



AGENDA

CAPITAL PROJECTS COMMITTEE MEETING

August 8, 2023 – 6:00 pm to 7:30 pm
Emergency Operations Meeting Room

Capital Projects Committee

- A. Call to Order
- B. Roll Call
- C. Approval of Minutes from June 20th 2023
- D. Review Utilities-Water Completed Projects and Future Capital Projects
 - Completed Projects Overview
 - Discussion of Priority Future Water Projects
 - i. Pump Station Backup Power Supply
 - ii. Booster Station at Quentin JAWA Delivery Structure
 - iii. Watermain Replacement Vermont Street
- E. Review Utilities- Sanitary Completed Projects and Future Capital Projects
 - Completed Projects Overview
 - Discussion of Priority Future Sanitary Projects
 - i. Lift Station Three Improvements
 - ii. Sanitary Lateral and T-Lining

iii. Sanitary Sewer Pipe Rehabilitation

F. Review Utilities- Storm Sewer Completed Projects and Future Capital Projects

- Completed Projects Overview
- Discussion of Priority Future Storm Projects
 - i. Continuation of Park Street Storm Sewer Improvements
 - ii. North Industrial Area Phase II Engineering and Future Construction
 - iii. Meadowbrook Drive Bridge Replacement
 - iv. Meadowbrook Drive Storm Sewer Replacement
 - v. Kennedy Pond Rehabilitation

G. Other items as needed

H. Public Comment

I. Adjournment



Meeting Minutes

CAPITAL PROJECTS COMMITTEE MEETING

June 20, 2023 – 6:30 pm to 7:30 pm
Emergency Operations Meeting Room

Members in Attendance

Rob Sabo, City Manager
Molly Talkington, Finance Director
Aaron Grosskopf, Public Works Director
Jo Ellen Charlton, Assistant Public Works Director
Ryan Lindeman, City Engineer
Brad Valentino, Operations Supervisor
Jonathan Mishory, Public Works Management Analyst
Alderman Nick Budmats
Alderman Dr. Michael Koehler
Steve Holish, Member
William LaFontaine, Public Participant

Meeting Was Called to Order at 6:30 PM

Roll Call Was Called, no Capital Project Committee Members were absent.

Director Grosskopf requested a motion to approve meeting minutes from August 9, 2022. Alderman Budmats made the motion to approve the minutes with a correction to the date written on the final page that stated incorrectly July 26, 2022 was the next meeting date. The motion was seconded by Alderman Koehler.

Minutes were approved with corrections by unanimous voice vote.

Director Grosskopf Stated the first item on the agenda was to review the completed and ongoing projects.

2023 Road Programs:

Director Grosskopf began by reviewing the 2022 Resurfacing program stating the stormwater improvements have started and concrete work was soon to begin.

The 2023 Road Reconstruction Program has had binder placed down with storm sewer and concrete work already completed. Surface asphalt was to be put in place shortly after the 4th of July Holiday.

Director Grosskopf gave a review on the Master Street Evaluation Plan stating that it was set to take place in fall of 2023 and is expected to be performed again on a five-year cycle. He explained that the City will evaluate its annual road programs based off the new master street evaluation being completed.

Director Grosskopf then reviewed the current Federal and State Funded Projects

- Quentin/Hartung Bike Path
 - Substantially Completed- finished last week with striping and landscaping
 - Punchlist in draft form, finalized by end of week
- Hicks/Euclid Bike Path
 - Letting pushed to January 2024
 - Coordinated in 2023 capital plan to be constructed in 2024
- Weber Drive Reconstruction
 - Working through Phase 2 agreements
 - Expect to be 2024 letting, 2025 construction
- Algonquin/New Wilke Intersection Improvements
 - Same timeline as Hicks/Euclid bike path
- Meadowbrook Bridge
 - FY24, funds in 2024 or 2025
 - More detail in utilities meeting
 - Grant for a storm sewer system- trying to coordinate two projects together
- Central Road
 - Contingency project moved up to active list
 - Reconstruction of Central
 - 2 bridge replacements
 - Hoping to get local bridge funding
 - Phase 1 in 2024, Phase 2 in 2024-25, Construction in 2026-27
- Euclid Road Bike Path Improvements (AH Lead Project)
 - Looking to incorporate bike path into the project.

Alderman Koehler asked how are Hicks/Euclid Bike Path and Euclid Road Bike path different?

Ryan Lindeman responded first one goes southeast, terminates at courthouse. Second one immediately north of Kirchoff, transitions from Bike Path to Sidewalk. Alderman Koehler asked if Meadowbrook Bridge have pedestrian crossing and if the replacement would include a bike path. Director Grosskopf stated that there is pedestrian walkway but not bike path access.

Alderman Budmats asked if we did the Euclid Bike Path two years ago. Ryan Lindeman stated we had done the Euclid Path between Rohlwing to Salt Creek. Alderman Budmats asked if Hicks and Euclid have activated crosswalk lights. Ryan Lindeman stated it will cross Euclid at intersection- will cross Vermont on north side. Not aware of flashing beacon pedestrian crossing at Vermont and Euclid.

Director Grosskopf then reviewed the following projects where STP Funding was requested as well as the potential STP changes in proposed methodology. Alderman Koehler asked what STP meant and Ryan Lindeman stated it meant Surface Transportation Program Funding.

List of Projects Submitted for STP Funding and Summary of Proposed Changes:

- Campbell Street Resurfacing
 - Still just got approved for reclassification
- Kirchoff Road (Hicks to Plum Grove) & Plum Grove Road (Taft to Emerson)
 - Resurfacing
 - Intersection Improvements
- Discuss STP Proposed Methodology Changes Regarding Resurfacing
 - Move more towards capacity improvement projects rather than resurfacing projects.
 - Increase capacity from \$3 Million to \$5 Million

Director Grosskopf then gave a brief rundown of each project related to the Local Roads Capital Fund, including the following:

- ADA Plan Improvements
- Algonquin/New Wilke Intersection Improvements -STP Grant- 50/50 Local Share W/AH
- Annual Road Reconstruction Program

Alderman Koehler requested to know what Pozzolanic base was and Ryan Lindeman explained that it was a type of material used in road construction in previous years that was not suitable.

The City has engaged on a long term plan to stabilize areas where this base was used.

- Annual Road Resurfacing Program
- Bike Path- Hicks Road - Grant
- Bike Path Improvements- Library
- Bridge Inspection/Repairs
- Bridge Repairs- Meadowbrook -Grant
- Campbell Resurfacing
- Central Road Project- Grant
- City Entry Markers
 - Gateway Signage will be modernized
 - Wayfinding will come out of strategic planning and streetscape elements
- Euclid Bike Path Replacement
- Intersection Improvements - Golf TIF
- Kirchoff Road Resurfacing and Intersection Improvements
- Master Street Evaluation
- Plum Grove Street Lighting Addition
- Road Resurfacing- New Wilke Road
- Rohlwing Road Street Lighting
- Route 53 Bridge Enhancement
- Sidewalk & Curb Maintenance Program
- Weber Dr. Reconstruct & Intersection Improvement Grant

Director Grosskopf then gave a brief summary of the Building and Land Fund Capital Projects, including the following:

- Central PW- Engineering Services for Repairs
- Central PW- Exterior Building Repairs
- Central PW- Interior Building Repairs
- Central PW- Mechanical Repairs
- City Building Floor Replacement
- City Hall Accessory Garage
- City Hall Bathroom Renovations
- City Hall Interior Modifications
- City Hall Roof Replacement
- Elevator Cab Renovation (Both)
- Emergency Standby Generator
- Exhaust System Installation
- Holiday Décor Replacement
- Interior Renovations PW Combined Services Facility (Deferred)
- Interior/Exterior Service Door Replacement
- Mechanical System Replacement
- Overhead Door Replacement
- Phase V PW Combined Services Parking Lot Upgrades
- Protective Floor Coverings for PW Combined Services Facility
- PW Bay Fan Improvements
- PW Front Office Improvements
- PW Storage Building Roof Replacement
- Salt Dome Replacement

Alderman Koehler asked after the review, how we manage long term plans that aren't in the plan. And how we account for properties that are not yet incorporated into the City. Rob Sabo responded by saying we receive information from the County and incorporate them into our plan as we go along. Manager Sabo also stated we have different mechanisms for water system buildouts. For example, a Special Service Area (SSA).

Alderman Koehler asked if there was a plan for the City to take over control of Meacham Road and about any green energy or Solar Projects for example solar panels on City property.

Director Grosskopf stated that we only have electric vehicles starting to roll out in the City. Manager Sabo stated we do not have any building plans for green energy such as solar panels on the roof, but it is something the City can explore as a sustainability initiative rather than a financial initiative.

Director Grosskopf then asked if anyone had Public Comment.

A member of the Public William LaFontaine introduced himself and noted that he was working on literary projects about local governance. Stating he was originally looking for the Committee

of the Whole Meeting and did not see this meeting posted on the front door. Manager Sabo stated that the Agenda including meeting time and location was posted on the City Website and showed his computer reflecting this was accurate.

William LaFontaine then stated he was researching for his book on ethnographical, by listening to discourse of authority and power.

Director Grosskopf then discussed the next meeting date will take place on July 25th, 2023.

Member Holish made a motion to adjourn the meeting, seconded by Alderman Budmats. Meeting was adjourned at 7:26 PM.

Project Name	Location	Division	2024	2025	2026	2027	2028	Project Purpose
FIRE PROTECTION IMPROVEMENT - ENG	GROVE ROAD AND PLUM BLOSSOM	UTILITIES-WATER	\$ -	\$ -	\$ 75,000.00	\$ 750,000.00	\$ -	Installation of a new eight (8) inch water main (1,500') and appurtenances to provide fire protection described in the 1991 Annexation Agreement and to also allow for future residential water service connections. Provide for 2026 engineering & 2027 construction cost.
HYDRAULIC WATER MODELING	CITY WIDE	UTILITIES-WATER	\$ -	\$ -	\$ -	\$ -	\$ 75,000.00	This project involves modeling the performance of the water system to reflect previous improvements and to ensure that the highest priority needs of the system are evaluated in preparing annual and long-term capital budget needs. To be done every 5 years and was recently completed in 2023 and is planned to be brought back in 2028.
PAINT RESERVOIR - PUMP STATION #4	PUMP STATION #4, 5550 APOLLO DRIVE	UTILITIES-WATER	\$ -	\$ -	\$ 225,000.00	\$ -	\$ -	The reservoir requires painting every 18 - 20 years. However, there has been noticeable corrosion on the interior of the reservoir. Cathodic protection improvements are planned for 2023, which will help resolve and prolong the interior life of the tank.
WATER MAIN EXTENSION - THEDA C&E	THEDA TO EMERSON	UTILITIES-WATER	\$ -	\$ 60,000.00	\$ 230,000.00	\$ -	\$ -	Installation of approximately 400' of eight (8) inch ductile water main to provide greater water quality service without disrupting water service. This is to correct and create redundancy within the water system.
SCADA SYSTEM UPGRADES	WATER SYSTEM TELEMETRY IMPROVEMENTS	UTILITIES-WATER	\$ 75,000.00	\$ 75,000.00	\$ 75,000.00	\$ 75,000.00	\$ 75,000.00	Current instrumentation was installed in 1994 at the City's four pumping stations and the Public Works Building. The units are no longer upgradeable and I/O boards are not compatible for additional monitoring expansion. This project is intended to enhance the operability within the water distribution network.
WATER STATION BACK-UP POWER SUPPLY INSTALLATION	PS 1, PS 5, PS 4, PS 2	UTILITIES-WATER	\$ 275,000.00	\$ 500,000.00	\$ 320,000.00	\$ 320,000.00		Emergency standby generators are needed at all the pumping stations to ensure reliable water quality during electrical disruptions. Currently, if power is to go out at one of our pumping stations the City would need to bring am mobile generator onsite. This was noted in the water modeling program as an item that should be addressed by the City. PS 1- 150KW, PS5-200KW, PS4-150KW PS 2-150KW (DIESEL ONLY).
WATER STORAGE TANK MAINTENANCE - PS-2	3300 MEACHAM ROAD	UTILITIES-WATER	\$ -	\$ -	\$ -	\$ 450,000.00	\$ -	The 1.5 Million Gallon reservoir is scheduled for an internal and external structural evaluation. The project scope includes an internal cleaning to maintain water quality in the distribution system and to help extend the life of the tank. Dixon Engineering inspected in 2022 and gave RM a list of recommendations for the pumping station. The requested funding includes repairs recommended for the Pumping Station
WATER SYSTEM INTERCONNECT - ARLINGTON HEIGHTS	LOCATION - TBD, ENG.	UTILITIES-WATER	\$ -	\$ -	\$ 90,000.00	\$ -	\$ -	This project contemplates the addition of a permanent standby pumping station. This project is in consideration due to the possibility of the Chicago bears and Infrastructure Updates on the Arlington Downs Property. This option has been examined by Baxter & Woodman as it's included in the water modeling report. This project is dependent on development of the Chicago Bears Stadium District.
WELL #6 - MOTOR & BOWL INSPECTION	WELL #6 - 1950 Golf Road	UTILITIES-WATER	\$ -	\$ 195,000.00	\$ -	\$ -	\$ -	This project will include the removal and inspection of well pipe, bowl assembly, cabling, line shaft, and motor. Performing preventive maintenance on expected wear items along with inspecting well pipe integrity will aid in reliability in the event of an emergency situation. The funding also includes a contingency in case repairs are needed on any of the well parts. If the inspection of the well goes well and no issues are found the cost could be significantly reduced.
WATERMAIN REPLACEMENT VERMONT (N) - ENG/CONST	VERMONT ST. AND DAVIS CT.	UTILITIES-WATER	\$ 1,500,000.00	\$ -	\$ -	\$ -	\$ -	Replace approximately 2,690 feet of six (6) inch cast iron water main with eight (8) inch ductile iron pipe or similar, including structures, valves, and hydrants. This area of water main has become more susceptible to age-related failure. Estimated 500 dollars per linear foot, plus 10% full time engineering. This price covers construction and observation. This is a planned ARPA Parallel Expense. The preliminary engineering on this project is funded from the 2023 budget.
NEW WILKE ROAD WATERMAIN REPLACEMENT (ENGINEERING/ CONSTRUCTION/ OBSERVATION)	NEW WILKE ROAD	UTILITIES-WATER	\$ -	\$ -	\$ 75,000.00	\$ 1,500,000.00	\$ -	Replace approximately 2,000 feet of twelve (12) inch ductile iron water main (1970) with twelve (12) inch poly c-900 or similar pipe, including structures, valves, and hydrants. this area is very deep and the water main needs repair. this option has been examined by Baxter & Woodman as it's included in the water modeling report.
LINCOLN/ TAFT/ POLK (ENGINEERING/CONSTRUCTION)	NORTH COUNTRYSIDE	UTILITIES-WATER	\$ -	\$ 90,000.00	\$ 1,900,000.00	\$ -	\$ -	Replacing approximately three thousand four hundred feet of eight (8) inch cast iron water main with eight (8) inch poly or similar pipe, including structures, valves, and hydrants. this area has had a great deal of water main breaks due to age and material of the water main.

ALGONQUIN PARKWAY (ENGINEERING/ CONSTRUCTION)	Algonquin Parkway	UTILITIES-WATER	\$ 75,000.00	\$ 1,000,000.00	\$ -	\$ -	\$ -	Replace approx. 2,000 feet of ten (10) inch and six (6) inch cast iron water main with poly c-900 or similar water pipe, including structures, valves, services, and hydrants. this area has sustained a great deal of water main repairs due to age and material of pipe. City staff is also evaluating this project for a potential Community Development Block Grant (CDBG) which might alter the proposed timeframe.
RYWICK CT AND JUNIPER CT	RYWICK & JUNIPER COURTS	UTILITIES-WATER	\$ -	\$ -	\$ 30,000.00	\$ 500,000.00	\$ -	Replace approx. 750 of six (6) inch cast iron water main (1970) with eight (8) inch poly or similar water main including structures, valves, and hydrants. this area has had a great deal of water main breaks due to age and material for pipe, as well as bad soil conditions. juniper replace approx. 250 feet of six (6) inch water main. Project was examined and recommended by Baxter & Woodman as part of their water system analysis.
WATER MAIN REPLACEMENT OF WALLBROOK (ENGINEERING AND CONSTRUCTION)	MARTIN/ MARTIN CT/ WREN/ ORIOLE. KINGFISHER	UTILITIES-WATER	\$ -	\$ -	\$ -	\$ 300,000.00	\$ 1,000,000.00	Replace five thousand five hundred (5,500) feet of (6) inch cast iron from (1956) with 8" poly or similar pipe, including structures, valves, and hydrants. This area has had a great deal of breaks due to age and condition of the main.
PUMP STATION 5 DRIVEWAY	4051 Industrial Ave	UTILITIES-WATER	\$ 70,000.00	\$ -	\$ -	\$ -	\$ -	Pump station 5 driveway is in disrepair and needs to be replaced. There is cracking, pot holes, and pooling water within the driveway. This will also allow the City to correct a few other drainage issues that affect the surrounding properties.
WELL 7 DRIVEWAY	100 GREEN MEADOW CT	UTILITIES-WATER	\$ -	\$ 45,000.00	\$ -	\$ -	\$ -	Well 7's driveway is in disrepair and needs to be replaced. There is cracking, potholes, and pooling of water within the driveway. The driveway is original and has not been resurfaced since its original implementation.
PS 4 AND WELL 6 DRIVEWAY	5550 APOLLO & 1940 GOLF ROAD	UTILITIES-WATER	\$ -	\$ -	\$ 55,000.00	\$ -	\$ -	Pump station 4 and well 6's driveway is in disrepair and needs to be replaced. There is cracking, potholes, and pooling of water on the driveways. The driveway is original and has not been resurfaced since its original implementation.
BOOSTER STATION AT QUENTIN AT THE JAWA RECEIVING STATION	2550 QUENTIN	UTILITIES-WATER	\$ 75,000.00	\$ 1,700,000.00	\$ -	\$ -	\$ -	The booster station at the Quentin JAWA delivery structure was recommended by Baxter and Woodman with their water modeling project in 2022. This would assist with being able to control the City's flow as well as put Variable Speed Pumps to increase or decrease output into our system. This is a priority capital project for the City and staff is recommending the potential use of ARPA Parallel funds to complete the project.
UPGRADE PUMP STATION'S 2&5	3300 Meacham Rd & 4051 Industrial Ave	UTILITIES-WATER	\$ -	\$ 75,000.00	\$ 1,870,000.00	\$ -	\$ -	Upgrading pump stations 2&5 for the west side pressure with the booster station would assist with the two-zone system for pressure within the City. This was noted by Baxter and Woodman in their 2022 Water Modeling Project.
PALATINE INTERCONNECT MODIFICATIONS	4051 Industrial Ave	UTILITIES-WATER	\$ -	\$ -	\$ 12,000.00	\$ 120,000.00	\$ -	The palatine interconnect updates are to include Variable Frequency Drives (VFD's) within the system for controlling flow as needed in the system in case of emergency use. This was noted by Baxter & Woodman in their 2022 Water Modeling project.
NORTH INDUSTRIAL WATER MAIN CONSOLIDATION	VARIOUS LOCATIONS	UTILITIES-WATER	\$ -	\$ -	\$ -	\$ 45,000.00	\$ 500,000.00	This project is to eliminate the old water main that is still in service around the north industrial park. This would put all water users on one water main as what was intended in years past.
COMPLETED PROJECTS								
WATERMAIN EXTENSION - LOIS AND GOLF - C/E	LOIS AND GOLF PLACE	WATER	\$ -	\$ -	\$ -	\$ -	\$ -	This project proposes installation of approximately 150 linear feet of eight (8) inch ductile iron water main to close a gap that exists in the system at Lois Drive and Golf Place. This will improve flows and water quality in the area.
ADVANCED METERING INFRASTRUCTURE	CITY WIDE	WATER	\$ -	\$ -	\$ -	\$ -	\$ -	To provide a radio frequency-based meter reading system to automatically collect meter readings at predetermined intervals. The AMI allows the Finance Department to bill for actual WATER usage monthly and eliminates the need for estimated readings. Mont
WATER MAIN REPLACEMENT - ARBOR DRIVE	ENTIRE ROADWAY LIMITS - MULTI YEAR	WATER	\$ -	\$ -	\$ -	\$ -	\$ -	Replace approximately 5,500' of eight (8) inch cast iron WATER main (1967) (or approximately 1,200' per year) with twelve (12) inch ductile iron pipe from valve to valve including structures, valves, and hydrants. This section of WATER main has become mor
MOTOR CONTACTOR REPLACEMENT	WELL #5	WATER	\$ -	\$ -	\$ -	\$ -	\$ -	Replace motor starter and components. The current equipment was installed in 1972 and the switchgear, insulators, contacts, and controlling components are showing signs of ordinary usage and age-related wear. Current technology will provide more efficie

Stop Here

WATER MAIN EXTENSION - ASHLAND, CONST/ENG	2456 ASHLAND - EMERSON	WATER	\$ -	\$ -	\$ -	\$ -	\$ -	This project will extend the exiting eight (8) inch WATER main approximately three hundred fifty feet north to connect to Emerson Ave. Included will be the relocation of up to four (4) residential WATER services. This is a relatively small project, so the
WATERMAIN EXTENSION - EAST FRONTAGE ROAD - CONSTR.	SUNSET PARK SOUTH TO 3902 EAST FRONTAGE RD	WATER	\$ -	\$ -	\$ -	\$ -	\$ -	Install by HDD method, 375' of twelve (12) inch ductile iron WATER main to connect two six (6) inch dead-end WATER mains on the north side of Salt Creek and the lot directly north of 3902 East Frontage on the south side of the creek. This project require
WATERMAIN INSTALLATION MEIJER - ENG/CONST	GOLF RD AT MEIJER DR	WATER	\$ -	\$ -	\$ -	\$ -	\$ -	Install by HDD method, approximately 335' of twelve (12) inch ductile iron WATER main. The WATER main will improve the WATER quality and fire flow availability in the area and provide system redundancy in event of a pipeline failure form the 1701 Golf pro
REPAINT ELEVATED WATER TANKS - ENG/CONST	ET#1 - 3200 CAMPBELL ST & ET#2 - 3201 CENTRAL RD	WATER	\$ -	\$ -	\$ -	\$ -	\$ -	The elevated tanks were last sandblasted and re-coated in 1995 and 1997. The life expectancy of the epoxy product (Tnemec) is approximately twenty (20) years. Areas on the tower are showing signs of rust and developing thin coated areas due to normal we
SOUTH/PLUM GROVE WATERMAIN REPLC. - 2019 BONDS	SOUTH STREET AND PLUM GROVE DRIVE	UNDERGROUND UTILITIES	\$ -	\$ -	\$ -	\$ -	\$ -	Replace approximately 3,500 feet of six (6) inch cast iron WATER main with eight (8) inch ductile iron pipe, including structures, valves, and hydrants. This area of WATER main has become more susceptible to age-related failure. The ability to provide r
WEBER/WAVERLY WATER MAIN REPLACEMENT - 2019 BONDS	WEBER DRIVE AND WAVERLY PARK SUB.	UNDERGROUND UTILITIES	\$ -	\$ -	\$ -	\$ -	\$ -	Replace approximately 7,500 feet of six (6) inch cast iron WATER main (1967) with eight (8) inch ductile iron pipe, including structures, valves, and hydrants. This area of WATER main has become more susceptible to age-related failure. The ability to pr

Capital Improvement Document- FY 2024-2028

Booster Station at Quentin JAWA Receiving Station

Year	Amount
2024	\$75,000
2025	1,700,000
2026	0
2027	0
2028	0

Low Priority

High Priority

Urgent

Description:

The booster station at the Quentin JAWA delivery structure was recommended by Baxter and Woodman with their water modeling project in 2022. This would assist with being able to control the City's flow as well as put Variable Speed Pumps to increase or decrease output into our system. This is a priority capital project for the Utilities Staff and we request prioritizing funding by providing for engineering services in 2024 with construction expected in 2025.

Capital Improvement Document- FY 2024-2028

Pump Station Emergency Power Supply

Year	Amount
2024	\$275,000
2025	\$500,000
2026	\$320,000
2027	\$320,000
2028	0

Low Priority

High Priority

Urgent

Description:

Emergency standby generators are needed at all the pumping stations to ensure reliable water quality during electrical disruptions. Currently, if power is to go out at one of our pumping stations the City would need to bring am mobile generator onsite. This was noted in the water modeling program as an item that should be addressed by the City. The variance in pricing depends on the power needs for each site, and location variables.

This is a similar situation to the Public Works Facility as most of our Utilities infrastructure is vital to maintaining health and safety of Rolling Meadows residents. City Staff believes this is a major priority to ensure the reliability of our pumping stations.

Capital Improvement Document- FY 2024-2028

Watermain Improvement Vermont Street

Year	Amount
2024	\$1,500,000
2025	0
2026	0
2027	0
2028	0

Low Priority

High Priority

Urgent

Description:

Replace approximately 2,690 feet of six (6) inch cast iron water main with eight (8) inch ductile iron pipe or similar, including structures, valves, and hydrants. This area of water main has become more susceptible to age-related failure. In order to estimate the project, the City has looked at valuations of similar projects and is seeing an expense of \$500,00 per linear sqft of installation.

This is a planned ARPA Parallel Expense. The preliminary engineering on this project is funded from the 2023 budget.

Project Name	Location	Division	2024	2025	2026	2027	2028	Justification
LIFT STATION 3 IMPROVEMENTS (DESIGN AND CONSTRUCTION)	RICHNEE LN. AND TALL OAKS LN.	UTILITIES-SANITARY	\$ 95,000.00	\$1,100,000.00	\$ -	\$ -	\$ -	This improvement is to move all the controlling systems from a vault below grade to a cabinet above grade. The below-grade structure is rusting and leaking, and the exposed components can corrode and fail due to this environment. The improvements would include moving electrical infrastructure above ground as well as installing a permanent generator at the site.
ROAD PROGRAM SANITARY SEWER REPAIRS	VARIOUS LOCATIONS	UTILITIES-SANITARY	\$ 75,000.00	\$ 75,000.00	\$ 75,000.00	\$ 75,000.00	\$ 75,000.00	This project is to repair sanitary pipe and structures within the limits of the scheduled road projects. Coordination of these activities help preserve the integrity of the newly resurfaced roadways. The City performs annual inspections on future road program locations to determine which areas need to be corrected.
SANITARY SEWER IMPROVEMENTS - MWRD PROGRAM	VARIOUS - CONST. & ENG.	UTILITIES-SANITARY	\$ 80,000.00	\$ 80,000.00	\$ 80,000.00	\$ 80,000.00	\$ 80,000.00	This initiative is mandated by the MWRD's long-term sanitary inflow and infiltration policy. This project will be a recurring expense and should reduce over time as the program addresses issues. This program is mandated by MWRD.
SANITARY SEWER INSTALLATION - GROVE	GROVE ST AND PLUM BLOSSOM - C&E	UTILITIES-SANITARY	\$ -	\$ -	\$ 25,000.00	\$ 500,000.00	\$ -	This project is to install approximately (1,200) new sanitary sewer main and services for existing homes on Grove Street and Plum Blossom. This funding level provided gives costs for design (2026) with construction expected in 2027. The City has only inserted a placeholder number in the 2027 column as we are unsure of the potential cost of the project.
SANITARY SEWER MANHOLE REHABILITATION	VARIOUS LOCATIONS	UTILITIES-SANITARY	\$ 95,000.00	\$ 95,000.00	\$ 95,000.00	\$ 95,000.00	\$ 100,000.00	This is part of the City's ongoing maintenance program to prevent infiltration in sanitary manholes in an effort to minimize costs to the residents and to maintain compliance with the Metropolitan Water Reclamation District (MWRD) requirements.
SANITARY LATTERAL AND T-LINING	VARIOUS LOCATIONS	UTILITIES-SANITARY	\$ 275,000.00	\$ -	\$ 275,000.00	\$ -	\$ 275,000.00	As part of the MWRD Annual Report, RJN noted that it would be in the best interest of the City to perform Sanitary Lateral and T-Lining at all of the Joints where the sanitary lateral connects to the main. This is due to the City owning the portion of the Sanitary Lateral that falls within the City ROW. Which is an uncommon practice not typically found in Underground Maintenance performed by Municipalities.
SANITARY SEWER PIPE REHABILITATION/ LINING	VARIOUS LOCATIONS	UTILITIES-SANITARY	\$ 250,000.00	\$ 190,000.00	\$ 300,000.00	\$ 250,000.00	\$ 300,000.00	The project involves lining and/or repairing sanitary sewer mains at various locations in the City as part of the Annual Sanitary Sewer Rehab Program. Many sections of the City's sanitary sewer system are over 50 years old and have structural defects.
SANITARY SEWER SYSTEM MASTER PLAN	CITYWIDE PLANNING UPDATE	UTILITIES-SANITARY	\$ -	\$ 65,000.00	\$ -	\$ -	\$ -	In an effort to reduce system costs and maintain compliance with all regulatory agencies, Staff works with an engineering firm familiar with the requirements established by those agencies. The work involves refinement of the five (5) year sanitary sewer master plan.
LIFT STATION 1 PUMP REPAIR/ SLOPE/ LINED/ GENERATOR	SCHOOL A& MEADOW	UTILITIES-SANITARY	\$ -	\$ 75,000.00	\$ 1,000,000.00	\$ -	\$ -	Lift Station 1 is in need of pumps and force main replacement as well as creating slope and lining the pit to ensure it is in good working condition. Generator is expected as well.
SANITARY LIFT STATION MAIN UNDER CAMPBELL STREET (SIPHONE/ SAG)	CAMPBELL STREET	UTILITIES-SANITARY	\$ -	\$ -	\$ 40,000.00	\$ 500,000.00	\$ -	There is a blind sag in the line underneath Campbell Street that should get replaced and lined to ensure reliability.
LIFT STATION 2- REPLACE PUMPS/ FORCE MAIN- LINE- INSTALL GENERATOR	CARDINAL DRIVE	UTILITIES-SANITARY	\$ -	\$ -	\$ -	\$ 40,000.00	\$ 1,000,000.00	Lift station two updates include the replacements and/or repair of the force main, pumps, and put of the lift station. This funding also includes the installation of a permanent generator.

LIFT STATION- SCADA OPERABILITY	VARIOUS LOCATIONS	UTILITIES-SANITARY	\$ -	\$ 150,000.00	\$ -	\$ -	\$ -	Utilizing SCADA technology the City can update its lift stations to view and allow remote operability and update outdated technology. Currently, the City Utilitites Staff can only view certain characteristics of each lift station. With these upgrades Staff would be able to remotely operate each lift station individually and monitor more characteristics.
LATTERAL LAUNCHER & CONTROL PAD	EQUIPMENT	UTILITIES-SANITARY	\$ -	\$ -	\$ 150,000.00	\$ -	\$ -	The lateral launcher and control pad will give the operator the ability to camera and view sanitary sewer laterals from the sewer main. This would assist residents and businesses within Rolling Meadows. This purchase would be a major compliment to the recent acquisition of a sewer televising van.
SMOKE TESTING	VARIOUS LOCATIONS	UTILITIES-SANITARY	\$ -	\$ 50,000.00	\$ -	\$ -	\$ -	Smoke testing is done every 5 years with the high priority areas within the City. This gives the City an in-depth knowledge of any issues with sanitary pipe as well as illegal connections. This was recommended by RJN with the 5-year sanitary plan.

Completed Projects

SANITARY INSTALLATION BROOKVIEW - ENG/CONST.	BROOKVIEW LN. AND SUNSET DR.	UTILITIES-SANITARY	\$ -	\$ -	\$ -	\$ -	\$ -	This project is to install new sanitary sewer mains and services for existing homes on Brookview. Phase 1 completed along Brookview in 2021. Phase 2 along Sunset is set to be completed at the end of the year in 2023.
SANITARY SEWER INSTALLATION - BROCKWAY	BROCKWAY - CONST. & ENG.	UTILITIES-SANITARY	\$ -	\$ -	\$ -	\$ -	\$ -	This project is to install approximately 950 linear feet of new sanitary sewer mains and services for existing homes on Brockway from Old Plum Grove to 2974 Brockway Street. Given the size of the project, engineering and construction costs are included b
TELEVISIONING VAN - CARGO VAN - UU	RM186 / T348 2006 FORD VAN	UTILITIES-SANITARY	\$ -	\$ -	\$ -	\$ -	\$ -	This vehicle was purchased in 2006 and is on a fifteen (15) year replacement schedule. The planned year is consistent with the City's current VEHICLE REPLACEMENT plan. Replacement of this vehicle will include a trade-in or auction sale. (Deferred from 2
SL RAT - SEWER LINE INVESTIGATION TOOL	CITY WIDE	UTILITIES-SANITARY	\$ -	\$ -	\$ -	\$ -	\$ -	The City is required to clean/inspect approximately 10% of its sanitary sewer system each year to meet MWRD mandated regulations. This tool will enable staff to measure sound relayed through the sewer line to determine whether or not the line needs to be

Capital Improvement Document- FY 2024-2028

Lift Station 3 Improvements

Year	Amount
2024	\$95,000
2025	\$1,100,000
2026	0
2027	0
2028	0

Low Priority

High Priority

Urgent

Description:

This improvement is to move all the controlling systems from a vault below grade to a cabinet above grade. The below-grade structure is rusting and leaking, and the exposed components can corrode and fail due to this environment. The improvements would include moving electrical infrastructure above ground as well as installing a permanent generator at the site.

Lift station three is located on Richnee Lane and is located on an easement in between two residences. As part of this project the City may have to acquire more permanent easement in order to bring equipment above ground and have access to maintain this new equipment.

Capital Improvement Document- FY 2024-2028

Sanitary Lateral and T-Lining Program

Year	Amount
2024	\$275,000
2025	0
2026	\$275,000
2027	0
2028	\$275,000

Low Priority

High Priority

Urgent

Description:

As part of the MWRD Annual Report, RJN noted that it would be in the best interest of the City to perform Sanitary Lateral and T-Lining at all of the Joints where the sanitary lateral connects to the main. This is due to the City owning the portion of the Sanitary Lateral that falls within the City ROW. Which is an uncommon practice not typically found in Underground Maintenance performed by Municipalities.

In order to maintain the connection between the sanitary main and lateral connection with the resident home RJN has suggested T Lining. This will line the connection point between these two and substantially improve and harden the connection.

Capital Improvement Document- FY 2024-2028

Sanitary Sewer Rehabilitation Program

Year	Amount
2024	\$250,000
2025	\$190,000
2026	\$300,000
2027	\$250,000
2028	\$300,000

Low Priority

High Priority

Urgent

Description:

The sanitary main lining program is one of the most important programs recommended by RJN through the MWRD Annual Report. These prices are based off the estimated percentages that are programmed through our High Priority Areas.

The project involves lining and/or repairing sanitary sewer mains at various locations in the City as part of the Annual Sanitary Sewer Rehab Program. Many sections of the City's sanitary sewer system are over 50 years old and have structural defects.

Project Name	Location	Division	2024	2025	2026	2027	2028	Justification
PARK ST DRAINAGE IMPROVEMENT - FEDERAL FUNDING	PARK STREET NEAR KIMBALL HILL SCHOOL	UTILITIES-STORMWATER	\$ 1,000,000.00	\$ 790,000.00	\$ -	\$ -	\$ -	This project is to alleviate major flooding issues on residential properties along Park Street and in front of the school on Meadow. This project proposes the installation of several thousand feet of storm sewer, easement identifications, etc. Over the course of three phases with potential to provide an additional fourth phase. The City is expected to receive a grant in the amount of 810,000 from Federal Funding to assist with the 2024 phase of this project. The first phase is expected to be completed in 2023
STREAMBANK STABILIZATION	SALT CREEK	UTILITIES-STORMWATER	\$ -	\$ 75,000.00	\$ 400,000.00	\$ -	\$ -	This project is for the fourth phase of a five phase project and includes engineering and stabilization of Salt Creek in the areas that were identified in the Salt Creek engineering study. Grant applications will be submitted to the IEPA.
WETLAND AND NATURAL AREA MANAGEMENT	ALGONQUIN ROAD @ BARKER	UTILITIES-STORMWATER	\$ 25,000.00	\$ 25,000.00	\$ 25,000.00	\$ 25,000.00	\$ 25,000.00	Prepare concept plan for wetland/WATER quality improvements for Salt Creek near the Willow Bend Apartments. This work is required for the City to remain in compliance with the Clean water Act and the National Pollutant Discharge Elimination System (NPDES).
STORM SEWER REHABILITATION/ LINING	VARIOUS LOCATIONS	UTILITIES-STORMWATER	\$ 150,000.00	\$ 150,000.00	\$ 150,000.00	\$ 150,000.00	\$ 150,000.00	This is considered the annual Storm Sewer Rehabilitation Program. The program will include pipe repairs including pipe lining, spot repairs, inspection and engineering services, and pipe replacement. The annual program is completed in 3 Phases.
STORM SEWER SYSTEM IMPROVEMENTS / ROAD PROGRAM	VARIOUS - CONST. & ENG.	UTILITIES-STORMWATER	\$ 200,000.00	\$ 200,000.00	\$ 200,000.00	\$ 200,000.00	\$ 200,000.00	Annually, prior to any road program the City Engineer along with Staff inspect the storm infrastructure. This funding is to provide for any necessary repairs to the system to upsize, correct, or remove standing water locations when possible. Over the years we have seen this cost for our road programs increase.
STORMWATER IMPROVEMENTS - NORTH INDUSTRIAL AREA	CARNEGIE / EDISON / ROHLWING ROAD	UTILITIES-STORMWATER	\$ 175,000.00	\$ -	\$ 900,000.00	\$ -	\$ -	Complete upstream drainage improvements for the Carnegie / Edison / Rohlwing area. Initial costs were related to drainage study. Future year proram includes engineering services to be completed in the first programmed year with construction work to be completed in the second year. Phase 2 to be covered by grant funding 100% reimbursement
STORM SEWER IMPROVEMENT - MEADOWBROOK BRIDGE	MEADOWBROOK DRIVE	UTILITIES-STORMWATER	\$ 350,000.00	\$ 35,000.00	\$ -	\$ -	\$ -	The City has received Local Bridge Funding in the amount of an 80/20 split for the replacement of a bridge on Meadowbrook Drive. The total amount for the cost to the City is \$350,000.
STORM SEWER MASTER PLAN	VARIOUS	UTILITIES-STORMWATER	\$ -	\$ 65,000.00	\$ -	\$ -	\$ -	The storm sewer masterplan is run congruent with the sanitary sewer master plan to be able to best plan for future CIP projects/ programs. This plan will include an overall look at the current state of the City's storm system as well as indicate future areas for improvement or upsizing.
MEADOWBROOK STORM SEWER REPLACEMENT (GRANT)	VARIOUS	UTILITIES-STORMWATER	\$ 1,000,000.00	\$ -	\$ -	\$ -	\$ -	Running underneath the center of Meadowbrook Drive, there is an existing failing 60" diameter Corrugated Metal storm sewer conveyance pipe the bring storm water from the area to Salt Creek. The city has already made significant investment into the storm sewer due to a collapse that took place in 2012. Additionally, the Meadowbrook Bridge (Structure No. 016-6322) is set to be replaced. Having the bridge replacement and storm sewer replacement take place while the road is closed would be an ideal circumstance. The City has recieved an obligation of funding from DCEO in the amount of 795,000 to offset the cost of the proect.
KENNEDY POND REHABILITATION	VARIOUS	UTILITIES-STORMWATER	\$ 25,000.00	\$ -	\$ -	\$ -	\$ 2,600,000.00	In 2022 the City had CBBEL perform an analysis on Kennedy Pond with the intention to examine the algae blooms occurring in that area at the request of City Council. Part of the effort to increase the aesthetic of the pond includes upgrading the current aeration system. With further funding contemplated in 2028 to completely dredge the Pond and create a deeper environment which should assist in reducing algae blooms.

BROOKWOOD DETENTION REPAIRS	BROOKWOOD CONDOMINIUMS	UTILITIES-STORMWATER	\$ -	\$ -	\$ 1.00	\$ -	\$ -	Clean up and stabilize the storm water detention area that collects storm runoff from the area west of Brookwood Condominiums. The City is still evaluating this issue and has not come to a resolution on what fixes for this area would be appropriate. At this point this item is being held as a placeholder until it can be fully evaluated again by City Staff to come up with a resolution that assists all parties.
STORM UPSIZING BASED ON MASTER PLAN	VARIOUS	UTILITIES-STORMWATER	\$ -	\$ -	\$ -	\$ -	\$ 1.00	Upsizing storm structures throughout the City to allow for increased input and eliminate some drainage concerns. This is a placeholder for potential capital items once the 2025 Master Plan for Storm Water is completed.
RYWICK CT OVERLAND FLOW	EAST SIDE OF RYWICK	UTILITIES-STORMWATER	\$ -	\$ -	\$ -	\$ 1.00	\$ 1.00	The Rywick overland drainage needs to be corrected and remediated to limit the flooding on Rywick Court. This item is a placeholder and staff is anticipating a two year project with engineering in 2027 and construction in 2028.
DAWNGATE REPAIR	DAWNGATE SUBDIVISION	UTILITIES-STORMWATER	\$ 1.00	\$ -	\$ -			Currently, being held as a placeholder in the City's Capital Plan. City Staff is still working with the Dawngate HOA to determine the next course of action. This project would include the installation of a distilling basin for the discharge of a storm water outfall.
QUENTIN RIDGE RETENTION UPGRADE	QUENTIN RIDGE SUB. - CONST. & ENG.	UTILITIES-STORMWATER	\$ -	\$ -	\$ -	\$ -	\$ 1.00	Recently it was determined that the detention for the Quentin Ridge Subdivision was not accurately designed and constructed to accommodate the amount of water it is required to handle. Easements are needed by at least two homeowners to complete the improvements.
STORMWATER MANAGEMENT IMPROVEMENTS - HICKS ROAD	600, 1100, 1200 HICKS RD PROPERTIES	UTILITIES-STORMWATER	\$ -	\$ -	\$ -	\$ -	\$ 1.00	Flood control for storm water drainage. This project will require 50% cost participation by affected property owners in order to proceed. The project was identified in the 2002 Storm Water Management Study. Engineering services to be completed in year 1 with construction in year 2.

Capital Improvement Document- FY 2024-2028

Kennedy Pond Rehabilitation

Year	Amount
2024	\$25,000
2025	0
2026	0
2027	0
2028	2,600,000

Low Priority

High Priority

Urgent

Description:

In 2022 the City had CBBEL perform an analysis on Kennedy Pond with the intention to examine the algae blooms occurring in that area at the request of City Council. Part of the effort to increase the aesthetic of the pond includes upgrading the current aeration system. With further funding contemplated in 2028 to completely dredge the Pond and create a deeper environment which should assist in reducing algae blooms.

Capital Improvement Document- FY 2024-2028

North Industrial Drainage Improvements

Year	Amount
2024	\$175,000
2025	\$
2026	0
2027	0
2028	0

Low Priority

High Priority

Urgent

Description:

Project consists of a new overflow structure at which the two Rohlwing Road trunk sewers and the IDOT trunk sewer combine to outlet to the 36-inch diameter storm sewer adjacent to Harvest Bible Chapel. The rim of the new overflow structure will be lowered in order to allow the system to first surcharge at the new overflow structure instead of at the low area on Rohlwing Road. The stormwater surcharge at the new structure will be conveyed in the City-owned ditch along the east side of Harvest Bible Chapel before it surcharges on Rohlwing Road.

Additionally, upsizing the storm sewer downstream of the proposed overflow structure in to its outlet at the Arlington Heights Branch of Salt Creek from the existing 36-inch diameter to a proposed 72-inch diameter storm sewer. This will allow for more stormwater conveyance through the area, which will reduce the depth and duration of ponding on Rohlwing Road upstream of the proposed improvements.

Capital Improvement Document- FY 2024-2028

Park Street Storm Sewer Project

Year	Amount
2024	\$1,000,000
2025	\$790,000
2026	0
2027	0
2028	0

Low Priority

High Priority

Urgent

Description:

Overland flow discharges into Kimball Hill Park, which is hydraulically connected to the creek. The pipes along Park Street, Meadow Drive, and through Kimball Park are undersized to convey larger storm events, preventing rear yards to drain and causing surcharging, rear yard flooding, overland flows, and street ponding. Street flooding is the most severe at the sag in the intersection of Meadow Drive and South Street. Water ponds here to a depth of approximately 0.8 feet before it starts overflowing into Kimball Park. Additionally, the street flooding of this intersection impedes access to the Kimball Hill Elementary school for parents, buses, and emergency vehicles. This work will mitigate flooding at intersection by installing new storm water pipe system that outfalls to the stream behind Kimball Hall Elementary. Improvements include a bioswale, HMA roadway reconstruction, curb and gutter replacement, new structures, structure adjustments, drainage improvements, water main installation, parkway restoration, and other miscellaneous items of work.

This project is to alleviate major flooding issues on residential properties along Park Street and in front of the school on Meadow. This project proposes the installation of several thousand feet of storm sewer, easement identifications, etc. Over the course of three phases with potential to provide an additional fourth phase. The City is expected to receive a grant in the amount of 810,000 from Federal Funding to assist with the 2024 phase of this project. The first phase is expected to be completed in 2023.

Capital Improvement Document- FY 2024-2028

Storm Sewer Improvements Meadowbrook Storm Replacement

Year	Amount
2024	\$1,000,000
2025	0
2026	0
2027	0
2028	0

Low Priority

High Priority

Urgent

Description:

Running underneath, the center of Meadowbrook Drive, there is an existing failing 60" diameter Corrugated Metal storm sewer conveyance pipe that brings storm water from the area to Salt Creek. The city has already made significant investment into the storm sewer due to a collapse that took place in 2012. Additionally, the Meadowbrook Bridge (Structure No. 016-6322) is set to be replaced. Having the bridge replacement and storm sewer replacement take place while the road is closed would be an ideal circumstance.

This project has received grant funding in the amount of around \$795,000 which is being contributed through DCEO. This will supplement the City in this project to bring the total City cost down to around \$200,000.

**City of Rolling Meadows
Sewer Program Budgeting Recommendations - Multi-Year Cost Projections**

Color Legend:

- MWRD Program
- Other City Program
- MWRD/City Program Overlap

	FY - 2023	FY - 2024	FY - 2025	FY - 2026	FY - 2027	FY - 2028	FY - 2029	FY - 2030
Engineering, Inspections, MWRD								
Smoke Testing			\$50,000					\$60,000
Manhole Inspections				\$22,000	\$22,000			
Dyed Water Flooding					\$10,000			
Television Review	\$7,300	\$7,500	\$17,000	\$17,000	\$17,000	\$8,000	\$8,000	\$18,000
MWRD Submittals & Inspection Reports	\$7,700	\$8,000	\$16,000	\$16,000	\$16,000	\$9,000	\$9,000	\$17,500
MWRD Correction Actions Engineering	\$25,900	\$26,000	\$26,000	\$28,000	\$28,000	\$28,000	\$30,000	\$30,000
General Assistance, Rehab Assistance (Sewer, Manhole, Private), Project Management, Meetings	\$14,400	\$15,000	\$15,000	\$17,000	\$17,000	\$17,000	\$19,000	\$19,000
Lateral Liner/T-Liner Rehab Design		\$35,000		\$35,000		\$40,000		\$40,000
Lift Station #3 Improvements Design		\$95,000						
Subtotal	\$55,300	\$186,500	\$124,000	\$135,000	\$110,000	\$102,000	\$66,000	\$184,500
Sewer Lining								
Sanitary Sewer Lining	\$200,000	\$250,000	\$190,000	\$300,000	\$250,000	\$300,000	\$300,000	\$250,000
Storm Sewer Lining	\$150,000	\$150,000	\$150,000	\$150,000	\$150,000	\$150,000	\$150,000	\$150,000
Sanitary Lateral Lining and T-Lining								
Sanitary Lateral Lining and T-Lining		\$275,000		\$275,000		\$290,000		\$290,000
Manhole Rehabilitation								
Manhole Rehabilitation	\$95,000	\$95,000	\$95,000	\$95,000	\$100,000	\$100,000	\$100,000	\$100,000
Other								
MWRD Corrective Actions/ Point Repairs	\$80,000	\$80,000	\$80,000	\$80,000	\$80,000	\$80,000	\$80,000	\$80,000
Lift Station #3 Construction Improvements		\$600,000						
Sanitary Sewer Master Plan			\$38,000					
SL Rat-Sewer Line Investigation Tool	\$28,000							
Subtotal	\$553,000	\$1,450,000	\$553,000	\$900,000	\$580,000	\$920,000	\$630,000	\$870,000
Total	\$608,300	\$1,636,500	\$677,000	\$1,035,000	\$690,000	\$1,022,000	\$696,000	\$1,054,500

Comments

Dependent on smoke testing results, if inlets found smoking

Annual MWRD Report and Report for Inspections during corresponding years

Highly variable - Depending on results of previous year's television review

Preparation tables, costs, exhibits, including private sector disconnects.

Highly variable - Depending on results of previous year's television review

Could be between \$500k to \$700k in construction costs.

MWRD AREAS

Area	Manholes	Sewer Segments	Footage	%
1	256	282	63,530	15%
2	155	168	25,650	6%
3	264	223	44,542	10%
4	149	183	51,571	12%
5	323	329	52,041	12%
6	347	366	58,595	13%
7	428	502	64,807	15%
8	115	152	19,687	5%
9	251	274	56,136	13%
Total	2,288	2,479	436,559	