

PROJECT

Project Name: Robinson Road Improvements (Artela Drive to 11474 Petrie Road)
 Short Description: Robinson Road Mobility Improvement Program Capital Road Renewal and Improvement and Water Upgrades (Artela Drive to 11474 Petrie Road)
 Department: Engineering & Environmental Services

COSTS

Total Cost \$2,529,000

Funding: *Finance to fill out* Borrowing

Reserves: User Fees

Roads DCC - \$518,344

Capital Works Reserve - \$226,105

Road Reserve - \$369,551

Developer Contributions: \$1,415,000 Grants

Other:

REQUIREMENT

Master Plan: Capital Renewal or Required Replacement

Strategic Priority Legislative change

Safety Requirement Service Level Enhancement

Related to another planned project for 2022 Development Driven

Other:

ANNUAL COSTS

Annualized costs will be required – maintenance or operating

Renewal of the asset will be required – Expected Life: 20 Years

*Construction Phase

	2023	2024	2025	2026	2027
Labour	-	-	-	-	-
Contracted Services					
Materials & Supplies	-				
Renewal	-				
Total	\$ -				

BACKGROUND & JUSTIFICATION

Active transportation and mobility project driven by the development and active transportation users in this area. This Mobility Improvement Program project began as part of the Safe Routes to School initiative as Robinson Road lacks sidewalks for children walking to school and other vulnerable users. The road surface is narrow, in poor condition and requires repair to the road structure and a solution for drainage. This portion of Robinson Road serves to connect neighborhoods to Davidson Road school, the commercial areas around Hwy 97 and Oceola Road and to the downtown core via the Pretty Road - Newene Rd pathway. The proposed road improvements along Robinson include a sidewalk, curbing, road renewal and drainage upgrades between OK Centre Rd E and Pretty Road. The roadway crossfall and profile will also be improved to improve drainage and reduce the steepest gradients of the roadway respectively.

In addition to the District funded road works, water upgrades are required to service re-development of 11474 Petrie Road (former Airport Inn site). Water upgrades include a new watermain from Artela Drive to the south of the Robinson Road frontage of the property as well as a new PRV station at Robinson Rd and Pretty Rd. The development (11474 Petrie Road) will be responsible for the water upgrade costs through the cash-in-lieu process (offsite requirements paid for by development but delivered by the District). The water upgrades required for the 11474 Petrie Road development make up a significant portion of the project (approximately 56%). The project will only proceed if cash-in-lieu funding is available as it would not make economic sense to proceed without completing the water upgrades as part of the roads capital project. **A commitment to provide the cash-in-lieu funding is required by January 31st, 2023 in order for the DLC to proceed with an RFP procurement process and delivery of this project in the 2023 construction window.** Delaying procurement of construction services until later in the year reduces the probability of favourable pricing due to reduced contractor availability and the reduced construction window.

As part of the water upgrades a District funded watermain will be installed from the PRV at Robinson Rd and Pretty Rd west towards Woodview Road to improve water pressure zones in this area. A water utility budget request for this work has been submitted for this funding.

The Robinson Road design was one of several completed some time ago and, in addition to Council direction to complete shovel ready designs before embarking on new designs, it needs implementation before it becomes outdated and requires significant and costly revision.

TRANSPORTATION FOR TOMORROW

ROBINSON ROAD

CONTRACT No. -

ISSUED FOR 100% DESIGN



DRAWING INDEX:

SHEET TITLE	No.	DESCRIPTION	SCALE
GENERAL	C-000	COVER	N/A
	C-100	NOTES & LEGEND	N/A
SITE PLAN	C-101	OVERALL SITE PLAN	1:500
	C-102	COMPOSITE UTILITY PLAN	1:500
REMOVALS	C-200	OK CENTRE RD EAST	1:250
	C-201	ROBINSON RD - STA. 1+000 TO STA. 1+980	1:250
ROADS & STORM	C-300	OK CENTRE RD EAST	1:250
	C-301	ROBINSON RD - STA. 1+050 TO STA. 1+200	1:250
	C-302	ROBINSON RD - STA. 1+250 TO STA. 1+300	1:250
CURB RETURNS	C-400	ROBINSON RD & OK CENTRE RD EAST	1:100
	C-401	ROBINSON RD & PRETTY RD	1:100
DETAILS	C-600	TYPICAL SECTIONS & DETAILS	N/A
SECTIONS	C-801	ROBINSON RD - STA. 1+025 TO STA. 1+980	1:100
	C-802	ROBINSON RD - STA. 1+050 TO STA. 1+080	1:100
	C-803	ROBINSON RD - STA. 1+085 TO STA. 1+110	1:100
	C-804	ROBINSON RD - STA. 1+135 TO STA. 1+170	1:100
	C-805	ROBINSON RD - STA. 1+175 TO STA. 1+210	1:100
	C-806	ROBINSON RD - STA. 1+255 TO STA. 1+290	1:100
	C-807	ROBINSON RD - STA. 1+285 TO STA. 1+290	1:100
	C-808	ROBINSON RD - STA. 1+295 TO STA. 1+330	1:100
	C-809	ROBINSON RD - STA. 1+335 TO STA. 1+360	1:100

PROJECT No. 161-07924-04
2016-12-06



Figure 1. Plan of Robinson Road Project Area

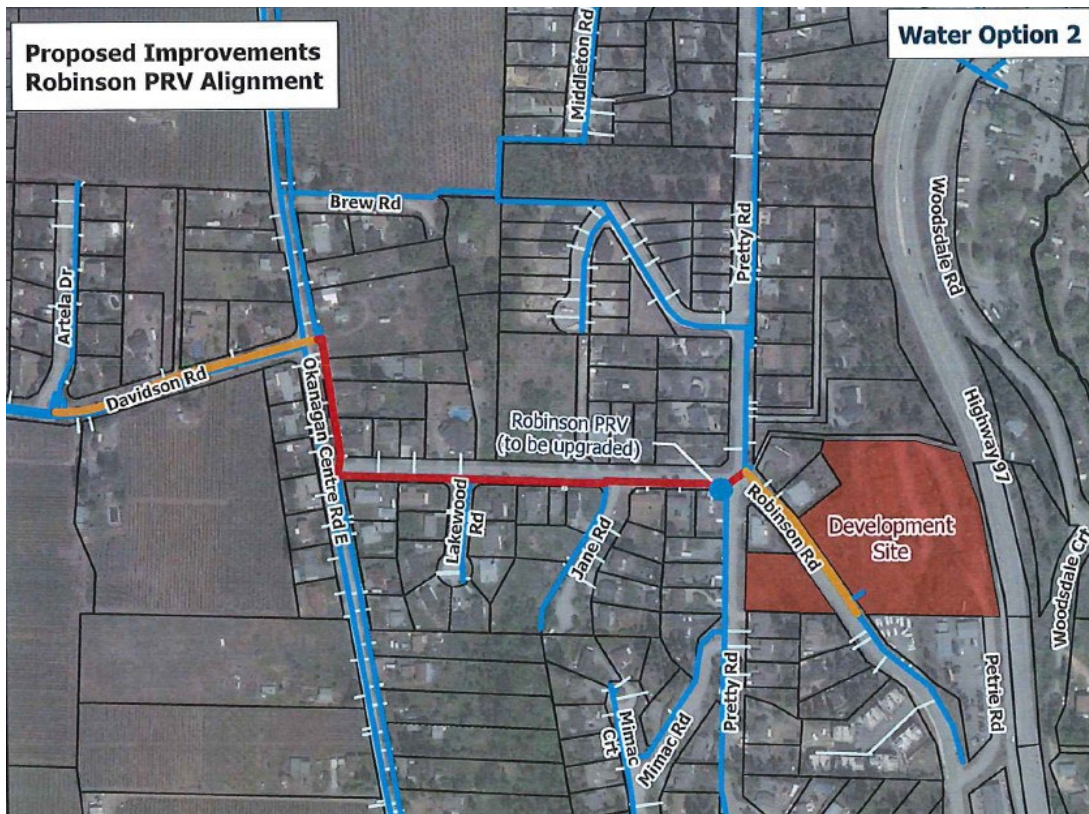


Figure 2. Plan of the Water Upgrades - Artela Drive to 11474 Petrie Road (Development Funded)

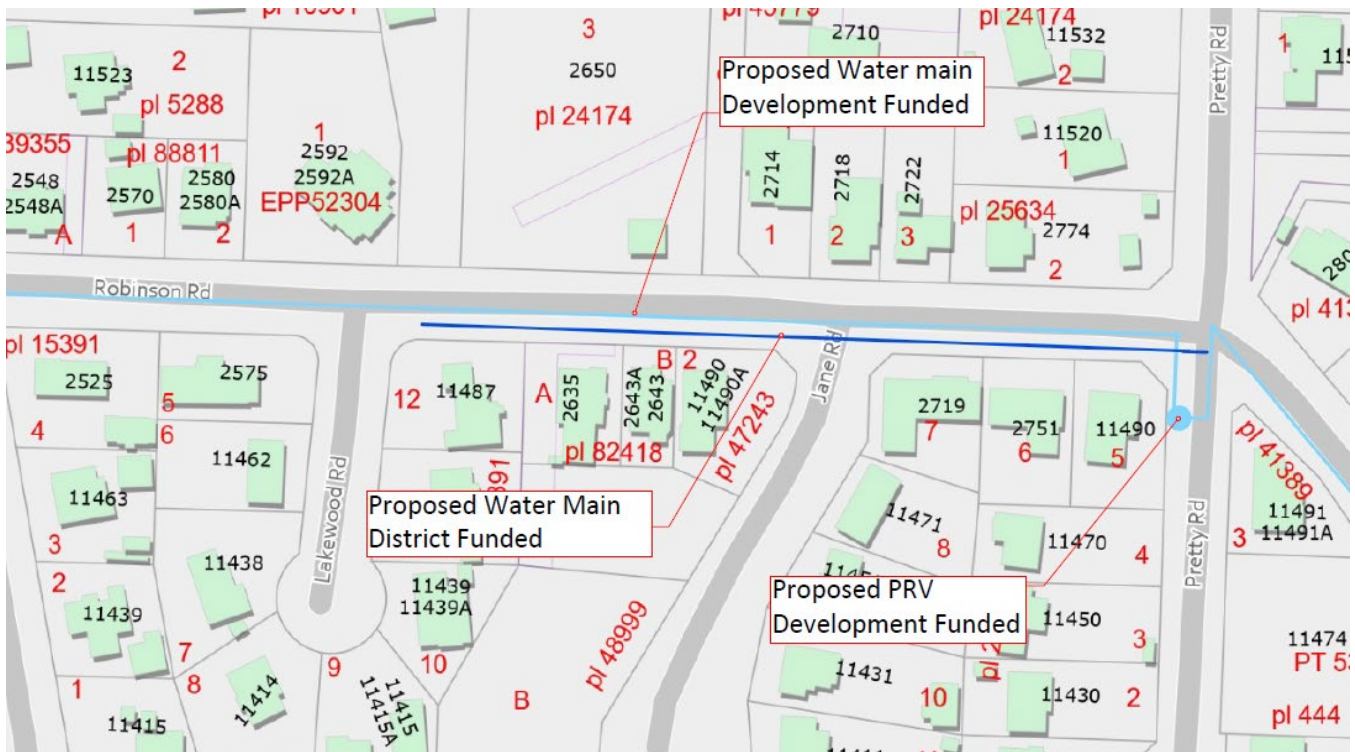


Figure 3. Plan of the Water Upgrades – Robinson Road (District Funded)

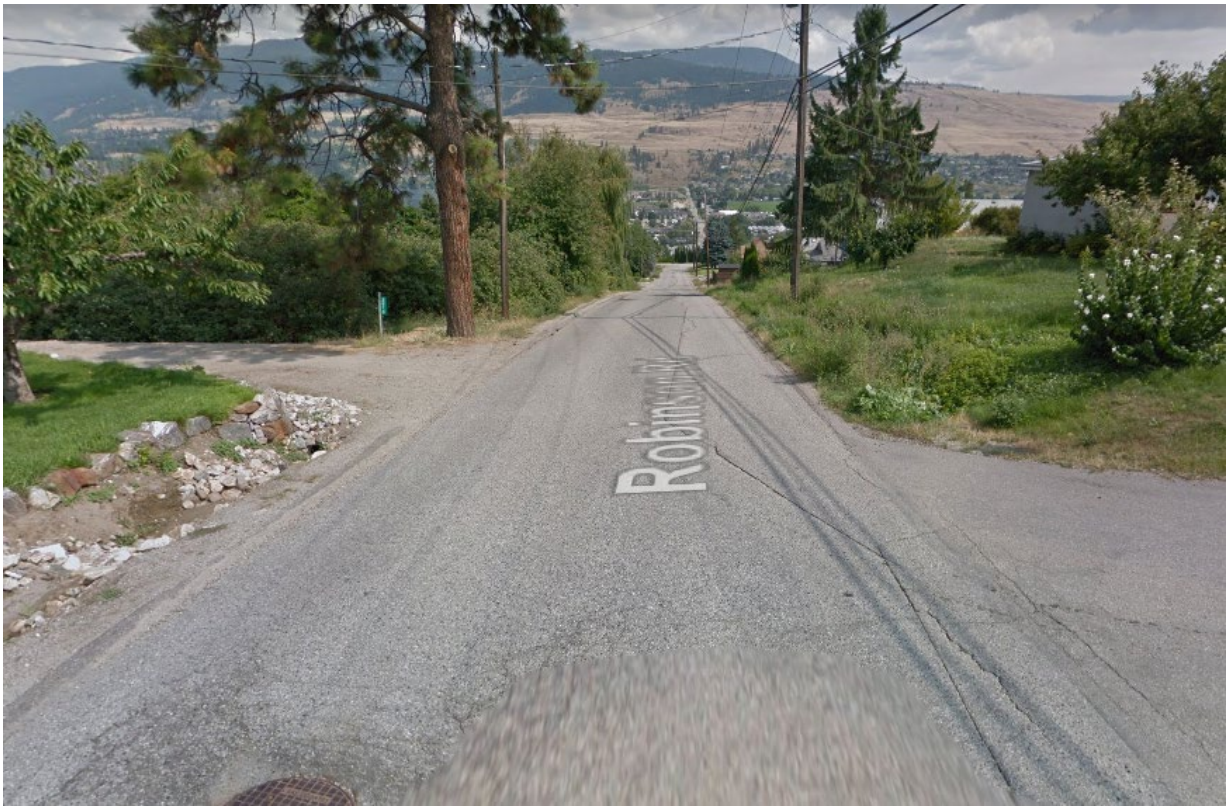


Figure 4. Existing Robinson Road

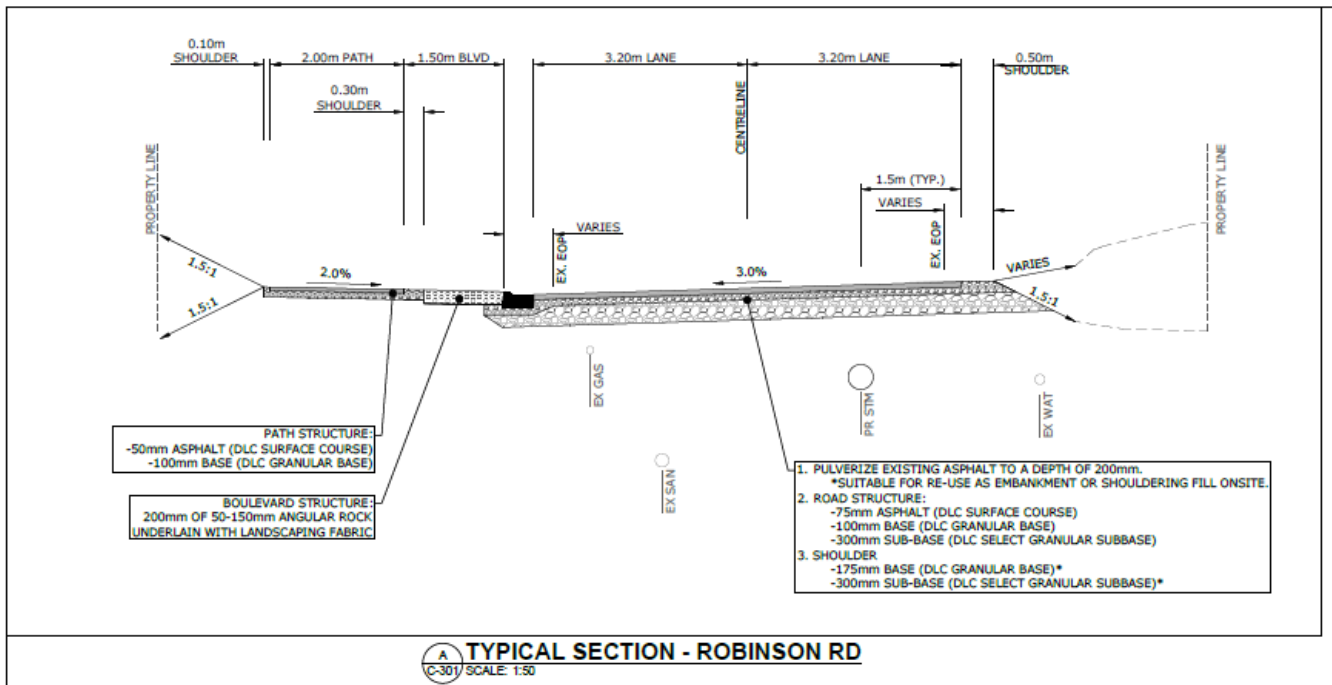


Figure 5. Typical Road Section Showing Robinson Road Improvements

TIMING

Was the project slated for 2022 during the previous 5 year financial plan?

Yes No

If no, please explain:

When is the expected start date and completion date of the project?

Spring 2023 to End of 2023

COMMUNICATION & ENGAGEMENT

Does the community need to be informed? Yes No

Is there be an impact (positive or negative) to anyone or group(s) within the community?

Yes No

Is community engagement and/or input required? Yes No

If one or more questions is "yes", a communication and engagement plan is required.

Will a consultant be completing the communication and engagement plan?

Yes No

If no, communications can assist with the completion of the plan.

If a communication and engagement plan is required, what formats are being considered and has this been considered in requested cost amount?

It is assumed that the District Communications Team will communicate that this work is being undertaken through the existing District channels such as social media, the District website and Let's Talk platforms. The strategy employed will be to inform and it is envisioned that there will be no community input or feedback sought or "open house" events as this is a road design to our existing standards. In addition to the Communication Teams The following methods will be used to provide project information to the Public:

- District LED Message boards and project site notification signs.
- A neighbourhood meeting will be held if circumstances allow, particularly Public Health Orders.
- Stakeholders meetings (businesses, public, service providers such as emergency services, transit and waste collection)

Cost Estimate: The communication strategy is estimated to cost between \$2,500 - \$5,000.

IMPACT IF NOT APPROVED

The current infrastructure network will not support the neighborhoods mobility requirements causing functionality, connectivity, and safety issues and infrastructure required for development will not be available.

PROJECT

Project Name: Woodsdale Road Improvements (Hwy 97 to Rail Trail)
 Short Description: Mobility Improvement Program construction project from Hwy 97 to the Rail Trail
 Department: Engineering & Environmental Services

COSTS

Total Cost \$2,850,000

Funding: *Finance to fill out* Borrowing

Reserves: User Fees

Roads DCC* - \$1,326,105

Gas Tax - \$1,250,000

Capital Works Reserve - \$273,895

Developer Contributions Grants

Other:

* Note: Given our Roads DCC rates are set at 47% attributable to development and that the rates have been set at fixed dollar amounts since 2016 and the cost of construction has more than doubled since the time those rates were set, we don't currently have adequate DCC funds coming in to deliver projects as intended. This will partially be addressed in the 2023 review of DCCs however even then due to rules around in stream applications we will not start to realize increased Roads DCCs for several years. As it currently stands delivering this project along with the Robinson Road project will likely result in Roads DCCs being in a negative balance as at December 31, 2023. There are variables such as project timing and the amount of new DCCs that will come in between now and then which will impact this. 2024 & onward projects will be adjusted and likely pushed back if the reserve is in deficit position. Given the immediate need of this project it is preferable to proceed even if internal borrowing is required on a short-term basis.

REQUIREMENT

- | | |
|--|--|
| <input checked="" type="checkbox"/> Master Plan: | <input type="checkbox"/> Capital Renewal or Required Replacement |
| <input type="checkbox"/> Strategic Priority | <input type="checkbox"/> Legislative change |
| <input checked="" type="checkbox"/> Safety Requirement | <input checked="" type="checkbox"/> Service Level Enhancement |

- Related to another planned project for 2022 Development Driven
 Other:

BACKGROUND & JUSTIFICATION

ANNUAL COSTS

- Annualized costs will be required – maintenance or operating
 Renewal of the asset will be required – Expected Life: 20 years

*Construction Phase

	2023	2024	2025	2026	2027
Labour	-	-	-	-	-
Contracted Services					
Materials & Supplies	-	-	-	-	-
Renewal	-	-	-	-	-
Total	\$ -	\$ -	\$ -	\$ -	\$ -

Active transportation and mobility project driven by the increased development, recreation, and active transportation users in this area. District staff have repeatedly heard concerns from the public regarding the increasing vulnerable user conflicts in this area. The volume of pedestrians and cyclists utilizing the Okanagan Rail Trail and Pelmeash Parkway in recent years is rising rapidly and has led to an increase of users on Woodsdale Road, particularly generated by those completing the “Wood Lake Loop” and those seeking activity and outdoor respite during COVID-19, or simply prioritizing a healthy, active lifestyle. The Woodsdale neighbourhood, with its proximity to Wood Lake and ease of access to services in the town core, is rapidly growing and developing as envisioned in the OCP.

The District's OCP sets the Goals and Policies for the Woodsdale neighbourhood:

- Walkable.
- Residents can access commercial, institutional, and recreational opportunities.
- Facilitate transit options and active transportation opportunities; and
- Include sidewalks and bike lanes.

As Lake Country continues to grow, this mobility and recreational hot spot becomes more and more integral to the "core" of meeting our OCP and Master Plan mobility objectives. For example, the Mobility Master Plan includes: "Prioritize multi-modal street projects in the core area including Woodsdale Road, Main Street Bike Lanes, Bottom Wood Lake Road corridor, connection to Okanagan Rail Trail, and the downtown mobility hub."

The Woodsdale area is growing fast in terms of development, as an active transportation corridor and as a recreational destination. This area also serves some vulnerable users from "Connect Communities" in the center of this area. Connect (<https://connectcommunities.ca/contact/bc/>) provides complex and specialized services for people living with brain injury and stroke in a nurturing and innovative community environment. The majority of the residents at Connect require motorized mobility devices

as demonstrated with Brandon's story (link below); and this area is the only opportunity they have to be mobile and enjoy some freedom to travel around the community. Adjacent to Connect is the Society of Hope's "Woodsdale Place" which provides independent affordable rental housing for seniors. This corridor will also see an Indigenous Cultural Centre and Nature Park created in the near future. With all these increasing mobility demands on this corridor it is crucial the proposed active transportation and mobility improvements are made sooner than later. Recent undesirable/adverse outcomes have been noted in an increasing number of conflicts between vehicles and vulnerable users.

Community engagement through specific interactions with residents, in-person events, surveys, and online forums to develop the Transportation for Tomorrow Plan (replaced by the Mobility Master Plan and Mobility Improvement Program), Cycling and Pedestrian Plan, and Parks and Recreation Plan that have been compiled into a Mobility Master Plan to better meet the community's needs in the immediate and long term.

The project will provide consistent and continuous active transportation facilities including multiuse pathways, bike lanes and sidewalks.

To create the space required for active transportation upgrades all existing on-street parking will be eliminated on the Woodsdale Road corridor.

The section from the Hwy to Seymour Road currently has a gravel and asphalt pathway that requires a midblock crossing. The section from Seymour Road to Bottom Wood Lake Road currently has bike lanes and a sidewalk on one side (constructed in 2016). The area to the east of Bottom Wood Lake Road has sidewalk for some portions and no bike lanes at all.

The intent of the design is to provide as consistent as possible user experience with bike lanes and a sidewalk as per the goals in our Mobility Plan. This is a retrofit of a long corridor and the design aims to maintain as much of the existing hard surface (curb and sidewalk) to keep the project financially viable. This project is envisioned as the initial phase of upgrades and as noted, the design considers existing infrastructure and current constraints.

The proposed section from Hwy 97 to Seymour Road has a 3m multiuse pathway as until the adjacent property develops, width constraints do not allow for bike lanes and a sidewalk consistently. The section from Seymour Road to Bottom Wood Lake Road doesn't change as the noted 2016 upgrades created bike lanes and a sidewalk. The section from Bottom Wood Lake Road to the Rail Trail creates bike lanes and varying widths of sidewalk or multiuse pathway. All on street parking will be replaced by Active Transportation components.

The ultimate section envisioned for this corridor will have bike lanes and a multiuse path on at least one side for the entire length, achieved through future development and future District projects.

Link to "Brandon Story" Article <https://www.lakecountrycalendar.com/news/walk-around-lake-country-completes-pathway-on-woodsdales-road/>

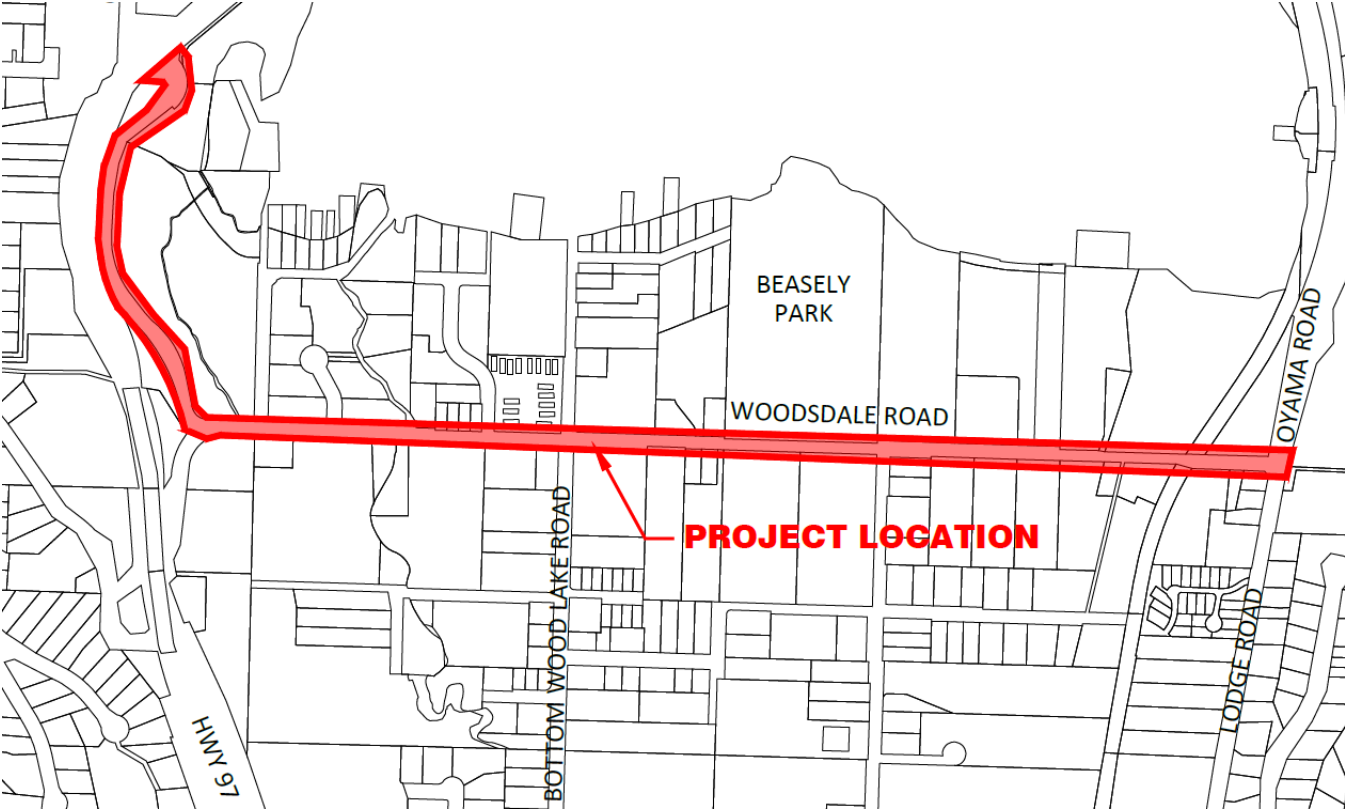
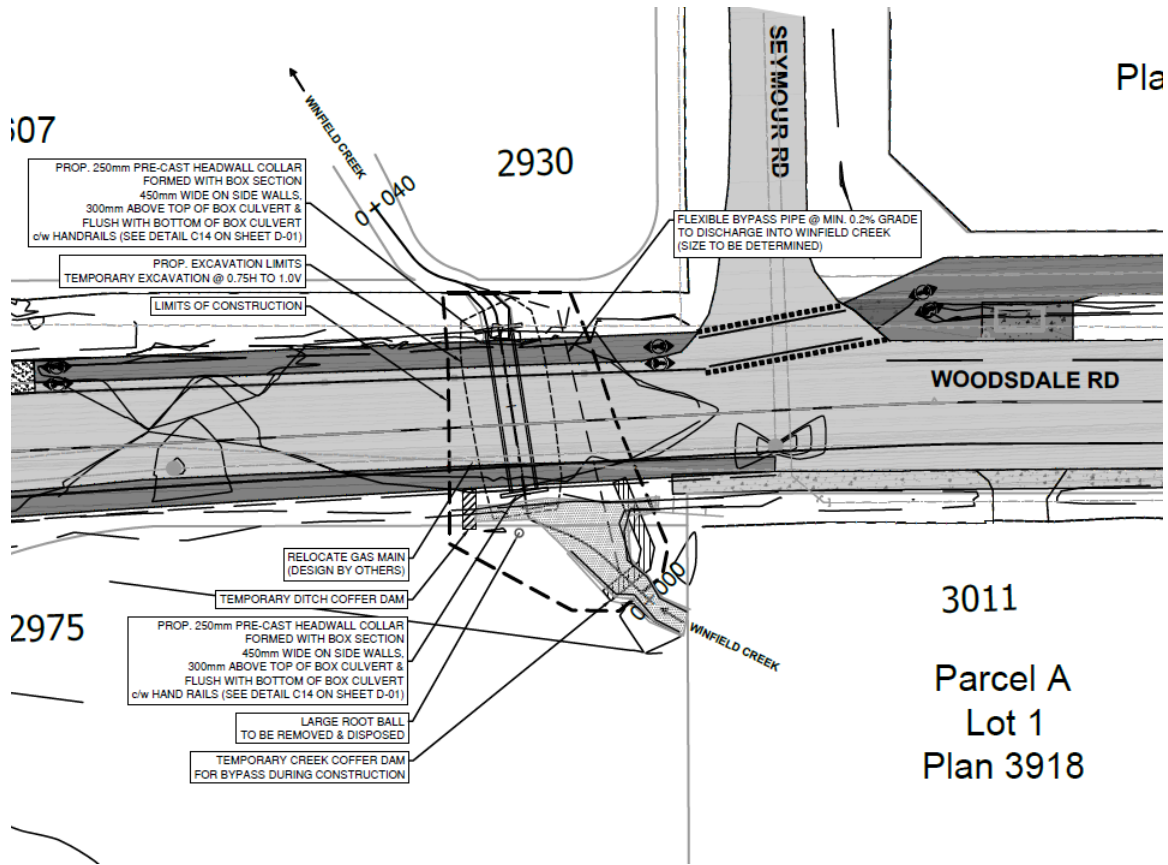


Figure 1. Plan of the Woodsdale Road Project Area



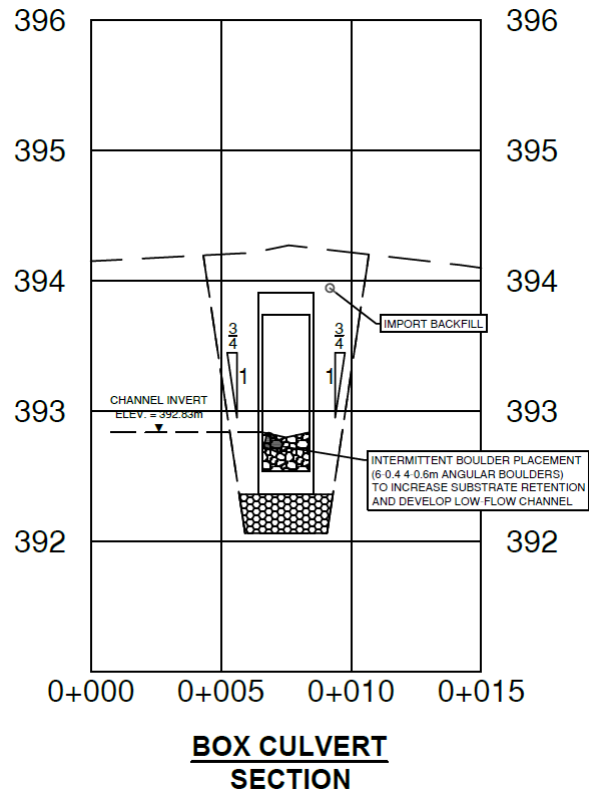


Figure 2. Plan of the Winfield Creek Crossing Replacement

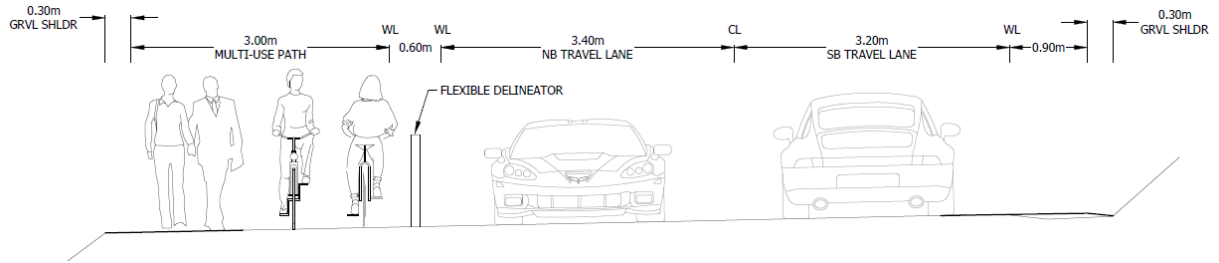


Existing Woodsdale Road - Hwy 97 to Seymour Road

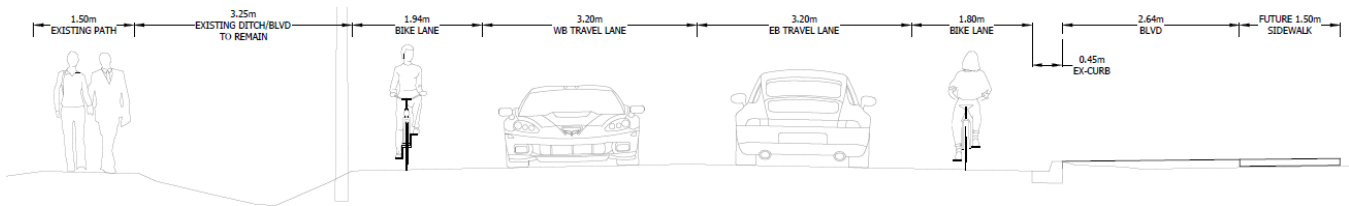


Existing Woodsdale Road at "The Spot"

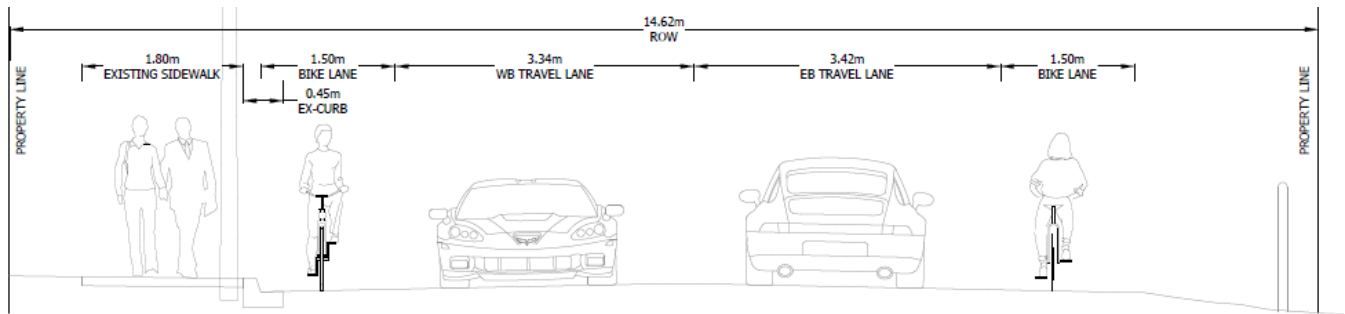
Figure 3. Existing Woodsdale Road Corridor



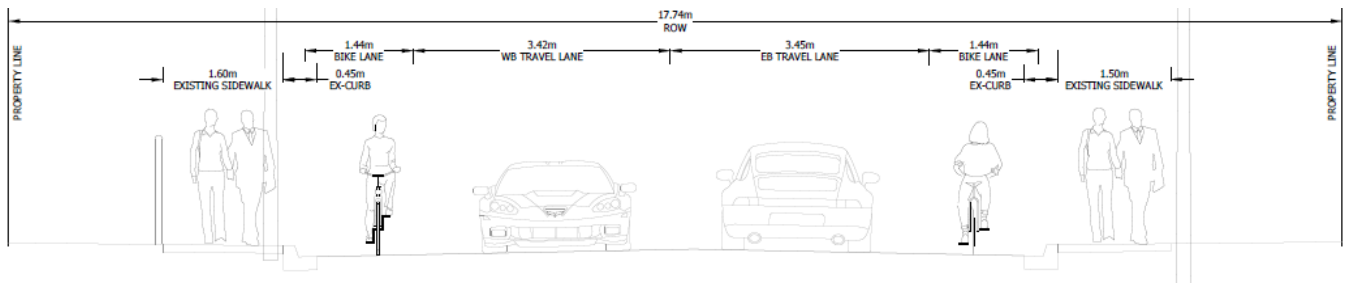
Typical Road Section Hwy 97 to Seymour Road



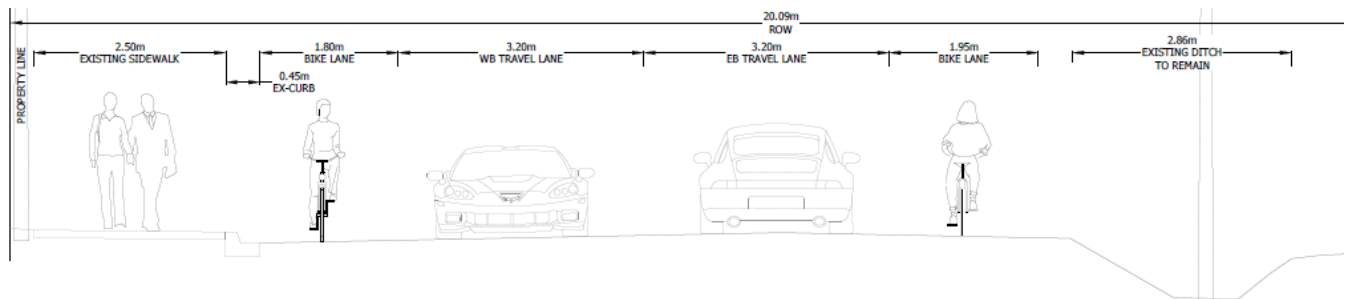
Typical Road Section Seymour Road to Middle Vernon Creek



Typical Road Section Middle Vernon Creek to Rogers Road



Typical Road Section Rogers Road to Bottom Wood Lake Road



Typical Road Section Bottom Wood Lake Road to Rail Trial

Figure 4. Typical Road Section showing proposed Woodsdale Road improvements

(Note: Road Sections shown for general context and do not detail exact configuration of all sections)

TIMING

Was the project slated for 2022 during the previous 5 year financial plan?

Yes No

If no, please explain:

Continuation of Woodsdale Road Design

When is the expected start date and completion date of the project?

Spring 2023 to End of 2023

COMMUNICATION & ENGAGEMENT

Does the community need to be informed?

Yes No

Is there be an impact (positive or negative) to anyone or group(s) within the community?

Yes

No

Is community engagement and/or input required?

Yes

No

If one or more questions is "yes", a communication and engagement plan is required.

Will a consultant be completing the communication and engagement plan?

Yes

No

If no, communications can assist with the completion of the plan.

If a communication and engagement plan is required, what formats are being considered and has this been considered in requested cost amount?

Communication Strategy:

It is assumed that the District Communications Team will communicate that this work is being undertaken through the existing District channels such as social media, the District website and Let's Talk platforms. The strategy employed will be to inform and it is envisioned that there will be no community input or feedback sought or "open house" events as this is a road design to our existing standards. In addition to the Communication Teams The following methods will be used to provide project information to the Public:

- District LED Message boards and project site notification signs.
- Neighbourhood meeting once contractor is engaged.
- Stakeholders meetings (businesses, public, service providers such as emergency services, transit and waste collection)

Cost Estimate: The communication strategy is estimated to cost between \$10,000 - \$15,000.

Staff Time: It is estimated that 40 hours of staff time will be dedicated to communications related to this project.

IMPACT IF NOT APPROVED

The current infrastructure network will not support the neighborhoods mobility requirements causing functionality, connectivity, and safety issues due to the increased vehicular and pedestrian traffic generated by existing and new development in the area as well as rail trail and Pelme wash Parkway.

PROJECT

Project Name: 6th Street East Road and Drainage Renewal
 Short Description: Construction of road and drainage improvements at the West end of 6th Street East
 Department: Engineering and Environmental Services

COSTS

Total Cost \$175,000
 Funding: *Finance to fill out* Borrowing
 Reserves: Drainage User Fees
 DCC - \$85,000
 Gas Tax - \$90,000
 Developer Contributions Grants
 Other:

REQUIREMENT

Master Plan: Capital Renewal or Required Replacement
 Strategic Priority Legislative change
 Safety Requirement Service Level Enhancement
 Related to another planned project for 2023 Development Driven
 Other:

ONGOING ANNUAL COSTS

Annualized costs will be required – maintenance or operating
 Renewal of the asset will be required – Expected Life: Years

	2023	2024	2025	2026	2027
Labour	-	-	-	-	-
Contracted Services	-	-	-	-	-
Materials & Supplies	-	-	-	-	-
Renewal	-	-	-	-	-
Total	\$ -	\$ -	\$ -	\$ -	\$ -

BACKGROUND & JUSTIFICATION

Contribution to the construction budget for road and drainage improvements as part of the Utility Department’s Okanagan Centre Small Diameter Watermains – construction project, to be completed in 2023. Road improvements will include drainage and turnaround upgrades at the west end of Sixth Street East.



Sixth Street East

TIMING

Was the project slated for 2023 during the previous 5 year financial plan?

Yes No

If no, please explain:

When is the expected start date and completion date of the project?

Spring 2023 to Fall 2023

COMMUNICATION & ENGAGEMENT

Does the community need to be informed? Yes No

Is there be an impact (positive or negative) to anyone or group(s) within the community?

Yes No

Is community engagement and/or input required? Yes No

If one or more questions is "yes", a communication and engagement plan is required.

Will a consultant be completing the communication and engagement plan?

Yes No

If no, communications can assist with the completion of the plan.

If a communication and engagement plan is required, what formats are being considered and has this been considered in requested cost amount?

Communication Strategy:

It is assumed that the District Communications Team will communicate that this work is being undertaken through the existing District channels such as social media, the District website and Let's Talk platforms.

Cost Estimate: The communication strategy is estimated to cost between \$1,000 - \$2,000. (Included in budget request amount)

Staff Time: It is estimated that 10 hours of engineering staff time will be dedicated to communications related to this project.

IMPACT IF NOT APPROVED

Traffic movement will continue to be limited and drainage infrastructure will be less effective at the West end of 6th Street East. These shortcomings will continue to be dealt with operationally.



PROJECT

Project Name: Woodsdale Indigenous Cultural Centre & Nature Park – Construction
 Short Description: Construction of an Indigenous Cultural Centre and Nature Park improvements at the former Woodsdale Packinghouse Site
 Department: Parks, Recreation and Culture

COSTS

Total Cost \$2,826,640

Funding: *Finance to fill out*

Borrowing

Reserves:

User Fees

Capital Works Reserve - \$776,120

Parks Dev DCC - \$184,000

Developer Contributions

Grants \$1,866,520

Other:

REQUIREMENT

Master Plan: 2018 Parks & Recreation Master Plan

Capital Renewal or Required Replacement

Strategic Priority

Legislative change

Safety Requirement

Service Level Enhancement

Related to another planned project for 2023

Development Driven

Other: Grant Funding

ANNUAL COSTS

Annualized costs will be required – \$60,000 Maintenance and Operating Expenses

Renewal of the asset will be required – Expected Life: Years

	2023	2024	2025	2026	2027
Labour	-	-	-	-	-
Contracted Services	-	22,500	45,000	45,900	46,818
Materials & Supplies	-	7,500	15,000	15,300	15,606
Renewal	-	-	40,000	40,000	40,000
Total	\$ -	\$ 30,000	\$ 100,000	\$ 101,200	\$ 102,424

BACKGROUND & JUSTIFICATION

This project involves the construction of an Indigenous Cultural Centre and Nature Park improvements in Lake Country to celebrate the history of the Okanagan People in this region and to acknowledge the relationship that the Okanagan People share with this land. This project will also provide a unique and memorable entrance to the Okanagan Rail Trail as well as enhance the quality of this ecologically and archaeologically significant District parkland. The project was awarded grant funding through the Investing in Canada Infrastructure Program - Community, Culture and Recreation Stream.

The proposed location is on the former Woodsdale Packinghouse Waterfront Site, 3.2 hectares owned by the District of Lake Country. The land is located near the corner of Woodsdale Road and Oyama Road on the south shore of Wood Lake and is strategically situated as a major trailhead for the newly built Okanagan Rail Trail within the Woodsdale neighbourhood.



WOODSDALE PARK: CULTURAL CENTRE AND PUBLIC PATIO

ecora



WOODSDALE PARK: WETLAND AND BOARDWALK

ecora

Renderings from Grant Funding Application

TIMING

Was the project slated for 2023 during the previous 5 year financial plan?

Yes No

If no, please explain:

When is the expected start date and completion date of the project?

July 2023 (estimated start) – July 2024 (estimated completion)

COMMUNICATION & ENGAGEMENT

Does the community need to be informed? Yes No

Is there be an impact (positive or negative) to anyone or group(s) within the community?

Yes No

Is community engagement and/or input required? Yes No

If one or more questions is "yes", a communication and engagement plan is required.

Will a consultant be completing the communication and engagement plan?

Yes No

If no, communications can assist with the completion of the plan.

If a communication and engagement plan is required, what formats are being considered and has this been considered in requested cost amount?

During the construction phase of the project, the aim will be to keep stakeholders and residents informed about work timelines and potential impacts they may experience. This will be accomplished through newspaper ads, community bulletins, social media posts, and site signage.

Overall, significant engagement with Okanagan Indian Band (OKIB) and other project stakeholders is very important to the success of the project and will continue throughout all phases.

IMPACT IF NOT APPROVED

Funding through the Investing in Canada Infrastructure Program is contingent on District budget approval.

PROJECT

Project Name: Fire Apparatus and Support Vehicle iPad Upgrade (NFPA Compliant)

Short Description: Ten (10) new iPads with Mobile Fire Dispatch Connection, Pre-Incident Planning Applications and Response Mapping Applications

Department: Protective Services - Fire

COSTS

Total Cost \$10,000

Funding: *Finance to fill out* Borrowing

Reserves: Fire User Fees

Facilities and Equipment Reserve

Developer Contributions Grants

Other:

REQUIREMENT

Master Plan: Capital Renewal or Required Replacement

Strategic Priority Legislative change

Safety Requirement Service Level Enhancement

Related to another planned project for 2023 Development Driven

Other:

ONGOING ANNUAL COSTS

Annualized costs will be required – maintenance or operating

Renewal of the asset will be required – Expected Life: **5** Years

	2023	2024	2025	2026	2027
Labour	-	-	-	-	-
Contracted Services	-	-	-	-	-
Materials & Supplies	-	-	-	-	-
Renewal					25,000
Total	\$ -	\$ -	\$ -	\$ -	\$ 25,000

*Note that 2027 renewal is referring to 10 iPads already in use in addition to the 10 iPads in this request

BACKGROUND & JUSTIFICATION

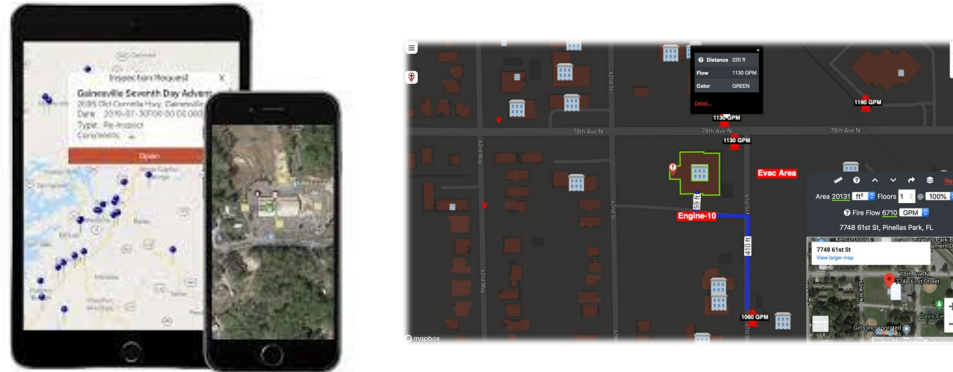
The 2022 District of Lake Country (District) and Lake Country Fire Department (LCFD) Capital Plan identified the purchase of Two (2) new Tough Tablets in 2022 and the purchase of new Fire Pagers in 2023. Due to a rapidly emerging issue, LCFD Staff are requesting that 2023 capital funding for Fire Pagers be allocated to the purchase of Ten (10) new iPads in 2023. In Q3 of 2022 the company that provides the software for Computer Aided Dispatch (CAD) and Records Management System (RMS) unexpectedly announced that both products were at end of life. Their plan is to fully retire both products in 12-months to 24-months.

This announcement forced Staff to pivot in Q4 of 2022. While the future of CAD and RMS are unknown, there is a limited number of options for these fire service specific applications. District IT Staff and LCFD Staff are bridging the technology gap with two new applications and deployment of Apple iPads through the LCFD. This positions the LCFD for a transition to the next generation of CAD and RMS when a decision point is reached by our Fire Dispatch Provider. In the meantime, this has created an opportunity to improve access to emergency response information to all the fire apparatus and support vehicles throughout the LCFD by shifting from Tough Tablets to Apple iPads.

Over the past 18-years, the District of has invested in the safety of the community by purchasing Tough Tablets. These units provide onboard computer access to Pre-Incident Plans and Emergency Response Mapping. While these Tough Tablets were impactful to safe operations, they were also very cost prohibitive and were not available to all firefighters. Historically, the LCFD only installed Tough Tablets on select fire apparatus and support vehicles.

The lower purchase price of the iPad and lower application costs allows the District IT Department to supply the LCFD with Five (5) iPads for the cost of every One (1) Tough Tablet. The economics of Apple iOS based hardware and applications supports equitable distribution of information and tools to all LCFD Firefighters, regardless of what station they operate from or what apparatus they are riding on.

At the end of 2022, approximately half of LCFD apparatus and support vehicles were being outfitted with new iPads. The requirement for 10 additional iPads in 2023 will allow the LCFD to equip every fire apparatus, support vehicle and fire inspector with an iPad. There are additional safety enhancements provided by having iPads on all LCFD fire apparatus and support vehicles. When a wildfire, flood or a snowstorm hits the Central Okanagan, the regional fire and emergency radio network can become very busy. LCFD fire apparatus and support vehicles do not have assigned cellular phones. Having the ability to use applications such as Apple FaceTime and Apple Messenger, provides incident commanders and company officers with a means to communicate via a secure cellular network. While this wouldn't be the primary method of communication, it does provide a reasonable backup and the ability to discuss tactical matters without tying up radio channels.



The images above are from [APX Data SmartMap™](#) application that links pre-incidents plans, and fire inspection data with a live 'response' database that pulls information for various mapping sources to keep firefighters informed of changes in the community. This is one of the innovate solutions Staff are current rolling out to replace the old RMS.



The images above are from [Vector Solutions](#) which has a scheduling application, learning management system application and asset management application that allow LCFD firefighters access from any internet connect 24 hours a day. By combining these technologies the LCFD will not necessarily need an end-to-end solution in the next generation of CAD and RMS. This is one of the innovate solutions Staff are current rolling out to replace the old RMS.

TIMING

Was the project slated for 2023 during the previous 5-year financial plan?

Yes No

If no, please explain:

The 2022 District and LCFD Capital Plan identified the purchase of Two (2) new Tough Tablets in 2022 and the purchase of new Fire Pagers in 2023. Due to a rapidly emerging issue, LCFD Staff are requesting that 2023 capital funding for Fire Pagers be allocated to the purchase of Ten (10) new iPads in 2023. In Q3 of 2022 the company that provides the software for Computer Aided Dispatch (CAD) and Records Management System (RMS) unexpectedly announced that both products were at end of life. Their plan is to fully retire both products in 12-months to 24-months.

This announcement forced Staff to pivot in Q4 of 2022. While the future of CAD and RMS are unknown, there is a limited number of options for these fire service specific applications. District IT Staff and LCFD Staff are bridging

the technology gap with two new application suites and deployment of Apple iPads through the LCFD. At the end of 2022 approximately half of LCFD apparatus and support vehicles were outfitted with new iPads using funding from the 2022 capital budget. The requirement of 10 additional iPads in 2023 will allow the LCFD to equip every fire apparatus, support vehicle and fire inspector with an iPad Pro.

When is the expected start date and completion date of the project?

LCFD Staff are seeking early approval for this capital request. If Council approves, Fire Staff will begin the procurement process in Q1 of 2023. The project is expected to take 3-months to 6-months to complete. This project timeline is due to procurement process time requirements however, the most significant impact is the current demands on the global supply chain for consumer electronics.

COMMUNICATION & ENGAGEMENT

Does the community need to be informed? Yes No

Is there be an impact (positive or negative) to anyone or group(s) within the community? Yes No

Is community engagement and/or input required? Yes No

If one or more questions is "yes", a communication and engagement plan is required.

Will a consultant be completing the communication and engagement plan? Yes No

If no, communications can assist with the completion of the plan.

IMPACT IF NOT APPROVED

As technology evolves in the fire service, Apple iOS based hardware and applications combined with mobile access to databases 'On The Cloud' via secure cellular networks is the best long-term solution of the LCFD. If this capital request is not approved in 2023, the LCFD technology replacement program becomes more fragmented and the LCFD will have to operate for an additional year with uneven deployment of technology and information.



PROJECT

Project Name: Infrared Sauna (LCFD Safety Program & Wellness Program)
 Short Description: Infrared Sauna for Firefighter Wellness, Post Fire Detox and Prevention of Occupational Diseases Associated with Firefighting
 Department: Protective Services - Fire

COSTS

Total Cost \$5,000

Funding: *Finance to fill out* Borrowing

Reserves: Fire User Fees

Facilities and Equipment
Replacement Reserve

Developer Grants

Contributions

Other:

REQUIREMENT

Master Plan: Capital Renewal or Required Replacement

Strategic Priority Legislative change

Safety Requirement Service Level Enhancement

Related to another planned project for 2023 Development Driven

Other:

ONGOING ANNUAL COSTS

Annualized costs will be required – maintenance or operating

Renewal of the asset will be required – Expected Life: **5-10** Years

	2023	2024	2025	2026	2027
Labour	-	-	-	-	-
Contracted Services	-	-	-	-	-
Materials & Supplies	-	-	-	-	-
Renewal	-	-	-	-	-
Total	\$ -	\$ -	\$ -	\$ -	\$ -

BACKGROUND & JUSTIFICATION

The 2022 District of Lake Country (District) and Lake Country Fire Department (LCFD) Capital had identified the addition of an Infrared Sauna at Fire Station 71 in 2023 for \$2,500. Unfortunately, the budget number that was previously submitted, is not adequate to purchase a unit suitable for use in the fire station environment.

There is conflicting science on the protocols and efficacy surround the use of Infrared Saunas as a prophylactic against the various cancers that disproportionately impact firefighters. Due to the risks associated with their job, Firefighters are disproportionately impacted by cancers when compared to the general population across North America. The same conflict exists around Infrared Sauna Protocols and efficacy for their use a prophylactic against the increased risk of heart attack and stroke that firefighters while serving their communities. What is emerging from this body of research is various protocols that are producing positive results. The research timelines will take decades to prove a correlation between Sauna Protocols and a reduction in occupational cancer and medical issues amongst Firefighters.

There is a growing body of research as well as anecdotal evidence indicate that Sauna Protocols are impacting Firefighter wellness in terms of stress reduction, inflammation reduction and sleep normalization. Fire Stations in the District are busy places. The workload associated training, maintenance, administration, and incidents call-outs can wear of Firefighters mentally and physically. Utilizing a Sauna Protocol as part of an overall Wellness Program can have very positive results. The LCFD is stating a peer driven Firefighter Health and Wellness Committee. The initial meeting was held in Q4 of 2022 and regular meetings will be held going forward. Approval of this Capital Request will support LCFD Firefighters in their pursuit of their personal and professional Wellness Goals.

Infrared Saunas are gaining wide acceptance across the British Columbia Fire Service. Many of the LCFD's neighboring fire departments have been using Infrared Saunas as part of their Safety Programs and Wellness Programs for well over a decade. This proposed unit would be placed into service at Fire Station 71, however all LCFD Staff would be able to book time to use the Infrared Sauna.

TIMING

Was the project slated for 2023 during the previous 5-year financial plan?

Yes No

If no, please explain:

The original amount of funds earmarked for this Capital request was \$2,500. LCFD Staff has researched options and has adjusted the amount to \$5,000. This Capital Request is being submitted to seek Councils approval to purchase of an Infrared Saunas at Fire Station 71 in 2023 at the revised budget price of \$5000.

When is the expected start date and completion date of the project?

LCFD Staff are seeking early approval for this request. If Council approves this request for early approval, Fire Staff will begin the procurements process in Q1 of 2023. The project is expected to take 3-months to 6-months to complete. This project timeline is due to procurement process time requirements however, the most significant impact is the current demands on the North American supply chain.

COMMUNICATION & ENGAGEMENT

Does the community need to be informed? Yes No

Is there be an impact (positive or negative) to anyone or group(s) within the community? Yes No

Is community engagement and/or input required? Yes No

If one or more questions is "yes", a communication and engagement plan is required.

Will a consultant be completing the communication and engagement plan? Yes No

If no, communications can assist with the completion of the plan.

If a communication and engagement plan is required, what formats are being considered and has this been considered in requested cost amount?

IMPACT IF NOT APPROVED

If the purchase of a new Infrared Sauna at Fire Station 71 in 2023 is not approved, the LCFD will continue to operate with the current compliment of fitness and wellness equipment on hand. LCFD Staff would plan to bring this request back to Council for consideration in the 2024 Budget.



PROJECT

Project Name: KnoxBox Electronically Secured Key Access System
 Short Description: Implement new KnoxBox Electronically Secured Key Access systems to enhance security, accountability, and risk management
 Department: Fire Department

COSTS

- Total Cost \$40,000.00
- Funding: *Finance to fill out*
 - Borrowing
 - User Fees
 - Grants
- Reserves: Fire Facilities and Equipment Reserve
- Developer Contributions
- Other:

REQUIREMENT

- Master Plan:
- Strategic Priority
- Safety Requirement
- Related to another planned project for 2023
- Other:
- Capital Renewal or Required Replacement
- Legislative change
- Service Level Enhancement
- Development Driven

ONGOING ANNUAL COSTS

- Annual costs will be required for maintenance and/or operation
- Renewal of the asset will be required – Expected Life: 10 to 15 Years

	2023	2024	2025	2026	2027
Labour	-	-	-	-	-
Contracted Services	-	-	-	-	-
Materials & Supplies	-	-	-	-	-
Renewal	-	-	-	-	-
Total	\$ 40,000	\$ -	\$ -	\$ -	\$ -

BACKGROUND & JUSTIFICATION

The 2022 District of Lake Country (District) and Lake Country Fire Department (LCFD) Capital Plan did not identify the replacement and/or upgrade of Legacy LockBoxes. This capital request is intended to provide the LCFD with modern LockBox systems that protect from ‘illegal break and enters’ and manage the risk of misplacing access keys.

The LCFD LockBox Program was established in 2001 and has been very successful. Today, District Bylaw 800 establishes the framework to work directly with businesses that have emergency access challenges, sprinkler systems and commercial alarm systems. This Bylaw also allows the LCFD to work with other businesses and agencies that choose to participate in the LockBox program on a voluntary basis. This program provides firefighters with rapid access to various occupancies for firefighting, alarm investigation and emergency medical services.

Due to numerous ‘illegal break an enters’ of Legacy LockBoxes, fire departments across British Columbia have been upgrading to KnoxBox systems to enhance security and key tracking. KnoxBox hardware is significantly stronger when compared to Legacy LockBoxes that have been in service for over 20-years. Several Legacy LockBoxes were compromised in the District during 2022 and similar issues were reported by regional fire departments. LCFD Staff have worked with Lake Country RCMP to establish interim protective measures. All LockBox Program participants have been advised of their increased risk. These clients are aware that the LCFD is working on an improved solution and are anxiously awaiting these options as part of the 2023 LCFD Budget.

In 2022, a fire department in British Columbia accidentally ‘misplaced’ a set of Legacy LockBox keys. The result was an emergency key replacement that reportedly cost that fire department close to \$250,000. LCFD Staff have estimated that the District’s current exposure to a lost Legacy Access key to be in excess of \$75,000 in as well as reputational risks and possible damages. The LCFD does have manual systems to track keys, however the KnoxBox system offers a superior electronic tracking system. The KnoxBox “Cloud Based” applications manage risk for fire service, police service and emergency medical service agencies using their systems across North America. Every time a key is utilized, it is actively tracked until it is placed back into the security system onboard the fire apparatus or fire support vehicle. If a key were to go missing, KnoxBox has an application that will assist in rapid recovery and/or immediate deactivation.

KnoxBox electronic keys have a double security protocol built into them. The electronic key needs to be released from the onboard security device with a unique access code. Then a second unique activation code is required to make the key ready for service. If the electronic key is unused for several minutes, it will shut down until the activation code is re-entered. An electronic key will only allow firefighters a few attempts to re-enter the activation code before locking itself out.

The following image from [KnoxBox](#) shows a KnoxBox commercial grade LockBox, a KnoxBox E-Key, and a KnoxBox Key-Secure 6. These units are becoming the industry standard in the Central Okanagan Regional District due to the enhanced security and risk management they offer when compared to Legacy LockBoxes.



KnoxBox systems does provide the LCFD with opportunities to work with Lake Country RCMP. The user agreement with KnoxBox allows police services and fire services to share access as deemed necessary by the local authority having jurisdiction.

TIMING

Was the project slated for 2023 during the previous 5-year financial plan?

Yes

No

If no, please explain:

As was mentioned above, The 2022 District and LCFD Capital Plan did not identify the replacement and/or upgrade Legacy LockBoxes. This capital request is intended to provide the LCFD with modern LockBox systems that protect from 'illegal break and enters' and manage the risk of misplacing access keys. Due to numerous 'illegal break an enters' of Legacy LockBoxes, fire departments across British Columbia have been upgrading to KnoxBox systems that provide enhanced security and risk management. Several Legacy LockBoxes were compromised in the District during 2022 and similar issues were reported by other regional fire departments. LCFD Staff have worked with Lake Country RCMP to develop and establish interim protective measures. All LockBox Program participants have been advised of their increased risk and are awaiting options from the LCFD.

When is the expected start date and completion date of the project?

LCFD Staff are seeking early approval for this request. If Council approves this request, Fire Staff will begin the procurements process in Q1 of 2023. The project is expected to take 3-months to 6-months to complete. This project timeline is due to procurement process time requirements however, the most significant impact is the current demands on the North American Fire Apparatus and Equipment Industry that are being compounded by global supply chain issues. KnoxBox systems would be placed into service after LCFD Staff training is complete.

COMMUNICATION & ENGAGEMENT

Does the community need to be informed? Yes No

Is there be an impact (positive or negative) to anyone or group(s) within the community?
 Yes No

Is community engagement and/or input required? Yes No
If one or more questions is "yes", a communication and engagement plan is required.

Will a consultant be completing the communication and engagement plan?
 Yes No

If no, communications can assist with the completion of the plan.

If a communication and engagement plan is required, what formats are being considered and has this been considered in requested cost amount?

IMPACT IF NOT APPROVED

If the replacement of Legacy LockBox with KnoxBox systems is not approved in the 2023 Budget, the LCFD will have to operate with the current compliment of legacy equipment for an additional year. Delaying the purchase could place additional risk on the District due to the emerging issues with Legacy LockBox equipment.



PROJECT

Project Name: Firefighter Personal Protective Equipment (WorkSafe BC Compliant)
 Short Description: Renewal of Firefighter Personal Protective Equipment to ensure that the health and safety of firefighters is maintained
 Department: Protective Services - Fire

COSTS

Total Cost \$150,000

Funding: *Finance to fill out* Borrowing

Reserves: Fire Facilities and Equipment Reserve User Fees

Developer Contributions Grants

Other:

REQUIREMENT

Master Plan: Capital Renewal or Required Replacement

Strategic Priority Legislative change

Safety Requirement Service Level Enhancement

Related to another planned project for 2023 Development Driven

Other:

ONGOING ANNUAL COSTS

Annualized costs will be required – maintenance or operating

Renewal of the asset will be required – Expected Life: **8 to 10** Years

	2023	2024	2025	2026	2027
Labour	-	-	-	-	-
Contracted Services	-	-	-	-	-
Materials & Supplies	-	-	-	-	-
Renewal	-	-	-	160,000	-
Total	\$ -	\$ -	\$ -	\$ 160,000	\$ -

BACKGROUND & JUSTIFICATION

The 2022 District of Lake Country (District) and Lake Country Fire Department (LCFD) Capital Plan did not identify the required replacement of Firefighter Personal Protective Equipment. Traditionally, the replacement of Firefighter Personal Protective Equipment has been managed within annual operating budgets. This legacy financial practice has placed the LCFD in a dilemma, as these budget amounts have consistently fallen behind replacement schedules for Firefighter Personal Protective Equipment. Over the past few years inflationary pressure in the North American Fire Apparatus Equipment Industry has compounded this financial shortfall.

There are Two (2) key regulations under WorkSafe BC Occupational Health and Safety Regulations for Firefighter Personal Protective Equipment. WorkSafe BC Part – 8 Personal Protective Clothing and WorkSafe BC Part 31 – Firefighting establish the guidelines that an employer must follow within the Province of British Columbia. There are numerous National Fire Protection Association Standards (NFPA) that pertain to Firefighter Personal Protective Equipment. WorkSafe BC and NFPA both require regular maintenance, testing and replacement of Firefighter Personal Protective Equipment. In Q3 and Q4 of 2022 a significant amount of Firefighter Personal Protective Equipment failed during annual inspections. These critical assets require replacement as soon as possible.

The 2023 Capital Request for the replacement of Firefighter Personal Protective Equipment will work synergistically with this 2023 Operating Budget for Turnout Gear and Apparel. The operational funding can be used for annual testing, repairs, and unplanned replacements. Over the long-term, the LCFD needs to move towards a planned replacement schedule that maintains regulatory compliance and provides long-term financial sustainability. Shifting these assets into a realistic renewal and replacement schedule as part of the greater LCFD Capital Plan will ensure this is accomplished.

Retired Firefighter Personal Protective Equipment can be assigned to the LCFD Training Division for use during POC Recruit Training and LCFD Junior Firefighters Training. The LCFD Junior Firefighter Program operates in cooperation with George Elliot Senior Secondary School and Central Okanagan School District 23.

A portion of retired Firefighter Personal Protective Equipment could be donated to Firefighters Without Borders. This Canadian based charity collects, repairs, and distributes Firefighting Equipment to fire departments in Central and South America. Firefighters Without Borders also provide free training to their clients. Were it not for these donations, many of these organizations would have to make do without any Firefighting Equipment, Personal Protective Equipment, and Firefighter Training.

TIMING

Was the project slated for 2023 during the previous 5-year financial plan?

Yes No

If no, please explain:

As was mentioned above, The 2022 District and LCFD Capital Plan did not identify the required replacement of Firefighter Personal Protective Equipment. Traditionally, the replacement of Firefighter Personal Protective Equipment has been managed within annual operating budgets. This legacy financial practice has placed the LCFD in a dilemma, as these budget amounts have consistently fallen behind replacement schedules for Firefighter Personal Protective Equipment. Over the past few years inflationary pressure in the North American Fire Apparatus Equipment Industry has compounded this financial shortfall.

The 2023 Capital Request for replacement of Firefighter Personal Protective Equipment will work synergistically with this 2023 Operating Budget for Turnout Gear and Apparel. The operational funding can be used for annual testing, repairs, and unplanned replacements. Over the long-term, the LCFD needs to move towards a planned replacement schedule that maintains regulatory compliance and provides long-term financial sustainability. Shifting these assets into a realistic renewal and replacement schedules as part of the greater LCFD Capital Plan will ensure this is accomplished.

When is the expected start date and completion date of the project?

LCFD Staff are seeking early approval for this request. If Council approves this request for early approval, Fire Staff will begin the procurements process in Q1 of 2023. The project is expected to take 6-months to 12-months to complete. This project timeline is due to procurement process time requirements however, the most significant impact is the current demands on the North American Fire Apparatus and Equipment Industry that are being compounded by global supply chain issues.

COMMUNICATION & ENGAGEMENT

Does the community need to be informed? Yes No

Is there be an impact (positive or negative) to anyone or group(s) within the community?

Yes No

Is community engagement and/or input required? Yes No

If one or more questions is "yes", a communication and engagement plan is required.

Will a consultant be completing the communication and engagement plan?

Yes No

If no, communications can assist with the completion of the plan.

If a communication and engagement plan is required, what formats are being considered and has this been considered in requested cost amount?

IMPACT IF NOT APPROVED

If the replacement of Firefighter Personal Protective Equipment is not approved in the 2023 Budget, the LCFD will have to operate with the current compliment of equipment for an additional year. Delaying the purchase could carry additional risk as our firefighters would be operating in Personal Protective Equipment that is at the end of its service life.

PROJECT

Project Name: Safe Work Procedures (WorkSafe BC Compliant)
 Short Description: Rewrite of Fire Department Safe Work Procedures to ensure Firefighter Safety and Regulatory Compliance with WorkSafe BC
 Department: Protective Services - Fire

COSTS

Total Cost \$17,500

Funding: *Finance to fill out* Borrowing

Reserves: Financial User Fees
 Stabilization Reserve

Developer Contributions Grants

Other:

REQUIREMENT

- | | |
|--|--|
| <input type="checkbox"/> Master Plan: | <input type="checkbox"/> Capital Renewal or Required Replacement |
| <input type="checkbox"/> Strategic Priority | <input type="checkbox"/> Legislative change |
| <input checked="" type="checkbox"/> Safety Requirement | <input type="checkbox"/> Service Level Enhancement |
| <input type="checkbox"/> Related to another planned project for 2023 | <input type="checkbox"/> Development Driven |
| <input type="checkbox"/> Other: | |

ONGOING ANNUAL COSTS

Annualized costs will be required – maintenance or operating

Renewal of the asset will be required – Expected Life: Years

	2023	2024	2025	2026	2027
Labour	-	-	-	-	-
Contracted Services	17,500	-	-	-	-
Materials & Supplies	-	-	-	-	-
Renewal	-	-	-	-	-
Total	\$ 17,500	\$ -	\$ -	\$ -	\$ -

BACKGROUND & JUSTIFICATION

The 2022 District of Lake Country (District) and Lake Country Fire Department (LCFD) Capital Plan did not identify the rewrite of Fire Department Safe Work Procedures. This is a One (1) time upgrade to ensure that the LCFD has the required Safe Work Procedures and supporting Risk Assessments to provide for Firefighter Safety and ensure that the District is fully compliant with WorkSafe BC Occupational Health and Safety Regulations.

The current complement of Safe Work Procedures used by the LCFD was originally authored in 2001. A partial rewrite was conducted in 2007. Since that time these critical documents have not been updated in a holistic fashion. In 2022 the Fire Chiefs Association of British Columbia (FCABC) and WorkSafe BC published a model set of Safe Work Procedures that would be considered the minimum requirement in the British Columbia Fire Service. These documents cover basic fire department operations and require modification to meet the unique circumstances of each fire department across the province.

LCFD Staff conducted a gap analysis to compare the Legacy LCFD Safe Work Procedures against the FCABC Model Safe Work Procedures. WorkSafe BC Occupational Health and Safety Regulations do not detail all the technical requirements needed to safely operate a modern fire service organization. When WorkSafe BC is silent on a specific matter, it is considered best practice for fire service organizations to refer to National Fire Protection Association (NFPA) Standards for technical safety standards. NFPA is a global self-funded nonprofit organization, devoted to eliminating death, injury, and economic loss from fire and related hazards. NFPA has approximately 30,000 members who deliver information and knowledge through more than 300 consensus codes and standards.

LCFD conducted a second gap analysis to compare the merged Legacy LCFD Safe Work Procedures and FCABC Model Safe Work Procedures against NFPA Standards. This process identified additional gaps that require attention to ensure that these are addressed in order to be fully compliant with WorkSafe BC Occupational Health and Safety Regulations and largely compliant with NFPA Standards.

LCFD Staff have identified a group of approximately One-Hundred and Seventy-Five (175) Safe Work Procedures from various sources that need to be consolidated into a new Safe Work Procedures Manual for the LCFD. This Manual will support firefighter safety and service delivery over the next Ten (10) years or more. LCFD Staff are seeking Councils approval to engage the services of Canadian Registered Safety Professional to review and rewrite these Safe Work Procedures and develop the required Risk Assessments.

TIMING

Was the project slated for 2023 during the previous 5-year financial plan?

Yes No

If no, please explain:

As was mentioned above, The 2022 District and LCFD Capital Plan did not identify the rewrite of Fire Department Safe Work Procedures. This is a One (1) time upgrade to ensure that the LCFD has the required Safe Work Procedures and supporting Risk Assessments to support Firefighter Safety and ensure that the District is fully compliant with WorkSafe BC Occupational Health and Safety Regulations LCFD Staff have identified a group of approximately One-Hundred and Seventy-Five (175) Safe Work Procedures from various sources that need to be

consolidated into a new Safe Work Procedures Manual for the LCFD. This Manual will support firefighter safety and service delivery over the next Ten (10) years or more. LCFD Staff are seeking Councils approval to engage the services of Canadian Registered Safety Professional to review and rewrite these Safe Work Procedures and develop the required Risk Assessments.

When is the expected start date and completion date of the project?

LCFD Staff are seeking early approval for this capital request. If Council approves, Fire Staff will begin the consulting process in Q1 of 2023. The project is expected to take 6-months to complete with the goal of rollout and training LCFD Firefighters to be complete by the end of 2023.

COMMUNICATION & ENGAGEMENT

- Does the community need to be informed? Yes No
- Is there be an impact (positive or negative) to anyone or group(s) within the community? Yes No
- Is community engagement and/or input required? Yes No

If one or more questions is "yes", a communication and engagement plan is required.

- Will a consultant be completing the communication and engagement plan? Yes No

If no, communications can assist with the completion of the plan.

If a communication and engagement plan is required, what formats are being considered and has this been considered in requested cost amount?

IMPACT IF NOT APPROVED

If the rewrite of Fire Department Safe Work Procedures is not approved in the 2023 Budget, the LCFD will have to operate with the current compliment of Legacy Safe Work procedures for an additional year. LCFD Staff would bring this proposal back in the 2024 Budget.



PROJECT

Project Name: Irvine Road Booster Pump Station - Construction
 Short Description: Replacement of a confined space subsurface water pressure boosting station with an above ground facility.
 Department: Utilities - Water

COSTS

- Total Cost \$ 400,000
- Funding: *Finance to fill out*
 - Borrowing
 - User Fees
 - Grants
- Reserves: Water Capital Reserve
- Developer Contributions
- Other:

REQUIREMENT

- Master Plan:
- Strategic Priority
- Safety Requirement
- Related to another planned project for 2023
- Other:
- Capital Renewal or Required Replacement
- Legislative change
- Service Level Enhancement
- Development Driven

ANNUAL COSTS

- Annualized costs will be required – Maintenance and operating budget already captured within existing water operations budget.
- Renewal of the asset will be required – Expected Life: 50 Years

	2023	2024	2025	2026	2027
Labour	-	-	-	-	-
Contracted Services	-	-	-	-	-
Materials & Supplies	-	-	-	-	-
Renewal	-	-	-	-	-
Total	\$ -	\$ -	\$ -	\$ -	\$ -

BACKGROUND & JUSTIFICATION



Picture of inside the existing Irvine Booster station

The Irvine Booster Station is located in Oyama, next to the Irvine Reservoir. The station's primary function is to increase water pressure along the upper west bench of the Oyama water system. The booster station is located in a relatively deep, below ground vault that is considered a confined space. Confined spaces present several safety issues with respect to Worksafe regulations and in practice. Furthermore, there is high voltage power contained within the vault, which results in an increased safety risk if the station were to become flooded.

A design to bring the facility above ground was completed in 2021. In 2022 budget deliberation, \$1.6M dollars was approved for construction, but construction was deferred to 2023 due to inflationary pressures causing concerns that the approved budget was insufficient.

The proposed request increases the budget for the construction to occur in 2023. Any approved funding that is unused will be transferred back to the originating reserve at the end of the project.

TIMING

Was the project slated for 2023 during the previous 5 year financial plan?

Yes No

If no, please explain:

When is the expected start date and completion date of the project?

2024

COMMUNICATION & ENGAGEMENT

Does the community need to be informed? Yes No

Is there be an impact (positive or negative) to anyone or group(s) within the community?

Yes

No

Is community engagement and/or input required?

Yes

No

If one or more questions is "yes", a communication and engagement plan is required.

Will a consultant be completing the communication and engagement plan?

Yes

No

If no, communications can assist with the completion of the plan.

If a communication and engagement plan is required, what formats are being considered and has this been considered in requested cost amount?

A local engagement strategy will be required to notify residents of what can be expected during construction.

IMPACT IF NOT APPROVED

Staff will proceed with the project to determine if the project can be delivered within the approved budget. If the budget is insufficient, staff will likely request additional funding from Council. This is not the preferred method, as going back to Council for additional funding is a time-consuming inefficient process.

PROJECT

Project Name: Okanagan Centre Small Diameter Watermains - Construction
 Short Description: Replace and upsize watermains to improve fire protection to Okanagan Centre.
 Department: Utilities - Water

COSTS

Total Cost \$1,500,000

Funding: *Finance to fill out*

Reserves: Water Capital Reserve

Developer Contributions

Other:

Borrowing

User Fees

Grants

REQUIREMENT

Master Plan:

Strategic Priority

Safety Requirement

Related to another planned project for 2023

Other:

Capital Renewal or Required Replacement

Legislative change

Service Level Enhancement

Development Driven

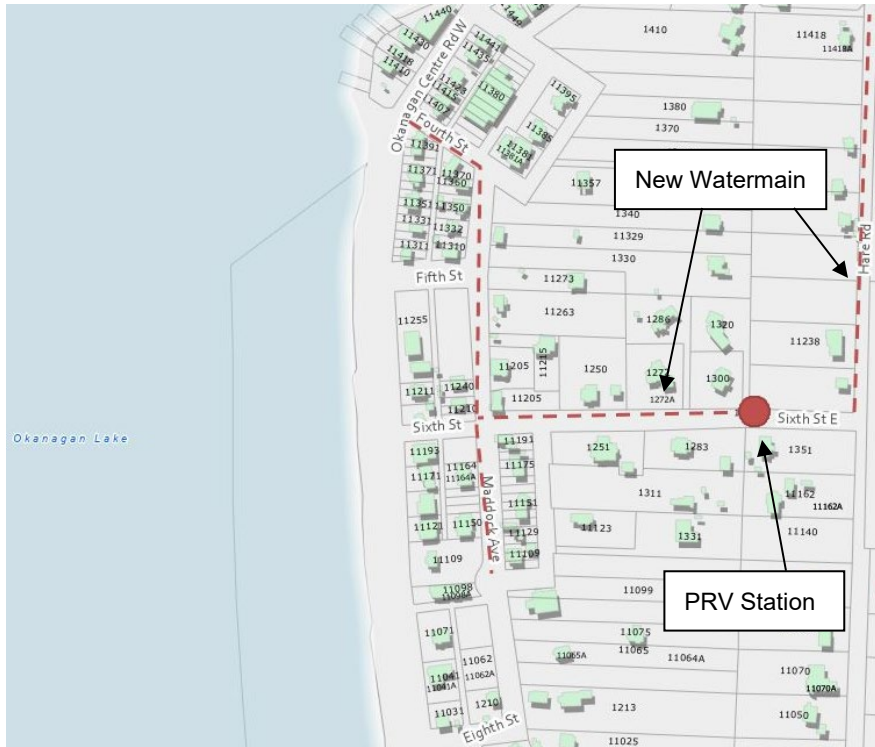
ONGOING ANNUAL COSTS

Annualized costs will be required – Maintenance and operating budget already captured within existing water operations budget.

Renewal of the asset will be required – Expected Life: 75 Years

	2023	2024	2025	2026	2027
Labour	-	-	-	-	-
Contracted Services	-	-	-	-	-
Materials & Supplies	-	-	-	-	-
Renewal	-	-	-	-	-
Total	\$ -	\$ -	\$ -	\$ -	\$ -

BACKGROUND & JUSTIFICATION



In 2022 the watermain on the south end of Hare Road, and part of Sixth St, was replaced and upsized. This was done with the goal of increasing fire flow and replacing aging infrastructure.

The next phase of this project will be to continue upsizing the watermain from Sixth St down into the lower Okanagan Centre Area. This project was identified in the Small Diameter Watermain report from 2016, and a detailed design was completed in 2022. Other improvements included in the project are eliminating a confined space by bringing a PRV station above ground, and roads/drainage improvements at the top of the sixth street trail.

TIMING

Was the project slated for 2023 during the previous 5 year financial plan?

Yes No

If no, please explain:

When is the expected start date and completion date of the project?

2023

COMMUNICATION & ENGAGEMENT

Does the community need to be informed? Yes No

Will there be an impact (positive or negative) to anyone or group(s) within the community?

Yes No

Is community engagement and/or input required?

Yes

No

If one or more questions is "yes", a communication and engagement plan is required.

Will a consultant be completing the communication and engagement plan?

Yes

No

If no, communications can assist with the completion of the plan.

If a communication and engagement plan is required, what formats are being considered and has this been considered in requested cost amount?

A local engagement strategy will be required to notify residents of what can be expected during construction.

IMPACT IF NOT APPROVED

Okanagan Center would continue to be serviced by undersized watermain, which fail to meet modern fire protection standards.

PROJECT

Project Name: Okanagan Lake Pump House Motor Repair
 Short Description: Assessing the condition and potential repairs of older pumps at pumping facility
 Department: Utilities – Water

COSTS

Total Cost: \$50,000

Funding: *Finance to fill out* Borrowing
 Reserves: Water Capital Reserve User Fees
 Developer Contributions Grants
 Other:

REQUIREMENT

Master Plan: Capital Renewal or Required Replacement
 Strategic Priority Legislative change
 Safety Requirement Service Level Enhancement
 Related to another planned project for 2021 Development Driven
 Other:

ANNUAL COSTS

Annualized costs will be required – maintenance or operating
 Renewal of the asset will be required – Expected Life: **15** Years

	2023	2024	2025	2026	2027
Labour	-	-	-	-	-
Contracted Services	-	-	-	-	-
Materials & Supplies	-	-	-	-	-
Renewal	-	-	-	-	-
Total	\$ -	\$ -	\$ -	\$ -	\$ -

BACKGROUND & JUSTIFICATION



The Okanagan Lake Pumpouse is equipped with three 750HP high-capacity pumps, which are responsible for supplying water to the Okanagan Lake drinking water source. This facility is the largest supplier of domestic water within our community, thus making it critical to ensure continued smooth operation.

Two of the motors were purchased and installed in 2008 (pumps 1&2), and the third in 2021 (pump 3). Pump 1&2 have not been inspected or refurbished since 2005.

Recently the operations staff noticed pump #2 was in need of servicing. Approval of this request would provide the budget to refurbish pump #2. Utility staff will plan to refurbish pump #1 in 2024.

TIMING

Was the project slated for 2022 during the previous 5 year financial plan?

Yes No

If no, please explain:

Smaller operational needs not always captured in 5 year plan.

When is the expected start date and completion date of the project?

2023

COMMUNICATION & ENGAGEMENT

Does the community need to be informed? Yes No

Is there be an impact (positive or negative) to anyone or group(s) within the community?

Yes No

Is community engagement and/or input required? Yes No

If one or more questions is “yes”, a communication and engagement plan is required.

Will a consultant be completing the communication and engagement plan?

Yes

No

If no, communications can assist with the completion of the plan.

If a communication and engagement plan is required, what formats are being considered and has this been considered in requested cost amount?

IMPACT IF NOT APPROVED

Having these motors non-functional is not an option from the perspective of a reliable water supplier. Required repairs will be performed from the water operations budget.

PROJECT

Project Name: Robinson Road Corridor (Artela Drive to 11474 Petrie Road)
Short Description: Robinson Road and OK Centre Road E Capital Road Renewal and Improvement and Water Upgrades (Artela Drive to 11474 Petrie Road)
Department: Utilities - Water

COSTS

Total Cost \$130,000

Funding: *Finance to fill out* Borrowing

Reserves: Water Capital Reserve User Fees

Developer Contributions Grants

Other:

REQUIREMENT

Master Plan: Capital Renewal or Required Replacement

Strategic Priority Legislative change

Safety Requirement Service Level Enhancement

Related to another planned project for 2022 Development Driven

Other:

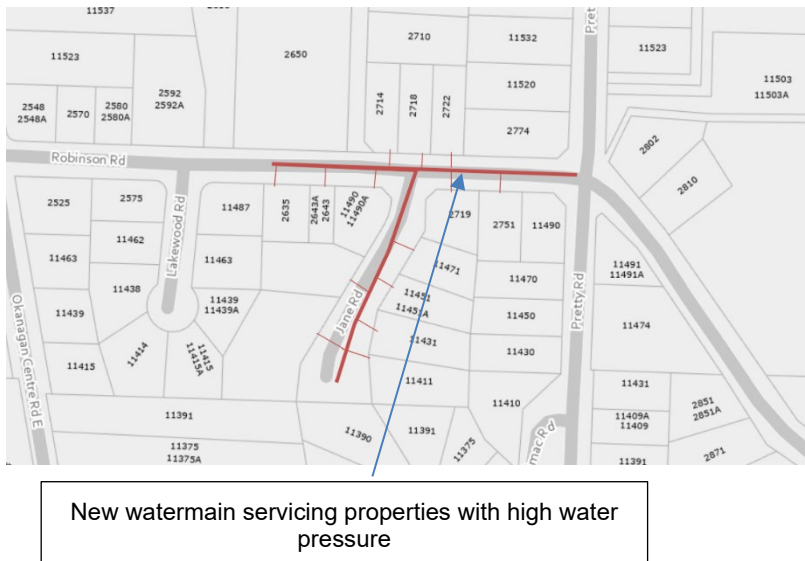
ANNUAL COSTS

Annualized costs will be required – maintenance or operating

Renewal of the asset will be required – Expected Life: **100** Years

	2022	2023	2024	2025	2026
Labour	-	-	-	-	-
Contracted Services					
Materials & Supplies	-				
Renewal	1,300				
Total	\$ 1,300				

BACKGROUND & JUSTIFICATION



Properties east of Lakewood Road along Robinson currently receive water with very high pressure. This budget request would enable the installation of an additional lower pressure water main adjacent to the new watermain required for an adjacent development developer. As the low pressure watermain is not required for the development to proceed, it is considered the responsibility of the District to pay for the low pressure watermain. This aspect of the project will be delivered in conjunction with the Robinson Road Corridor project (Artela Drive to 11474 Petrie Road).

TIMING

Was the project slated for 2022 during the previous 5 year financial plan?

Yes No

If no, please explain:

When is the expected start date and completion date of the project?

Spring 2023 to End of 2023

COMMUNICATION & ENGAGEMENT

Does the community need to be informed? Yes No

Is there be an impact (positive or negative) to anyone or group(s) within the community? Yes No

Is community engagement and/or input required? Yes No

If one or more questions is "yes", a communication and engagement plan is required.

Will a consultant be completing the communication and engagement plan?

Yes

No

If no, communications can assist with the completion of the plan.

If a communication and engagement plan is required, what formats are being considered and has this been considered in requested cost amount?

Communication plan will be delivered as consistent with the Robinson Road transportation capital budget request.

IMPACT IF NOT APPROVED

Properties will continue to receive water at a higher than optimal pressure.

PROJECT

Project Name: City of Kelowna Effluent Connection
 Short Description: Forcemain and control works at Wastewater Plant to enable connection to City of Kelowna sanitary sewer
 Department: Utilities - Wastewater

COSTS

Total Cost \$500,000

Funding: *Finance to fill out* Borrowing

Reserves: Climate Action Reserve* - User Fees

\$250,000

Community Works Gas Tax Reserve -

\$250,000

Developer Contributions Grants

Other:

*Note: The purpose of the Climate Action Reserve Fund per the current reserve policy is as follows: *"The District recognizes the importance of reducing greenhouse gas (GHG) emissions through projects that reduce fossil fuel consumption Reducing GHG emissions is part of Lake Country's commitment as a signatory to the BC Climate Action Charter. Funds in this reserve will be used for projects that reduce greenhouse gas emissions, replacement of equipment in the Hydroelectric Generating Station or early retirement of related debt, as funds permit."* It is the District's view that Council's focus has shifted from not just addressing GHG emissions but to improving the environment on a broader scale as evidenced by Council's strategic priority **Environment - Maintaining a healthy and natural environment through responsible use, protecting, and sustainable practices. 2022 Priority: Preserve, Protect and Enhance Our Natural Environment"**. As such, we are proposing a portion of this project to be funded from the Climate Action Reserve Fund as mitigating the risk of uncontrolled effluent released into the environment is in line with this Council strategic priority. Updated wording to the Reserve Policy will be brought forward to Council in 2023 to address this inconsistency.

REQUIREMENT

- Master Plan:
- Strategic Priority
- Safety Requirement
- Related to another planned project for 2023
- Capital Renewal or Required Replacement
- Legislative change
- Service Level Enhancement
- Development Driven

Other: solution is required in the near term to address effluent disposal limitations required to support ongoing community growth

ONGOING ANNUAL COSTS

Annualized costs will be required – maintenance or operating \$100,000/year

Renewal of the asset will be required – Expected Life: 30 Years

	2023	2024	2025	2026	2027
Labour	5,000	10,000	10,200	10,404	10,612
Contracted Services	45,000	90,000	91,800	93,636	95,509
Materials & Supplies	-	-	-	-	-
Renewal	-	-	-	-	-
Total	\$ 50,000	\$ 100,000	\$ 102,000	\$ 104,040	\$ 106,121

BACKGROUND & JUSTIFICATION

The District is nearing effluent disposal capacity to ground at the central Wastewater Treatment facility. The City of Kelowna has recently agreed to accept 15 litres per second of treated effluent on an ongoing basis for a period of 10 years. This flow accounts for about one half of the current discharge rate and represents wastewater contributions from over 2,000 homes.

The District is working on finalizing our Liquid Waste Management Plan (LWMP) which includes major infrastructure improvements required to return cleaned wastewater to the environment by discharging to Okanagan Lake. Directing treated effluent to the City of Kelowna has the major benefit of providing a solution now to the effluent discharge challenges we currently face and allows time to complete our LWMP and delays the need to construct new and costly infrastructure. Delaying infrastructure improvements has numerous benefits including providing more time work towards securing senior government funding support, allows building of capital reserves and retiring some of our existing debt for previously constructed wastewater projects, and delays expenditures that would otherwise need to be financed through further borrowing.

TIMING

Was the project slated for 2023 during the previous 5 year financial plan?

Yes No

If no, please explain:

Recent negotiations regarding joint infrastructure servicing for the Jim Bailey Industrial Park and Okanagan Indian Band IR #7 lands between the City, the Band and the District resulted in new agreements.

When is the expected start date and completion date of the project?

Project is expected to start in the spring of 2023 to be completed by early summer.

COMMUNICATION & ENGAGEMENT

Does the community need to be informed? Yes No

Is there be an impact (positive or negative) to anyone or group(s) within the community?

Yes No

Is community engagement and/or input required? Yes No

If one or more questions is "yes", a communication and engagement plan is required.

Will a consultant be completing the communication and engagement plan?

Yes No

If no, communications can assist with the completion of the plan.

If a communication and engagement plan is required, what formats are being considered and has this been considered in requested cost amount?

IMPACT IF NOT APPROVED

A solution is required in the near term to address effluent disposal limitations required to support ongoing community growth. The discharge of effluent to the environment is highly regulated to ensure the protection of the environment and public health. The solution, as identified in the Stage 2 LWMP report, is costly and will take multiple years to complete. Impacts if not approved involve risk of uncontrolled effluent release to the environment and the only practical management methodology would be to halt development within the community denying building permits to properties that would need to connect to sewer.