

Wastewater Treatment

Summer 2020 Capital Funding Update

Area A – Greaves Road

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Greaves Road Wastewater Service Area



Topics

- Summary of previous review
- Capital Funding Update
- What's next?
- Questions



Summary of previous review

- **Wastewater Service Review:** High-level review of wastewater services within the SCRD www.scrd.ca/wastewater
- **Asset Management Plans:** Service-specific review. Summary of service establishment, relevant bylaws and asset inventory. Preliminary life-cycle and operational cost analysis.
- **Community Engagement:** SCRD hosted information sessions to share findings and gather feedback from residents.
- **Fact Sheets:** Created to provide residents with a quick glance of the preliminary service review findings.
- **Budget Revision:** Staff prepared revised budget models to reflect new datasets and to align with resident feedback.
- **Rate Adjustment:** Some User Rates and Frontage Fees were adjusted to reflect updated budget information.

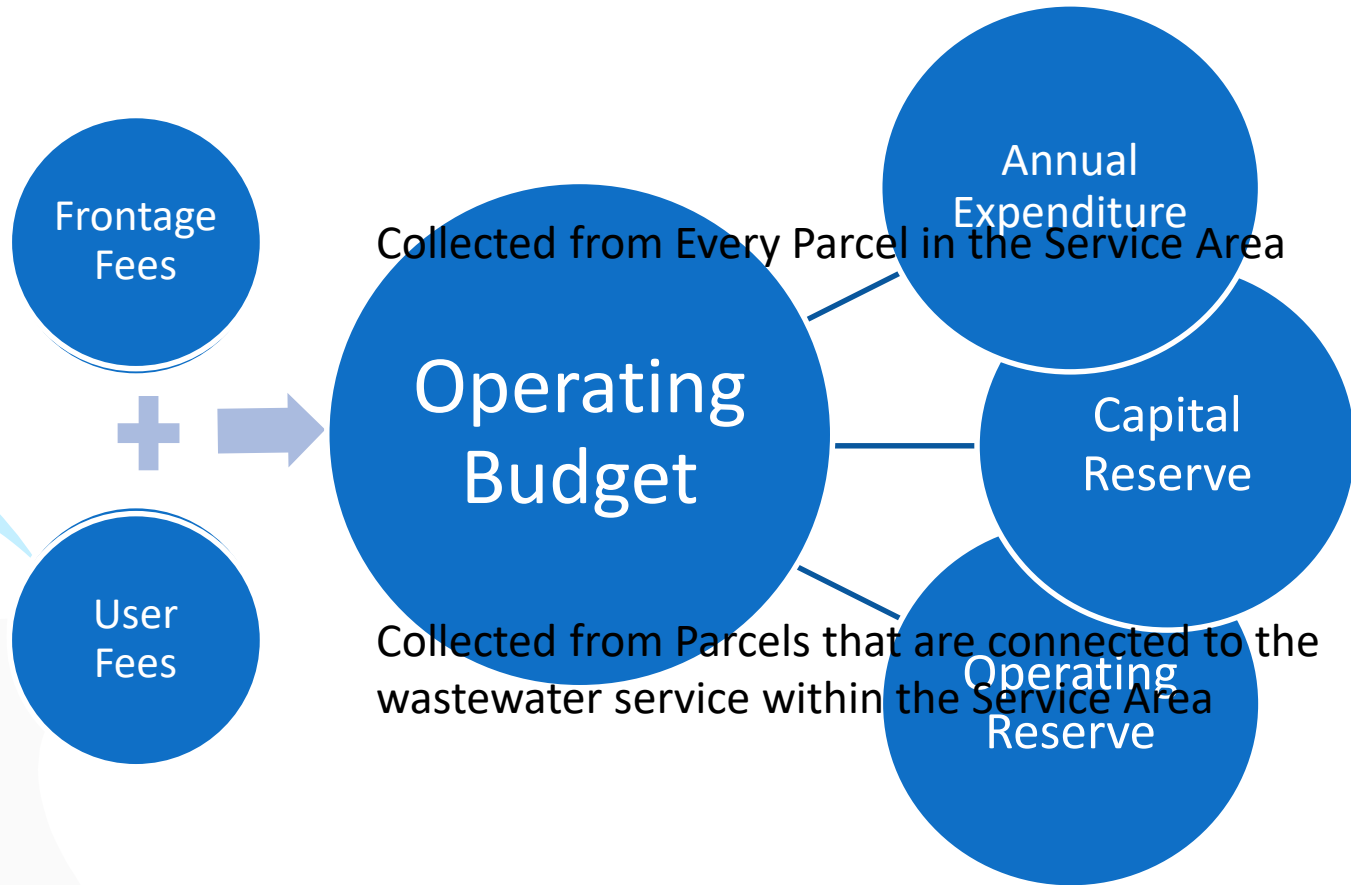


Summary of previous review

- **Key Findings – 2019 Wastewater Service Review**
 - Existing revenue is unsustainable
 - Operations Budget often greater than revenues generated from User Fees
 - Contributions to Reserve funds deferred frequently
 - Future capital expenditures not planned for
 - Ratio of Capital Reserves : Future Capital Expenses too low



Previous Funding Model - Recap



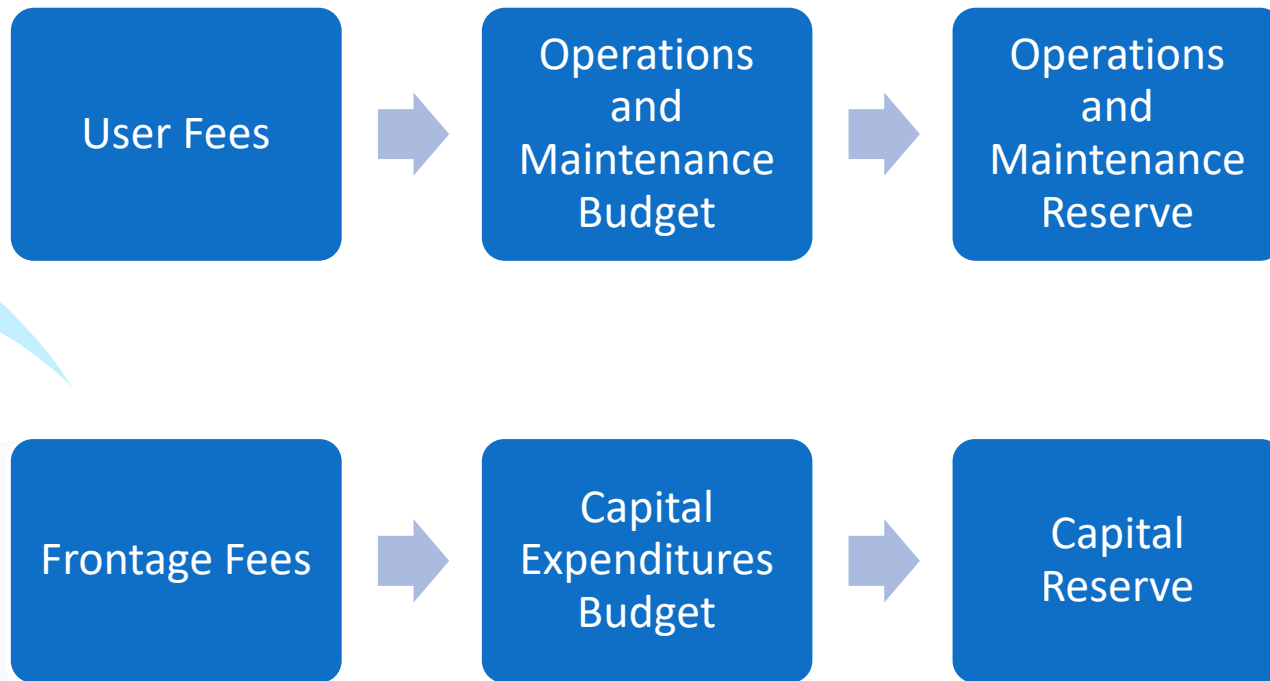
Summary of previous review

- **Key Outcomes**

- Decoupled User Fee and Frontage Fees
 - User Fee revenue only fund Operation and Maintenance
 - Frontage Fees only fund Capital Expenses
- Extensive Review of Operation & Maintenance requirements
 - Audited Operation and Maintenance activities
 - Revised O&M Budget to ensure adequate funding
 - Established O&M Reserve minimum targets
 - **Continue to be reviewed annually**
- Developed Capital Funding Models to plan for future capital expenses.



Sustainable Long-Term Funding Model



Summary of previous review

“Why Do We Need an Operating Reserve?”

- Unforeseen repairs can exceed annual operating budget
- Unable to borrow for Operational Expenses

Operating Reserves are withdrawn **only** for your service area.



Summary of previous review

- **Impact on wastewater rates:**
 - Greaves Road Wastewater O&M Budget Increase ~ 24%

Greaves Road Rate Changes 2019-2020				
<i>Year</i>	<i>User Fee</i>	<i>Operating Reserve Contribution*</i>	<i>Frontage Fee</i>	<i>Total</i>
2019	\$255.00	\$0.00	\$102.00	\$357.00
2020	\$415.00	\$180.84	\$102.00	\$697.84
Increase	\$160.00	\$180.84	\$0	\$340.84

*5-year term



New Developments

- We Listened to Resident Feedback:
 - Analyzed historical SCRD contract data to refine long-term Capital Model
 - Reduced Engineering Allowance Estimates ~3%
 - Reduction of contingency ~15%
 - Tolerance for Debt
 - Considered financing larger portions of projects
 - Creation of 5-year rate structure proposal
 - Revised Annually
 - Provides residents advance notice of rate structure



New Developments

- Updated Savings/Borrowing Rates to match current rates
 - Variable borrowing rates based on term of loan
- Applied variable Construction Cost Index to better reflect construction inflation rate over time

Construction Inflation

Period	Rate
(1-10 Yrs)	1.90%
(11-20 Yrs)	3.24%
(21-30 Yrs)	2.95%
(31-40 Yrs)	3.51%
(41-50 Yrs)	4.64%
(51-60 Yrs)	4.42%



Let's Talk Infrastructure Funding

- Provincial Legislation – Local Government Act
 - Local Service Areas in Regional Districts can be funded ONLY by participants
 - Costs are shared by a small number of people
- All infrastructure degrades over time
 - Reduced performance
 - Higher maintenance costs
- Infrastructure costs inflate over time



Capital Funding Plan – Method

Expenditures:

- Developed timeline of anticipated replacement using Estimated Useful Life of infrastructure
- Used most recent replacement cost estimates
- Inflated to future value using Construction Cost Indexes built from historical data
 - Variable rates based on replacement date
- Included Debt Financing Costs

Revenue:

- Applied annual interest accrual



Capital Funding Plan – Method

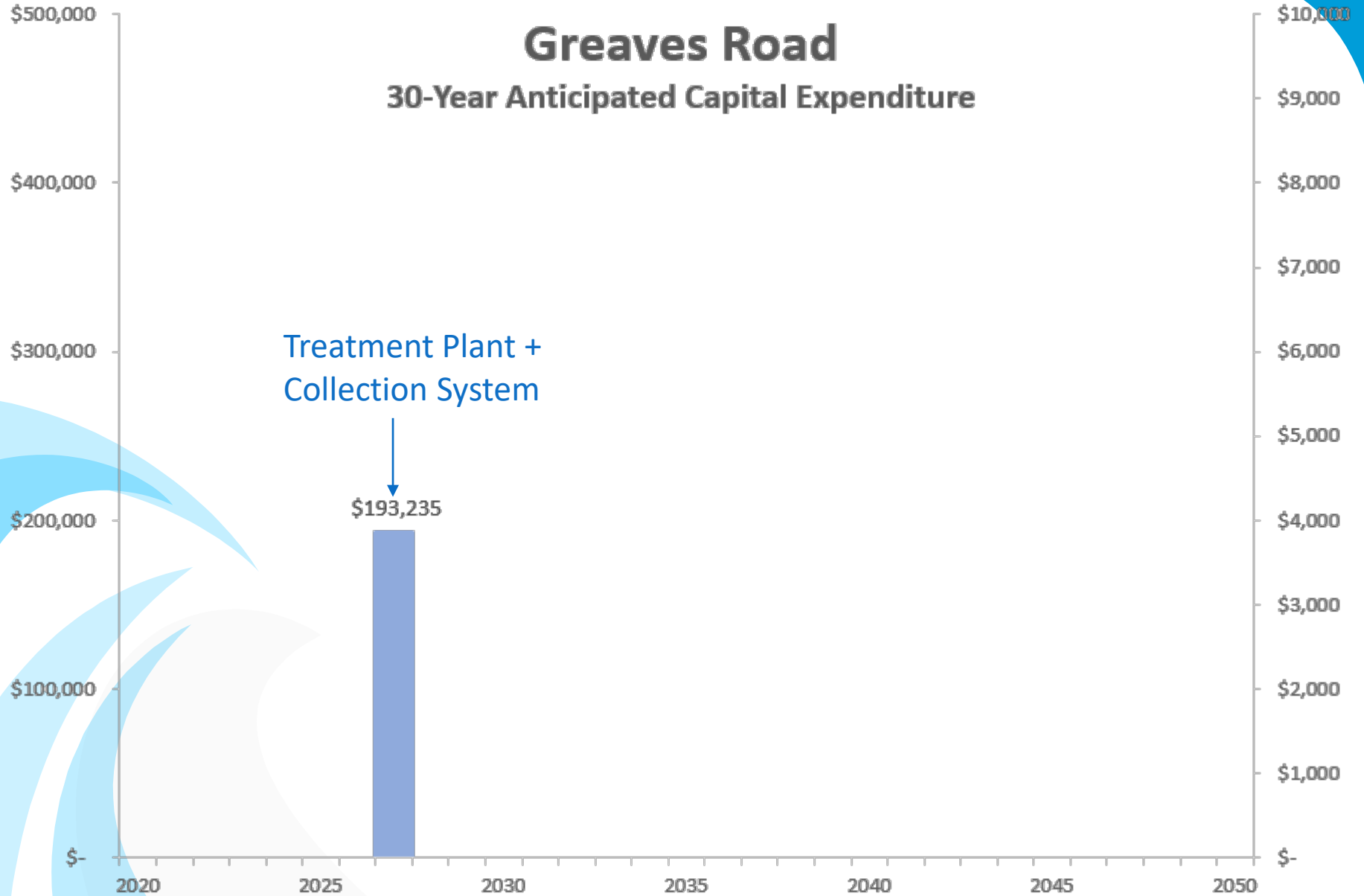
Expenditures:

- Developed timeline of anticipated replacement using Estimated Useful Life of infrastructure
- Wastewater services have 3 main components:
 - Treatment Plant – 50 Year Life
(Some have minor components with shorter lifespan eg. Filters)
 - Disposal System – 40 Year Life
 - Collection System - ~80 Year Life



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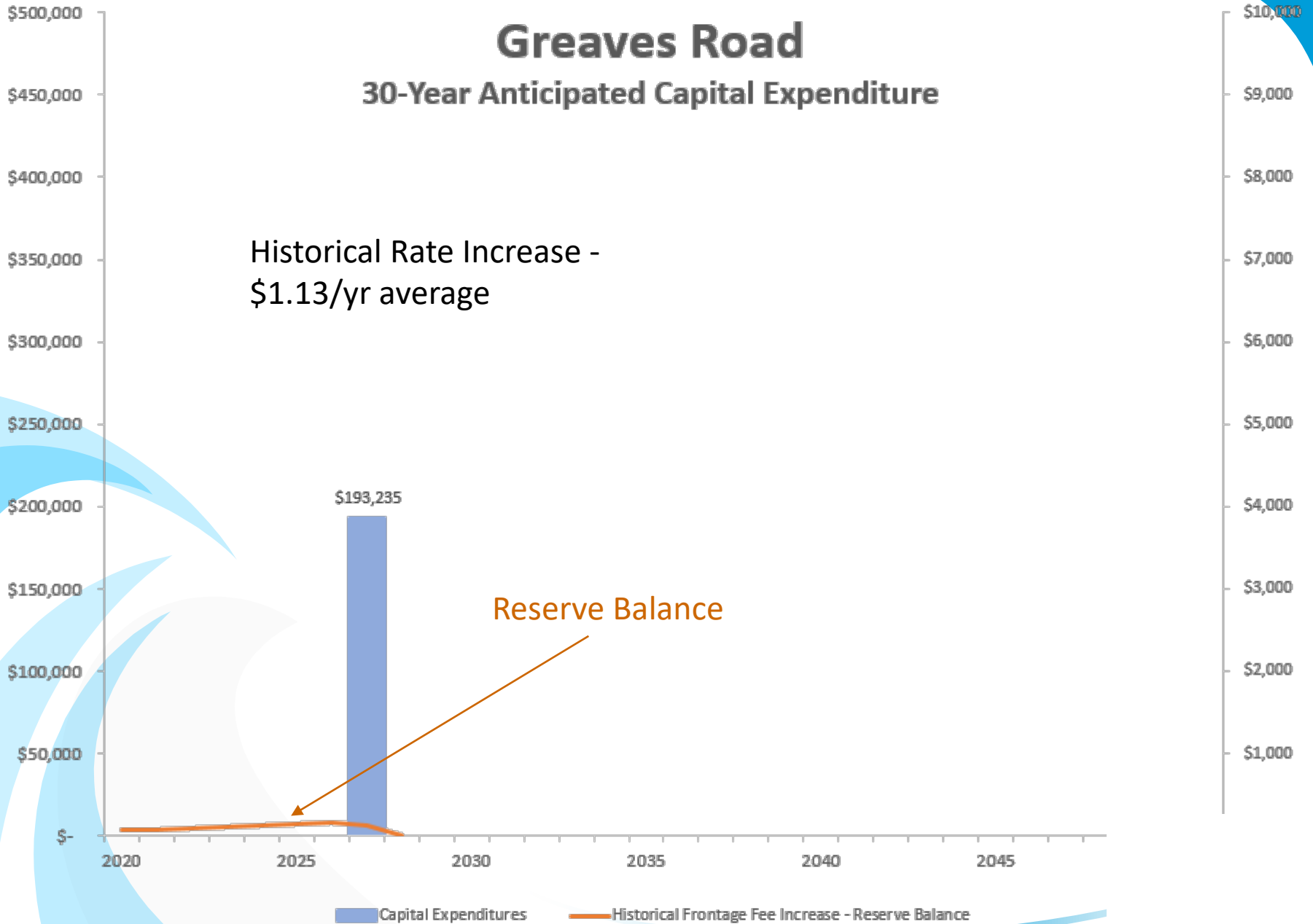
30-Year Anticipated Capital Expenditure



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30-Year Anticipated Capital Expenditure

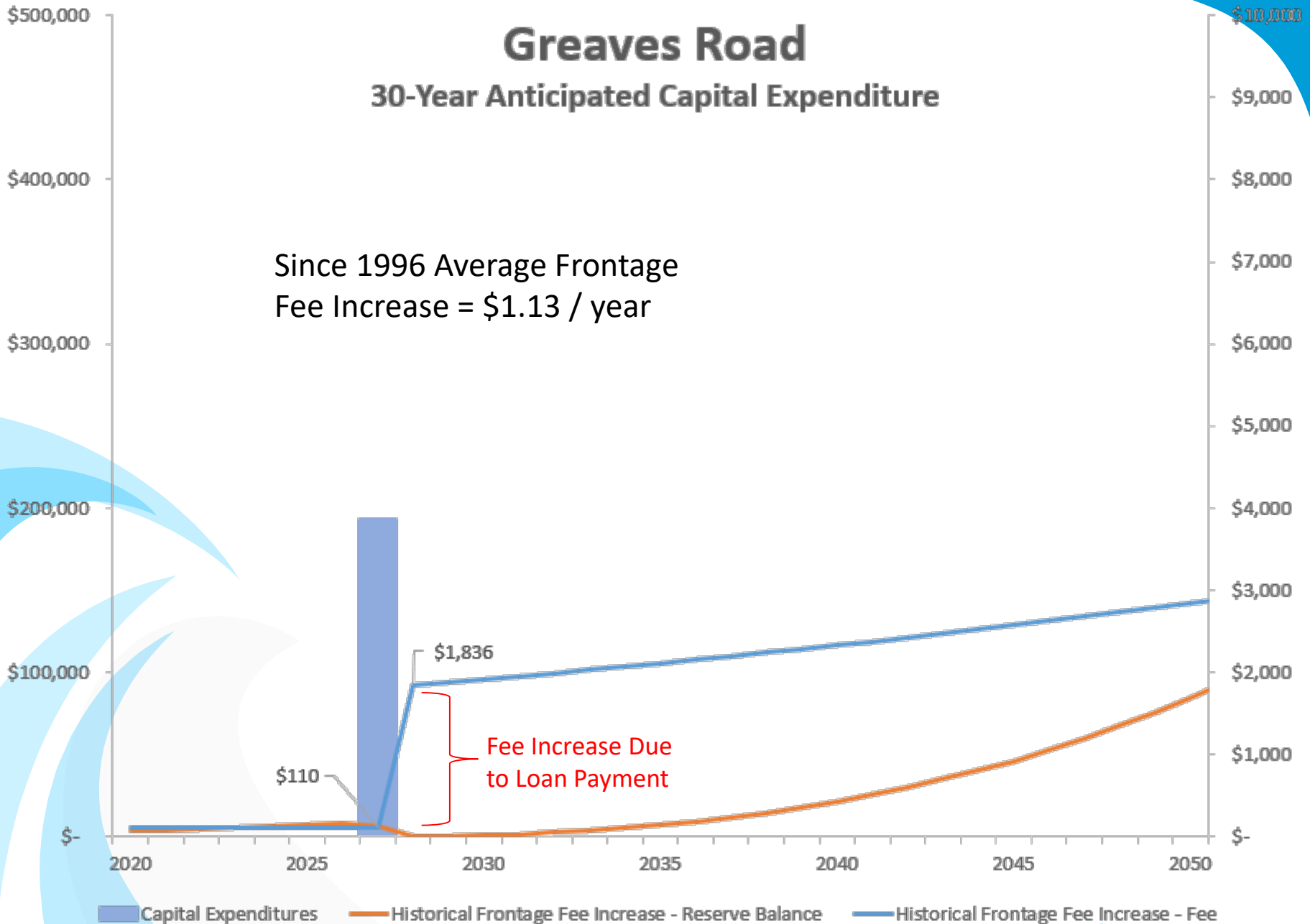
Historical Rate Increase -
\$1.13/yr average



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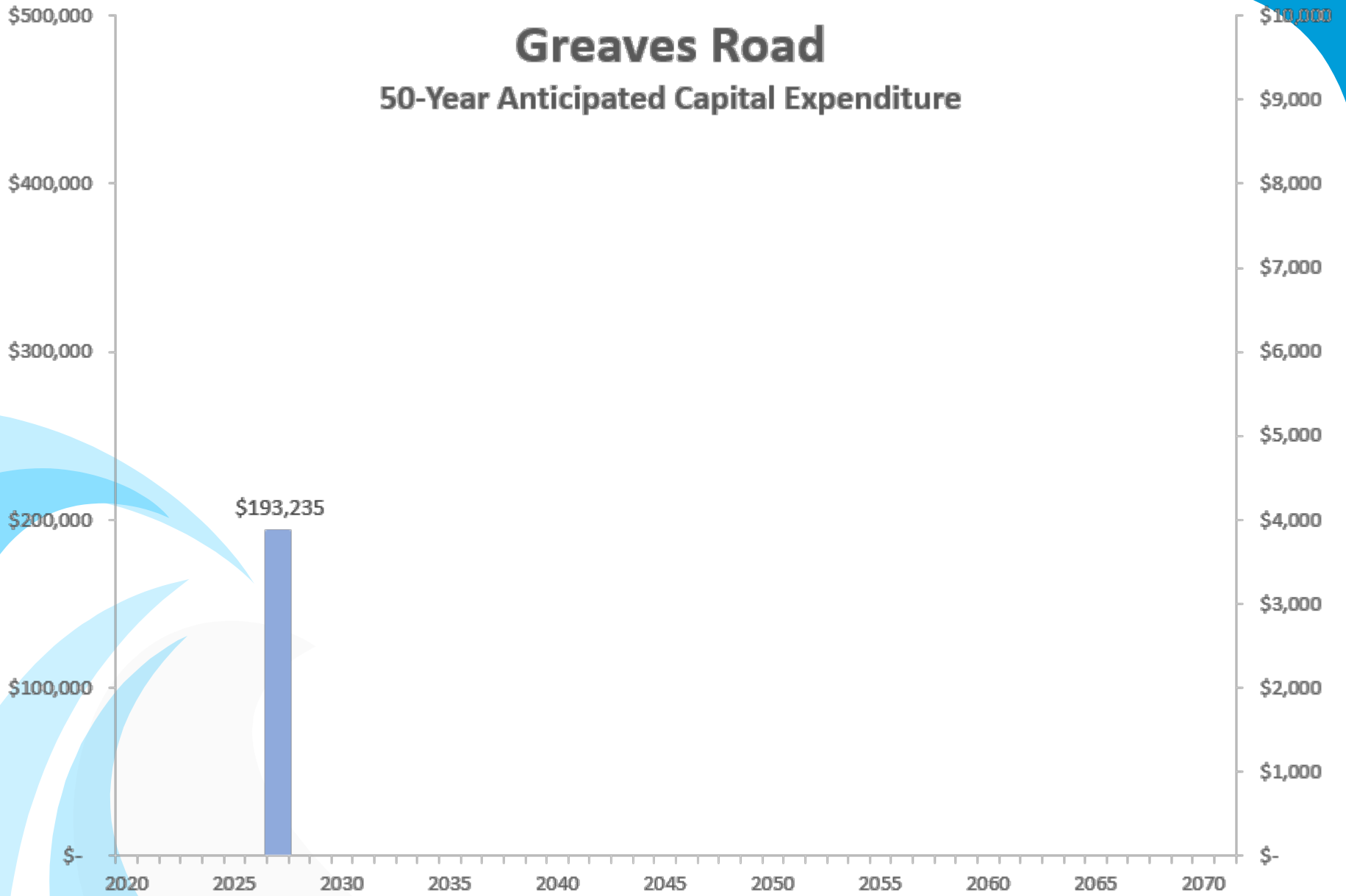
30-Year Anticipated Capital Expenditure

Since 1996 Average Frontage Fee Increase = \$1.13 / year



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50-Year Anticipated Capital Expenditure

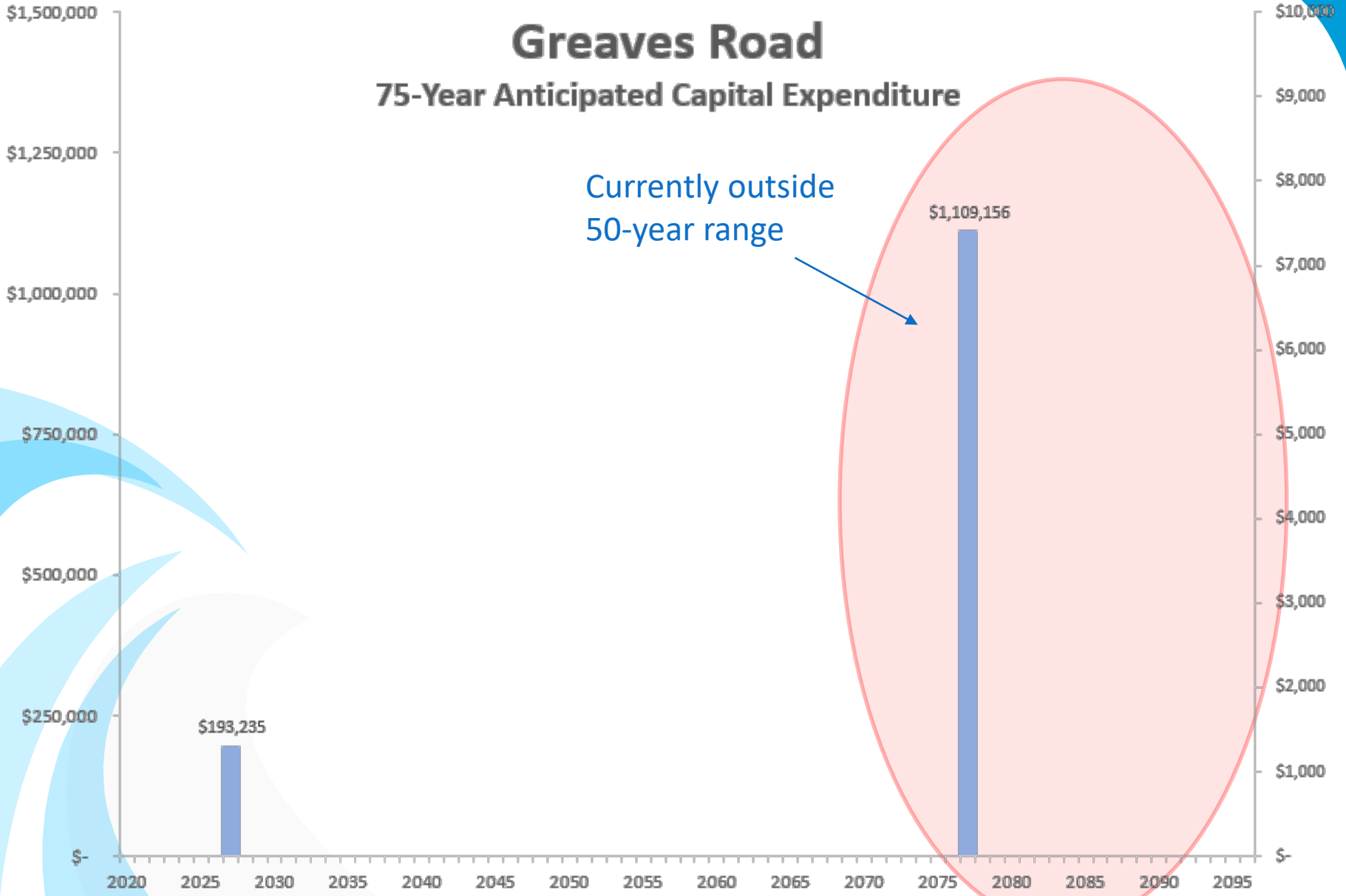


■ Capital Expenditures

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75-Year Anticipated Capital Expenditure



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50-Year Anticipated Capital Expenditure

Key Points:

- \$100 / year increase from 2020-2027
- \$1,625 Debt Payment from 2028-2053
- 0% annual increase from 2028-2069
- No Grant Received*

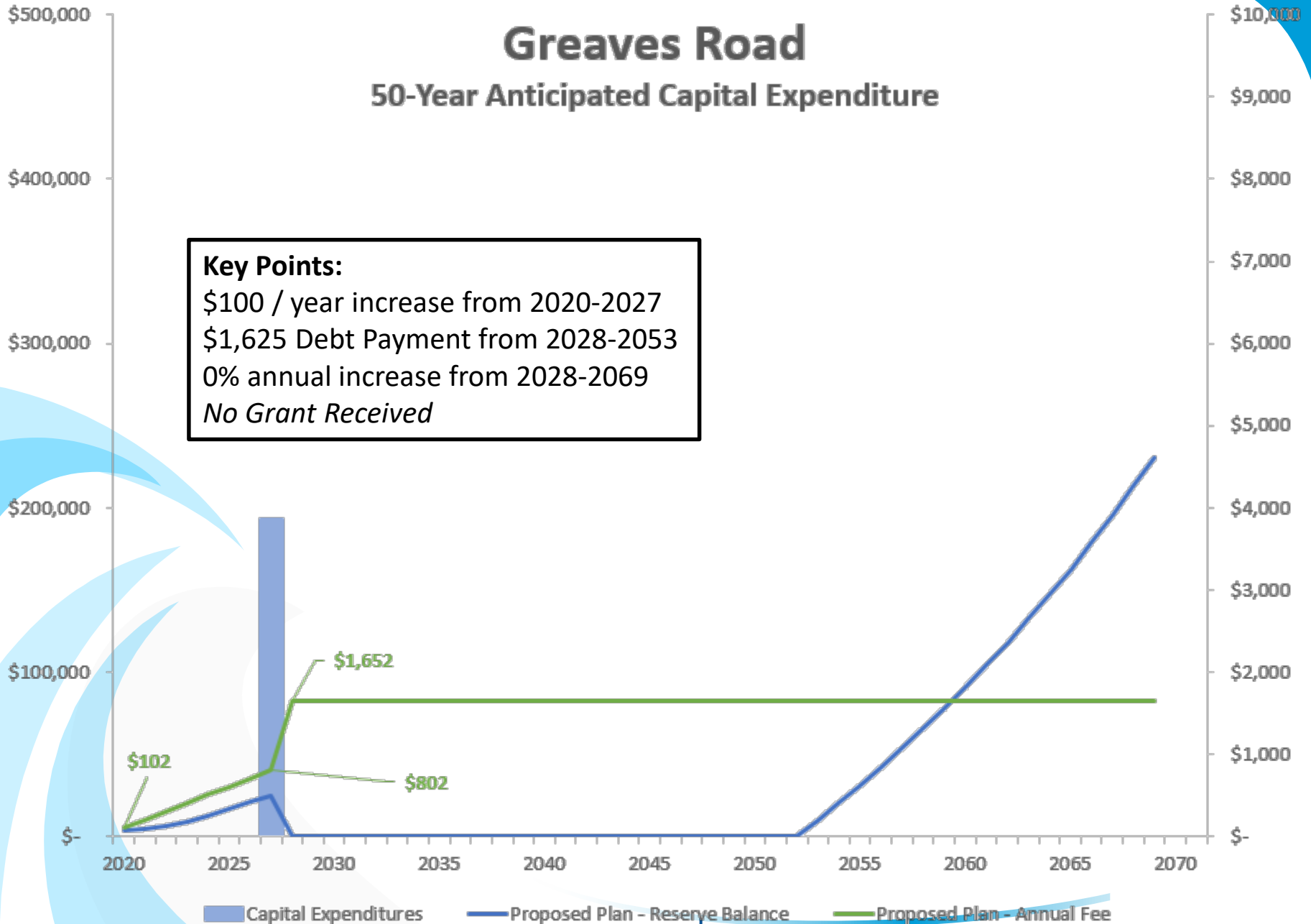


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50-Year Anticipated Capital Expenditure

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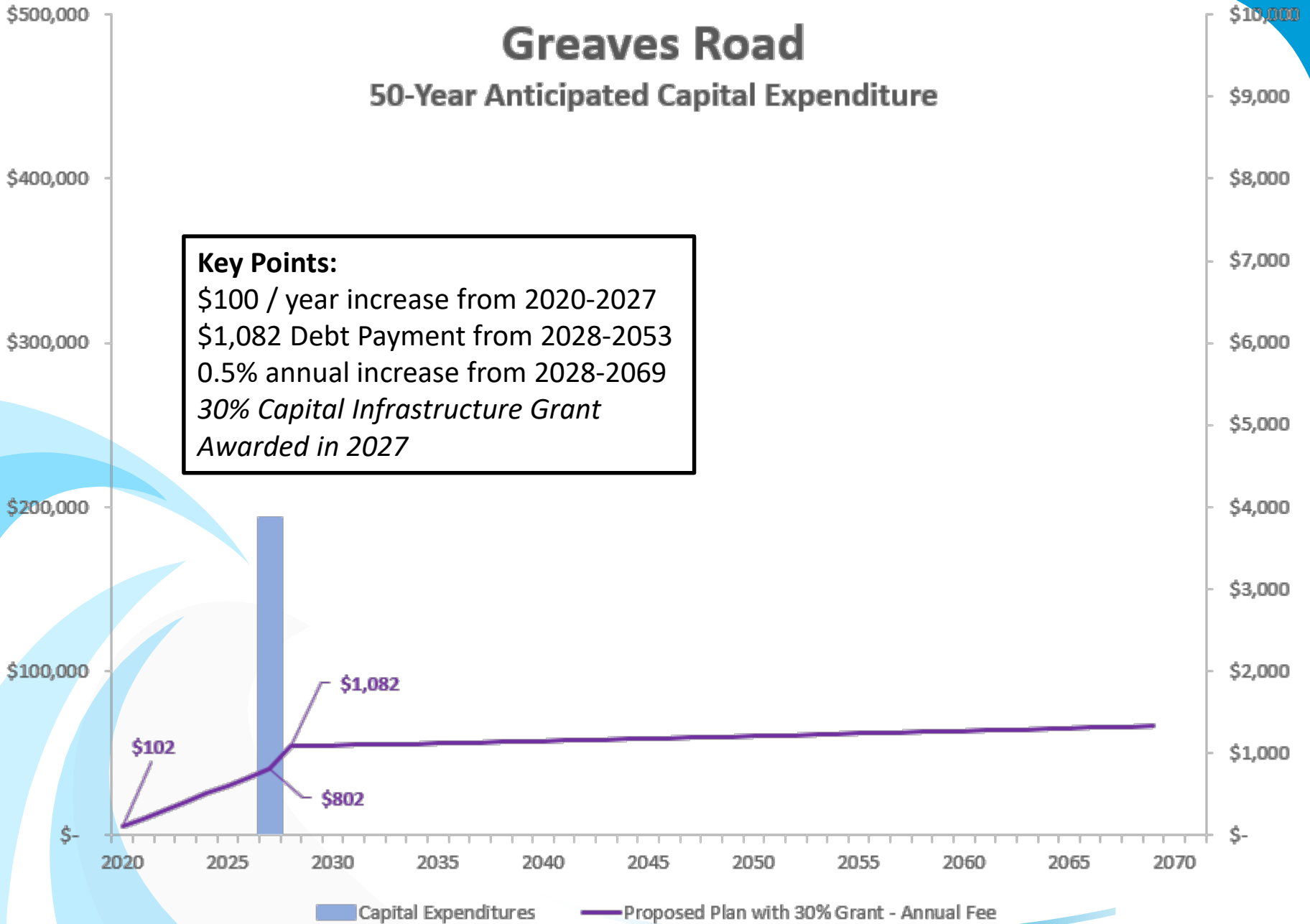
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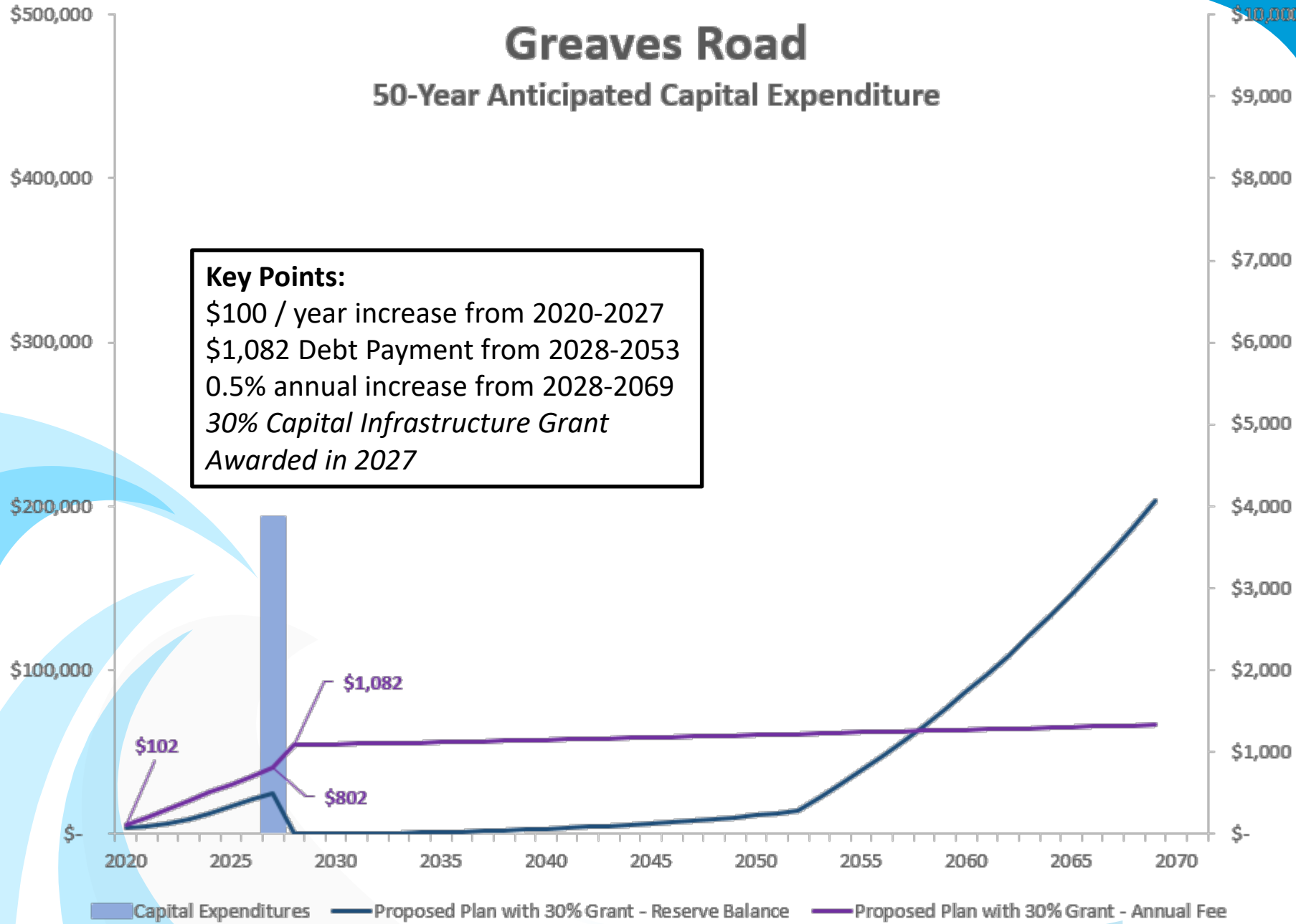
50-Year Anticipated Capital Expenditure

Key Points:
 \$100 / year increase from 2020-2027
 \$1,082 Debt Payment from 2028-2053
 0.5% annual increase from 2028-2069
 30% Capital Infrastructure Grant
 Awarded in 2027



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50-Year Anticipated Capital Expenditure



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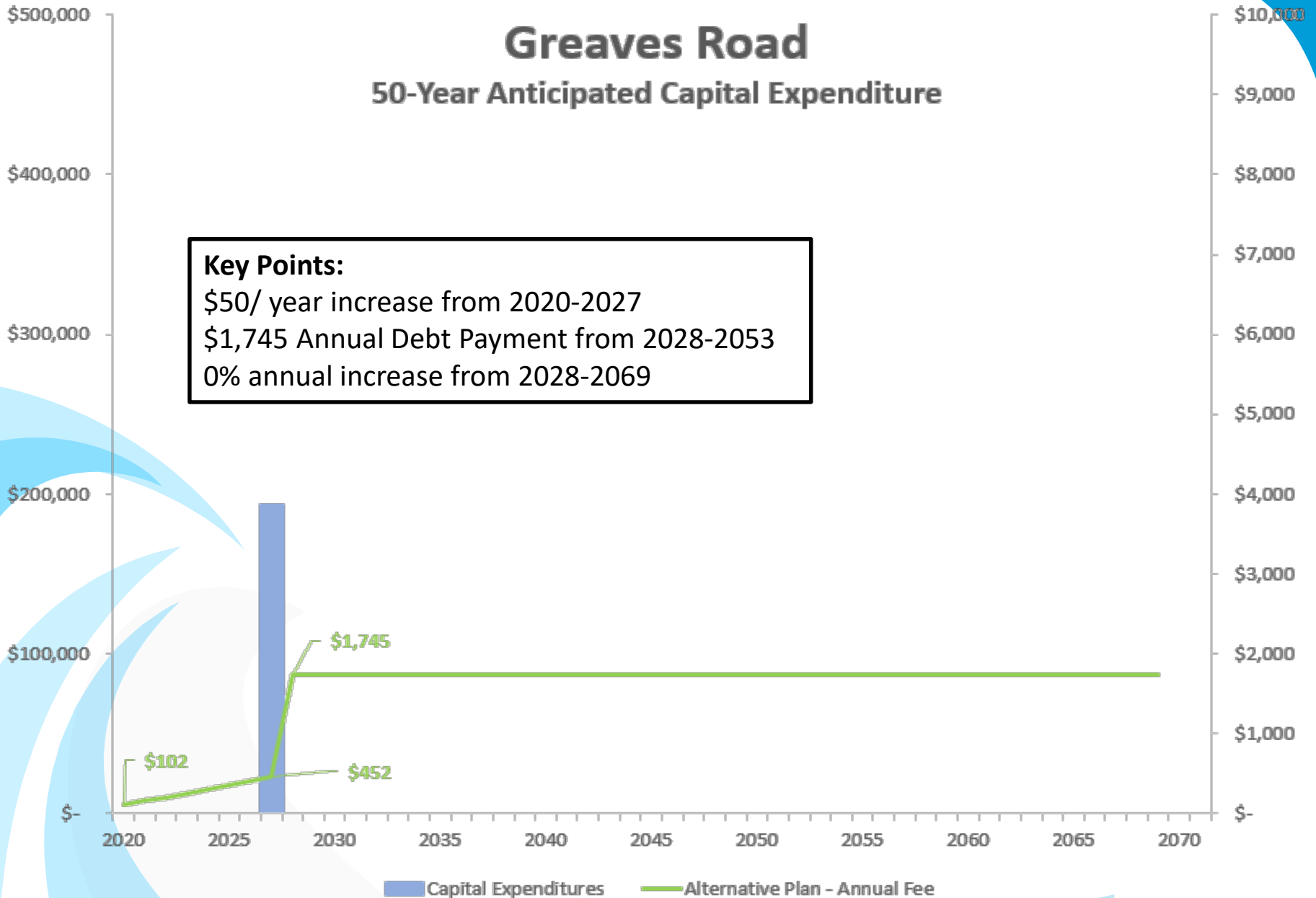
50-Year Anticipated Capital Expenditure

Key Points:

\$50/ year increase from 2020-2027

\$1,745 Annual Debt Payment from 2028-2053

0% annual increase from 2028-2069

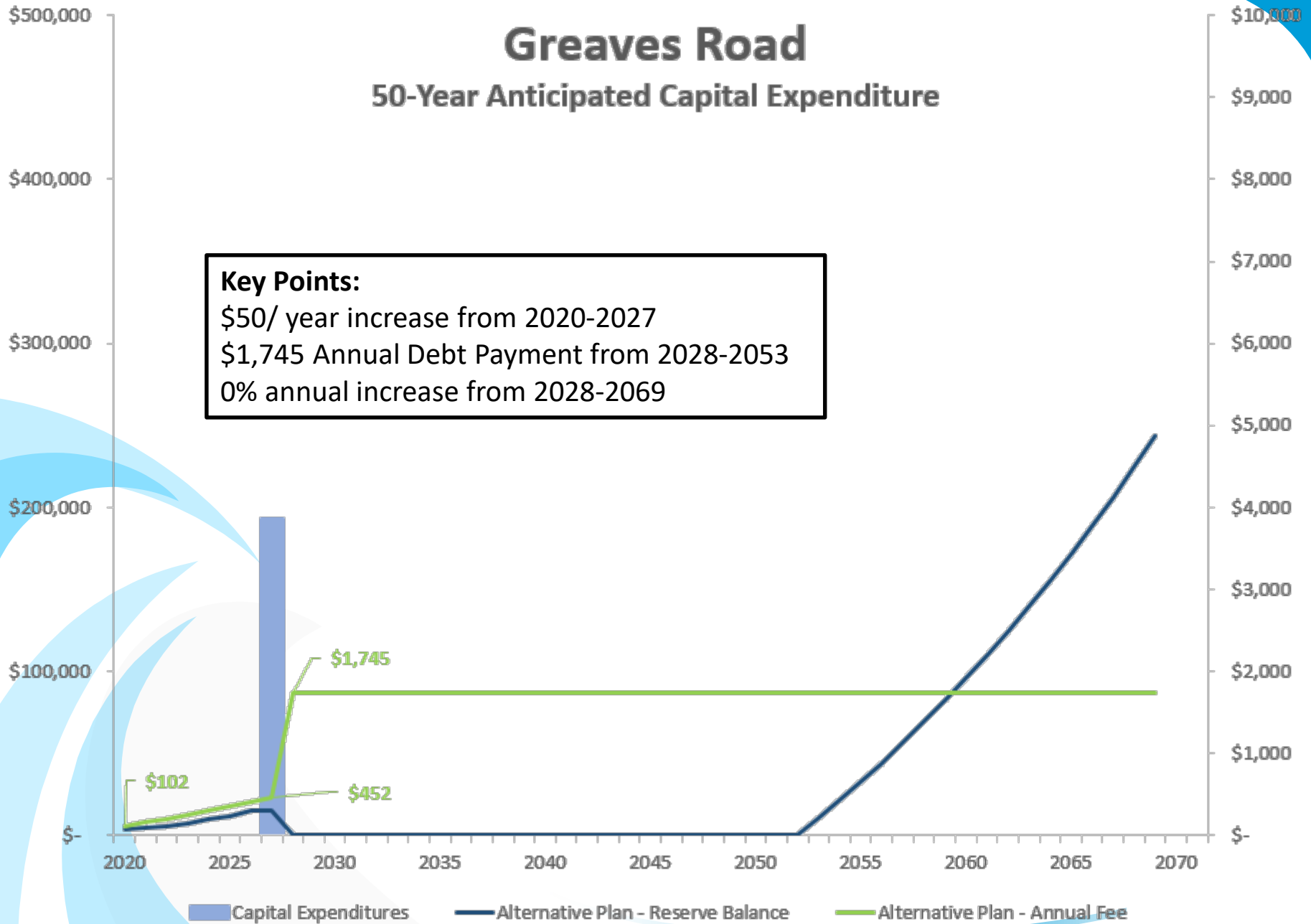


Greaves Road

50-Year Anticipated Capital Expenditure

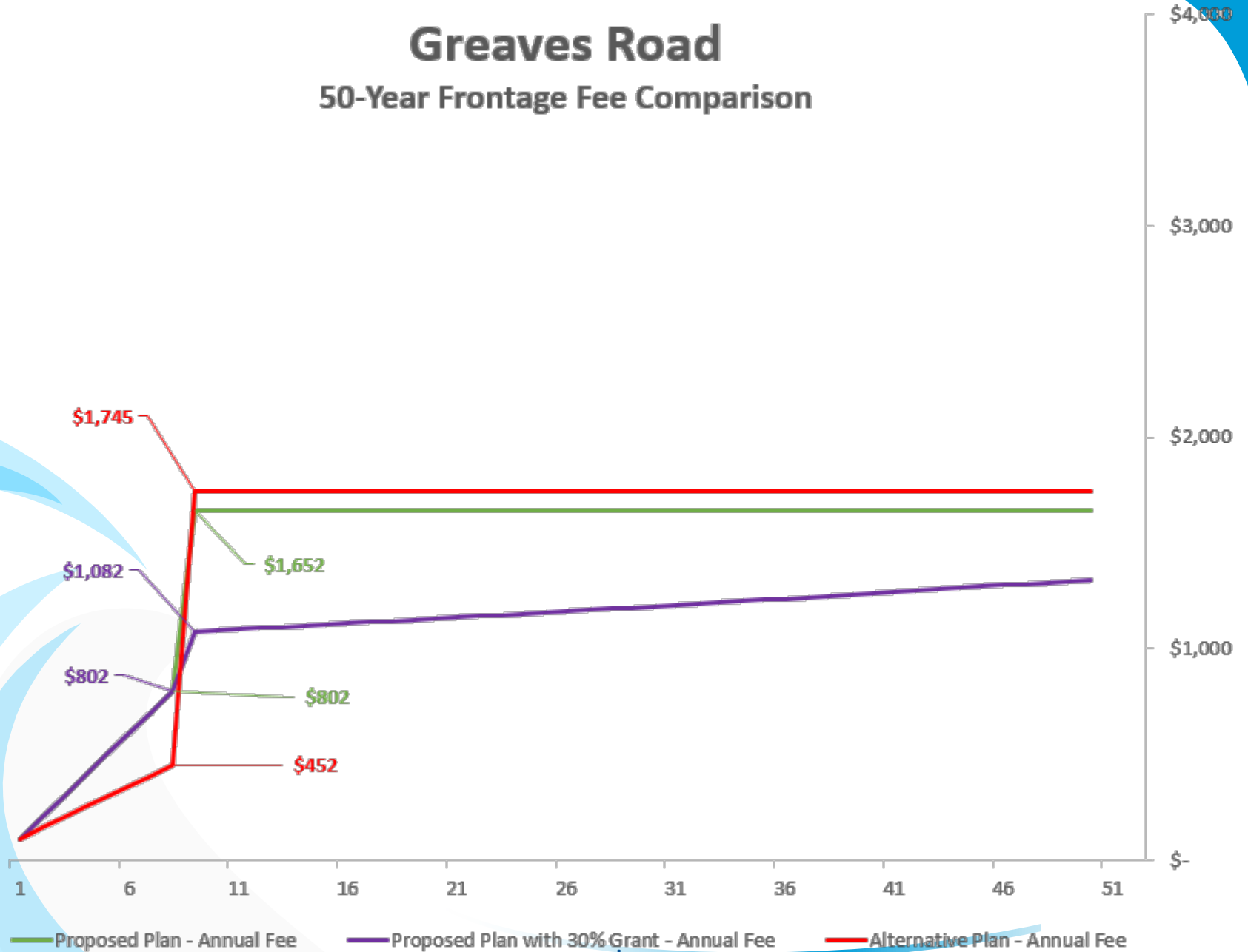
Key Points:

- \$50/ year increase from 2020-2027
- \$1,745 Annual Debt Payment from 2028-2053
- 0% annual increase from 2028-2069



Greaves Road

50-Year Frontage Fee Comparison



Proposed Plan - Annual Fee

Proposed Plan with 30% Grant - Annual Fee

Alternative Plan - Annual Fee

Five Year Rate Structure

- Proposing to introduce a Five Year Rate structure to create cost certainty
- Future rate adjustments will be introduced five years in advance



Five Year Rates

Greaves Road Frontage Fees (2020-2025)

	User Fee*	Reserve Contribution	Plan 1	Total	Plan 2	Total	Alternative	Total
2020	\$415	\$180.84	\$102	\$697.84	\$102	\$697.84	\$102	\$697.84
2021	\$415	\$180.84*	\$202	\$797.84	\$202	\$797.84	\$152	\$747.84
2022	\$415	\$180.84*	\$302	\$897.84	\$302	\$897.84	\$202	\$797.84
2023	\$415	\$180.84*	\$402	\$997.84	\$402	\$997.84	\$252	\$847.84
2024	\$415	\$180.84*	\$502	\$1097.84	\$502	\$1097.84	\$302	\$897.84
2025	\$415	\$0	\$602	\$1017	\$602	\$1017	\$352	\$767

*operating budget subject to annual review



Upcoming work

- Finalize Capital Funding Model
 - Final review of work to date.
- Present 5-year Rate Structure for Board Consideration
 - Provide residents with near-term rate certainty.
- Review Results of Feasibility Study
 - Apply for Grants for upcoming work
- Review O&M Budget (Annual Process)
 - Refine annual projection of maintenance costs.
 - Ensure appropriate Operating Reserve



Conclusion

- Several ways to finance 50-year Capital Expenditures.
- Important to update estimates as new cost information becomes available.
- Current rates are not financially sustainable.
- Grant was received for feasibility study!



Questions?

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More Information Available

www.scrd.ca/greaves-road

www.scrd.ca/wastewater

info@scrd.ca

