

# Sewer Extension to Kaleden from Okanagan Falls

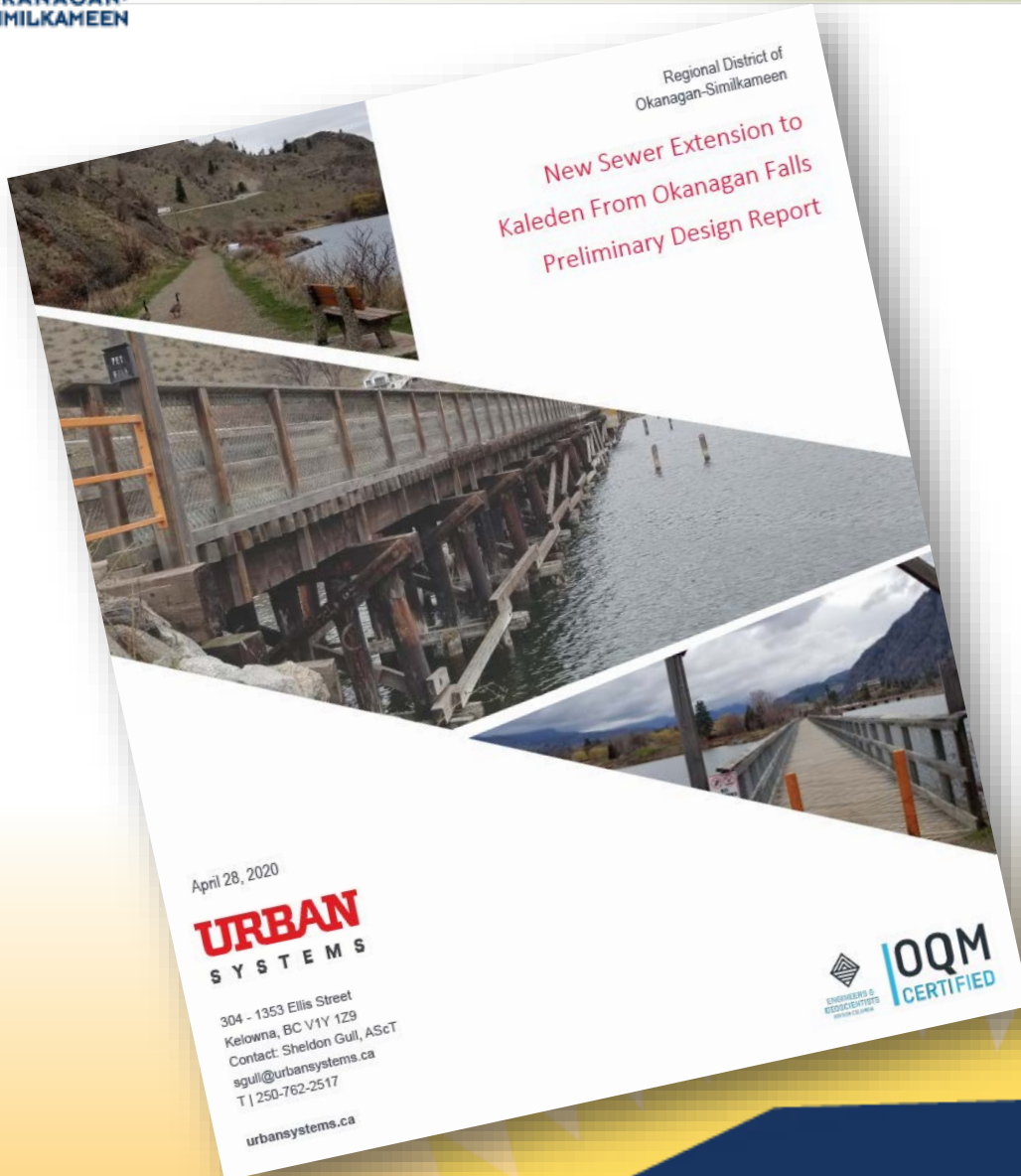
Predesign Report Information  
June 4, 2020

- Report completion
- Estimated costs
- Next steps
- Website [www.kaledensewer.ca](http://www.kaledensewer.ca)

# Predesign Project

- Project work started in September 2019
- Topographic surveys and base mapping
- Geotechnical investigations
- Environmental assessments
- Archeological studies
- Collaboration with Indigenous Peoples
- Site reconnaissance
- Structural reviews
- Downstream capacity analyses
- Geometric design (linear) and facility design
- Consultation with third party utilities.

# Predesign Report



- Completed April 2020  
Total size of 389 pages
- 45 page front end
  - 17 Appendices

# Main System Components

- Collection system within the community
  - Gravity mains, manholes, service connections
  - Alder Avenue lift station
    - Current location proposed on beach access ROW
    - Final location determined during detailed design
- Conveyance system
  - 5 km forcemain along KVR trail
  - Trestle and highway crossings
  - Ponderosa Avenue lift station



# Lift Station Design

- Aesthetics
- Noise
- Odour control
- Landscaping
- Safety



Examples  
of other  
facilities



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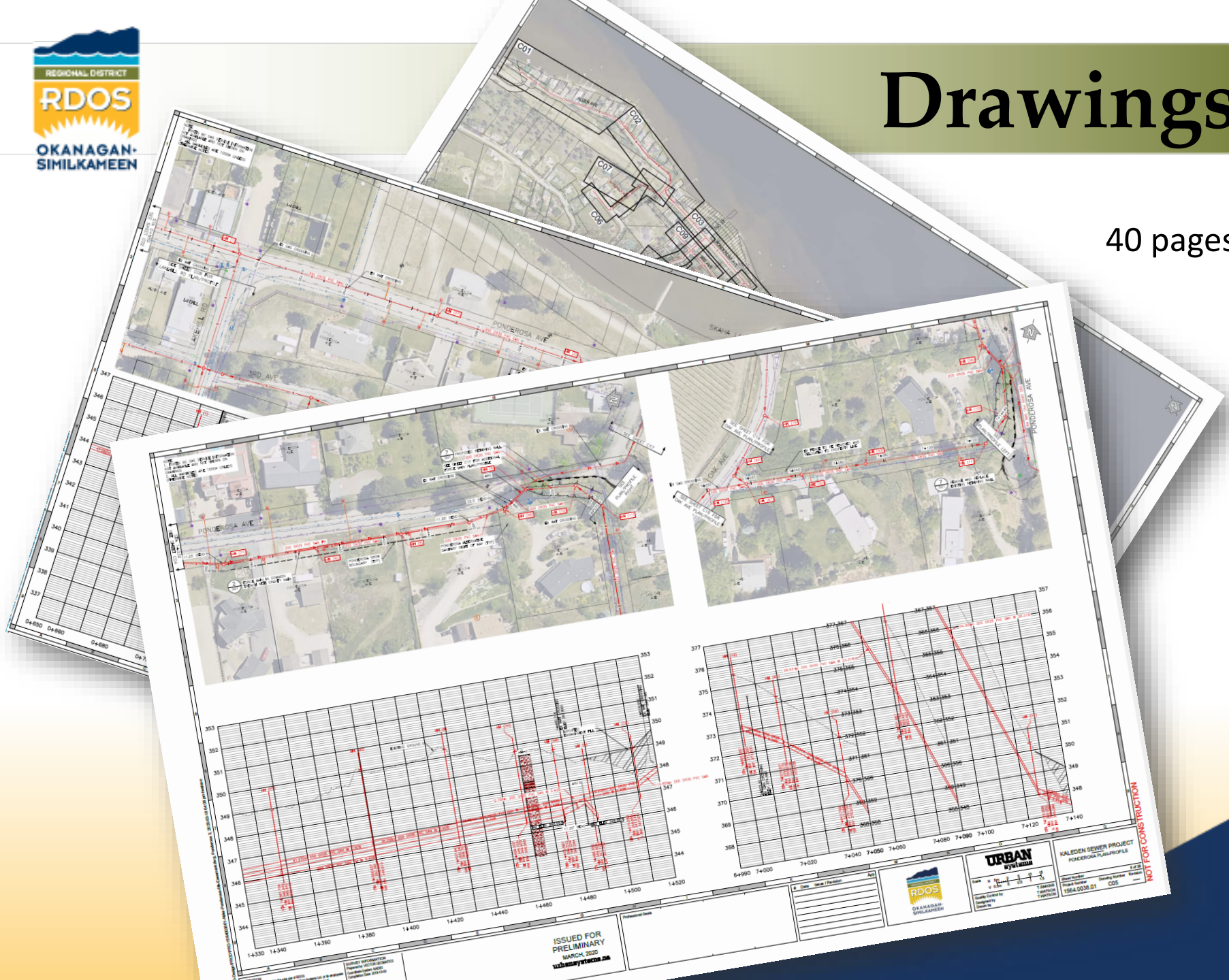


Examples  
of other  
facilities



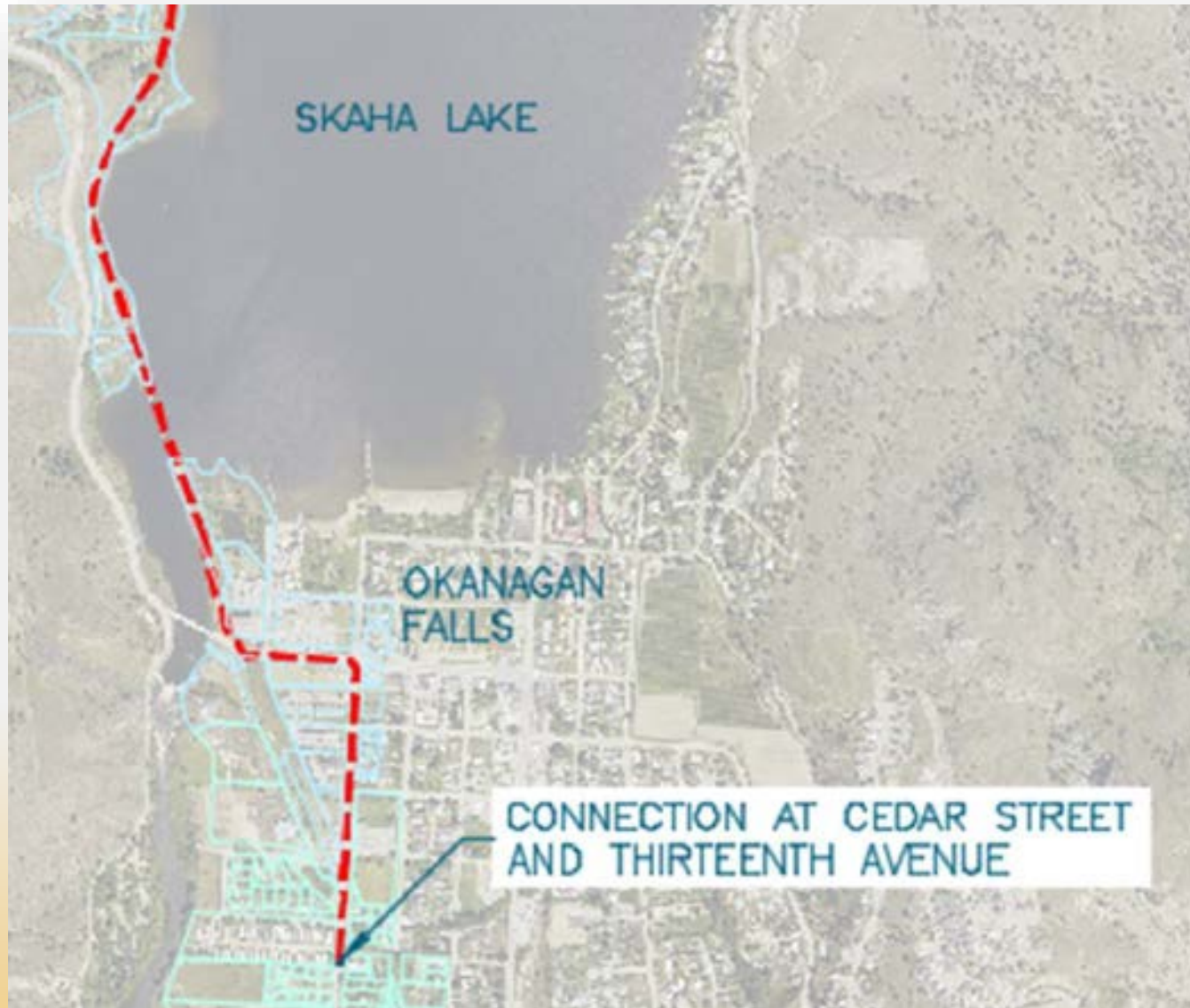
# Drawings

40 pages





# Okanagan Falls Sewer



# Environmental

- Critical Habitat
- Behr's Hairstreak Butterfly and Antelope Brush
- Mitigation Plans Developed

## Final REPORT

**URBAN**  
systems

Environmental Impact Assessment  
New Sewer Extension to Kaleden from Okanagan Falls  
Regional District of Okanagan-Similkameen

# Archeological

- High potential areas from traditional use
- Adjacent to known archeological sites
- Protection of cultural heritage resources
- Penticton Indian Band involvement



# Cost Estimates

Predesign Cost Estimate: \$9.15 M

Development Cost Charge: \$5900 per parcel

**Total Estimated Cost: \$9.92 M**

Available Grant Funds: \$6.2 M

Maximum Borrowing Amount: \$4.0 M

**Total Available Cost (Maximum): \$10.3 M**



# Capital Cost Estimates

## Capital Cost per Parcel

- Assumption
  - 130 parcels used in calculation (~150 anticipated)
- Total Capital Cost = \$28,000/parcel
- Potential Capital Cost Payment options:
  - One time payment of \$28,000; or
  - Long term borrowing by the RDOS with \$1500/year for 30 years

	<u>Lowest</u> number of parcels	<u>Expected</u> number of parcels
Number of Parcels	130	150
Capital Cost / parcel	\$28,000	\$24,000
<b>Borrowing of Capital</b>	<b>\$1500/year</b>	<b>\$1300/year</b>
O & M (OK Falls rate)	\$876/year	\$876/year
<b>Total Annual Rate</b>	<b>~\$2400/year</b>	<b>~\$2200/year</b>
Monthly Rate	\$200/month	\$175/month

Note: if Capital Cost is paid entirely by a parcel owner, without using borrowing, only the O&M cost would apply to the parcel

# Cost Estimate Exclusions

- Impact of additional parcels added during this stage of design and construction
  - More parcels – lower capital cost
- Cost estimates do not include
  - Works required on each individual property from the property line to the building
  - Decommissioning of existing septic systems

# Next Steps

- Public Consultation – web platform – June 5
  - [www.kaledensewer.ca](http://www.kaledensewer.ca)
- Referendum – Fall 2020 (*anticipated timeframe*)
- Detailed Design
  - Secure ROWs and easements
  - Complete all permit applications & assessments
- Construction of system
- Individual connections



# Known Risks

- ROW acquisitions from private property owners
- Government agency approvals
- Accuracy of other utility infrastructure records
- Extent of bedrock estimated on KVR trail
- Access approval for construction on KVR
- Archeological site disturbed
- Tenure approval

# Public Engagement

[www.kaledensewer.ca](http://www.kaledensewer.ca)

Live site: June 5, 2020

# Grant Expenditures

- New Building Canada Fund – Small Communities Fund (NBCF-SCF) Program
  - Total of \$6.6M received
- Predesign for Skaha Estates Community
  - Total cost \$330k
  - Grant funds used \$220k
- Predesign for Kaleden Community
  - Total cost \$260k
  - Grant funds used \$170k
- Remaining NBCF-SCF Funds: \$6.2M