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# Engineering Capital Infrastructure

## 2020 Update – No.: 01

February 18, 2020  
Governance and Priorities  
Committee Meeting

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## Engineering Capital Infrastructure Project Updates

This report is intended to provide Engineering Capital Infrastructure Project Updates and information pertaining to the services which will be procured to assist Administration with Project Delivery. The projects listed are expected to be completed in 2020.

The report is broken down into the following sections:

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### 1. At a Glance

#### 2019 Carry Forward Projects:

Engineering Capital Infrastructure Projects	Approved Budget	Expenditure to Date	% Complete Expenditure	Expected Work Start Date (Q1, Q2, Q3, Q4)	Estimated Construction Completed %
1813618 – Drainage Channel Improvements (East Lake K)	\$585,000.00	\$45,867.07	8%	Q1 (2020)	5%
1813622 – Parkview Storm Water Management Pond	\$116,760.00	\$56,323.80	48%	Q2 (2020)	100%
1913609 – Traffic Signal Network Timing & Coordination	\$475,000.00	\$333,781.45	70%	Q1 (2020)	98%
1913610 – Drainage Improvements (75 Avenue)	\$300,000.00	\$14,051.83	5%	ON HOLD	15%
1913611 – Neale Edmunds Storm System Improvements	\$250,000.00	\$0.00	0%	Q1 (2020)	97%
1913624 – Dangerous Good Route and Truck Route Established	\$150,000.00	\$82,389.25	55%	Q1 (2020)	95%
2013620 – 2020 Street Improvement Program – Design	\$300,000.00	\$113,556.81	38%	Q1 (2020)	95%
2013631 – 2020 Water and Sewer Replacement Program – Design	\$150,000.00	\$95,119.76	63%	Q1 (2020)	95%

#### 2020 Projects:

Engineering Capital Infrastructure Projects	2020 Expense	2020 Expenditure to Date	% Complete Expenditure	Expected Work Start Date (Q1, Q2, Q3, Q4)	Estimated Construction Completed %
2034009 – Airport – Taxiway Rehabilitation	\$250,000.00	\$0.00	0%	Q2	0%
1913640 - Sidewalk & Road Condition Survey: 2-3 & 3-3	\$120,000.00	\$0.00	0%	Q2	0%
2013608 - 2020 Street Improvement Program – Construction	1,500,000.00	\$0.00	0%	Q1	0%

2013610 - 50 Avenue (Highway 17) – Timing and Coordination Improvements - Construction	\$425,000.00	\$0.00	0%	Q2	0%
2013611 - 2020 Traffic Signal Hardware Improvement Program - Construction	\$375,000.00	\$0.00	0%	Q2	0%
2013613 - Lloydminster Helipad Crossing Improvements - Construction	\$20,000.00	\$0.00	0%	Q3	0%
2013615 - Trails and Sidewalk Master Plan	\$150,000.00	\$0.00	0%	Q1	0%
2113610 - 2021 Street Improvement Program – Design Services	\$150,000.00	\$0.00	0%	Q1	0%
2013623 - Community Services Building and Site Demolition	\$350,000.00	\$0.00	0%	Q3	0%
2013616 - Bud Miller All Seasons Park Entrance Walking Trail Adjustments – Design & Construction	\$150,000.00	\$0.00	0%	Q1	0%
2013619 - Lakeland College & 22 Street Walking Trail Rehabilitation - Construction	\$150,000.00	\$0.00	0%	Q1	0%
2013601 - 2020 Sanitary Main Replacement Program – Phase II - Construction	\$1,800,000.00	\$0.00	0%	Q1	0%
2013602 - River Intake Dam - Construction	\$1,460,000.00	\$0.00	0%	Q2	0%
2013604 - Central Business District Replacement Program - Planning and Design Services (Underground Assessment)	\$300,000.00	\$0.00	0%	Q2	0%
2013606 - Northwest Drainage Channel – Phase II - Construction	\$1,200,000.00	\$0.00	0%	Q3	0%
2013607 - East Drainage Channel Improvements (Lake J Control Structure) – Phase II - Construction	\$1,600,000.00	\$0.00	0%	Q3	0%
2013621 - 2020 Water and Sewer Replacement Program – Construction	\$1,200,000.00	\$0.00	0%	Q2	0%

## 2. Brief Project Descriptions

### 2019 Carry Forward Projects:

#### 1813618 - Drainage Channel Improvements (East, Lake K)

- Approved Budget: \$585,000.00
- Project Description: The program will consist of completing the removal and replacement of one (1) culvert crossing within the East Drainage Channel near 40 Avenue. The crossing location has been selected to be improved due to the timing of the 40 Avenue Rehabilitation Project scheduled for mid-summer 2019. Consultant Services associated with Design and

Project Management were previously procured in 2018 but will cease in 2019. The Engineering Team will be completing the Construction Management for this project in-house.

- Services to be Procured: Contractor Services.
- Project Status: Contractor has been selected with materials being ordered and delivered to site. Construction anticipated to be initiated on February 17, 2020.
- Estimated construction work completed to date: 5%
- Expenditure to date: \$45,867.07

#### **1913610—Drainage Improvements (75 Avenue / 29-44 Street)**

- Approved Budget: \$300,000.00
- Project Description: The program includes the completion of a detailed design and creation of a tender package to remediate the ditch along the east side of 75 Avenue between 29 Street and 44 Street in an effort to minimize standing water and promote feasible ditch maintenance. The Engineering Team will be completing the Design, Project Management and Construction Management for this project in-house.
- Services to be Procured: Contractor Services.
- Project Status: The project has been put on hold indefinitely until appropriate working constraints can be reached with pipeline facility owners within the area. Until feasible working requirements can be agreed to the drainage improvements will not be completed. Engineering Services is working with the facility owner to reach a consensus regarding the constructability issues.
- Estimated construction work completed to date: 15%
- Expenditure to date: \$14,051.83

#### **1913611 —Neale Edmunds Storm System Improvements**

- Approved Budget: \$250,000.00
- Project Description: The program includes the remediation of the final control structure within the Neale Edmunds System. The program will consist of the removal and replacement of the existing Corrugated Steel Pipe (CSP) Culverts and associated channel rehabilitation. The Engineering Team will be completing the Design, Project Management and Construction Management for this project in-house.
- Services to be Procured: Contractor Services
- Project Status: The project has been completed with minor landscaping touch ups to be completed in the spring of 2020. No invoices have been received for the work to-date.
- Estimated construction work completed to date: 97%
- Expenditure to date: \$0.00

#### **1913624 – Dangerous Goods Route and Truck Route Establishment**

- Approved Budget: \$150,000.00
- Project Description: The program includes the review of existing information and development/updating of a Dangerous Goods Route and Truck Route within the City of Lloydminster. Consultant Services associated with Design and stake-holder engagement will be procured in 2019.
- Services to be Procured: None
- Project Status: Final deliverables have been issued to Engineering Services in a DRAFT format for review. Presentations to the Executive Leadership Team and Council will be scheduled once the final documents have been issued by the Consultant.
- Estimated construction work completed to date: 35%
- Expenditure to date: \$82,389.25

#### **2013620 – 2020 Street Improvement Program - Design**

- Approved Budget: \$300,000.00
- Project Description: Preparation for the City of Lloydminster's annual Street Improvement, Asphalt Trail Improvement and Concrete Sidewalk Improvement Programs. The areas to be included in the program will be reviewed by the Engineering Team in conjunction with the Operations Group. Consultant Services associated with Design and Project Management will be procured in 2019.
- Services to be Procured: Consultant Services
- Project Status: Consultant finalizing detailed design drawings and bid document information.
- Estimated construction work completed to date: 95%
- Expenditure to date: \$113,556.81

#### **2013631 — 2020 Water and Sewer Replacement Program - Design**

- Approved Budget: \$150,000.00
- Project Description: Preparation for the City of Lloydminster's annual Water and Sewer Main Replacement Program. The areas to be included in the program will be reviewed by the Engineering Team in conjunction with the Operations Group. Consultant Services associated with Design and Project Management will be procured in 2019.
- Services to be Procured: Consultant Services
- Project Status: Consultant finalizing detailed design drawings and bid document information.
- Estimated construction work completed to date: 95%
- Expenditure to date: \$95,119.76

#### **2020 Projects:**

##### **1913640 – Sidewalk & Road Condition Survey: 2-3 & 3-3**

- Approved Budget: \$120,000.00
- Project Description: The intent of the Road and Sidewalk Survey Condition Survey project is meant to record and track the condition of the City of Lloydminster's surface infrastructure on an annual basis. The data collected is imported and analyzed in the RoadMatrix Software to help prioritize which links of the sidewalk should be remediated or considered for repair, in preparation for a more formal Asset Management plan. This program consists of year 2 of 3 and year 3 of 3 as these services were procured using a Standing Offer Agreement for a three (3) year term.
- Services to be Procured: None
- Project Status: Project on hold until spring of 2020 when condition assessments can be completed.
- Estimated construction work completed to date: 0%
- Expenditure to date: \$0.00

##### **2013608 – 2020 Street Improvement Program - Construction**

- Approved Budget: \$1,500,000.00
  - Engineering Services will be looking to combine 2013608, 2013616, 2013619, and 2034009 into one (1) project to increase contractor participation and to encourage more advantageous bid pricing. If approved, the revised budget for the 2020 Street Improvement Program – Construction program will be \$2,050,000.00.
- Project Description: The City of Lloydminster's annual Street Improvement, Intersection Upgrades, Asphalt Trail Improvement and Concrete Sidewalk Improvement Programs includes various locations throughout the City of Lloydminster.
- Services to be Procured: Consultant and Contractor Services

- Project Status: The project is in the early stages of consultant procurement. Upon completion of the consultant procurement stage, the detailed design drawings, Bid Document, and contractor selection phase will be initiated. It is anticipated that construction will begin in May 2020.
- Estimated construction work completed to date: 0%
- Expenditure to date: \$0.00

#### **2013610 – 50 Avenue (Highway 17) – Timing and Coordination Improvements - Construction**

- Approved Budget: \$425,000.00
- Project Description: The intent of the 50 Avenue Timing and Coordination project is to review and update the timing and coordination for the traffic signals along 50 Avenue (Highway 17). The improvements to the timing and coordination will be such that these traffic signals will interface with the improvements completed along 44 Street (Highway 16) in 2019 and be operated using the Centraqs Automated Traffic Management (ATM) System.
- Services to be Procured: Contractor Services
- Project Status: Project on hold until spring of 2020 when condition assessments can be completed.
- Estimated construction work completed to date: 0%
- Expenditure to date: \$0.00

#### **2013611 – 2020 Traffic Signal Hardware Improvement Program - Construction**

- Approved Budget: \$375,000.00
- Project Description: The intent of the Traffic Signal Hardware Upgrade project is to improve existing signal hardware associated with the City's traffic signals to more efficiently serve the community. In 2014 a review was conducted on the traffic signal system and recommendations were compiled into the 2015 Traffic Signal Assessment Report. Several recommendations were identified. The work to be completed in 2020 include the improvements of the pedestrian crossing signals at the intersections of 44 Street and 56 Avenue, 44 Street and 47 Avenue, and 50 Avenue and 55 Street.
- Services to be Procured: Contractor Services
- Project Status: Project on hold until condition assessments can be completed on the existing traffic signal hardware and the final quantities and scope of work can be determined. It is anticipated that the project will be issued for bidding in Q2 of 2020.
- Estimated construction work completed to date: 0%
- Expenditure to date: \$0.00

#### **2013615 – Trails and Sidewalk Master Plan**

- Approved Budget: \$150,000.00
- Project Description: The intent of the Trails and Sidewalks Master Plan Project will be to provide the City with direction for improving upon the existing trail and sidewalk network while also allowing the City to adapt to future growth and expand the trail and sidewalk network. The project will entail creation of a new Trail and Sidewalk Master Plan (including updated 5-year and 10-year pedestrian network/transportation capital plan), development of a pedestrian crossing safety analysis matrix to determine required pedestrian crossing improvements, develop an integrated pedestrian and bicycle movement system, and development of a long term trail and sidewalk network that will allow the City to accommodate growth in a timely manner.
- Services to be Procured: Consultant Services

- Project Status: Engineering Services has issued a Request for Proposal (RFP) to consultants. Upon selecting a consultant, the program will be initiated with the data collection phase.
- Estimated construction work completed to date: 0%
- Expenditure to date: \$0.00

**2113610 – 2021 Street Improvement Program - Design**

- Approved Budget: \$150,000.00
- Project Description: Preparation for the City of Lloydminster’s annual Street Improvement, Asphalt Trail Improvement and Concrete Sidewalk Improvement Programs. The areas to be included in the program will be reviewed by the Engineering Team in conjunction with the Operations Group. Consultant Services associated with Design and Project Management will be procured in 2019.
- Services to be Procured: Consultant Services
- Project Status: Engineering Services has issued a Request for Proposal (RFP) to consultants. Upon selecting a consultant, the program will be initiated with the data collection phase.
- Estimated construction work completed to date: 0%
- Expenditure to date: \$0.00

**2013623 – Community Services Building and Site Demolition**

- Approved Budget: \$350,000.00
- Project Description: The program will consist of the demolition and removal of the existing Community Services Building and associated infrastructure including the removal of the main building, asphalt concrete pavement parking lot, curb and gutter, shallow utilities, and restoring the site to a green space. The Engineering Team will be completing the Design, Project Management and Construction Management for this project in-house. Coordination with other departments including Parks, Land Division, and Building Maintenance has been completed to ensure the intent of the program aligns with the future intent of the site.
- Services to be Procured: Contractor Services
- Project Status: Engineering Services to prepare a Bid Document and Scope of Work associated with the demolition. The timing of the program will be adjusted to accommodate existing tenant conditions and occupancy timelines.
- Estimated construction work completed to date: 0%.
- Expenditure to date: \$0.00

**2013601 – 2020 Sanitary Main Replacement Program – Phase II - Construction**

- Approved Budget: \$1,800,000.00
- Project Description: The program will consist of completing the removal and replacement of the Sanitary Sewer Main and related appurtenances along 47 Avenue between 40 Street and 41 Street, as well as along 40 Street between 47 Avenue and 48 Avenue in order to improve the existing Sanitary Sewer Trunk Main. These improvements are in conjunction with improving the capacity of the Sanitary Sewer Main along 47 Avenue between 41 Street and 44 Street completed in 2019 in an effort to minimize surcharging within the 36 Street Sanitary Sewer Trunk Main. Consultant Services associated with Design were previously procured in 2018.
- Services to be Procured: Consultant Services (Construction Management)
- Project Status: Engineering Services has issued a Request for Proposal (RFP) to consultants. Upon selecting a consultant, the program will be initiated with the data collection phase.
- Estimated construction work completed to date: 0%
- Expenditure to date: \$0.00

#### **2013602 – River Intake Dam - Construction**

- Approved Budget: \$1,460,000.00
- Project Description: The intent of the River Intake Dam – Construction project will be to implement the detailed design which was completed in 2019 in an effort to minimize the sediment buildup around the existing raw water intake structure located within the North Saskatchewan River north of the City. The detailed design and regulatory compliance submissions were completed in 2019. Consultant Services associated with Design were previously procured in 2019.
- Services to be Procured: Consultant Services (Construction Management)
- Project Status: Engineering Services is working with the Procurement Office to determine the most advantageous path to move forward with respect to the transition between the Design Consultant and the Construction Management Consultant.
- Estimated construction work completed to date: 0%
- Expenditure to date: \$0.00

#### **2013604 – Central Business District Replacement Program – Planning and Design Services (Underground Assessment)**

- Approved Budget: \$300,000.00
- Project Description: The intent of the Central Business District Replacement Program – Planning and Design Services project will be to address the concerns with aging infrastructure in the downtown core of the City. Bordering on a primary Highway (Highway 17), performing utility upgrades to the Central Business District brings rise to various challenges in construction: Traffic Accommodation, Business Access, etc. To take a proactive approach to the future replacement programs, Engineering Services is seeking to procure a consultant to complete a plan, design, and construction phasing schedule for the Central Business District. This process will include data collection, design of the underground and surface systems, public consultation, traffic accommodation plan creation, and construction phasing options. The goal of the plans will be to create a rehabilitation plan and surface layout that is consistent with the Downtown Area Redevelopment Plan (DARP) and future for the downtown area such as the North-South Corridor project. This will set the foundation for future Water and Sewer Replacement Programs in the downtown area. The limits of the program are tentatively set between 44 Street and 52 Street and between 48 Avenue and 52 Avenue.
- Services to be Procured: Consultant Services
- Project Status: Engineering Services has issued a Request for Proposal (RFP) to consultants. Upon selecting a consultant, the program will be initiated with the data collection phase.
- Estimated construction work completed to date: 0%
- Expenditure to date: \$0.00

#### **2013606 – Northwest Drainage Channel – Phase II - Construction**

- Approved Budget: \$1,200,000.00
- Project Description: The program will consist of the rehabilitation of the Northwest Drainage Channel system between the 62 Street crossing and the 67 Street crossing. Within the program one (1) channel section will be improved. Engineering Services will be completing the Construction Management for this project in-house.
- Services to be Procured: Consultant and Contractor Services
- Project Status: Engineering Services has issued a Request for Proposal (RFP) to consultants. Upon selecting a consultant, the program will be initiated with the data collection phase. It is anticipated that a Bid Document to secure the services of a contractor will be issued in late Q2, with construction anticipated in Q3/Q4.



- Estimated construction work completed to date: 0%.
- Expenditure to date: \$0.00

#### **2013607 – East Drainage Channel Improvements (Lake J Control Structure) – Phase II - Construction**

- Approved Budget: \$1,600,000.00
- Project Description: The program will consist of completing the design review and construction of a control structure at Lake J (Jaycee Lake) within the City's East Drainage Channel. The installation of a control structure at this facility will assist with improving the effectiveness of the pond while managing and maintaining water levels within the storm sewer and pond system at safe levels. Consultant Services associated with Design were previously procured in 2018 but ceased in 2019. The Engineering Team will be completing the Construction Management for this project in-house.
- Services to be Procured: Contractor and Consultant Services
- Project Status: Engineering Services will be issuing a Request for Proposal (RFP) to consultants in Q2. Upon selecting a consultant, the program will be initiated with the data collection phase. It is anticipated that a Bid Document to secure the services of a contractor will be issued in late Q3, with construction anticipated in Q3/Q4.
- Estimated construction work completed to date: 0%
- Expenditure to date: \$0.00

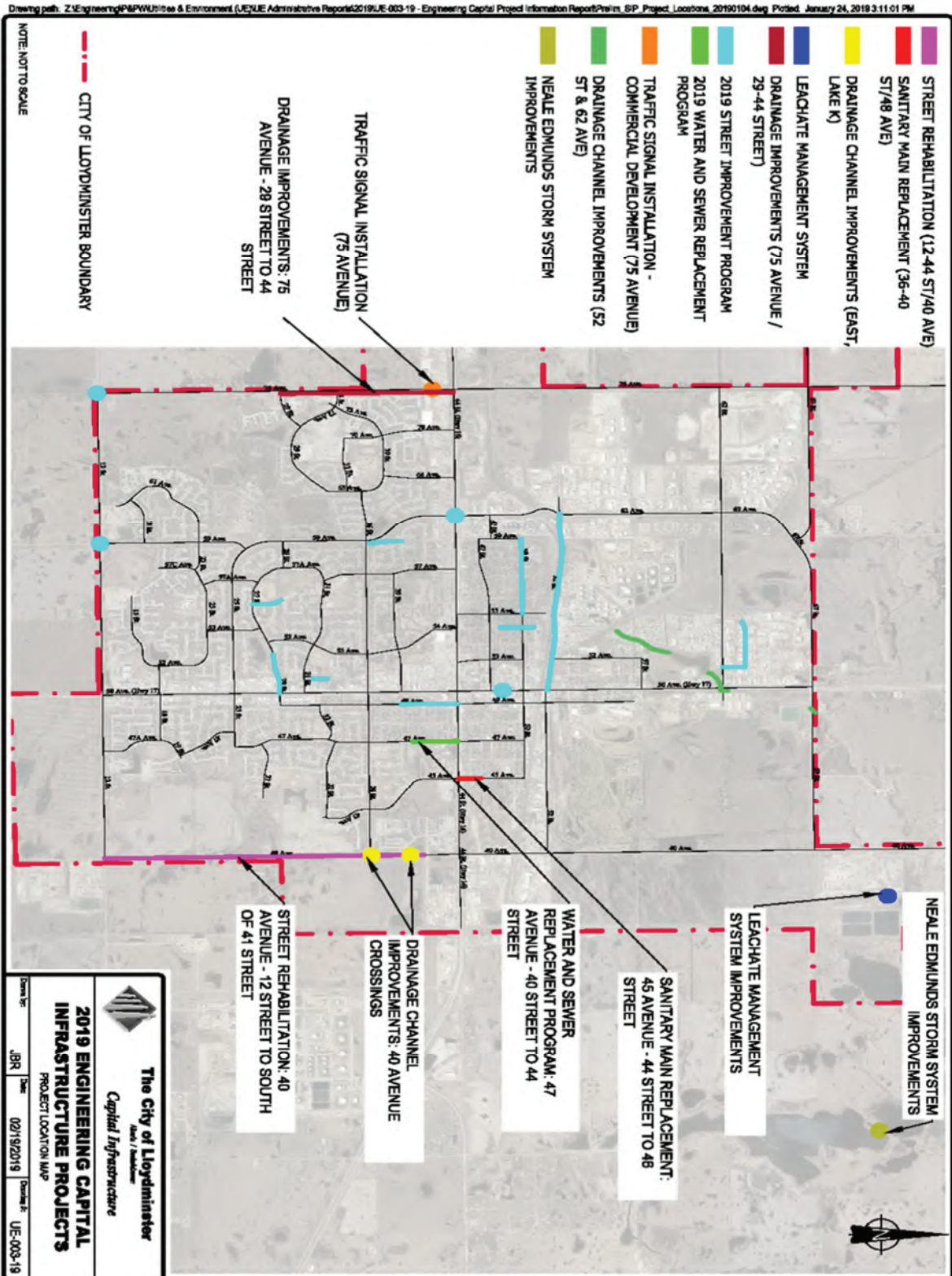
#### **1913621 – 2019 Water and Sewer Replacement Program**

- Approved Budget: \$1,200,000.00
- Project Description: The City of Lloydminster's annual Water and Sewer Main Replacement Program. The 2020 program will consist of 50 Street between 51 Avenue and 52 Avenue. The design phase has been completed as part of the 2020 Water and Sewer Replacement Program – Design project (2013631). Engineering Services will be completing the Construction Management for this project in-house.
- Services to be Procured: Contractor Services
- Project Status: Engineering Services to prepare a Bid Document and Scope of Work associated with the rehabilitation. It is anticipated that construction will begin in May 2020.
- Estimated construction work completed to date: 0%
- Expenditure to date: \$0.00



### 3. Project Location Map

#### 2019 Carry Forward Projects:



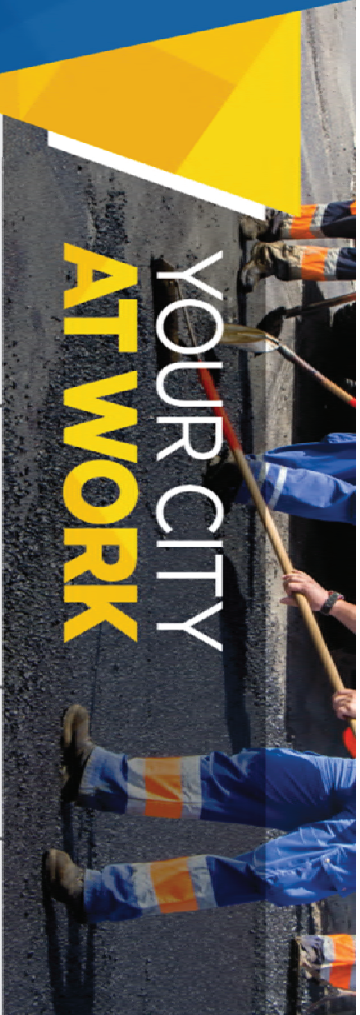


### 2020 Projects:

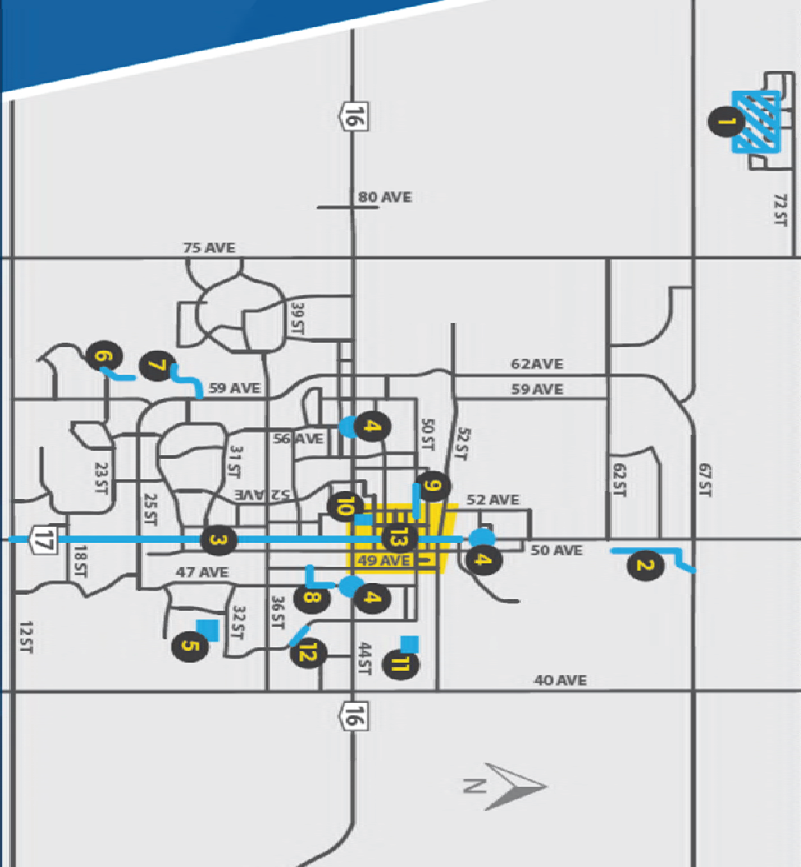
# 2020 ENGINEERING CAPITAL INFRASTRUCTURE PROJECTS

- 1 LLOYDMINSTER AIRPORT (LUA) MAIN REHABILITATION AND OVERLAY**  
Rehabilitation and overlay of select taxiways throughout the Lloydminster Airport (LUA).  
Easement associated with the grading, realignment and landscaping of a section of the Northwest Drainage Channel Rehabilitation - Phase II.
- 2 NORTHWEST DRAINAGE CHANNEL REHABILITATION - PHASE II**  
Easement associated with the grading, realignment and landscaping of a section of the Northwest Drainage Channel. The program will consist of the section of channel between 62 Street and 67 Street along the east side of 50 Avenue.
- 3 50 AVENUE TRAFFIC & COORDINATION IMPROVEMENTS**  
Hardware upgrades required to implement the Econote Centras Automated Traffic Management (ATM) System. The implementation of the Centras ATM System will improve timing and coordination along 50 Avenue between 12 Street and 67 Street through advanced detection, communication and real-time data analysis.
- 4 2020 TRAFFIC SIGNAL HARDWARE IMPROVEMENT PROGRAM**  
Rehabilitation and upgrading of three pedestrian crossing signals. Two along 44 Street and one along 50 Avenue. The program will include the intersection of 44 Street and 57 Avenue, 44 Street and 47 Avenue, 50 Avenue and 55 Street.
- 5 EAST DRAINAGE CHANNEL - LANE CONTROL STRUCTURE**  
Construction of a control structure within Lane 1 (Special Lane) to more effectively control, manage and maintain water levels within the City of Lloydminster East Drainage Channel. The control structure is Phase I of a multi-phase program aimed at improving capacity in this channel.
- 6 23 STREET AND LANE LANE COLLIER WALKING TRAIL IMPROVEMENTS**  
Rehabilitation of a local walking trail including remedial strip localized drainage.
- 7 BIRD NESTER ALL SEASONS PARK ENTRANCE WALKING TRAIL ADJUSTMENTS**  
Reopening of the walking trail at the Bird Nester All Seasons Park entrance to improve pedestrian safety and traffic flow.
- 8 2020 SANITARY MAIN REPAIR ACCELERATION PROGRAM - PHASE II**  
Rehabilitation of the sanitary sewer main, and associated works, in an effort to improve capacity of the overall sanitary sewer system in the area. Also included in the work will be the rehabilitation of the water main, storm sewer main and roadway construction. The program will consist of 47 Avenue between 40 Street and 41 Street, and 40 Street between 47 Avenue and 48 Avenue.
- 9 2020 WATER AND SEWER MAIN REPAIR ACCELERATION PROGRAM**  
Rehabilitation of the water, sanitary sewer and storm sewer main, individual lake level connecting and the reconstruction of the roadway. The program will consist of 50 Street between 51 Avenue and 52 Avenue. This is the City of Lloydminster's annual Water and Sewer Replacement Program.
- 10 COMMUNITY SERVICES BUILDING AND SITE DEMOLITION**  
Demolition and removal of the building and site services associated with the existing Community Services Building site.
- 11 KASOCCERFIELD PARKING LOT EXPANSION**  
Expansion of the existing parking lot associated with the KASoccerFields.
- 12 LLOYDMINSTER HIGHLAND CROSSING IMPROVEMENTS**  
Implementation of crossing safety measures to improve the efficiency of the crossing for patients, workers and other users of the Lloydminster Hospital. Coupled with this will be improved pedestrian crossing safety measures for regular pedestrian crossing traffic.
- 13 CENTRAL BUSINESS DISTRICT REPAIR ACCELERATION PROGRAM - PLANNING & DESIGN**  
Project pre-planning and preparation phase associated with future water and sewer replacement programs within the Central Business District area. The intent of the program will be to complete large scale detailed design, public stakeholder engagement sessions and consultation in order to prepare a long term rehabilitation strategy and implementation framework. Components of the Downtown Area Redevelopment Plan (DAR) and the North-South Corridor will be incorporated into the design package. The program will be between 44 Street and 52 Street and between 48 Avenue and 52 Avenue. No construction will be completed as part of this program.

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