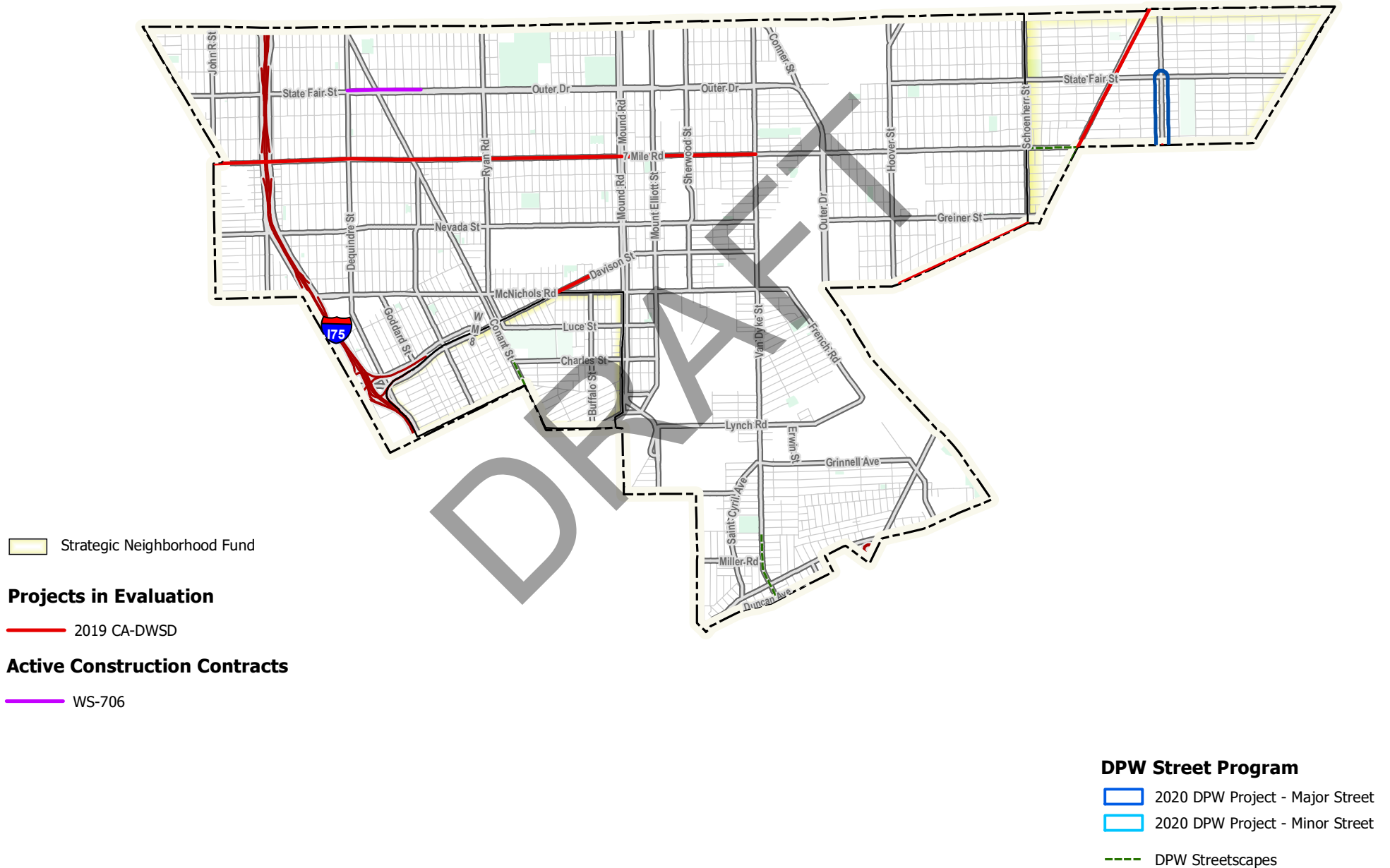
DWSD Capital Improvement Plan FY2022 Projects - Water

District 2 Active Projects, Condition Assessment/Evaluation, Planning, and Design



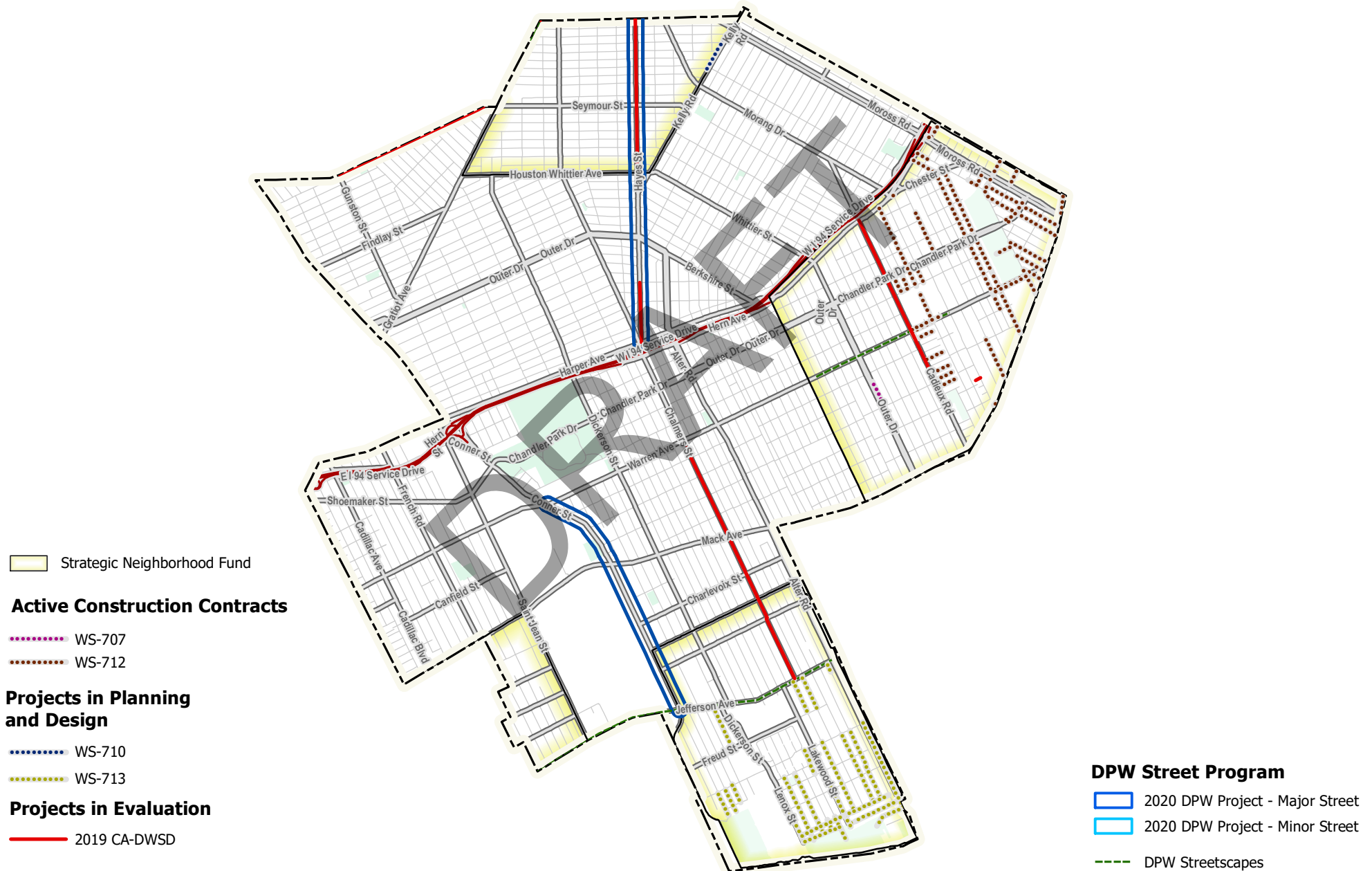
DWSD Capital Improvement Plan FY2022 Projects - Water

District 3 Active Projects, Condition Assessment/Evaluation, Planning, and Design



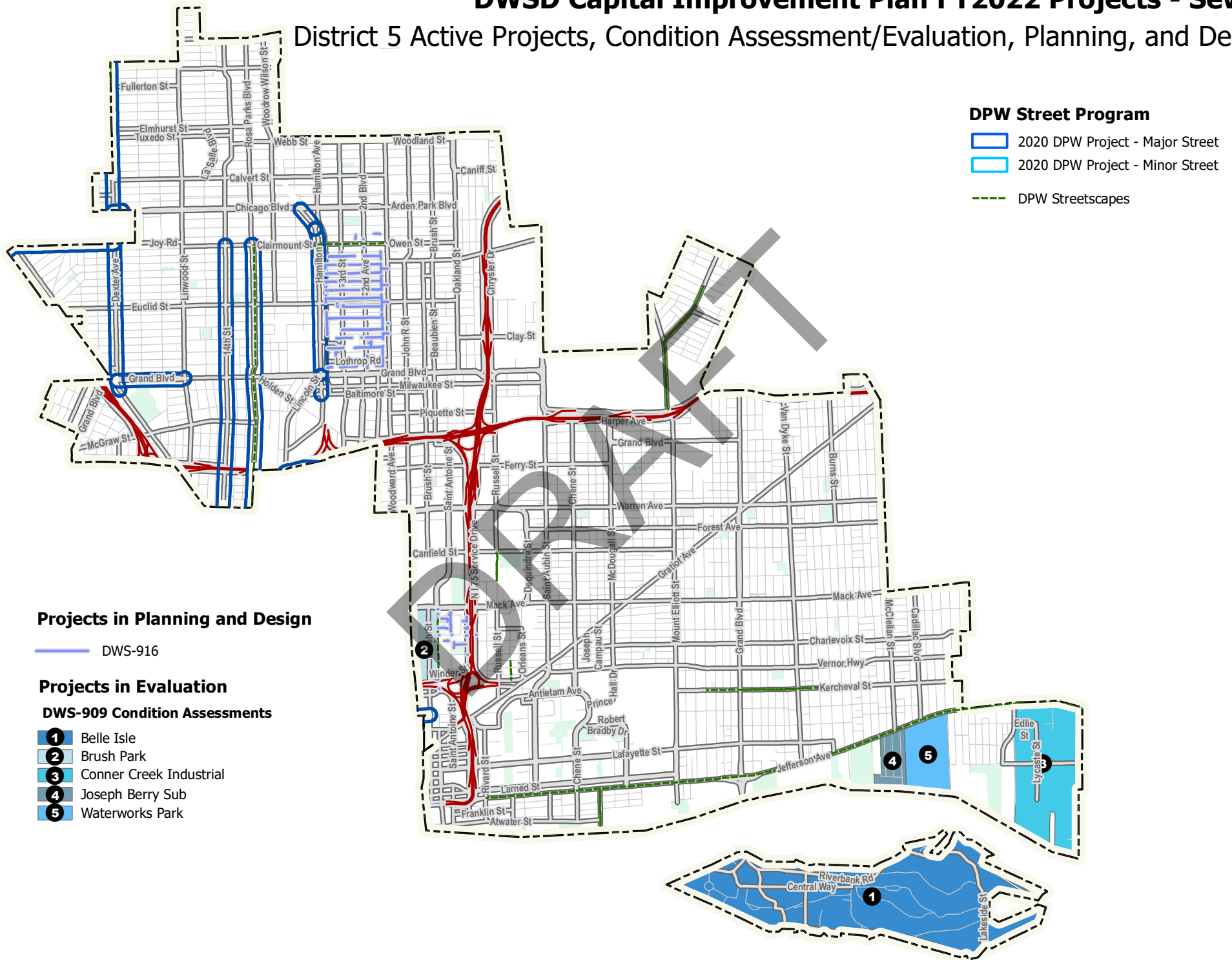
DWSD Capital Improvement Plan FY2022 Projects - Water

District 4 Active Projects, Condition Assessment/Evaluation, Planning, and Design



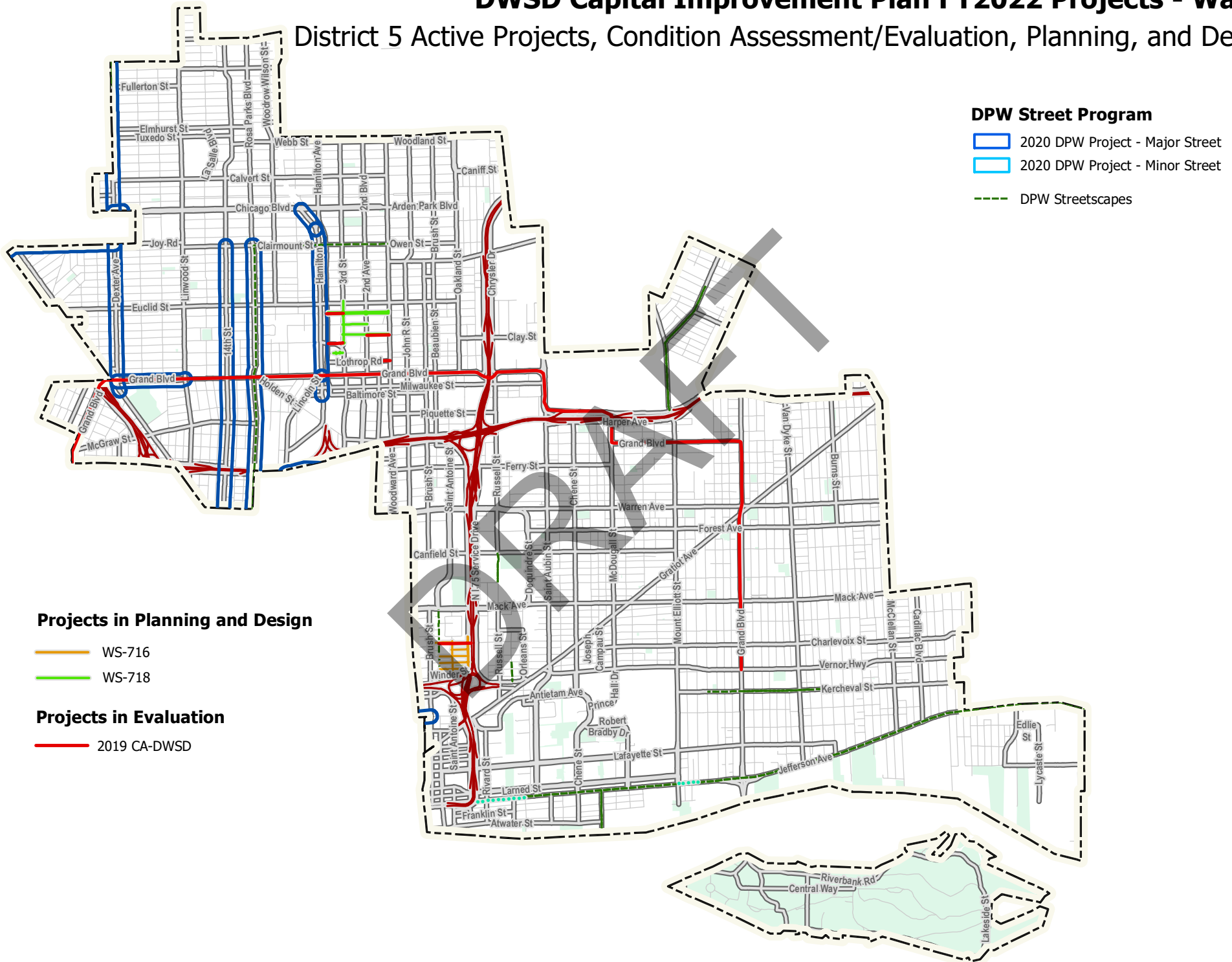
DWSD Capital Improvement Plan FY2022 Projects - Sewer

District 5 Active Projects, Condition Assessment/Evaluation, Planning, and Design



DWSD Capital Improvement Plan FY2022 Projects - Water

District 5 Active Projects, Condition Assessment/Evaluation, Planning, and Design






DWSD Capital Improvement Plan FY2022 Projects - Sewer

District 6 Active Projects, Condition Assessment/Evaluation, Planning, and Design






 Strategic Neighborhood Fund

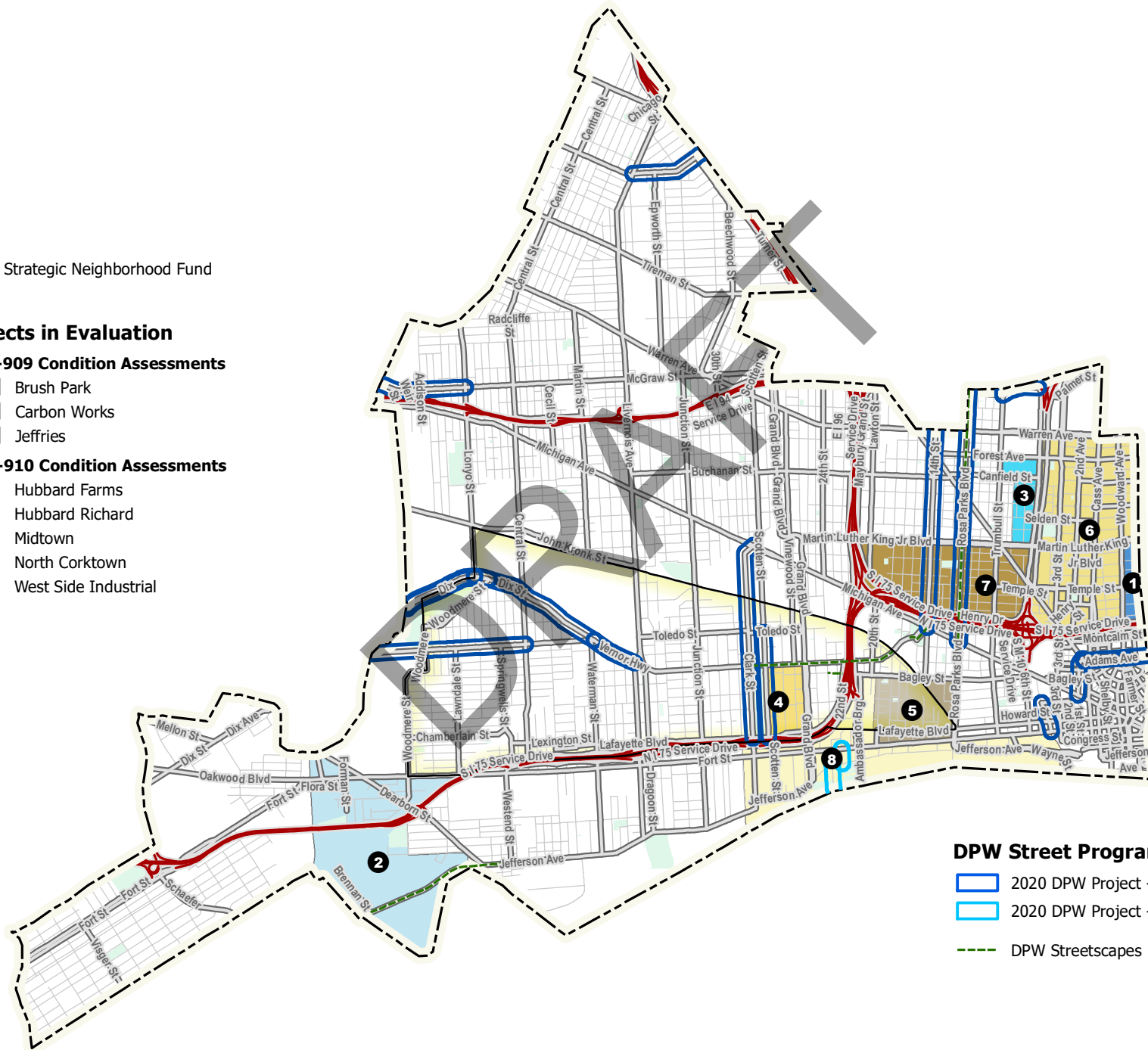
Projects in Evaluation

DWS-909 Condition Assessments




-  1 Brush Park
-  2 Carbon Works
-  3 Jeffries

DWS-910 Condition Assessments

-  4 Hubbard Farms
-  5 Hubbard Richard
-  6 Midtown
-  7 North Corktown
-  8 West Side Industrial



DPW Street Program

-  2020 DPW Project - Major Street
-  2020 DPW Project - Minor Street
-  DPW Streetscapes

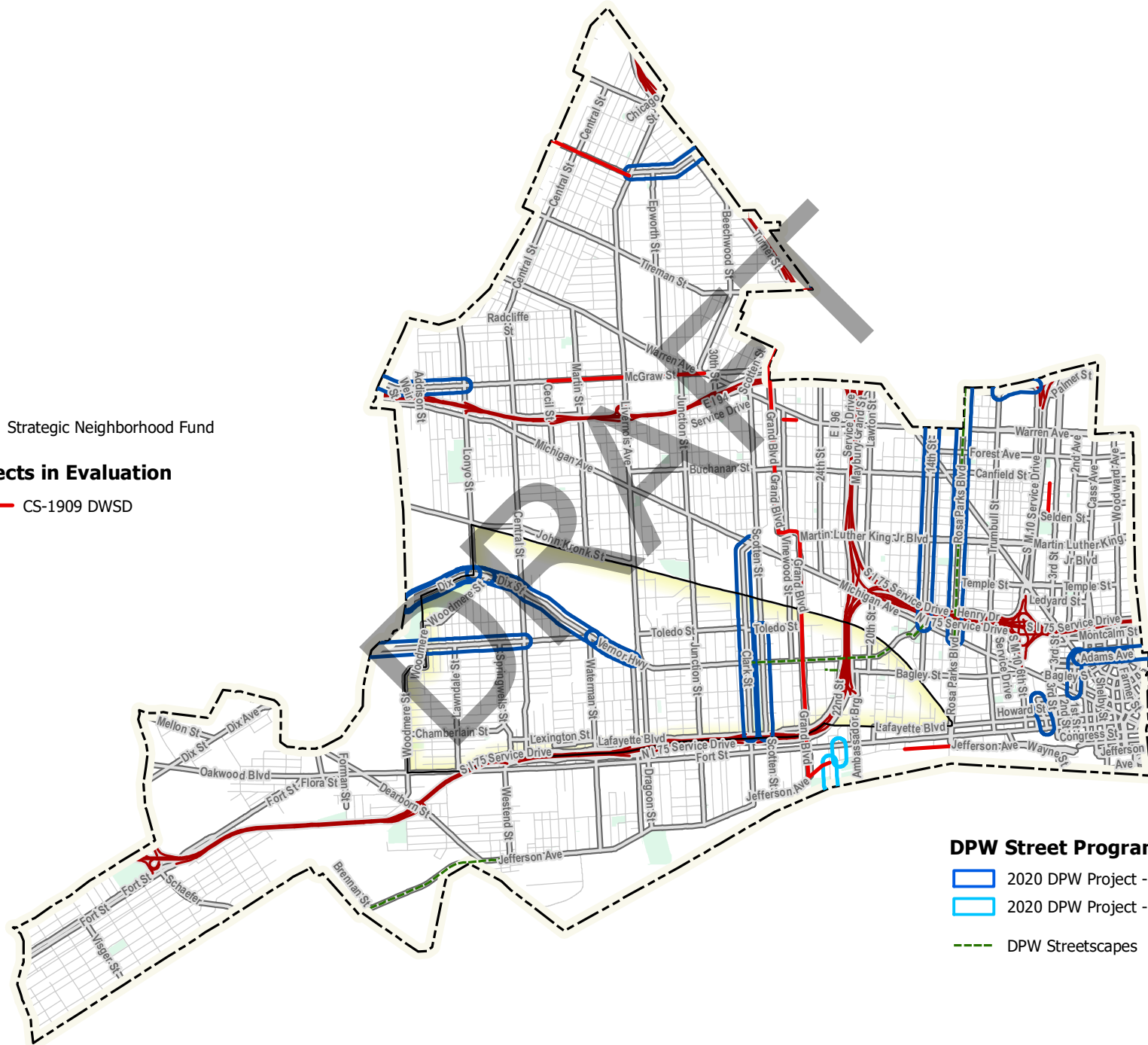
DWSD Capital Improvement Plan FY2022 Projects - Water

District 6 Active Projects, Condition Assessment/Evaluation, Planning, and Design

Strategic Neighborhood Fund

Projects in Evaluation

CS-1909 DWSD



DPW Street Program

2020 DPW Project - Major Street

2020 DPW Project - Minor Street


DPW Streetscapes

DWSD Capital Improvement Plan FY2022 Projects - Sewer

District 7 Active Projects, Condition Assessment/Evaluation, Planning, and Design

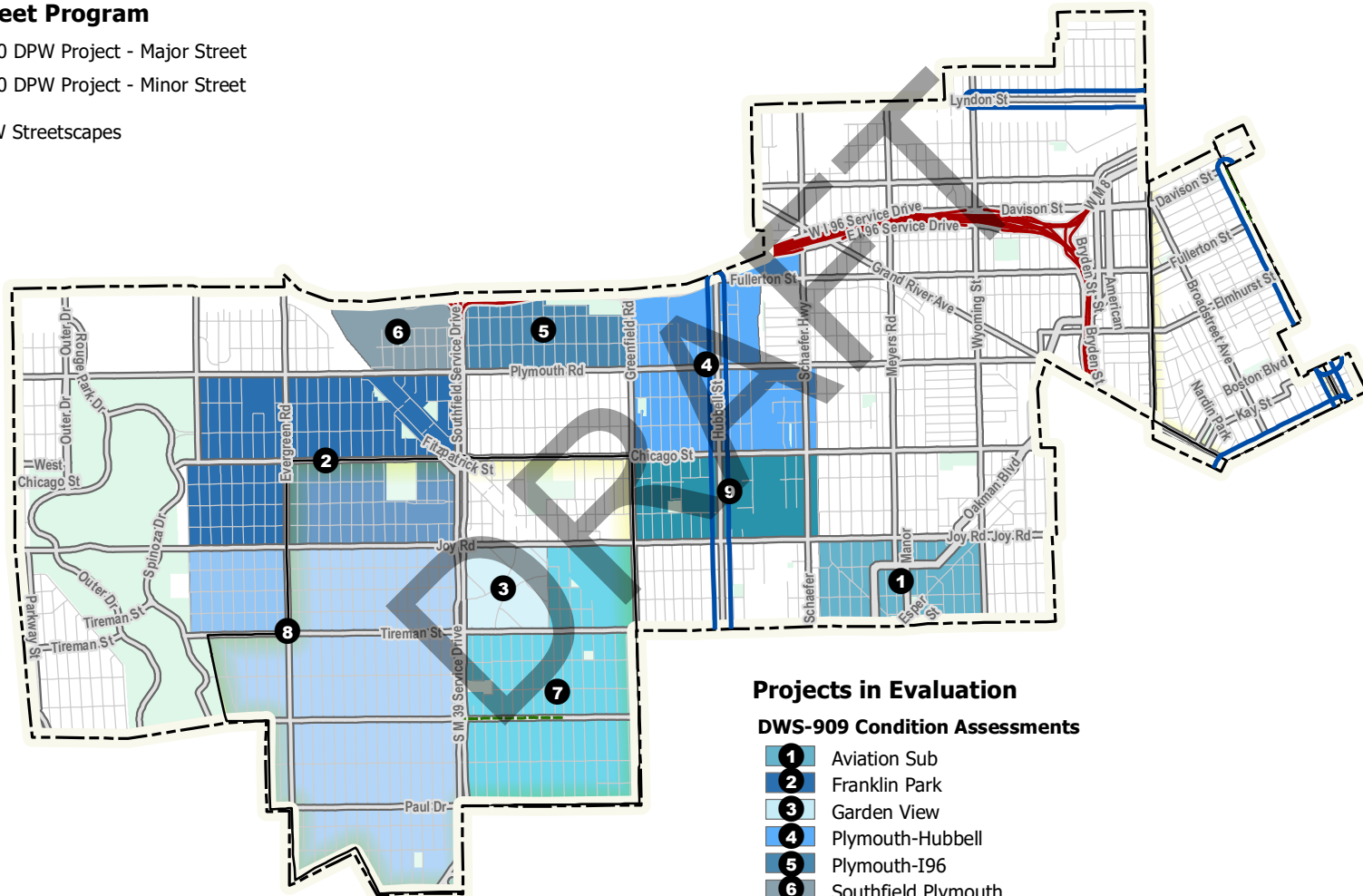
 Strategic Neighborhood Fund

DPW Street Program

 2020 DPW Project - Major Street

 2020 DPW Project - Minor Street

 DPW Streetscapes



Projects in Evaluation

DWS-909 Condition Assessments

-  1 Aviation Sub
-  2 Franklin Park
-  3 Garden View
-  4 Plymouth-Hubbell
-  5 Plymouth-I96
-  6 Southfield Plymouth
-  7 Warren Ave Community
-  8 Warrendale
-  9 We Care Community


DWSD Capital Improvement Plan FY2022 Projects - Water

District 7 Active Projects, Condition Assessment/Evaluation, Planning, and Design

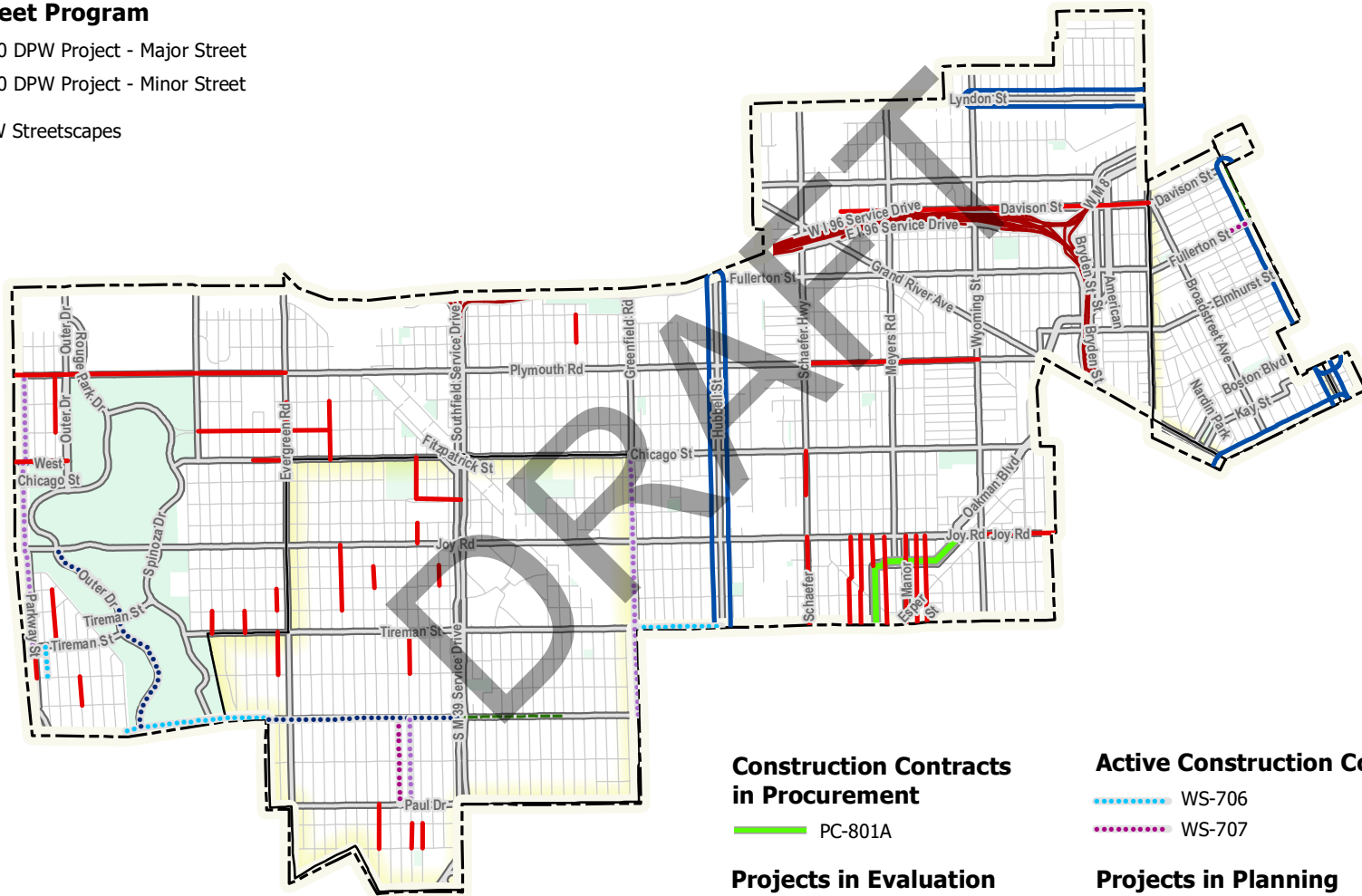
 Strategic Neighborhood Fund

DPW Street Program

 2020 DPW Project - Major Street

 2020 DPW Project - Minor Street


 DPW Streetscapes



Construction Contracts in Procurement

 PC-801A

Projects in Evaluation

 2019 CA-DWSD

Active Construction Contracts

 WS-706

 WS-707

Projects in Planning and Design

 WS-710

 WS-711

APPENDIX C – STREET TABLE OF CIP PROJECTS

DRAFT

Type	Phase	Activity	Project ID	Location	Districts	Length	Street	Street From	Street To
Water	Procurement	Repair	CS-1909 DWSD	24th St. Jefferson W. to C & O Rail Road	6	954	24th St.	Jefferson W.	C & O Rail Road
Sewer	Procurement	Repair	DWS-916	2nd Ave Bethune to Grand Blvd	5	499	2nd Ave	Bethune	Grand Blvd
Water	Procurement	Replace	WS-718	3rd St Euclid St to Virginia Park St	5	440	3rd St	Euclid St	Virginia Park St
Water	Procurement	Replace	WS-718	3rd St Virginia Park St to Pallister St	5	1,392	3rd St	Virginia Park St	Pallister St
Water	Design	Replace	WS-716	Alfred St Antoine to Beaubien	5	1,118	Alfred	St Antoine	Beaubien
Sewer	Procurement	Repair	DWS-916	Alfred Brush to Brush	5	24	Alfred	Brush	Brush
Sewer	Procurement	Repair	DWS-916	Alfred Chyrsler to Chrysler	5	15	Alfred	Chyrsler	Chyrsler
Water	Design	Replace	WS-713	Alfred Brush Ford Park Lenox to Newport park boundary	4	455	Alfred Brush Ford Park	Lenox	Newport
Water	Design	Replace	WS-713	Algonquin Essex to Avondale	4	708	Algonquin	Essex	Avondale
Water	Construction	Replace	WS-712	Alstead St Moross Rd northeast to Kingsville St	4	486	Alstead S	Moross Rd northeast	Kingsville St
Water	Design	Replace	WS-713	Alter Essex to Klenk	4	3,261	Alter	Essex	Klenk
Water	Construction	Repair	WS-712	Anatole St Canyon St to Mack Ave	4	1,133	Anatole	Canyon St	Mack Ave
Sewer	Construction	Repair	DWS-907	Annchester Rd Santa Maria St to McNichols Rd	1	45	Annchester Rd	Santa Maria St	McNichols Rd
Water	Procurement	Repair	CS-1909 DWSD	Appoline Joy to Tireman	7	2,684	Appoline	Joy	Tireman
Water	Procurement	Repair	CS-1909 DWSD	Artesian Van Buren to Constance	7	653	Artesian	Van Buren	Constance
Water	Procurement	Repair	CS-1909 DWSD	Artesian Kirkwood to Paul	7	1,359	Artesian	Kirkwood	Paul
Water	Design	Replace	WS-713	Ashland Jefferson to south of Fox River	4	295	Ashland	Jefferson	Fox River
Water	Procurement	Repair	CS-1909 DWSD	Ashton W. Davison to Dead End	1	521	Ashton	W. Davison	Dead End
Water	Procurement	Repair	CS-1909 DWSD	Ashton Curtis to Seven Mile	1	2,620	Ashton	Curtis	Seven Mile
Sewer	Construction	Repair	DWS-907	Ashton Ave Florence St to Verne Ave	1	667	Ashton Ave	Florence St	Verne Ave
Sewer	Construction	Replace	DWS-907	Ashton Ave Florence St to Puritan Ave	1	654	Ashton Ave	Florence St	Puritan Ave
Sewer	Construction	Repair	DWS-907	Ashton Rd Puritan Ave to Pilgrim St	1	549	Ashton Rd	Puritan Ave	Pilgrim St
Sewer	Construction	Repair	DWS-907	Ashton Rd Midland St to Keeler St	1	33	Ashton Rd	Midland St	Keeler St
Sewer	Procurement	Repair	DWS-916	Atkinson Woodford to 2nd Ave	5	244	Atkinson	Woodford	2nd Ave
Water	Procurement	Repair	CS-1909 DWSD	Auburn Fenkell to Midland	1	1,390	Auburn	Fenkell	Midland
Water	Procurement	Replace	WS-715	Auburn St Grand River Avenue to Outer Drive	1	3,310	Auburn St	Grand River Avenue	Outer Drive
Water	Procurement	Repair	CS-1909 DWSD	Avon Outer Drive to Seven Mile	1	3,921	Avon	Outer Drive	Seven Mile
Sewer	Construction	Repair	DWS-907	Avon Rd Gainsborough Rd to Grand River Ave	1	0	Avon Rd	Gainsborough Rd	Grand River Ave
Water	Construction	Replace	WS-712	Canyon St northeast of Badluck Memorial Park (north)	4	543	Badluck Memorial Park (north)	Canyon	Balduck Park Paring Lot
Sewer	Procurement	Repair	DWS-916	Beaubien Mack to Eliot	5	6	Beaubien	Mack	Eliot
Water	Construction	Repair	WS-706	Beaverland Ave. Sawyer Ave. to Tireman	1	924	Beaverland Ave.	Sawyer Ave.	Tireman
Water	Construction	Replace	WS-712	Berden St Canyon St northeast to Moross Rd	4	404	Berden St	Canyon St northeast	Moross Rd
Sewer	Procurement	Repair	DWS-916	Bethune 3rd Ave to John C Lodge FWY	5	93	Bethune	3rd Ave	John C Lodge FWY
Water	Procurement	Replace	WS-718	Bethune St 3rd St to John C Lodge Fwy	5	509	Bethune St	3rd St	John C Lodge Fwy
Water	Procurement	Replace	WS-715	Blackstone St Grand River Avenue to Florence	1	1,393	Blackstone St	Grand River Avenue	Florence
Sewer	Procurement	Replace	DWS-916	Blaine Woodward to 3rd Ave	5	5	Blaine	Woodward	3rd Ave
Sewer	Construction	Repair	DWS-908	Bluehill Harper to Berden	4	42	Bluehill	Harper	Berden
Sewer	Construction	Repair	DWS-908	Bluehill Linville to Southampton	4	599	Bluehill	Linville	Southampton
Sewer	Construction	Repair	DWS-908	Bluehill Minneapolis to Mack	4	1,021	Bluehill	Minneapolis	Mack
Water	Construction	Replace	WS-712	Bluehill St Chandler Park Dr southeast to Southampton St	4	555	Bluehill S	Chandler Park Dr southeast	Southampton St
Water	Construction	Repair	WS-707	Brace Warren to Paul	7	2,610	Brace	Warren	Paul
Water	Procurement	Replace	WS-715	Braile St Florence to Puritan	1	628	Braile St	Florence	Puritan
Water	Procurement	Replace	WS-715	Bramell St McNichols Rd to Puritan	1	2,530	Bramell St	McNichols Rd	Puritan
Water	Procurement	Repair	CS-1909 DWSD	Brammel Tireman to Constance	7	1,693	Brammel	Tireman	Constance
Sewer	Construction	Repair	DWS-907	Bretton Dr Outer Dr to Huntington Rd	1	30	Bretton Dr	Outer Dr	Huntington Rd
Sewer	Construction	Repair	DWS-907	Bretton Dr Huntington Rd to Huntington Rd	1	40	Bretton Dr	Huntington Rd	Huntington Rd
Sewer	Construction	Repair	DWS-907	Bretton Dr Outer Dr to Shaftsbury Ave	1	10	Bretton Dr	Outer Dr	Shaftsbury Ave
Sewer	Construction	Repair	DWS-907	Bretton Dr Outer Dr to Shaftsbury Ave	1	10	Bretton Dr	Outer Dr	Shaftsbury Ave
Sewer	Construction	Repair	DWS-907	Bretton Dr Warwick St to Avon Rd	1	10	Bretton Dr	Warwick St	Avon Rd
Sewer	Construction	Repair	DWS-907	Bretton Dr Warwick St to Avon Rd	1	10	Bretton Dr	Warwick St	Avon Rd
Sewer	Construction	Repair	DWS-907	Bretton Dr Shaftsbury Ave to Warwick St	1	30	Bretton Dr	Shaftsbury Ave	Warwick St
Sewer	Construction	Repair	DWS-907	Bretton Dr Keeler St to Keeler St	1	20	Bretton Dr	Keeler St	Keeler St
Sewer	Construction	Repair	DWS-907	Bretton Dr Glastonbury Ave to Avon Rd	1	31	Bretton Dr	Glastonbury Ave	Avon Rd
Water	Procurement	Replace	WS-715	Burgess Verne to Puritan	1	1,276	Burgess	Verne	Puritan
Water	Procurement	Lining	WS-715	Burgess McNichols Rd to Verne	1	1,409	Burgess	McNichols Rd	Verne
Water	Procurement	Replace	WS-715	Burt Rd McNichols Rd to Grand River Ave	1	780	Burt Rd	McNichols Rd	Grand River Ave

Type	Phase	Activity	Project ID	Location	Districts	Length	Street	Street From	Street To
Water	Procurement	Repair	CS-1909 DWSD	Burt Road Seven Mile to Vassar	1	1,339	Burt Road	Seven Mile	Vassar
Water	Procurement	Replace	WS-715	Burt St Grand River Avenue to Florence	1	1,011	Burt St	Grand River Avenue	Florence
Water	Construction	Repair	WS-712	Cadieus Rd Warren Ave to New York St	4	286	Cadieus Rd	Warren Ave	New York St
Water	Procurement	Repair	CS-1909 DWSD	Cadieus Road Harper Avenue to Munich Avenue	4	5,607	Cadieus Road	Harper Avenue	Munich Avenue
Sewer	Construction	Replace	DWS-908	Canyon Chester to Moon	4	174	Canyon	Chester	Moon
Sewer	Construction	Repair	DWS-908	Canyon Chester to Moon	4	140	Canyon	Chester	Moon
Water	Construction	Replace	WS-712	Canyon St Mallina St southeast to Berden St	4	352	Canyon St	Mallina St southeast	Berden St
Water	Construction	Replace	WS-712	Canyon St Warren Ave south to Mack Ave	4	943	Canyon St	Warren Ave south	Mack Ave
Water	Construction	Replace	WS-712	Canyon St Edsel Ford Service Dr southeast to Rockcastle Dr	4	424	Canyon St	Edsel Ford Service Dr south	Rockcastle Dr
Water	Procurement	Repair	CS-1909 DWSD	Cathedral Grandville to Southfield Freeway	7	1,352	Cathedral	Grandville	Southfield Freeway
Water	Construction	Repair	WS-712	the intersection of Cadieus Rd and Chandler Park Dr	4	74	Chadieus Rd	Chandler Park Dr (North)	Chandler Park Dr (South)
Water	Procurement	Replace	WS-715	Chalfonte St Artesian to Stahelin	1	307	Chalfonte St	Artesian	Stahelin
Water	Design	Replace	WS-713	Chalmers Essex to Scripps	4	2,607	Chalmers	Essex	Scripps
Water	Design	Replace	WS-713	Chalmers Freud to Jefferson	4	1,155	Chalmers	Freud	Jefferson
Water	Procurement	Repair	CS-1909 DWSD	Chalmers Ave. Warren Avenue to Mack Avenue	4	3,649	Chalmers Ave.	Warren Avenue	Mack Avenue
Water	Procurement	Repair	CS-1909 DWSD	Chalmers Ave. Mack Avenue to Jefferson Avenue	4	5,459	Chalmers Ave.	Mack Avenue	Jefferson Avenue
Water	Procurement	Repair	CS-1909 DWSD	Chalmers Ave. Mack Avenue to Jefferson Avenue	4	5,508	Chalmers Ave.	Mack Avenue	Jefferson Avenue
Sewer	Procurement	Repair	DWS-916	Chandler Woodward to 2nd Ave	5	235	Chandler	Woodward	2nd Ave
Water	Construction	Replace	WS-712	Chandler Park Dr Lannoo St northeast to Moross Rd	4	566	Chandler Par	Lannoo St northeast	Moross Rd
Water	Construction	Replace	WS-712	Chandler Park Dr Lodewyck St northeast to Radnor St	4	556	Chandler Par	Lodewyck St northeast	Radnor St
Water	Construction	Replace	WS-712	Chandler Park Dr Cadieus Rd northeast to Bluehill St	4	695	Chandler Park Dr	Cadieus Rd northeast	Bluehill St
Water	Procurement	Repair	CS-1909 DWSD	Chatham Orangelawn to Plymouth	7	1,744	Chatham	Orangelawn	Plymouth
Sewer	Construction	Repair	DWS-908	Chester Marseilles to University	4	337	Chester	Marseilles	University
Water	Construction	Replace	WS-712	Chester St and Marseilles St intersection	4	508	Chester St	Maseilles	Farmbrook
Water	Construction	Replace	WS-712	Chester St at Neff Ave intersection	4	73	Chester St	Neff Ave	125 FT West
Sewer	Procurement	Replace	DWS-916	Chrysler Eliot to Wilkins	5	3	Chrysler	Eliot	Wilkins
Sewer	Procurement	Repair	DWS-916	Chrysler Mack to Watson	5	177	Chrysler	Mack	Watson
Water	Design	Replace	WS-716	Chrysler Dr Watson to Winder	5	2,416	Chrysler Dr	Watson	Winder
Water	Construction	Replace	WS-712	Cincinnati St Cadieus Rd northeast to end of street	4	655	Cincinnati	Cadieus Rd northeast	end of street
Sewer	Construction	Repair	DWS-908	Cincinnati Guilford to Cadieus	4	10	Cincinnati	Guilford	Cadieus
Sewer	Construction	Replace	DWS-908	Cincinnati Guilford to Cadieus	4	655	Cincinnati	Guilford	Cadieus
Water	Procurement	Repair	CS-1909 DWSD	Clairview (Btwn Windsor & Waveny) Neff to Westward to Dead End	4	186	Clairview (Btwn Windsor & W	Neff	Westward to Dead End
Water	Construction	Repair	WS-707	Codding Grand River to Margareta	1	1,047	Codding	Grand River	Margareta
Water	Design	Replace	WS-713	Conner Essex to Gate Valve at Park	4	839	Conner	Essex	Park
Water	Design	Replace	WS-713	Continental Freud to Jefferson	4	1,568	Continental	Freud	Jefferson
Water	Procurement	Repair	CS-1909 DWSD	Cooley Pembroke to St. Martins	1	686	Cooley	Pembroke	St. Martins
Sewer	Construction	Repair	DWS-908	Cornwall Guilford to Cadieus	4	341	Cornwall	Guilford	Cadieus
Sewer	Construction	Repair	DWS-908	Cornwall Cadieus to Guilford	4	10	Cornwall	Cadieus	Guilford
Water	Construction	Repair	WS-707	Coyle Fenkell to Grand River	1	3,993	Coyle	Fenkell	Grand River
Water	Procurement	Repair	CS-1909 -CIPMO	Davison	6	633	Davison	St Antoine St	Chrysler Service Dr.
Water	Procurement	Repair	CS-1909 DWSD	Davison Avenue Cheyenne to Wyoming	7	4,073	Davison Avenue	Cheyenne	Wyoming
Water	Procurement	Repair	CS-1909 DWSD	Davison Avenue Wyoming to Livernois	7	5,273	Davison Avenue	Wyoming	Livernois
Water	Procurement	Repair	CS-1909 DWSD	Davison Avenue McNichols to Syracuse	7	2,448	Davison Avenue	McNichols	Syracuse
Water	Procurement	Replace	WS-718	Delaware Woodward Ave to 3rd St	5	1,709	Delaware	Woodward Ave	3rd St
Water	Procurement	Repair	CS-1909 DWSD	Delaware St. 2nd Street to Woodward	5	882	Delaware St.	2nd Street	Woodward
Water	Construction	Replace	WS-712	Detroit St Cadieus Rd northeast to Guilford St	4	659	Detroit	Cadieus Rd northeast	Guilford St
Sewer	Construction	Repair	DWS-908	Detroit Cadieus to Guilford	4	151	Detroit	Cadieus	Guilford
Sewer	Construction	Replace	DWS-908	Detroit Cadieus to Guilford	4	659	Detroit	Cadieus	Guilford
Water	Design	Replace	WS-716	Division Beaubien to Winder	5	1,168	Division	Beaubien	Winder
Water	Procurement	Replace	WS-715	Dolphin St Grove to Dehner	1	420	Dolphin St	Grove	Dehner
Water	Design	Lining	WS-713	Drexel Averhill (added new valve) to Avondale South side	4	358	Drexel	Averhill	Avondale
Water	Design	Replace	WS-713	Drexel/Riverside Dr Averhill to dead-end south of Scripps	4	2,037	Drexel/Riverside Dr	Averhill	Scripps
Water	Construction	Repair	WS-707	E. Outer Drive Wallingford to 250 ft South of Cornwall	4	1,855	E. Outer Drive	Wallingford	Cornwall St
Water	Construction	Repair	WS-706	E. Outer Drive Dequindre to Mitchell	4	2,869	E. Outer Drive	Dequindre	Mitchell
Sewer	Procurement	Repair	DWS-916	Easement Benton Chrysler to East	5	103	Easement Benton	Chrysler	East
Sewer	Procurement	Repair	DWS-916	Easement E. 2nd Ave Chandler to Bethune	5	244	Easement E. 2nd Ave	Chandler	Bethune

Type	Phase	Activity	Project ID	Location	Districts	Length	Street	Street From	Street To
Sewer	Construction	Repair	DWS-907	Easement E. of Bretton Dr Keeler St to Grand River Ave	1	10	Easement E. of Bretton Dr	Keeler St	Grand River Ave
Sewer	Construction	Repair	DWS-908	Easement E. of Cadieux Sioux to Detroit	4	294	Easement E. of Cadieux	Sioux	Detroit
Sewer	Construction	Repair	DWS-907	Easement E. of Edinborough Rd McNichols Rd to Grove St	1	490	Easement E. of Edinborough Rd	McNichols Rd	Grove St
Sewer	Construction	Repair	DWS-907	Easement E. of Edinborough Rd Verne Ave to Florence St	1	598	Easement E. of Edinborough Rd	Verne Ave	Florence St
Sewer	Construction	Repair	DWS-907	Easement E. of Evergreen Ave Grove St to Verne Ave	1	678	Easement E. of Evergreen Ave	Grove St	Verne Ave
Sewer	Construction	Repair	DWS-907	Easement E. of Evergreen Rd Verne Ave to Florence St	1	44	Easement E. of Evergreen Rd	Verne Ave	Florence St
Sewer	Construction	Repair	DWS-907	Easement E. of Evergreen Rd Verne Ave to Florence St	1	10	Easement E. of Evergreen Rd	Verne Ave	Florence St
Sewer	Construction	Repair	DWS-907	Easement E. of Evergreen Rd McNichols Rd to Grove St	1	10	Easement E. of Evergreen Rd	McNichols Rd	Grove St
Sewer	Construction	Repair	DWS-907	Easement E. of Evergreen Rd McNichols Rd to Grove St	1	10	Easement E. of Evergreen Rd	McNichols Rd	Grove St
Sewer	Construction	Repair	DWS-907	Easement E. of Evergreen Rd McNichols Rd to Grove St	1	10	Easement E. of Evergreen Rd	McNichols Rd	Grove St
Sewer	Construction	Repair	DWS-907	Easement E. of Glastonbury Ave Lancashire St to Grand Rive Alley	1	10	Easement E. of Glastonbury Av	Lancashire St	Grand Rive Alley
Sewer	Construction	Repair	DWS-907	Easement E. of Glastonbury Rd Verne Ave to Florence St	1	10	Easement E. of Glastonbury Rd	Verne Ave	Florence St
Sewer	Construction	Repair	DWS-907	Easement E. of Glastonbury Rd Grove St to Verne Ave	1	10	Easement E. of Glastonbury Rd	Grove St	Verne Ave
Sewer	Construction	Repair	DWS-907	Easement E. of Glastonbury Rd Grove St to Verne Ave	1	10	Easement E. of Glastonbury Rd	Grove St	Verne Ave
Sewer	Construction	Repair	DWS-907	Easement E. of Glastonbury Rd McNichols Rd to Grove St	1	10	Easement E. of Glastonbury Rd	McNichols Rd	Grove St
Sewer	Construction	Repair	DWS-907	Easement E. of Glastonbury Rd Puritan St to Pilgrim St	1	39	Easement E. of Glastonbury Rd	Puritan St	Pilgrim St
Sewer	Construction	Repair	DWS-907	Easement E. of Huntington McNichols Rd to Grove St	1	491	Easement E. of Huntington	McNichols Rd	Grove St
Sewer	Construction	Repair	DWS-907	Easement E. of Huntington Rd Grove St to Verne Ave	1	697	Easement E. of Huntington Rd	Grove St	Verne Ave
Sewer	Construction	Repair	DWS-907	Easement E. of Outer Dr Verne Ave to Florence St	1	90	Easement E. of Outer Dr	Verne Ave	Florence St
Sewer	Construction	Repair	DWS-907	Easement E. of Plainview Ave McNichols Rd to Grove St	1	491	Easement E. of Plainview Ave	McNichols Rd	Grove St
Sewer	Construction	Repair	DWS-907	Easement E. of Plainview Ave Grove St to Verne Ave	1	679	Easement E. of Plainview Ave	Grove St	Verne Ave
Sewer	Construction	Repair	DWS-907	Easement E. of Plainview Ave Verne Ave to Florence St	1	457	Easement E. of Plainview Ave	Verne Ave	Florence St
Sewer	Construction	Repair	DWS-907	Easement E. of Rosemont Ave Florence St to Puritan Ave	1	619	Easement E. of Rosemont Ave	Florence St	Puritan Ave
Sewer	Construction	Repair	DWS-907	Easement E. of Rosemont Ave Pilgrim St to Midland St	1	1,312	Easement E. of Rosemont Ave	Pilgrim St	Midland St
Sewer	Construction	Replace	DWS-907	Easement E. of Shaftsbury Ave Verne Ave to Florence St	1	624	Easement E. of Shaftsbury Ave	Verne Ave	Florence St
Sewer	Construction	Repair	DWS-907	Easement E. of Shaftsbury Ave Verne Ave to Florence St	1	29	Easement E. of Shaftsbury Ave	Verne Ave	Florence St
Sewer	Construction	Repair	DWS-907	Easement E. of Stahelin Ave Grove St to Verne Ave	1	316	Easement E. of Stahelin Ave	Grove St	Verne Ave
Sewer	Construction	Repair	DWS-907	Easement E. of Warwick St McNichols Rd to Grove St	1	10	Easement E. of Warwick St	McNichols Rd	Grove St
Sewer	Construction	Repair	DWS-907	Easement E. of Westmoreland Rd Verne Ave to Florence St	1	346	Easement E. of Westmoreland I	Verne Ave	Florence St
Sewer	Construction	Repair	DWS-907	Easement E. of Westmoreland Rd Verne Ave to Florence St	1	10	Easement E. of Westmoreland I	Verne Ave	Florence St
Sewer	Construction	Repair	DWS-907	Easement E. of Westmoreland Rd McNichols Rd to Grove St	1	10	Easement E. of Westmoreland I	McNichols Rd	Grove St
Sewer	Construction	Repair	DWS-907	Easement E. of Westmoreland Rd McNichols Rd to Grove St	1	471	Easement E. of Westmoreland I	McNichols Rd	Grove St
Sewer	Construction	Repair	DWS-907	Easement E. of Westmoreland Rd Grove St to Verne Ave	1	697	Easement E. of Westmoreland I	Grove St	Verne Ave
Sewer	Procurement	Repair	DWS-916	Easement E. St Antoine Wilkins to Alfred	5	245	Easement E. St Antoine	Wilkins	Alfred
Sewer	Procurement	Repair	DWS-916	Easement Erskin East to Beaubien	5	386	Easement Erskin	East	Beaubien
Sewer	Procurement	Repair	DWS-916	Easement Fisher FWY E Fisher Service Drive to Montcalm	5	16	Easement Fisher FWY	E Fisher Service Drive	Montcalm
Sewer	Procurement	Replace	DWS-916	Easement N. Eliot Beaubien to East	5	68	Easement N. Eliot	Beaubien	East
Sewer	Construction	Repair	DWS-908	Easement N. of Cadieux munich to Cincinnati	4	10	Easement N. of Cadieux	munich	Cincinnati
Sewer	Construction	Repair	DWS-908	Easement N. of Cadieux Waveney to Detroit	4	41	Easement N. of Cadieux	Waveney	Detroit
Sewer	Construction	Repair	DWS-908	Easement N. of Mack Woodhall to Guilford	4	204	Easement N. of Mack	Woodhall	Guilford
Sewer	Construction	Repair	DWS-908	Easement N. of Moross Edgefield to Tyrone	4	10	Easement N. of Moross	Edgefield	Tyrone
Sewer	Construction	Replace	DWS-908	Easement N. of Moross Edgefield to Tyrone	4	22	Easement N. of Moross	Edgefield	Tyrone
Sewer	Construction	Repair	DWS-908	Easement N. of Warren Cadieux to Bluehill	4	138	Easement N. of Warren	Cadieux	Bluehill
Sewer	Procurement	Repair	DWS-916	Easement S. Bethune Woodward to 2nd Ave	5	69	Easement S. Bethune	Woodward	2nd Ave
Sewer	Procurement	Repair	DWS-916	Easement S. Chandler Woodward to Delaware	5	1,287	Easement S. Chandler	Woodward	Delaware
Sewer	Procurement	Repair	DWS-916	Easement S. Eliot St Antoine to Beaubien	5	344	Easement S. Eliot	St Antoine	Beaubien
Sewer	Procurement	Replace	DWS-916	Easement S. Euclid Woodward to John C Lodge FWY	5	1,553	Easement S. Euclid	Woodward	John C Lodge FWY
Sewer	Procurement	Repair	DWS-916	Easement S. Gladstone Woodward to John C Lodge FWY	5	2,261	Easement S. Gladstone	Woodward	John C Lodge FWY
Sewer	Procurement	Repair	DWS-916	Easement S. Hazlewood Woodward to John C Lodge FWY	5	2,133	Easement S. Hazlewood	Woodward	John C Lodge FWY
Sewer	Procurement	Repair	DWS-916	Easement S. Lothrop Wooward to John C Lodge FWY	5	1,144	Easement S. Lothrop	Wooward	John C Lodge FWY
Sewer	Construction	Repair	DWS-908	Easement S. of Berden Lodewyck to Marseilles	4	367	Easement S. of Berden	Lodewyck	Marseilles
Sewer	Procurement	Repair	DWS-916	Easement S. of Blaine Woodward to John C Lodge FWY	5	2,202	Easement S. of Blaine	Woodward	John C Lodge FWY
Sewer	Construction	Repair	DWS-908	Easement S. of Cincinnati Guilford to Cadieux	4	277	Easement S. of Cincinnati	Guilford	Cadieux
Sewer	Procurement	Repair	DWS-916	Easement S. of Clairmount at 2nd Ave	5	18	Easement S. of Clairmount	2nd Ave	2nd Ave
Sewer	Construction	Repair	DWS-907	Easement S. of Florence St Evergreen Rd to Westmoreland Rd	1	24	Easement S. of Florence St	Evergreen Rd	Westmoreland Rd
Sewer	Construction	Repair	DWS-907	Easement S. of Florence St Shaftsbury Ave to Warwick St	1	10	Easement S. of Florence St	Shaftsbury Ave	Warwick St

DWSD 2022 CIP Street Table

Type	Phase	Activity	Project ID	Location	Districts	Length	Street	Street From	Street To
Sewer	Construction	Repair	DWS-907	Easement S. of Florence St Shaftsbury Ave to Warwick St	1	10	Easement S. of Florence St	Shaftsbury Ave	Warwick St
Sewer	Construction	Repair	DWS-907	Easement S. of McNichols Rd Westmoreland Rd to Edinborough Rd	1	10	Easement S. of McNichols Rd	Westmoreland Rd	Edinborough Rd
Sewer	Construction	Repair	DWS-907	Easement S. of McNichols Rd Evergreen Rd to Plainview Ave	1	155	Easement S. of McNichols Rd	Evergreen Rd	Plainview Ave
Sewer	Construction	Repair	DWS-907	Easement S. of McNichols Rd Huntington Rd to Outer Dr	1	227	Easement S. of McNichols Rd	Huntington Rd	Outer Dr
Sewer	Construction	Repair	DWS-907	Easement S. of McNichols Rd Plainview Ave to Westmoreland Rd	1	208	Easement S. of McNichols Rd	Plainview Ave	Westmoreland Rd
Sewer	Construction	Repair	DWS-907	Easement S. of McNichols Rd Edinborough Rd to Huntington Rd	1	356	Easement S. of McNichols Rd	Edinborough Rd	Huntington Rd
Sewer	Construction	Repair	DWS-907	Easement S. of McNichols Rd Warwick St to Sunderland Rd	1	10	Easement S. of McNichols Rd	Warwick St	Sunderland Rd
Sewer	Procurement	Repair	DWS-916	Easement S. of Pingress Woodward to John C Lodge FWY	5	2,225	Easement S. of Pingress	Woodward	John C Lodge FWY
Sewer	Construction	Repair	DWS-908	Easement S. of Waveney Guilford to Cadieux	4	549	Easement S. of Waveney	Guilford	Cadieux
Sewer	Procurement	Repair	DWS-916	Easement S. Philadelphia Woodward to John C. Lodge FWY	5	2,196	Easement S. Philadelphia	Woodward	John C. Lodge FWY
Sewer	Procurement	Repair	DWS-916	Easement S. Seward Woodward to 3rd St	5	1,588	Easement S. Seward	Woodward	3rd St
Sewer	Procurement	Repair	DWS-916	Easement S. Taylor Woodward to John C Lodge FWY	5	1,693	Easement S. Taylor	Woodward	John C Lodge FWY
Sewer	Procurement	Replace	DWS-916	Easement S. Virginia Woodward to John C. Lodge FWY	5	2,143	Easement S. Virginia	Woodward	John C. Lodge FWY
Sewer	Procurement	Repair	DWS-916	Easement S. Wilkins Chrysler to St Antoine	5	473	Easement S. Wilkins	Chrysler	St Antoine
Sewer	Procurement	Repair	DWS-916	Easement W. 2nd Ave Atkinson to Clairmount	5	163	Easement W. 2nd Ave	Atkinson	Clairmount
Sewer	Procurement	Repair	DWS-916	Easement W. 2nd Ave Lothrop to Grand Blvd	5	207	Easement W. 2nd Ave	Lothrop	Grand Blvd
Sewer	Procurement	Repair	DWS-916	Easement W. 2nd Ave between Atkinson and Clairmount	5	9	Easement W. 2nd Ave	Atkinson	Clairmount
Sewer	Procurement	Replace	DWS-916	Easement W. 3rd Ave Seward to Lathrop	5	166	Easement W. 3rd Ave	Seward	Lathrop
Sewer	Procurement	Replace	DWS-916	Easement W. 3rd Ave Euclid to Virginia Park	5	12	Easement W. 3rd Ave	Euclid	Virginia Park
Sewer	Procurement	Repair	DWS-916	Easement W. Chrysler Benton to Winder	5	53	Easement W. Chrysler	Benton	Winder
Sewer	Procurement	Repair	DWS-916	Easement W. East St Eliot to Watson	5	661	Easement W. East St	Eliot	Watson
Sewer	Construction	Repair	DWS-908	Easement W. of Bluehill Harper to Berden	4	369	Easement W. of Bluehill	Harper	Berden
Sewer	Construction	Repair	DWS-908	Easement W. of Farmbrook Minvera to Berden	4	97	Easement W. of Farmbrook	Minvera	Berden
Sewer	Construction	Repair	DWS-908	Easement W. of Farmbrook Southampton to Frankfort	4	305	Easement W. of Farmbrook	Southampton	Frankfort
Sewer	Construction	Repair	DWS-908	Easement W. of Farmbrook Cornwall to Munich	4	373	Easement W. of Farmbrook	Cornwall	Munich
Sewer	Construction	Repair	DWS-908	Easement W. of Farmbrook Chester to Linville	4	471	Easement W. of Farmbrook	Chester	Linville
Sewer	Construction	Repair	DWS-908	Easement W. of Farmbrook Warren to Munich	4	18	Easement W. of Farmbrook	Warren	Munich
Sewer	Construction	Repair	DWS-908	Easement W. of Hereford Chester to Minvera	4	387	Easement W. of Hereford	Chester	Minvera
Sewer	Construction	Repair	DWS-908	Easement W. of Hereford Berden to Southampton	4	1,426	Easement W. of Hereford	Berden	Southampton
Sewer	Construction	Repair	DWS-908	Easement W. of Hereford Southampton to Warren	4	649	Easement W. of Hereford	Southampton	Warren
Sewer	Construction	Repair	DWS-908	Easement W. of Hereford Munich to Mack	4	624	Easement W. of Hereford	Munich	Mack
Sewer	Construction	Repair	DWS-908	Easement W. of Lodewyck Southampton to Frankfort	4	629	Easement W. of Lodewyck	Southampton	Frankfort
Sewer	Construction	Repair	DWS-908	Easement W. of Lodewyck Warren to Cornwall	4	594	Easement W. of Lodewyck	Warren	Cornwall
Sewer	Construction	Repair	DWS-908	Easement W. of Lodewyck Chandler Park to Frankfort	4	20	Easement W. of Lodewyck	Chandler Park	Frankfort
Sewer	Construction	Repair	DWS-908	Easement W. of Marseille Edsel Ford Hwy to Chester	4	8	Easement W. of Marseille	Edsel Ford Hwy	Chester
Sewer	Construction	Repair	DWS-908	Easement W. of Marseille Chester to Minvera	4	313	Easement W. of Marseille	Chester	Minvera
Sewer	Construction	Repair	DWS-908	Easement W. of Marseille Berden to Frankfort	4	62	Easement W. of Marseille	Berden	Frankfort
Sewer	Construction	Repair	DWS-908	Easement W. of Marseille Southampton to Munich	4	1,008	Easement W. of Marseille	Southampton	Munich
Sewer	Construction	Repair	DWS-908	Easement W. of Marseille Munich to Mack	4	306	Easement W. of Marseille	Munich	Mack
Sewer	Construction	Repair	DWS-908	Easement W. of Marseilles Berden to Chandler Park	4	341	Easement W. of Marseilles	Berden	Chandler Park
Sewer	Construction	Repair	DWS-908	Easement W. of Marseilles Frankfort to Warren	4	300	Easement W. of Marseilles	Frankfort	Warren
Sewer	Construction	Repair	DWS-908	Easement W. of Oldtown Harper to Bern	4	33	Easement W. of Oldtown	Harper	Bern
Sewer	Construction	Repair	DWS-908	Easement W. of Oldtown Chandler Park to Southampton	4	479	Easement W. of Oldtown	Chandler Park	Southampton
Sewer	Construction	Repair	DWS-908	Easement W. of Radnor Chester to Linville	4	1,250	Easement W. of Radnor	Chester	Linville
Sewer	Construction	Repair	DWS-908	Easement W. of Radnor Cornwall to Munich	4	290	Easement W. of Radnor	Cornwall	Munich
Sewer	Construction	Repair	DWS-908	Easement W. of University Linville to Chandler Park	4	334	Easement W. of University	Linville	Chandler Park
Sewer	Construction	Repair	DWS-908	Easement W. of University Frankfort to Munich	4	1,294	Easement W. of University	Frankfort	Munich
Sewer	Construction	Repair	DWS-908	Easement W. of University Frankfort to Hereford	4	172	Easement W. of University	Frankfort	Hereford
Sewer	Procurement	Repair	DWS-916	Easement W. Woodward Taylor to Grand Blvd	5	3,348	Easement W. Woodward	Taylor	Grand Blvd
Sewer	Construction	Repair	DWS-908	Easement. W. of Bluehill Linville to Southampton	4	322	Easement. W. of Bluehill	Linville	Southampton
Water	Procurement	Repair	CS-1909 DWSD	East Grand Blvd Trombly to McDougall	5	4,174	East Grand Blvd	Trombly	McDougall
Water	Procurement	Repair	CS-1909 DWSD	East Grand Blvd Oakland Ave. to Trombly	5	4,492	East Grand Blvd	Oakland Ave.	Trombly
Water	Procurement	Repair	CS-1909 DWSD	East Grand Blvd Lodge Frwy to Oakland Ave.	5	5,165	East Grand Blvd	Lodge Frwy	Oakland Ave.
Water	Procurement	Repair	CS-1909 DWSD	East Grand Blvd McDougall to Helen	5	4,601	East Grand Blvd	McDougall	Helen
Water	Procurement	Repair	CS-1909 DWSD	East Grand Blvd Helen to Forest	5	3,844	East Grand Blvd	Helen	Forest
Water	Procurement	Repair	CS-1909 DWSD	East Grand Blvd Vernor to E. Jefferson Ave.	5	5,579	East Grand Blvd	Vernor	E. Jefferson Ave.

Type	Phase	Activity	Project ID	Location	Districts	Length	Street	Street From	Street To
Water	Design	Replace	WS-713	Eastlawn dead end to Scripps (added new valve)	4	397	Eastlawn	Scripps	Dead End South
Water	Construction	Replace	DWS-907	Edinborough Rd Bretton Dr north to McNichols Rd	1	3,364	Edinboroug	Bretton Dr North	McNichols Rd
Sewer	Construction	Repair	DWS-907	Edinborough Rd McNichols Rd to Grove St	1	736	Edinborough Rd	McNichols Rd	Grove St
Sewer	Construction	Repair	DWS-907	Edinborough Rd Grove St to Verne Ave	1	876	Edinborough Rd	Grove St	Verne Ave
Sewer	Construction	Replace	DWS-907	Edinborough Rd Grove St to Verne Ave	1	622	Edinborough Rd	Grove St	Verne Ave
Sewer	Construction	Repair	DWS-907	Edinborough Rd Grove St to Grove St	1	41	Edinborough Rd	Grove St	Grove St
Sewer	Construction	Repair	DWS-908	Edsel Ford Hwy Farmbrook to Hereford	4	552	Edsel Ford Hwy	Farmbrook	Hereford
Sewer	Construction	Repair	DWS-908	Edsel Ford Hwy Moross to Canyon	4	184	Edsel Ford Hwy	Moross	Canyon
Sewer	Procurement	Repair	DWS-916	Euclid Woodward to 2nd Ave	5	260	Euclid	Woodward	2nd Ave
Water	Procurement	Repair	CS-1909 DWSD	Evergreen Elmira to Chicago	7	1,766	Evergreen	Elmira	Chicago
Sewer	Construction	Repair	DWS-907	Evergreen Rd Verne Ave to Verne Ave	1	10	Evergreen Rd	Verne Ave	Verne Ave
Water	Construction	Replace	WS-712	Farmbrook St Edsel Ford Service Dr to Chandler Park Dr	4	897	Farmbrook	Edsel Ford Service Dr	Chandler Park Dr
Water	Construction	Replace	WS-712	Farmbrook St Chandler Park Dr southeast to Cornwall St	4	5,214	Farmbrook St	Chandler Park Dr southeast	Cornwall St
Water	Procurement	Repair	CS-1909 DWSD	Faust W. Chicago to Cathedral	7	1,255	Faust	W. Chicago	Cathedral
Water	Procurement	Repair	CS-1909 DWSD	Faust Kirkwood to Dayton	7	765	Faust	Kirkwood	Dayton
Water	Procurement	Repair	CS-1909 DWSD	Faust Dover to Joy	7	619	Faust	Dover	Joy
Water	Procurement	Repair	CS-1909 DWSD	Fielding Tireman to Belton	7	663	Fielding	Tireman	Belton
Sewer	Procurement	Repair	DWS-916	Fisher FWY Beaubien to Brush	5	385	Fisher FWY	Beaubien	Brush
Sewer	Construction	Repair	DWS-907	Florence St Plainview Ave to Westmoreland Rd	1	10	Florence St	Plainview Ave	Westmoreland Rd
Sewer	Construction	Repair	DWS-907	Florence St Evergreen Rd to Plainview Ave	1	10	Florence St	Evergreen Rd	Plainview Ave
Sewer	Construction	Repair	DWS-907	Florence St Edinborough Rd to Huntington Rd	1	21	Florence St	Edinborough Rd	Huntington Rd
Sewer	Construction	Repair	DWS-907	Florence St Westmoreland Rd to Edinborough Rd	1	10	Florence St	Westmoreland Rd	Edinborough Rd
Sewer	Construction	Repair	DWS-907	Florence St Huntington Rd to Shaftsbury Ave	1	738	Florence St	Huntington Rd	Shaftsbury Ave
Sewer	Construction	Repair	DWS-907	Florence St Warwick St to Outer Dr	1	10	Florence St	Warwick St	Outer Dr
Sewer	Construction	Repair	DWS-907	Florence St Outer Dr to Shaftsbury Ave	1	10	Florence St	Outer Dr	Shaftsbury Ave
Sewer	Construction	Repair	DWS-907	Florence St Outer Dr to Shaftsbury Ave	1	25	Florence St	Outer Dr	Shaftsbury Ave
Water	Procurement	Repair	CS-1909 DWSD	Fourth Street Selden to Calumet	6	1,219	Fourth Street	Selden	Calumet
Water	Construction	Repair	WS-707	Fullerton Petoskey to Dexter	7	1,309	Fullerton	Petoskey	Dexter
Sewer	Construction	Repair	DWS-907	Gainsborough Rd Warwick St to Outer Dr	1	688	Gainsborough Rd	Warwick St	Outer Dr
Sewer	Construction	Replace	DWS-907	Gainsborough Rd Warwick St to Outer Dr	1	451	Gainsborough Rd	Warwick St	Outer Dr
Sewer	Procurement	Repair	DWS-916	Gladstone 2nd Ave to 3rd Ave	5	2	Gladstone	2nd Ave	3rd Ave
Sewer	Procurement	Repair	DWS-916	Gladstone Woodward to 2nd Ave	5	266	Gladstone	Woodward	2nd Ave
Sewer	Construction	Replace	DWS-907	Glastonbury Rd McNichols Rd to Grove St	1	495	Glastonbury Rd	McNichols Rd	Grove St
Sewer	Construction	Repair	DWS-907	Glastonbury Rd Grove St to Verne Ave	1	669	Glastonbury Rd	Grove St	Verne Ave
Sewer	Construction	Replace	DWS-907	Glastonbury Rd Puritan Ave to Florence St	1	27	Glastonbury Rd	Puritan Ave	Florence St
Sewer	Construction	Replace	DWS-907	Glastonbury Rd McNichols Rd to Grove St	1	495	Glastonbury Rd	McNichols Rd	Grove St
Sewer	Construction	Replace	DWS-907	Grand River Alley Bretton Dr to Outer Dr	1	325	Grand River Alley	Bretton Dr	Outer Dr
Sewer	Construction	Repair	DWS-907	Grand River Alley Bretton Dr to Outer Dr	1	407	Grand River Alley	Bretton Dr	Outer Dr
Sewer	Construction	Repair	DWS-907	Grand River Alley Outer Dr to Warwick St	1	745	Grand River Alley	Outer Dr	Warwick St
Sewer	Construction	Repair	DWS-907	Grand River Alley Avon Rd to Glastonbury Ave	1	10	Grand River Alley	Avon Rd	Glastonbury Ave
Sewer	Construction	Repair	DWS-907	Grand River Alley Glastonbury Ave to Kentford St	1	365	Grand River Alley	Glastonbury Ave	Kentford St
Sewer	Construction	Repair	DWS-907	Grand River Alley Kentford St to Bretton Dr	1	139	Grand River Alley	Kentford St	Bretton Dr
Water	Procurement	Replace	WS-715	Perpendicular to Grand River Ave 183' South of Glastonbury Ave	1	66	Grand River Ave	183' from Glastonbury	<Null>
Sewer	Construction	Repair	DWS-907	Grand River Ave Warwick St to Avon Rd	1	706	Grand River Ave	Warwick St	Avon Rd
Water	Construction	Repair	WS-714	Grand River Avenue Fenkell to McNichols	1	14,837	Grand River Avenue	Fenkell	McNichols
Water	Construction	Replace	WS-714	Grand River Avenue Maren to Southfield HWY	1	14,837	Grand River Avenue	Maren	Southfield HWY
Water	Procurement	Repair	CS-1909 DWSD	Grandville Joy Road to Belton	7	1,994	Grandville	Joy Road	Belton
Water	Procurement	Repair	CS-1909 DWSD	Gratiot (M-3) Seven Mile to Eight Mile	4	6,067	Gratiot (M-3)	Seven Mile	Eight Mile
Sewer	Construction	Repair	DWS-908	Gravier Bluehill to Cadieux	4	10	Gravier	Bluehill	Cadieux
Water	Design	Repair	WS-711	Greenfield West Chicago to Warren	7	7,925	Greenfield Road	West Chicago	Warren
Water	Design	Repair	WS-711	Greenview Warren to Paul	7	2,606	Greenview	Warren	Paul
Water	Procurement	Repair	CS-1909 DWSD	Greenview Sawyer to Tireman	1	1,302	Greenview	Sawyer	Tireman
Water	Procurement	Repair	CS-1909 DWSD	Greenview Kirkwood to Dayton	1	764	Greenview	Kirkwood	Dayton
Water	Procurement	Repair	CS-1909 DWSD	Greenview Chalfonte to Fenkell	1	933	Greenview	Chalfonte	Fenkell
Sewer	Construction	Repair	DWS-907	Greenview Ave Florence St to Puritan Ave	1	679	Greenview Ave	Florence St	Puritan Ave
Sewer	Construction	Repair	DWS-907	Grove St Evergreen Rd to Plainview Ave	1	10	Grove St	Evergreen Rd	Plainview Ave

Type	Phase	Activity	Project ID	Location	Districts	Length	Street	Street From	Street To
Sewer	Construction	Repair	DWS-907	Grove St Evergreen Rd to Plainview Ave	1	10	Grove St	Evergreen Rd	Plainview Ave
Sewer	Construction	Repair	DWS-907	Grove St Westmoreland Rd to Plainview Ave	1	346	Grove St	Westmoreland Rd	Plainview Ave
Sewer	Construction	Repair	DWS-907	Grove St Edinborough Rd to Huntington Rd	1	293	Grove St	Edinborough Rd	Huntington Rd
Sewer	Construction	Repair	DWS-907	Grove St Westmoreland Rd to Edinborough Rd	1	215	Grove St	Westmoreland Rd	Edinborough Rd
Sewer	Construction	Repair	DWS-907	Grove St Outer Dr to Huntington Rd	1	190	Grove St	Outer Dr	Huntington Rd
Water	Construction	Replace	WS-712	Guilford St Harper St southeast to Chandler Park Dr	4	2,999	Guilford St	Harper St southeast	Chandler Park Dr
Sewer	Construction	Repair	DWS-908	Guilford Warren to Munich	4	53	Guilford	Warren	Munich
Sewer	Construction	Repair	DWS-908	Guilford Windsor to Mack	4	552	Guilford	Windsor	Mack
Sewer	Construction	Repair	DWS-908	Guilford Berden to Linville	4	20	Guilford	Berden	Linville
Sewer	Construction	Repair	DWS-908	Guilford Chandler Park to Southampton	4	373	Guilford	Chandler Park	Southampton
Sewer	Construction	Repair	DWS-908	Guilford Harper to Linville	4	358	Guilford	Harper	Linville
Sewer	Construction	Repair	DWS-908	Guilford Linville to Chandler Park	4	33	Guilford	Linville	Chandler Park
Water	Construction	Replace	WS-712	Guilford St alley southeast to Warren Ave	4	73	Guilford St	alley southeast	Warren Ave
Water	Construction	Replace	WS-712	Guilford St alley southeast to Warren Ave	4	981	Guilford St	alley southeast	Warren Ave
Water	Design	Replace	WS-713	Harbor Island Lakewood to dead end (before Alter)	4	1,704	Harbor Island	Lakewood	Alter Rd
Water	Procurement	Repair	CS-1909 DWSD	Harlow Puritan to Verne	1	1,322	Harlow	Puritan	Verne
Sewer	Construction	Repair	DWS-908	Harper Woodhall to Oldtown	4	20	Harper	Woodhall	Oldtown
Water	Procurement	Repair	CS-1909 DWSD	Hayes Seven Mile to Houston-Whitier	4	5,319	Hayes	Seven Mile	Houston-Whitier
Water	Procurement	Repair	CS-1909 DWSD	Hayes Elmdale to Harper Avenue	4	2,055	Hayes	Elmdale	Harper Avenue
Water	Construction	Replace	WS-712	Hereford St Minerva St southeast to Chandler Park Dr	4	1,611	Hereford St	Minerva St southeast	Chandler Park Dr
Water	Construction	Replace	WS-712	Hillcrest St Rolandale St southeast to Mack Ave	4	2,786	Hillcrest St	Rolandale St southeast	Mack Ave
Sewer	Construction	Repair	DWS-907	Huntington Rd Bretton Dr to Bretton Dr	1	13	Huntington Rd	Bretton Dr	Bretton Dr
Sewer	Construction	Repair	DWS-907	Huntington Rd Florence St to Bretton Dr	1	206	Huntington Rd	Florence St	Bretton Dr
Sewer	Construction	Repair	DWS-907	Huntington Rd Grove St to Grove St	1	24	Huntington Rd	Grove St	Grove St
Sewer	Construction	Replace	DWS-907	Huntington St Grove St to Verne Ave	1	682	Huntington St	Grove St	Verne Ave
Water	Design	Repair	WS-711	Jefferson Ave (Both Sides) Mt. Elliott to Beafaut	5	755	Jefferson Ave (Both Sides)	Mt. Elliott	Beafaut
Water	Design	Repair	WS-711	Jefferson Ave (N Side) I-375 Svc Dr to Orleans	5	1,897	Jefferson Ave (N Side)	I-375 Svc Dr	Orleans
Water	Procurement	Repair	CS-1909 DWSD	Jefferson Ave. W. 15th St. to Vermont St.	6	1,058	Jefferson Ave. W.	15th St.	Vermont St.
Water	Procurement	Repair	CS-1909 DWSD	Jefferson Ave. W. Vermont St. to Rosa Park Blvd.	6	583	Jefferson Ave. W.	Vermont St.	Rosa Park Blvd.
Water	Procurement	Repair	CS-1909 DWSD	Jefferson Ave. W. (N) Shelby St. to Woodward	6	754	Jefferson Ave. W. (N)	Shelby St.	Woodward
Water	Procurement	Repair	CS-1909 DWSD	Jefferson Ave. W. (S) Civic Center Dr. to Woodward Ave.	6	793	Jefferson Ave. W. (S)	Civic Center Dr.	Woodward Ave.
Sewer	Procurement	Repair	DWS-916	John C Lode FWY Easement N. of Gladstone to Delaware	5	1,426	John C Lode FWY	Easement N. of Gladstone	Delaware
Water	Procurement	Repair	CS-1909 DWSD	Joy Road Wyoming to Livernois	7	5,282	Joy Road	Wyoming	Livernois
Water	Design	Repair	WS-710	Kelly Glenwood to Eastwood	7	1,424	Kelly	Glenwood	Eastwood
Sewer	Construction	Repair	DWS-908	Kingsville Edgefield to Tyrone	4	289	Kingsville	Edgefield	Tyrone
Water	Design	Replace	WS-713	Klenk St. Alter to dead end	4	655	Klenk St.	Alter	Riverside Blvd
Water	Design	NEW PIPE	WS-713	Klenk St. Dead end across channel to Riverside Blvd	4	374	Klenk St.	Riverside Blvd	Dead End West
Water	Construction	Repair	WS-712	Lafontaine St Canyon St to Mack Ave	4	1,413	Lafontaine	Canyon St	Mack Ave
Water	Procurement	Lining	WS-715	Lahser Rd Kessler to Puritan	1	367	Lahser Rd	Kessler	Puritan
Water	Procurement	Lining	WS-715	Lahser Rd McNichols Rd to Grove	1	611	Lahser Rd	McNichols Rd	Grove
Water	Design	Upsize	WS-713	Lakewood Riverside Blvd to Scripps	4	473	Lakewood	Riverside Blvd	Scripps
Water	Design	Upsize	WS-713	Lakewood Scripps to Avondale	4	1,705	Lakewood	Scripps	Avondale
Water	Design	Upsize	WS-713	Lakewood Essex to Avondale	4	826	Lakewood	Essex	Avondale
Water	Procurement	Repair	CS-1909 DWSD	Lamphere Sawyer to Majestic	7	871	Lamphere	Sawyer	Majestic
Water	Procurement	Replace	WS-715	Lamphere Verne to Puritan	1	1,292	Lamphere	Verne	Puritan
Sewer	Construction	Repair	DWS-907	Lancashire St Outer Dr to Warwick St	1	30	Lancashire St	Outer Dr	Warwick St
Sewer	Construction	Replace	DWS-907	Lancashire St Outer Dr to Bretton Dr	1	798	Lancashire St	Outer Dr	Bretton Dr
Sewer	Construction	Replace	DWS-907	Lancashire St Warwick St to Avon Rd	1	234	Lancashire St	Warwick St	Avon Rd
Water	Construction	Replace	WS-712	Lannoo St Linville St to Chandler Park Dr	4	1,553	Lannoo St	Linville St	Chandler Park Dr
Water	Construction	Replace	WS-712	Lannoo St Canyon Ave to Linville St	4	2,112	Lannoo St	Canyon Ave	Linville St
Water	Design	Replace	WS-713	Lenox Korte to dead-end south of Scripps	4	1,283	Lenox	Korte	Scripps
Water	Procurement	Repair	CS-1909 DWSD	Lindsay Curtis to Clarita	2	2,009	Lindsay	Curtis	Clarita
Water	Construction	Repair	WS-712	Linville Moross Rd. to Kingsville St.	4	523	Linville	Moross Rd.	Kingsville St.
Water	Procurement	Repair	CS-1909 DWSD	Lothrop Rd. 3rd Street to 2nd Street	5	933	Lothrop Rd.	3rd Street	2nd Street
Water	Procurement	Repair	CS-1909 DWSD	Lothrop Rd. 2nd Street to Woodward	5	896	Lothrop Rd.	2nd Street	Woodward
Sewer	Construction	Repair	DWS-908	Mack Farmbrook to Radnor	4	216	Mack	Farmbrook	Radnor

Type	Phase	Activity	Project ID	Location	Districts	Length	Street	Street From	Street To
Water	Construction	Replace	WS-712	Mack Ave Moross Rd to Allard Ave	4	639	Mack Ave	Moross Rd	Allard Ave
Water	Construction	Replace	WS-712	Mack Ave Neff Ave northeast towards Hereford St	4	128	Mack Ave	Neff Ave northeast	Hereford St
Water	Design	Replace	WS-713	Manistique Essex to Scripps	4	2,585	Manistique	Essex	Scripps
Water	Procurement	Repair	CS-1909 DWSD	Manor Joy to Tireman	7	2,683	Manor	Joy	Tireman
Water	Procurement	Repair	CS-1909 DWSD	Mansfield Thatcher to Curtis	2	695	Mansfield	Thatcher	Curtis
Water	Procurement	Repair	CS-1909 DWSD	Mansfield Capital to Wadsworth	1	848	Mansfield	Capital	Wadsworth
Water	Construction	Repair	WS-707	Margareta Coddington to Shiawassee	1	367	Margareta	Coddington	Shiawassee
Water	Design	Replace	WS-713	Marlborough Freud to Jefferson	4	1,182	Marlborough	Freud	Jefferson
Water	Procurement	Repair	CS-1909 DWSD	McGraw Cecil to Warren W.	6	5,711	McGraw	Cecil	Warren W.
Water	Construction	Repair	WS-706	McNichols Schaefer to James Couzens	2	1,918	McNichols	Schaefer	James Couzens
Sewer	Construction	Repair	DWS-907	Midland Rd Rosemont Ave to Ashton Rd	1	1,279	Midland Rd	Rosemont Ave	Ashton Rd
Sewer	Construction	Repair	DWS-908	Minneapolis Guilford to Cadieux	4	18	Minneapolis	Guilford	Cadieux
Water	Procurement	Replace	WS-715	Minock St Grand River Avenue to Fenkell St	1	2,202	Minock St	Grand River Avenue	Fenkell St
Water	Procurement	Repair	CS-1909 DWSD	Montrose Schoolcraft to Grand River	1	2,342	Montrose	Schoolcraft	Grand River
Sewer	Construction	Repair	DWS-908	Moross Cheshire to Mallina	4	253	Moross	Cheshire	Mallina
Sewer	Construction	Repair	DWS-908	Moross Edsel Ford Hwy to Edgefield	4	167	Moross	Edsel Ford Hwy	Edgefield
Water	Construction	Replace	WS-712	Moross Rd Edsel Ford Service Dr southeast to Alstead St	4	157	Moross Rd	Edsel Ford Service Dr south	Alstead St
Water	Design	Replace	WS-713	Navahoe Essex to Avondale	4	835	Navahoe	Essex	Avondale
Water	Design	Repair	WS-711	NB Southfield Fwy Service Drive 7 Mile to Pembroke	1	2,748	NB Southfield Fwy Service Drive	Seven Mile	Pembroke
Sewer	Construction	Repair	DWS-908	Neff Minvera to Berden	4	519	Neff	Minvera	Berden
Sewer	Construction	Repair	DWS-908	Neff Berden to Chandler Park	4	341	Neff	Berden	Chandler Park
Sewer	Construction	Repair	DWS-908	Neff Warren to Munich	4	556	Neff	Warren	Munich
Sewer	Construction	Repair	DWS-908	Neff Southampton to Warren	4	742	Neff	Southampton	Warren
Sewer	Construction	Repair	DWS-908	Neff Chandler Park to Southampton	4	22	Neff	Chandler Park	Southampton
Sewer	Construction	Repair	DWS-908	Neff Munich to Waveney	4	44	Neff	Munich	Waveney
Water	Construction	Replace	WS-712	New York St Cadieux Rd northeast to Guilford St	4	573	New York	Cadieux Rd northeast	Guilford St
Sewer	Construction	Repair	DWS-908	New York Cadieux to Guilford	4	350	New York	Cadieux	Guilford
Sewer	Construction	Replace	DWS-908	New York Cadieux to Guilford	4	573	New York	Cadieux	Guilford
Water	Design	Replace	WS-713	Newport dead end to Scripps (added new valve)	4	430	Newport	Scripps	Dead End South
Water	Design	Replace	WS-713	Newport Avondale to Essex	4	929	Newport	Avondale	Essex
Water	Procurement	Repair	CS-1909 DWSD	Oakfield Puritan to Verne	2	1,301	Oakfield	Puritan	Verne
Water	Procurement	Repair	PC-801A	Oakman Joy to Tireman	7	4,698	Oakman	Joy	Tireman
Sewer	Construction	Repair	DWS-908	Oldtown Linville to Harper	4	499	Oldtown	Linville	Harper
Sewer	Construction	Repair	DWS-908	Oldtown Chandler Park to Southampton	4	378	Oldtown	Chandler Park	Southampton
Water	Construction	Replace	WS-712	Oldtown St Chandler Park Dr southeast to Southampton St	4	574	Oldtown St	Chandler Park Dr southeast	Southampton St
Sewer	Construction	Replace	DWS-908	Ontario Cadieux to Guilford	4	257	Ontario	Cadieux	Guilford
Sewer	Construction	Repair	DWS-908	Ontario Cadieux to Guilford	4	89	Ontario	Cadieux	Guilford
Water	Construction	Repair	WS-712	Opal Canyon St. to Mack Ave	4	703	Opal	Canyon St.	Mack Ave
Water	Procurement	Repair	CS-1909 DWSD	Orangelawn Burt to Westwood	7	4,002	Orangelawn	Burt	Westwood
Sewer	Construction	Repair	DWS-907	Outer Dr McNichols Rd to Grove St	1	159	Outer Dr	McNichols Rd	Grove St
Sewer	Construction	Repair	DWS-907	Outer Dr Grand River Ave to Lancashier St	1	10	Outer Dr	Grand River Ave	Lancashier St
Sewer	Construction	Repair	DWS-907	Outer Dr Bretton Dr to Gainsborough Rd	1	33	Outer Dr	Bretton Dr	Gainsborough Rd
Sewer	Construction	Repair	DWS-907	Outer Dr Gainsborough Rd to Lancashire St	1	10	Outer Dr	Gainsborough Rd	Lancashire St
Sewer	Construction	Repair	DWS-907	Outer Dr Grove St to Verne Ave	1	70	Outer Dr	Grove St	Verne Ave
Water	Procurement	Replace	CS-1909 DWSD	Pallister Lodge Service Dr. to 3rd	4	587	Pallister	Lodge Service Dr.	3rd
Sewer	Procurement	Repair	DWS-916	Pallister Woodward to 2nd Ave	5	43	Pallister	Woodward	2nd Ave
Sewer	Procurement	Repair	DWS-916	Easement S. Pallister Woodward to John C Lodge FWY	5	1,728	Pallister	Woodward	John C Lodge FWY
Water	Design	Loop	WS-713	Newport dead end to Park	4	1,354	Park	Lenox	Newport
Water	Procurement	Lining	WS-715	Patton St Grand River Ave to Pilgrim	1	1,864	Patton St	Grand River Ave	Pilgrim
Water	Construction	Repair	WS-707	Pembroke James Couzens to Biltmore	4	4,743	Pembroke	James Couzens	Biltmore
Water	Procurement	Repair	CS-1909 DWSD	Penrod Eaton to Lyndon	1	850	Penrod	Eaton	Lyndon
Water	Procurement	Replace	WS-715	Pernod Eaton to Lyndon	1	765	Pernod	Eaton	Lyndon
Water	Design	Replace	WS-713	Philip Essex to Scripps	4	2,556	Philip	Essex	Scripps
Water	Procurement	Repair	CS-1909 DWSD	Pierson Belton to Tireman	7	674	Pierson	Belton	Tireman
Water	Procurement	Repair	CS-1909 DWSD	Pierson Santa Clara to McNichols	1	1,481	Pierson	Santa Clara	McNichols
Water	Procurement	Replace	WS-715	Pierson St Grand River Ave to Pilgrim	1	1,571	Pierson St	Grand River Ave	Pilgrim

Type	Phase	Activity	Project ID	Location	Districts	Length	Street	Street From	Street To
Water	Procurement	Repair	CS-1909 DWSD	Pinehurst Joy to Tireman	7	2,664	Pinehurst	Joy	Tireman
Sewer	Procurement	Repair	DWS-916	Pingree 2nd Ave to 2nd Ave	5	3	Pingree	2nd Ave	2nd Ave
Sewer	Procurement	Repair	DWS-916	Pingree Woodward Easement W. of Woodward	5	255	Pingree	Woodward	Easement W. of Woodward
Water	Design	Replace	WS-713	Piper Scripps to Averhill (to new valve)	4	1,894	Piper	Scripps	Averhill
Water	Design	Lining	WS-713	Piper dead end to Scripps (added new valve)	4	409	Piper	Scripps	Dead End South
Sewer	Construction	Repair	DWS-907	Plainview Ave Florence St to Florence St	1	32	Plainview Ave	Florence St	Florence St
Sewer	Construction	Repair	DWS-907	Plainview Ave Verne Ave to Florence St	1	10	Plainview Ave	Verne Ave	Florence St
Sewer	Construction	Repair	DWS-907	Plainview Ave Grove St to Verne Ave	1	625	Plainview Ave	Grove St	Verne Ave
Sewer	Construction	Repair	DWS-907	Plainview Ave McNichols Rd to McNichols Rd	1	30	Plainview Ave	McNichols Rd	McNichols Rd
Sewer	Construction	Repair	DWS-907	Plainview Ave Grove St to Grove St	1	29	Plainview Ave	Grove St	Grove St
Sewer	Construction	Repair	DWS-907	Plainview Ave Verne Ave to Verne Ave	1	56	Plainview Ave	Verne Ave	Verne Ave
Sewer	Construction	Repair	DWS-907	Plainview Ave Florence St to Verne St	1	544	Plainview Ave	Florence St	Verne St
Water	Procurement	Repair	CS-1909 DWSD	Plymouth Redford City Limit to Evergreen	7	8,184	Plymouth	Redford City Limit	Evergreen
Water	Procurement	Repair	CS-1909 DWSD	Plymouth Schaefer to Wyoming	7	5,304	Plymouth	Schaefer	Wyoming
Water	Procurement	Repair	CS-1909 DWSD	Prevost Midland to Pilgrim	1	563	Prevost	Midland	Pilgrim
Water	Procurement	Replace	WS-715	Puritan Beaverland to Chatham	1	542	Puritan	Beaverland	Chatham
Water	Construction	Replace	DWS-907	Puritan Ave Glastonbury Ave east to Rosemont Ave	1	385	Puritan Ave	Glastonbury Ave East	Rosemont Ave
Sewer	Construction	Repair	DWS-907	Puritan Ave Glastonbury Ave to Rosemont Ave	1	385	Puritan Ave	Glastonbury Ave	Rosemont Ave
Sewer	Construction	Repair	DWS-907	Puritan Ave Rosemont Ave to Ashton Rd	1	168	Puritan Ave	Rosemont Ave	Ashton Rd
Water	Procurement	Replace	WS-715	Puritan St Blackstone to Burt Rd	1	533	Puritan St	Blackstone	Burt Rd
Water	Construction	Replace	WS-712	Radnor St Chester St southeast to Chandler Park Dr	4	2,598	Radnor	Chester St southeast	Chandler Park Dr
Water	Construction	Replace	WS-712	Radnor Warren Ave to Frankfort St.	4	668	Radnor	Warren Ave	Frankfort St.
Sewer	Construction	Repair	DWS-908	Radnor Southampton to Warren	4	1,560	Radnor	Southampton	Warren
Sewer	Construction	Repair	DWS-908	Radnor Warren to Mack	4	1,050	Radnor	Warren	Mack
Water	Construction	Replace	WS-712	Radnor St Frankfort St southeast to Mack Ave	4	1,643	Radnor St	Frankfort St southeast	Mack Ave
Water	Construction	Replace	WS-712	Radnor St Frankfort St southeast to Mack Ave	4	54	Radnor St	Frankfort St southeast	Mack Ave
Water	Construction	Repair	WS-712	Radnor St Chandler Park Dr to Southampton St	4	1,266	Radnor St	Chandler Park Dr	Southampton St
Water	Procurement	Replace	WS-715	Ridge Rd Riverdale to Florence	1	1,146	Ridge Rd	Riverdale	Florence
Water	Construction	Repair	WS-706	Robson Ave. Curtis Ave. to W. Seven Mile	1	2,590	Robson Ave.	Curtis Ave.	W. Seven Mile
Water	Construction	Repair	WS-712	Rolandale St. Moross Rd. to Kingsville St.	4	540	Rolandale	Moross Rd.	Kingsville St.
Water	Construction	Replace	WS-712	Rolandale St. Hillcrest St to Moross Rd	4	265	Rolandale	Hillcrest St	Moross Rd
Water	Procurement	Repair	CS-1909 DWSD	Rosemont Van Buren to Constance	7	611	Rosemont	Van Buren	Constance
Water	Procurement	Repair	CS-1909 DWSD	Rosemont Schoolcraft to Dead End	1	1,373	Rosemont	Schoolcraft	Dead End
Water	Procurement	Repair	CS-1909 DWSD	Rosemont Curtis to Margareta	1	1,569	Rosemont	Curtis	Margareta
Water	Procurement	Repair	CS-1909 DWSD	Rosemont Fargo to Hessel	1	1,348	Rosemont	Fargo	Hessel
Water	Construction	Replace	DWS-907	Rosemont Ave Midland St north to Puritan Ave	1	3,031	Rosemont Ave	Midland St north	Puritan Ave
Sewer	Construction	Repair	DWS-907	Rosemont Ave Verne Ave to Florence St	1	652	Rosemont Ave	Verne Ave	Florence St
Sewer	Construction	Repair	DWS-907	Rosemont Ave Pilgrim St to Puritan Ave	1	880	Rosemont Ave	Pilgrim St	Puritan Ave
Sewer	Construction	Replace	DWS-907	Rosemont Ave Florence St to Puritan Ave	1	620	Rosemont Ave	Florence St	Puritan Ave
Sewer	Construction	Repair	DWS-907	Rosemont Ave Midland St to Bretton Dr	1	200	Rosemont Ave	Midland St	Bretton Dr
Water	Procurement	Repair	CS-1909 DWSD	Rutherford Keeler to Puritan	1	2,002	Rutherford	Keeler	Puritan
Sewer	Construction	Repair	DWS-907	Scardale St Glastonbury Ave to Glastonbury Ave	1	7	Scardale St	Glastonbury Ave	Glastonbury Ave
Sewer	Construction	Repair	DWS-907	Scarsdale St Avon Rd to Glastonbury Ave	1	419	Scarsdale St	Avon Rd	Glastonbury Ave
Water	Procurement	Repair	CS-1909 DWSD	Schaefer Joy Road to Tireman	7	1,348	Schaefer	Joy Road	Tireman
Water	Procurement	Repair	CS-1909 DWSD	Schaefer NB/SB W. Chicago to 830 feet south of Westfield	7	2,676	Schaefer NB/SB	W. Chicago	830 feet south of Westfield
Sewer	Construction	Repair	DWS-908	School Lot Frankfort to Cadieux	4	583	School Lot	Frankfort	Cadieux
Sewer	Construction	Repair	DWS-908	School lot (Tennis courts) Guilford to Access Road	4	375	School lot (Tennis courts)	Guilford	Access Road
Water	Design	Repair	WS-710	Schoolcraft Asbury Park to Greenfield	7	2,597	Schoolcraft	Asbury Park	Greenfield
Water	Design	Repair	WS-710	Schoolcraft Greenfield to Grand River	7	3,324	Schoolcraft	Greenfield	Grand River
Water	Procurement	Repair	CS-1909 DWSD	Schoolcraft Asbury Park to Mettetal	1	335	Schoolcraft	Asbury Park	Mettetal
Water	Design	Replace	WS-713	Scripps Ashland to Lakewood	4	1,742	Scripps	Ashland	Lakewood
Water	Design	Lining	WS-713	Scripps Lakewood to Lenox	4	1,686	Scripps	Lakewood	Lenox
Water	Procurement	Repair	CS-1909 DWSD	Seven Mile John R. to Dequindre	2	5,262	Seven Mile	John R.	Dequindre
Water	Procurement	Repair	CS-1909 DWSD	Seven Mile Dequindre to Ryan	3	5,335	Seven Mile	Dequindre	Ryan
Water	Procurement	Repair	CS-1909 DWSD	Seven Mile Ryan to Mound	3	5,242	Seven Mile	Ryan	Mound
Water	Procurement	Repair	CS-1909 DWSD	Seven Mile Mound to Van Dyke	3	5,242	Seven Mile	Mound	Van Dyke

Type	Phase	Activity	Project ID	Location	Districts	Length	Street	Street From	Street To
Sewer	Procurement	Repair	DWS-916	Seward Woodward to Woodward	5	3	Seward	Woodward	Woodward
Water	Procurement	Replace	WS-718	Seward St 2nd Ave to 3rd St	5	978	Seward St	2nd Ave	3rd St
Sewer	Construction	Repair	DWS-907	Shaftsbury Ave Grove St to Verne Ave	1	20	Shaftsbury Ave	Grove St	Verne Ave
Sewer	Construction	Repair	DWS-907	Shaftsbury Ave McNichols Rd to Grove St	1	521	Shaftsbury Ave	McNichols Rd	Grove St
Sewer	Construction	Repair	DWS-908	Sioux Guilford to Cadieux	4	52	sioux	Guilford	Cadieux
Sewer	Construction	Replace	DWS-908	Sioux Guilford to Cadieux	4	639	sioux	Guilford	Cadieux
Water	Construction	Replace	WS-712	Sioux St Cadieux Rd northeast to Guilford St	4	639	Sioux St	Cadieux Rd northeast	Guilford St
Water	Procurement	Repair	CS-1909 DWSD	Sorrento Joy to Tireman	7	2,719	Sorrento	Joy	Tireman
Water	Construction	Replace	WS-712	Southampton St Oldtown St northeast to Bluehill St	4	273	Southampton	Oldtown St NorthEast	Bluehill St
Water	Procurement	Replace	WS-715	Southfield FWY Grand River Ave to Lyndon St	1	2,558	Southfield FWY	Grand River Ave	Lyndon St
Sewer	Construction	Repair	DWS-907	Southfield FWY Verne Ave to Florence St	1	639	Southfield FWY	Verne Ave	Florence St
Sewer	Construction	Repair	DWS-907	Southfield FWY McNichols Rd to Grove St	1	10	Southfield FWY	McNichols Rd	Grove St
Sewer	Construction	Repair	DWS-907	Southfield FWY Puritan Ave to Pilgrim St	1	1,226	Southfield FWY	Puritan Ave	Pilgrim St
Sewer	Construction	Repair	DWS-907	Southfield FWY Florence St to Florence St	1	12	Southfield FWY	Florence St	Florence St
Water	Procurement	Repair	CS-1909 DWSD	Southfield Svc Drive North Fenkell to Puritan	1	649	Southfield Svc Drive North	Fenkell	Puritan
Water	Procurement	Repair	CS-1909 DWSD	Southfield Svc Drive North Schoolcraft to Grand River	7	5,067	Southfield Svc Drive North	Schoolcraft	Grand River
Water	Design	Replace	WS-716	St Antoine St Wilkens to Winder	5	1,068	St Antoine St	Wilkens	Winder
Sewer	Construction	Repair	DWS-907	Stahelin Ave Verne Ave to McNichols Rd	1	311	Stahelin Ave	Verne Ave	McNichols Rd
Water	Construction	Repair	WS-706	Stansbury Ave. Outer Drive to Curtis	1	1,207	Stansbury Ave.	Outer Drive	Curtis
Water	Procurement	Repair	CS-1909 DWSD	Steel Joy to Mackenzie	7	891	Steel	Joy	Mackenzie
Sewer	Construction	Repair	DWS-907	Sunderland Rd Florence St to Puritan Ave	1	684	Sunderland Rd	Florence St	Puritan Ave
Sewer	Construction	Repair	DWS-907	Sunderland Rd Florence St to Puritan Ave	1	687	Sunderland Rd	Florence St	Puritan Ave
Water	Procurement	Repair	CS-1909 DWSD	Sylvan McKinley to Vinewood	6	466	Sylvan	McKinley	Vinewood
Sewer	Procurement	Repair	DWS-916	Taylor 2nd Ave to 3rd Ave	5	14	Taylor	2nd Ave	3rd Ave
Water	Procurement	Repair	CS-1909 DWSD	Theisen Mendota Joy to Tireman	7	2,639	Theisen Mendota	Joy	Tireman
Water	Construction	Repair	WS-706	Tireman Greenfield to Hubbell	7	2,631	Tireman	Greenfield	Hubbell
Water	Construction	Repair	WS-712	University Place Munich Ave. to Mack Ave.	4	1,464	University	Munich Ave.	Mack Ave.
Sewer	Construction	Repair	DWS-908	University Chandler Park to Southampton	4	208	University	Chandler Park	Southampton
Water	Procurement	Repair	CS-1909 DWSD	Vaughan Belton to Constance	7	652	Vaughan	Belton	Constance
Water	Procurement	Repair	CS-1909 DWSD	Vaughn Sawyer to Tireman	7	1,288	Vaughn	Sawyer	Tireman
Water	Procurement	Replace	WS-715	Verne Dolphin to Lahser	1	550	Verne	Dolphin	Lahser
Sewer	Construction	Repair	DWS-907	Verne Ave Huntington Rd to Outer Dr	1	54	Verne Ave	Huntington Rd	Outer Dr
Sewer	Construction	Repair	DWS-907	Verne Ave Glastonbury Rd to Glastonbury Rd	1	18	Verne Ave	Glastonbury Rd	Glastonbury Rd
Sewer	Construction	Repair	DWS-907	Verne Ave Plainview Ave to Westmoreland Rd	1	370	Verne Ave	Plainview Ave	Westmoreland Rd
Sewer	Construction	Repair	DWS-907	Verne Ave Westmoreland Rd to Edinborough Rd	1	522	Verne Ave	Westmoreland Rd	Edinborough Rd
Sewer	Construction	Repair	DWS-907	Verne Ave Evergreen Rd to Plainview Ave	1	20	Verne Ave	Evergreen Rd	Plainview Ave
Sewer	Construction	Repair	DWS-907	Verne Ave Shaftsbury Ave to Sunderland Rd	1	380	Verne Ave	Shaftsbury Ave	Sunderland Rd
Sewer	Construction	Repair	DWS-907	Verne Ave Outer Dr to Shaftsbury Ave	1	529	Verne Ave	Outer Dr	Shaftsbury Ave
Water	Procurement	Replace	WS-718	Virginia Park St Woodward Ave to John Lodge Fwy	5	2,473	Virginia Park St	Woodward Ave	John Lodge Fwy
Water	Procurement	Replace	WS-718	Virginia Park St Woodward Ave to John Lodge Fwy	5	2,516	Virginia Park St	Woodward Ave	John Lodge Fwy
Water	Procurement	Repair	CS-1909 DWSD	Virginia Park St.(S) John C Lodge to 3rd Street	5	649	Virginia Park St.(S)	John C Lodge	3rd Street
Water	Procurement	Repair	CS-1909 DWSD	W. Chicago Stout to Evergreen	7	1,018	W. Chicago	Stout	Evergreen
Water	Procurement	Repair	CS-1909 DWSD	W. Parkway Tireman to Sawyer	7	962	W. Parkway	Tireman	Sawyer
Water	Procurement	Repair	CS-1909 DWSD	Ward Joy to Tireman	7	2,704	Ward	Joy	Tireman
Water	Construction	Repair	WS-706	Warren Parkland to Heyden	7	4,335	Warren	Parkland	Heyden
Water	Design	Repair	WS-710	Warren Evergreen to Southfield	7	684	Warren	Evergreen	Southfield
Water	Design	Repair	WS-710	Warren Heyden to Evergreen	7	5,074	Warren	Heyden	Evergreen
Sewer	Construction	Repair	DWS-908	Warren Guilford to Cadieux	4	786	Warren	Guilford	Cadieux
Sewer	Construction	Replace	DWS-908	Warren Guilford to Cadieux	4	782	Warren	Guilford	Cadieux
Water	Construction	Repair	WS-712	Warren Ave Cadieux Ave to Guilford St	4	786	Warren Ave	Cadieux Ave	Guilford St
Water	Construction	Repair	WS-712	Warren Ave (north) Guilford St northeast to Woodhall St	4	296	Warren Ave	Guilford St northeast	Woodhall St
Water	Construction	Replace	WS-712	Warren Ave (north) Farmbrook St northeast to Canyon St	4	1,325	Warren Ave (north)	Farmbrook St northeast	Canyon St
Water	Construction	Repair	WS-712	Warren Ave (south) Farmbrook St northeast to Canyon St	4	1,307	Warren Ave (south)	Farmbrook St northeast	Canyon St
Water	Construction	Replace	WS-712	Warren Ave. Cadieux Rd. to Guilford St.	4	782	Warren Ave.	Cadieux Rd.	Guilford St.
Sewer	Construction	Replace	DWS-907	Warwick St Bretton Dr to Gainsborough Rd	1	392	Warwick St	Bretton Dr	Gainsborough Rd
Sewer	Construction	Repair	DWS-907	Warwick St Puritan Ave to Bretton Dr	1	10	Warwick St	Puritan Ave	Bretton Dr

Type	Phase	Activity	Project ID	Location	Districts	Length	Street	Street From	Street To
Sewer	Construction	Replace	DWS-907	Warwick St McNichols Rd to Grove St	1	610	Warwick St	McNichols Rd	Grove St
Sewer	Construction	Repair	DWS-907	Warwick St Grove St to Verne Ave	1	674	Warwick St	Grove St	Verne Ave
Water	Construction	Replace	DWS-907	Warwick St Florence St north to McNichols Rd	1	3,648	Warwick St fr	Florence St north	McNichols Rd
Sewer	Procurement	Repair	DWS-916	Watson Chrysler to Beaubien	5	81	Watson	Chrysler	Beaubien
Water	Construction	Replace	WS-712	Waveney St Cadieux Rd northeast to Guilford St	4	663	Waveney St	Cadieux Rd northeast	Guilford St
Water	Design	Repair	WS-710	West Chicago City Limits to Brammel	7	848	West Chicago	City Limits	Brammel
Water	Procurement	Repair	CS-1909 DWSD	West Chicago West Outer Drive to Hazelton/City Limits	7	1,613	West Chicago	West Outer Drive	Hazelton/City Limits
Water	Procurement	Repair	CS-1909 DWSD	West Grand Blvd Magnolia to McGraw	6	5,195	West Grand Blvd	Magnolia	McGraw
Water	Procurement	Repair	CS-1909 DWSD	West Grand Blvd McGraw to Linwood	6	6,265	West Grand Blvd	McGraw	Linwood
Water	Procurement	Repair	CS-1909 DWSD	West Grand Blvd W. Jefferson Ave. to Vernor	6	4,307	West Grand Blvd	W. Jefferson Ave.	Vernor
Water	Procurement	Repair	CS-1909 DWSD	West Grand Blvd Vernor to Magnolia	6	6,289	West Grand Blvd	Vernor	Magnolia
Water	Procurement	Repair	CS-1909 DWSD	West Grand Blvd Linwood to Lodge Frwy	5	5,484	West Grand Blvd	Linwood	Lodge Frwy
Water	Procurement	Repair	CS-1909 DWSD	West Outer Dr. Fenkell to Evergreen	1	2,121	West Outer Dr.	Fenkell	Evergreen
Water	Design	Repair	WS-710	West Outer Drive Joy Road to Warren	7	6,936	West Outer Drive	Joy Road	Warren
Water	Design	Repair	WS-711	West Parkway Tireman to Plymouth	7	8,265	West Parkway	Tireman	Plymouth
Water	Procurement	Lining	WS-715	Westbrook St Verne to Puritan	1	1,285	Westbrook St	Verne	Puritan
Sewer	Construction	Repair	DWS-907	Westmoreland Rd Grove St to Verne Ave	1	631	Westmoreland Rd	Grove St	Verne Ave
Sewer	Construction	Repair	DWS-907	Westmoreland Rd Florence St to Florence St	1	10	Westmoreland Rd	Florence St	Florence St
Sewer	Construction	Replace	DWS-907	Westmoreland Rd Grove St to Grove St	1	24	Westmoreland Rd	Grove St	Grove St
Sewer	Construction	Repair	DWS-907	Westmoreland Rd Grove St to McNichols Rd	1	316	Westmoreland Rd	Grove St	McNichols Rd
Sewer	Construction	Repair	DWS-907	Westmoreland Rd Verne Ave to Verne Ave	1	61	Westmoreland Rd	Verne Ave	Verne Ave
Water	Procurement	Repair	CS-1909 DWSD	Westwood Elmira to Chicago	7	1,779	Westwood	Elmira	Chicago
Water	Design	Replace	WS-716	Wheeler Rec Center Chrysler to St Antoine	5	720	Wheeler Rec Center	Chrysler	St Antoine
Water	Design	Replace	WS-716	Wheeler Rec Center Chrysler to Beaubien	5	1,172	Wheeler Rec Center	Chrysler	Beaubien
Water	Construction	Repair	WS-707	Whitcomb Pembroke to Vassar	2	1,256	Whitcomb	Pembroke	Vassar
Water	Procurement	Repair	CS-1909 DWSD	Wilkins Beaubien to St. Antoine	6	509	Wilkins	Beaubien	St. Antoine
Water	Procurement	Repair	CS-1909 DWSD	Wilkins St. Antoine to Chrysler Drive	5	757	Wilkins	St. Antoine	Chrysler Drive
Sewer	Procurement	Repair	DWS-916	Wilkins St Antoine to Brush	5	373	Wilkins	Antoine	Brush
Water	Design	Replace	WS-716	Wilkins St Chrysler to Brush	5	1,504	Wilkins St	Chrysler	Brush
Water	Procurement	Repair	CS-1909 DWSD	Winder Beaubien to Chrysler Svc Drive	6	1,180	Winder	Beaubien	Chrysler Svc Drive
Sewer	Procurement	Repair	DWS-916	Winder St Antoine Brush	5	463	Winder	St Antoine	Brush
Water	Design	Replace	WS-716	Winder St Beaubien to St Antoine	5	781	Winder St	Beaubien	St Antoine
Sewer	Construction	Repair	DWS-908	Woodhall Harper to Minvera	4	44	Woodhall	Harper	Minvera
Sewer	Construction	Repair	DWS-908	Woodhall Linville to School Lot	4	311	Woodhall	Linville	School Lot
Sewer	Construction	Repair	DWS-908	Woodhall Munich to Waveney	4	601	Woodhall	Munich	Waveney
Sewer	Construction	Repair	DWS-908	Woodhall Bremen to Mack	4	264	Woodhall	Bremen	Mack
Sewer	Construction	Repair	DWS-908	Woodhall Berden to Linville	4	10	Woodhall	Berden	Linville
Sewer	Construction	Repair	DWS-908	Woodhall Chandler Park to Southampton	4	338	Woodhall	Chandler Park	Southampton
Sewer	Construction	Replace	DWS-908	Woodhall Cornwall to Munich	4	312	Woodhall	Cornwall	Munich
Sewer	Construction	Repair	DWS-908	Woodhall Cornwall to Munich	4	300	Woodhall	Cornwall	Munich
Sewer	Construction	Repair	DWS-908	Woodhall Warren to Cornwall	4	310	Woodhall	Warren	Cornwall
Sewer	Construction	Replace	DWS-908	Woodhall Warren to Cornwall	4	316	Woodhall	Warren	Cornwall
Water	Construction	Replace	WS-712	Woodhall St Chandler Park Dr southeast to Southampton St	4	656	Woodhall St	Chandler Park Dr southeast	Southampton St
Water	Procurement	Repair	CS-1909 DWSD	Woodmont Fullerton to Schoolcraft	1	2,554	Woodmont	Fullerton	Schoolcraft