CITY OF
BAINBRIDGE ISLAND

CITY COUNCIL STUDY SESSION
TUESDAY, JANUARY 21, 2025

COUNCIL CHAMBERS
280 MADISON AVENUE NORTH
BAINBRIDGE ISLAND, WA

AND

REMOTE MEETING ON ZOOM
HTTPS://BAINBRIDGEWA.ZOOM.US/J/92947338351
OR TELEPHONE: US: +1 253 215 8782
WEBINAR ID: 929 4733 8351

AGENDA

1. **CALL TO ORDER / ROLL CALL - 6:00 PM**

2. **APPROVAL OF AGENDA / CONFLICT OF INTEREST DISCLOSURE - 6:05 PM**

3. **REGULAR BUSINESS**

   3.A **(6:10 PM) Receive Groundwater Management Plan Update with Consultant Support from EA Engineering - Public Works,** 30 Minutes
   Groundwater Management Plan Update Memo_011325.pdf

   3.B **(6:40 PM) Review of the 625 Winslow Way Affordable Housing Project,** 30 Minutes
   Bainbridge - Project Slides.pptx

   3.C **(7:10 PM) Discuss Annual Roads Preservation Program (Part III of III) - Public Works,** 30 Minutes
   Pavement Management Part III Slides.pdf
   List of Roads in Poorest Condition.pdf

4. **COMMITTEE REPORTS - 7:40 PM**

5. **ADJOURNMENT - 7:50 PM**

GUIDING PRINCIPLES

Guiding Principle #1 - Preserve the special character of the Island, which includes downtown Winslow's small town atmosphere and function, historic buildings, extensive forested areas, meadows, farms, marine views and access, and scenic and winding roads supporting all forms of transportation.

Guiding Principle #2 - Manage the water resources of the Island to protect, restore and maintain their ecological and hydrological functions and to ensure clean and sufficient groundwater for future generations.

Guiding Principle #3 - Foster diversity with a holistic approach to meeting the needs of the Island and the human needs of its residents consistent with the stewardship of our finite environmental resources.

Guiding Principle #4 - Consider the costs and benefits to Island residents and property owners in making land use decisions.

Guiding Principle #5 - The use of land on the Island should be based on the principle that the Island's environmental resources are finite and must be maintained at a sustainable level.

Guiding Principle #6 - Nurture Bainbridge Island as a sustainable community by meeting the needs of the present without compromising the ability of future generations to meet their own needs.

Guiding Principle #7 - Reduce greenhouse gas emissions and increase the Island's climate resilience.

Guiding Principle #8 - Support the Island's Guiding Principles and Policies through the City's organizational and operating budget decisions.

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City Council Study Session Agenda Bill

CITY OF BAINBRIDGE ISLAND

MEETING DATE: January 21, 2025 **ESTIMATED TIME:** 30 Minutes

AGENDA ITEM: (6:10 PM) Receive Groundwater Management Plan Update with Consultant Support from EA Engineering - Public Works,

SUMMARY: The City Council will receive an update on the Groundwater Management Plan with consultant support from EA Engineering. The City Council is encouraged to ask the City's consulting hydrogeologist questions about the work performed to date, or other questions about the plan or process.

AGENDA CATEGORY: Discussion **PROPOSED BY:** Public Works

RECOMMENDED MOTION:
Discussion and direction.

COMMUNITY ENGAGEMENT AND OUTREACH:
None planned at this time.

FISCAL IMPACT:

Amount:	N/A
Ongoing Cost:	N/A
One-Time Cost:	N/A
Included in Current Budget?	true

BACKGROUND: The City Council was last briefed on the Groundwater Management Plan at the September 24, 2024 Regular Business Meeting. As part of that meeting, the City Council expressed an interest in hosting the City's consulting hydrogeologist at a future meeting to address questions from the Council.

As the attached memorandum states, the City of Bainbridge Island designated the entire island as a Critical Aquifer (groundwater) Recharge Area. Groundwater recharge is of particular concern for the City because the Island's drinking water is supplied solely by groundwater. As a means of understanding how groundwater is impacted by population increases and climate stresses, the City has supported groundwater management monitoring and evaluation since the early 2000's. With the understanding that unlimited growth is not sustainable in an area supported by a sole source aquifer system, the GWMP seeks to understand (a) if water resources can be sustainably managed under a rapid 20-year population increase combined with increases in climate-related stresses, and (b) what types of actions would need to be taken to mitigate environmental impacts of groundwater withdrawals?

A summary memo is attached of the work performed.

Work on the plan is expected to pick back up in February, with a draft plan expected in April.

ATTACHMENTS:
Groundwater Management Plan Update Memo_011325.pdf

CITY OF
BAINBRIDGE ISLAND

PUBLIC WORKS DEPARTMENT MEMORANDUM

From: Christopher Wierzbicki, PE, Public Works Director
Dave Nazy, Consulting Hydrogeologist, EA Engineering

To: Blair King, City Manager

CC: Patty Charnas, Planning Director

Date: January 13, 2025

Subject: Groundwater Management Plan Update

Purpose

The purpose of this memo is to provide the City leadership team with an update on the status and direction of the Groundwater Management Plan (GWMP). Development of the plan has been on hold since September of 2024 due to the fact that the consulting project manager/hydrogeologist has been dealing with significant health issues that have kept him from being able to continue engagement and make progress on the project. Recent correspondence with the consultant has confirmed that work on the plan will likely be able to continue in January of 2025, with estimated plan completion expected near the beginning of Q2 2025. The consultant has reviewed and assisted with the content of this memo.

Context and Executive Summary

The City of Bainbridge Island designated the entire island as a Critical Aquifer (groundwater) Recharge Area. Groundwater recharge is of particular concern for the City because the Island's drinking water is supplied solely by groundwater. As a means of understanding how groundwater is impacted by population increases and climate stresses, the City has supported groundwater management monitoring and evaluation since the early 2000's. The development of the current GWMP began in 2022 and is expected to be completed in early 2025. The plan reflects the known groundwater conditions on the Island and seeks to understand the impacts associated with the population growth being considered in the update to the City's Comprehensive Plan. That plan is driven largely by a desire to increase affordable housing on the Island over the next 20-years, which will impact groundwater through increases in pumping, and in some areas, change the characteristics of groundwater recharge through surface water runoff patterns and septic recharge.

With these impacts in mind, and with the understanding that unlimited growth is not sustainable in an area supported by a sole source aquifer system, the GWMP seeks to understand (a) if water resources can be sustainably managed under a rapid 20-year population increase combined with

increases in climate-related stresses, and (b) what types of actions would need to be taken to mitigate environmental impacts of groundwater withdrawals?

The GWMP modeling and analysis results developed to date indicate that there are sufficient water resources to meet a rapid 20-year population increase that aims to produce additional affordable housing in the downtown core, including with assumed increases in climate-related stresses. However, this growth will have impacts on infrastructure and the environment, which should be mitigated by water system planning and ramping up well and stream monitoring. In the post 20-year growth horizon – assuming that the most impactful assumptions are actualized - stresses on existing infrastructure and reductions in groundwater contributions to surface water streams will become more acute. Therefore, coordination between large water providers and near-term development of a robust groundwater and stream monitoring effort are critical strategies for responsible resource and environmental management.

It should be noted that the early, high-level results produced through the current GWMP effort are consistent with results presented by the United States Geological Survey (USGS) groundwater report produced in 2011 and the groundwater modeling and update work performed for the City by Aspect Consulting in 2016 and 2022. Additionally, Bainbridge is not the only jurisdiction that is solely reliant on groundwater for their water needs whether potable or industrial. Currently, most of the unincorporated Kitsap Peninsula is reliant on groundwater from various aquifers – some of which are the same aquifers Bainbridge Island has wells drawing from. Camano Island, San Juan Islands, and Vashon Island also received sole source aquifer designation by the US EPA.

GWMP Work to Date and Early Findings

The development of a GWMP is generally performed in three phases: documenting existing conditions; modeling scenarios that include future stresses/impacts on groundwater; and, developing strategies to mitigate impacts. The first two phases of work are mostly complete, and impact mitigation work is outlined and will be completed in Q1 of 2025. The following includes a brief overview of each of the sections in the plan, as they currently stand.

Existing Conditions and Background

Water resources on Bainbridge Island consist of surface water, groundwater, and stormwater. Groundwater provides the sole source of drinking water and support for surface water health. There are an estimated 1400 water supply wells located on Bainbridge Island. These wells are split between private water supplies, Group B community systems (about 135 wells), and Group A community water supplies (80 wells). The number of private water supply wells is an approximation because historical records for these wells are incomplete.

The wells on Bainbridge Island vary in depth from shallow dug wells (10 to 20 feet deep) to wells over 1000 feet deep, reflecting the depths of the major aquifers underlying the island, in order of depth: Perched Aquifer (shallow); Sea Level Aquifer (shallow); Glaciomarine Aquifer (deep); Fletcher Bay Aquifer (deep). Generally, groundwater in the upper aquifers flows from the center of the island towards the shoreline, and the groundwater in the deeper aquifer flows from eastern Kitsap Peninsula towards Bainbridge Island.

The Groundwater Management Plan is supported by data from the City's monitoring well network, which consists of both public and private wells distributed Island-wide across the six Bainbridge Island aquifers. The current network includes 87 monitoring wells, and their aquifer distribution is summarized as follows:

- Perched (PA) and Semi-Perched Aquifer (SPA)- 24 wells
- Sea Level Aquifer (SLA) – 44 wells
- Glaciomarine Aquifer (GMA) – 6 wells
- Fletcher Bay Aquifer (FBA)– 12 wells
- Bedrock Aquifer (BR)– 1 well

Primary groundwater concerns on Bainbridge are the risk of seawater intrusion, especially in coastal areas, and pumping more than an aquifer's safe yield. The City's Groundwater Monitoring Program defines Early Warning Levels (EWLs) for increasing trend in chloride concentration (as an indicator of potential sea water intrusion) and groundwater level declining trend (as an indicator of potential over-pumping in excess of the aquifer's safe yield).

As a means of mitigating these concerns, the City's Municipal Code provides for groundwater protection mainly via Chapter 16.20 Critical Areas. Chapter 16.20.100 Aquifer Recharge Areas recognizes that WAC 365-190-100 classifies the entire Island as an aquifer recharge area. The purpose of this classification is to preserve the volume of recharge and to protect the groundwater from contamination. Activities meeting certain criteria (i.e. potential to generate pollutants identified as a potential source of drinking water contamination) require a hydrogeologic assessment, designation of Aquifer Recharge Protection Area (ARPA) within the project boundary and if necessary, a mitigation plan.

<u>Modeling Scenario Inputs</u>

The following is a brief summary of the groundwater modeling scenarios that have been performed to date (a "very high" impact scenario with all of the maximum stresses is also in development):

- 100-year sensitivity/calibration model of specific stresses:
    - **Groundwater recharge -** Research on how groundwater recharge will be affected by changes in climate is limited and recharge is difficult to quantify. Because recharge correlates with precipitation and precipitation is predicted to increase over time, it is possible that groundwater recharge will also increase over time. However, increases in the number of high-intensity storm events, development, and a warming climate can decrease groundwater recharge. The stress analysis is conservative and based on information from the USGS: +15% Groundwater recharge (low stress); -15% Groundwater recharge (high stress).
    - **Sea-level Rise** – (SLR) stress analysis is based on climate model projections provided by the Climate Impacts Group at the University of Washington, aligns with the City's SLR Assessment: +2.8 feet sea-level rise (low stress); +6.9 feet sea-level rise (high stress).
    - **Population growth/pumping** – This stress analysis aligns with historic and planned projections: low population 46,380 (84%) based on 30-year historic low; medium

population 56,780 (148%) based on 30-yr historic high; High population 70,010 (178%) based on Winslow Sub-Area 20-year high growth rate plus medium rate thereafter.

The population growth and pumping stresses relied on water usage data that is available from all of the on-island water sources, including assumptions regarding single domestic wells, as well as off-island systems such as Silverdale and Bremerton that rely on shared aquifers.

- 100-year predictive scenario modeling:

Low-impact planning scenario

- Medium population (+148%; 56,780)
- Low sea-level rise (+2.8 ft)
- No change in recharge (0%)

High-impact planning scenario

- Maximum population (+178%; 70,010)
- Maximum sea-level rise (+6.9 ft)
- Medium decrease in recharge (-7.5%)
- A "very high" impact scenario including a 20% reduction in recharge is also in development

Modeling Scenario Results and Analysis

The following is a brief overview of the modeling results, showing predicted changes in groundwater elevations, along with a high-level analysis. Additional scenarios and more a detailed analysis will be available in the final plan.

- 20-year Planning Scenario

  - *Figure 1* shows the results of the High Impact Scenario on the "shallow aquifer." In this scenario, groundwater levels are not decreasing significantly across the Island – between 0 and 5 ft.
  - *Figure 2* shows the results of the High Impact Scenario on the sea-level aquifer. In this scenario, greater drawdown (0-10 ft) can be seen around the municipal production well centers. In some areas (blue), sea-level rise is causing groundwater levels to increase near marine shorelines.
  - *Figure 3* shows the results of the High Impact Scenario on the "deep aquifer." In this scenario, the concentration of municipal production wells is causing greater draw-down – between 20 and 40 ft.
  - *Figure 4* shows the results of the High Impact Scenario on the change in groundwater contributions to surface water streams. Impacts are most evident in the Fletcher Bay and North Eagle Harbor watersheds.

- 100-year Planning Scenario

  - *Figure 5* shows the results of the High Impact Scenario on "deep aquifer." In this scenario, groundwater levels are decreasing significantly around concentrations of larger production wells. While this result is concerning, modeling results in this (and all) scenarios are very

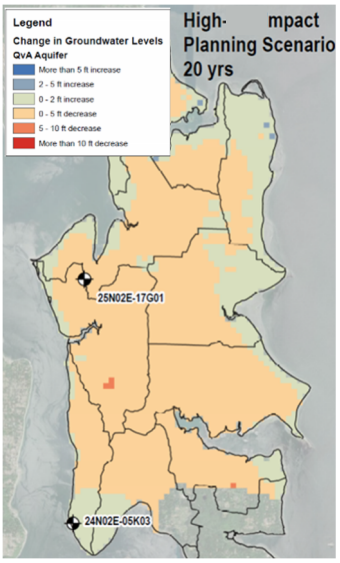


Figure 1 – "Shallow aquifer"

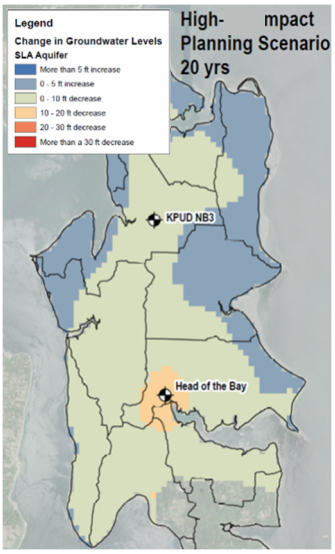


Figure 2 – Sea-level aquifer

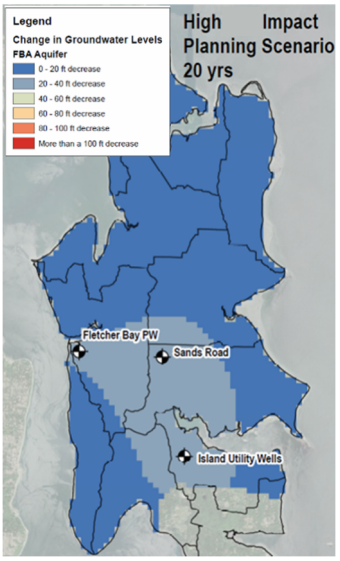


Figure 3 – "Deep" aquifer

conservative and not reflective of how the well system functions or how it would be managed in a future scenario (more on this in the *Analysis and Limitations* section of this memo.)

Early Model Analysis and Mitigation Recommendations

A full analysis of the modeling scenario results will be included in the final GWMP. The following can be determined from the initial modeling results:

- In the high-impact 20-year planning scenario, the aquifers Bainbridge Island residents rely upon can provide the necessary water resources. The largest drawdowns are around municipal production wells, but do not extend across the Island – indicating some level of resilience in the aquifer system.
- Large-scale seawater intrusion is not anticipated, but localized cases are still possible.
- Stream impacts are possible in some specific watersheds.

Based on this analysis, the following management and mitigation strategies are anticipated to be included in the final GWMP:

- **Improving future modeling** – The City should plan on expanding the amount and the frequency of well monitoring and improving the ability of the model to predict impacts of groundwater pumping on stream flow.
- **Mitigating surface water impacts** – The City should plan to expand stream monitoring in certain basins, including the Cooper Creek and Springbrook Creek basins. Mitigation projects or limits on shallow pumping in certain areas could be possible in certain areas in the future.
- **Expanding groundwater recharge** – All of the City's "conservation areas" include aquifer recharge protection area regulations. Additional recharge locations could be prioritized for specific recharge projects, including those aligned with the city's ongoing wastewater beneficial re-use studies.
- **Sea-water intrusion monitoring** – Certain coastal areas, including along the northwestern and northeastern areas of the Island should be prioritized for monitoring of sea-water intrusion (groundwater elevations and chloride concentrations).
- **Water infrastructure planning** – The City should plan to work internally and with other large water purveyors on the Island to prioritize the expansion of public water systems to areas where shallow aquifer stress or sea-water intrusion is possible in the future. Additionally, water system inter-ties should be planned between the largest water systems to spread out the impacts of pumping and shift well locations from south to north – away from confining bedrock areas.

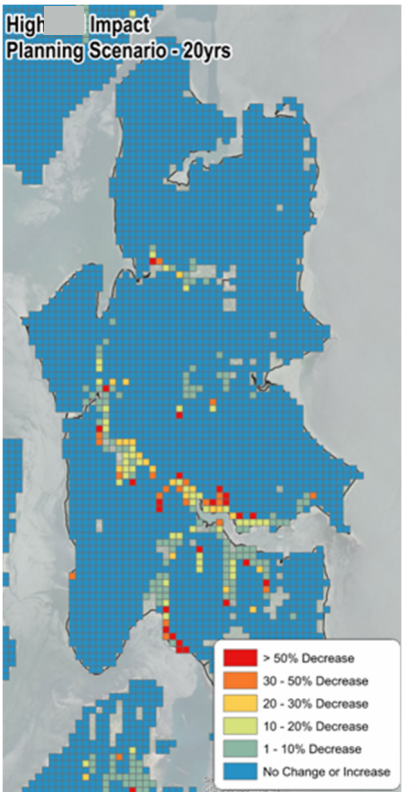


Figure 4 – Change in GW to surface water.

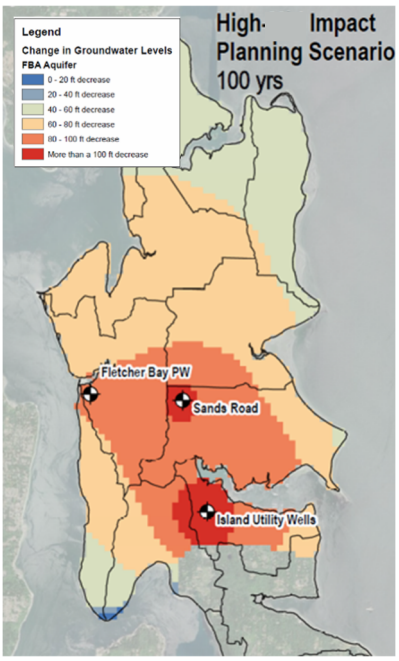


Figure 5 – "Deep" aquifer

- **Identify withdrawal limits** - As part of the final GWMP, each aquifer system will have an "early warning level" and /or a withdrawal limit to guide future water usage and system planning.
- **Water Conservation and re-use** - The City should plan to develop specific and enforceable water conservation measures, particularly for irrigation usage. Efforts should also include further development of wastewater beneficial re-use.

Groundwater Modeling Limitations

When completed, the Groundwater Management Plan will improve and expand the work of previous developed plans and analysis, however, the plan modeling has significant limitations and cannot be depended upon to address all environmental concerns. Some of those limitations include:

- The modeling is based on very limited data sources and data sets.
- The modeling certainty decreases both with time and with depth.
- The modeling does not take into account practical limitations like the capacity of water infrastructure and water rights availability.
- The modeling structure is "regional" rather than "local," as modeling cells are each 5.74 acres. This scale of modeling does not allow for a specific analysis of smaller, shallow aquifers or individual well locations.
- The monthly time steps included in the modeling limits the ability to accurately portray seasonal pumping variations or intermittent pumping. The inability to shorten the time step means that the model assumes well pumps are running perpetually, and therefore the results do not account for periodic aquifer restoration periods – a very conservative assumption.

Relationship to Previous Groundwater Work

While the present work on the GWMP performed by EA Engineering represents a slightly more comprehensive, and in some ways more conservative, analysis, the City was the subject of at least two previous groundwater management studies in previous years, both of which came to similar conclusions.

The earlier report was performed by the United States Geological Survey in 2011 and

> "…was used to simulate the possible effects of increase groundwater pumping and changes to recharge due to changes in land-use and climatic conditions between 2008 and 2035 under minimal, expected and maximum impact conditions. Drawdowns generally were small for most of the island (less than 10 ft) for the minimal and expected impact scenarios, and were larger for the maximum impact scenario. No saltwater intrusion was evident in any scenario by the year 2035."

It should be noted that the USGS report used a higher population/pumping projection than the current modeling, with the maximum scenario expecting a population increase of over 50,000 in 2035. The current maximum modeling anticipates a population of approximately 31,000 in 2035 and a population over 50,000 in 2076. Also of note is that the USGS report predicted scenario includes an *increase* in recharge through 2035, with all scenarios anticipating continued increases or no changes in future years.

The later report was performed by Aspect Consulting in 2022. The 100-year modeling results from that report concluded that there was no evidence of saltwater intrusion in any of the studied aquifers. Additionally, the report indicated groundwater level changes less than the established early warning levels in the City's aquifers that are used for water supply. The report also indicated decreases in the groundwater discharge to surface water in the 100-year timeframe, identifying the same priority watersheds as identified in the current modeling.

Community Engagement

The GWMP is stewarded by a resident stakeholder committee, a Technical Advisory Committee, and has been presented to the City Council for periodic updates. The resident stakeholder committee is made up of members of the City's Utility Advisory Committee, the Environmental Technical Advisory Committee, and the Climate Change Action Committee. This committee has met and provided input at least 12 times since June 2022. The Technical Advisory Committee, which is made up of representatives from state agencies, large water purveyors and the Suquamish Tribe has met at least three times since March 2024. City staff have presented five updates to the City Council at public meetings beginning in August 2023.

Groundwater management is featured prominently in the comments related to the City's ongoing Winslow Sub-Area and Comprehensive Planning process, including formal comments received as part of the Draft Environmental Impact process. Comments have been addressed by staff using the groundwater analysis prepared to date – and presented in this memorandum – including responses to some key assertions from the public regarding the relationship between population increases and water usage that cannot be substantiated by City staff, consultants, or agency partners.

One such assertion states that "…from 2001 to 2021, a population increase of 20.2% resulted in a 89.4% increase in [groundwater] pumping from the top 20 production wells on Bainbridge Island." An initial review of the data behind this assertion indicates that there are gaps which are likely leading to a false conclusion. City staff's review of the available data indicates that in some of the smaller water systems, there have been increases in per-capita water usage on the order of 25%

over the 20-year time horizon, but that the larger water systems, such as Winslow, have actually *experienced decreases* in per-capita water usage over the same time period.

Representatives from the Kitsap Public Utility District (the Island's largest water purveyor) further confirmed these assumptions, stating that they could "…confidently say that between 2001 and 2021 the overall groundwater production rate on Bainbridge Island did not increase at a rate of over four times the rate of population increase as implied in the public comment… KPUD has seen a county-wide stabilization or even decrease in water use per capita because of higher water-use efficiency (e.g. water-use education, water-efficient appliances and fixtures, etc.), and by [their] efforts to reduce the amount of unaccounted water (leakage) in [their] water systems."

Next Steps

City staff and the consulting team are committed to completing a draft of the Groundwater Management Plan by the end of Q1 2025, in time to include mitigation actions and costs in the Capital Facilities Element of the newly adopted Comprehensive Plan. The engagement and approval process for the plan is proposed to include the following:

- Consultant-led Q&A with the City Council on January 21, 2025
- 2 meetings of the resident stakeholder committee (February, March)
- 2 meetings of the Technical Advisory Committee (February, March)
- Tentative presentation and adoption of the final plan by the City Council on April 15 and April 29 respectively.

City Council Study Session Agenda Bill

CITY OF BAINBRIDGE ISLAND

MEETING DATE: January 21, 2025 **ESTIMATED TIME:** 30 Minutes

AGENDA ITEM: (6:40 PM) Review of the 625 Winslow Way Affordable Housing Project,

SUMMARY: At City Council meetings of November 8, 2022, June 13, 2023, and December 12, 2023, the Council authorized the redevelopment of City-owned property at 625 Winslow Way for affordable housing. On August 13, the City Council approved entering into a period of exclusive negotiation with Low Income Housing Institute (LIHI) to negotiate a Development Agreement for the development and operation of an affordable housing project.

Subsequently, LIHI has executed a term sheet with the City, which envisions a Development Agreement will be executed in June, and a Master Development plan will be executed within three months after execution of the Development Agreement. Additionally, the City has made steps to restore the site to its full one-acre configuration.

The City Council will receive a presentation on the project, development assumptions and updates on costs, constraints and opportunities.

AGENDA CATEGORY: Discussion **PROPOSED BY:** Executive

RECOMMENDED MOTION:
Discussion and direction.

COMMUNITY ENGAGEMENT AND OUTREACH:

FISCAL IMPACT:

Amount:	
Ongoing Cost:	
One-Time Cost:	
Included in Current Budget?	

BACKGROUND: This project anticipates the City and LIHI will enter into a ground lease. LIHI will construct, operate, and maintain an affordable housing project on the City's property consisting of approximately ninety (90) dwelling units. The affordable dwelling units will serve a mix of household sizes, ages, and income levels. The average household income of all residents will not exceed sixty percent (60%) of Kitsap County Area Median Income (AMI). It is envisioned the project will include ground floor commercial or other non-housing users as agreed to by LIHI and the City, as well as parking.

It is noted the projected height of the project is 45 feet to the flat roof with parapets possibly reaching 49 feet. Current zoning height limit is 45 feet. The Floor Area Ratio is 2.46 with current zoning maximum allowable of

1.50. Parking is 108 parking stalls. The code requires 90 dedicated residential stalls. The project may suggest a dedicated car share as an incentive to reduce required parking.

ATTACHMENTS:
Bainbridge - Project Slides.pptx

LOW INCOME HOUSING INSTITUTE

625 WINSLOW CONCEPT

Project Summary – Unit Mix

- 90 Affordable Units: Mix of studio, 1BR, 2BR, 3BR, and live-work (LW)
- Serves: Households averaging up to 60% Area Median Income (AMI)

UNIT ANALYSIS:

UNIT MIX

UNIT TYPE	COUNT	UNIT MIX
1 BED	33	36.7%
2 BED	13	14.4%
3 BED	18	20.0%
LW	4	4.4%
STUDIO	22	24.4%
	90	

AVERAGE AREA

UNIT TYPE	NET RENTABLE (NRSF)	COUNT	AVE NRSF
1 BED	20,758 SF	33	629 SF
2 BED	11,793 SF	11	1,072 SF
3 BED	19,676 SF	18	1,093 SF
LW	2,880 SF	4	720 SF
STUDIO	9,342 SF	22	425 SF

LOW INCOME HOUSING INSTITUTE

Project Summary – Height and FAR

- Height is 45 feet to the flat roof
- Parapets might reach 49 feet.
- Current zoning height limit at 45 feet
- Floor Area Ratio (FAR) of 2.46
- Maximum allowable FAR currently at 1.50
- Changes consider Winslow Subarea Plan Update

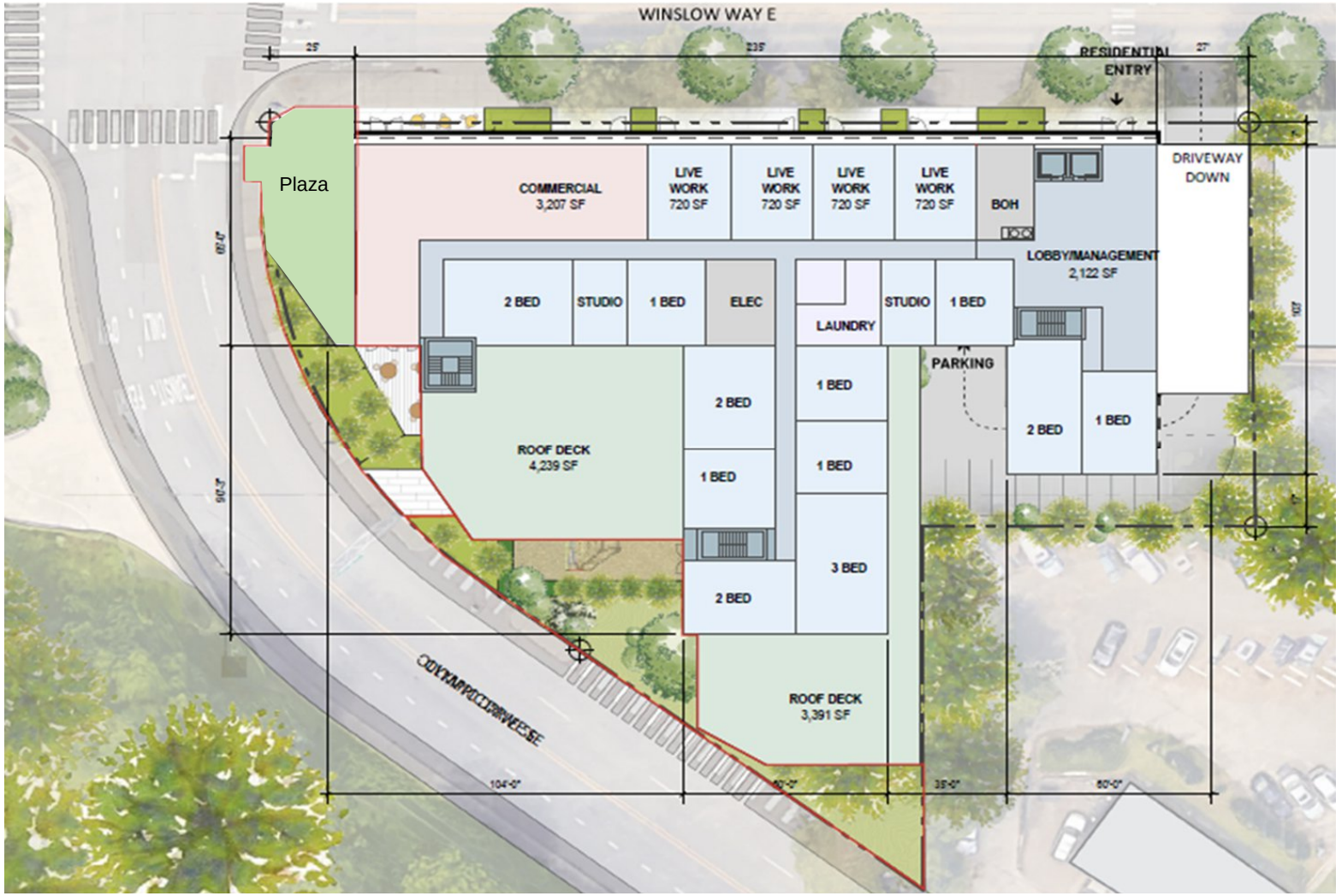
LOW INCOME HOUSING INSTITUTE

Project Summary – Parking

- 108 parking stalls, meets current code
- 90 dedicated residential stalls
- 18 stalls reserved for guests and commercial use

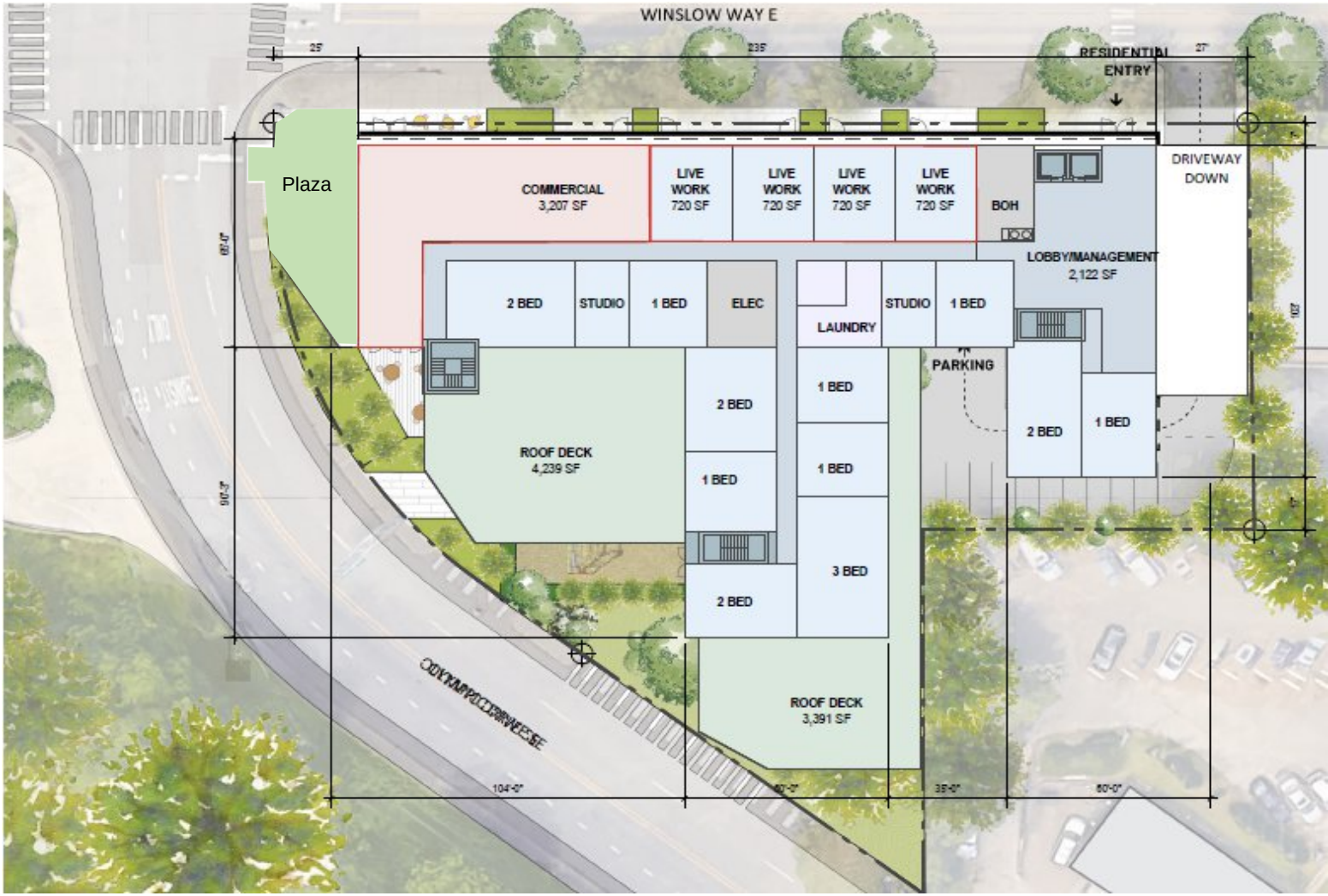
Community Space

- Plaza space on the intersection corner
- ~3,900 SF of green space
- Outdoor seating
- Community event opportunities



Commercial Concept - Live-Work Units

- Four live-work units fronting Winslow Way
- Supports local artists and small businesses
- 3,207 SF commercial space on the street corner
- Opportunity to collaborate with local organizations



Financial Overview

- Total Development Cost: $49,110,000
- Residential: $44,760,000
- Non Residential: $4,350,000

Residential Source Name	Residential Source Type	Proposed Amount
City of Bainbridge Island	City	$ 3,000,000
Washington State	State - other	$ 11,100,000
Kitsap County	County	$ 760,000
Perm Debt	Bank	$ 8,500,000
WSHFC	Tax Credits - 4%	$ 18,900,000
Deferred Fee	Other	$ 2,500,000
	Subtotal	$ 44,760,000
Non Residential Source Name	**Non Residential Source Type**	**Proposed Amount**
Private Loan	Private	$ 4,350,000
	TOTAL Sources	~$ 49,110,000

Uses	Amount
Acquisition	$ 20,000
Constructrion	$ 39,000,000
Soft Costs	$ 6,500,000
Pre-Development Financing	$ 120,000
Construction Financing	$ 1,160,000
Permanent Financing	$ 340,000
Capitalized Reserves	$ 440,000
Other Development Costs	$ 1,250,000
Bond Related Costs	$ 280,000
TOTAL Project	~$ 49,110,000
	$ 49,110,000

LOW INCOME HOUSING INSTITUTE

City Council Study Session Agenda Bill

CITY OF BAINBRIDGE ISLAND

MEETING DATE: January 21, 2025 **ESTIMATED TIME:** 30 Minutes

AGENDA ITEM: (7:10 PM) Discuss Annual Roads Preservation Program (Part III of III) - Public Works,

SUMMARY: The Public Works and Finance Department directors will continue the discussion on pavement management strategies with a deeper dive on the current revenue and expenditures associated with the Streets Fund, as well as a review of potential new revenue options and examples from other communities.

AGENDA CATEGORY: Discussion **PROPOSED BY:** Public Works

RECOMMENDED MOTION:
Receive report and provide direction with regard to future action.

COMMUNITY ENGAGEMENT AND OUTREACH:
None planned at this time.

FISCAL IMPACT:

Amount:	N/A
Ongoing Cost:	N/A
One-Time Cost:	N/A
Included in Current Budget?	true

BACKGROUND: The City Council last discussed pavement management strategies at the Regular Meeting of October 8 and September 10, 2024. Following up on those discussion items, the City's Public Works and Finance Department directors will continue the discussion on pavement management strategies with a deeper dive on the current revenue and expenditures associated with the Streets Fund, as well as a review of potential new revenue options and examples from other communities.

It is noted the goal of the street maintenance program is to preserve the life of the street at the least cost possible. The information presented will show that although the Pavement Condition Index for Bainbridge Island streets is remaining relatively stable, the percentage of roadways needing complete payment rehabilitation is growing and as they deteriorate, the cost of rehabilitation increases. A list of the roads in the poorest condition (pavement condition index score of 40 or below) is attached to this agenda bill.

Ultimately, city staff are seeking a policy decision on how to proceed with the road preservation program funding and prioritization.

ATTACHMENTS:
Pavement Management Part III Slides.pdf
List of Roads in Poorest Condition.pdf

Pavement Management Strategies

January 2024

CITY OF
BAINBRIDGE ISLAND

AGENDA overview

1. Recap
   pavement discussion from fall.
2. Review Street Fund
   revenue and expenses.
3. Recap
   new revenue options.
4. Discussion

Purpose of the discussion

Desired Outcome

Confirm a sustainable strategy that provides the optimal pavement conditions at the least practical cost over the short and long term

Objectives

- Learn about potential policy and funding options
- Provide direction on next steps

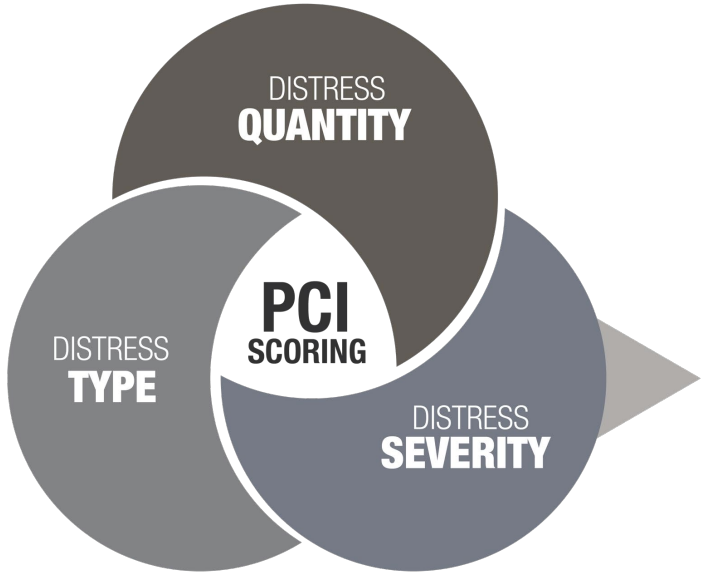
Recap Pavement Conditions

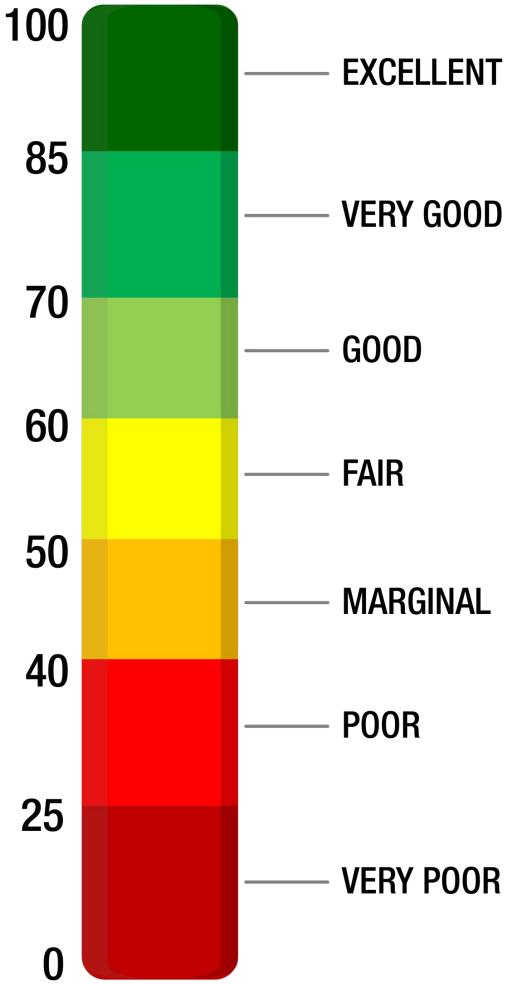
Overview of Existing Conditions

- 282 lane-miles of paved roads
- 5 miles of gravel roads
- Maintenance includes:
  - Preservation (contract)
  - Pavement markings (contract)
  - Asphalt patching
  - Pot-hole repair
  - Sweeping
  - Shoulder grading
  - Vegetation control
  - Gravel road grading

Pavement condition index (PCI)

- The PCI is a condition rating that ranges from 0 to 100
- PCI score is used to rank roadways for preservation treatment types





Weighted average PCI =

$$\frac{(\Sigma\,(PCI\ of\ pavement\ section\ \times Surface\ area\ of\ section))}{(Total\ surface\ area\ of\ the\ pavement\ network)}$$

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Existing Bainbridge Island Pavement Conditions

2024

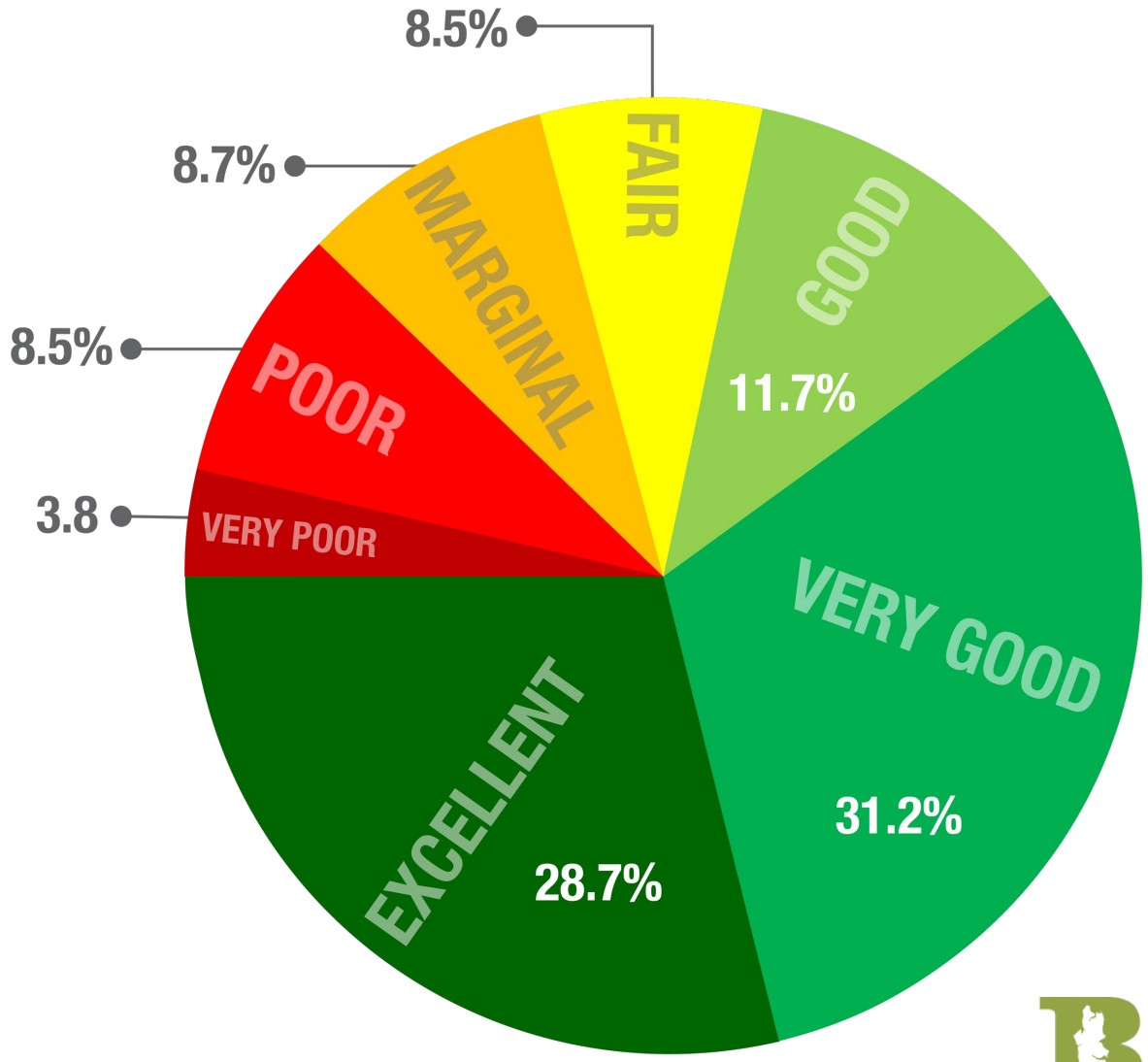
- 70 PCI Average
- Backlog 12.3%

2019

- 70 PCI Average
- Backlog 8.0%

National Average is 65 PCI

Backlog is the percent of roadways needing complete pavement rehabilitation (Deferred Maintenance)



% of network by area

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Pavement Preservation funding

Historical Funding:

- Between 2014 to 2022, the City invested an average of $500K annually

- A 2019 analysis recommended $1.8M to maintain PCI 70

Current Funding:

- $1M annually was authorized in 2023 by City Council that will lower PCI to 65, and deferred maintenance to grow to 18%

Pavement Preservation funding

Future Funding Needs:

- Pavement analysis recommends:
  - **$2.5M** annually to maintain PCI 70 and deferred maintenance increases slightly each year from 13.4%
  - **$2.9M** annually to maintain PCI 70 and steady state deferred maintenance at 12.8%
  - **$5M** to maintain PCI 70 and reduce deferred maintenance to 8% ($2.9M annually to maintain 8% backlog in subsequent years)

Cost of pavement treatments

BENEFITS OF EARLY ACTIONS

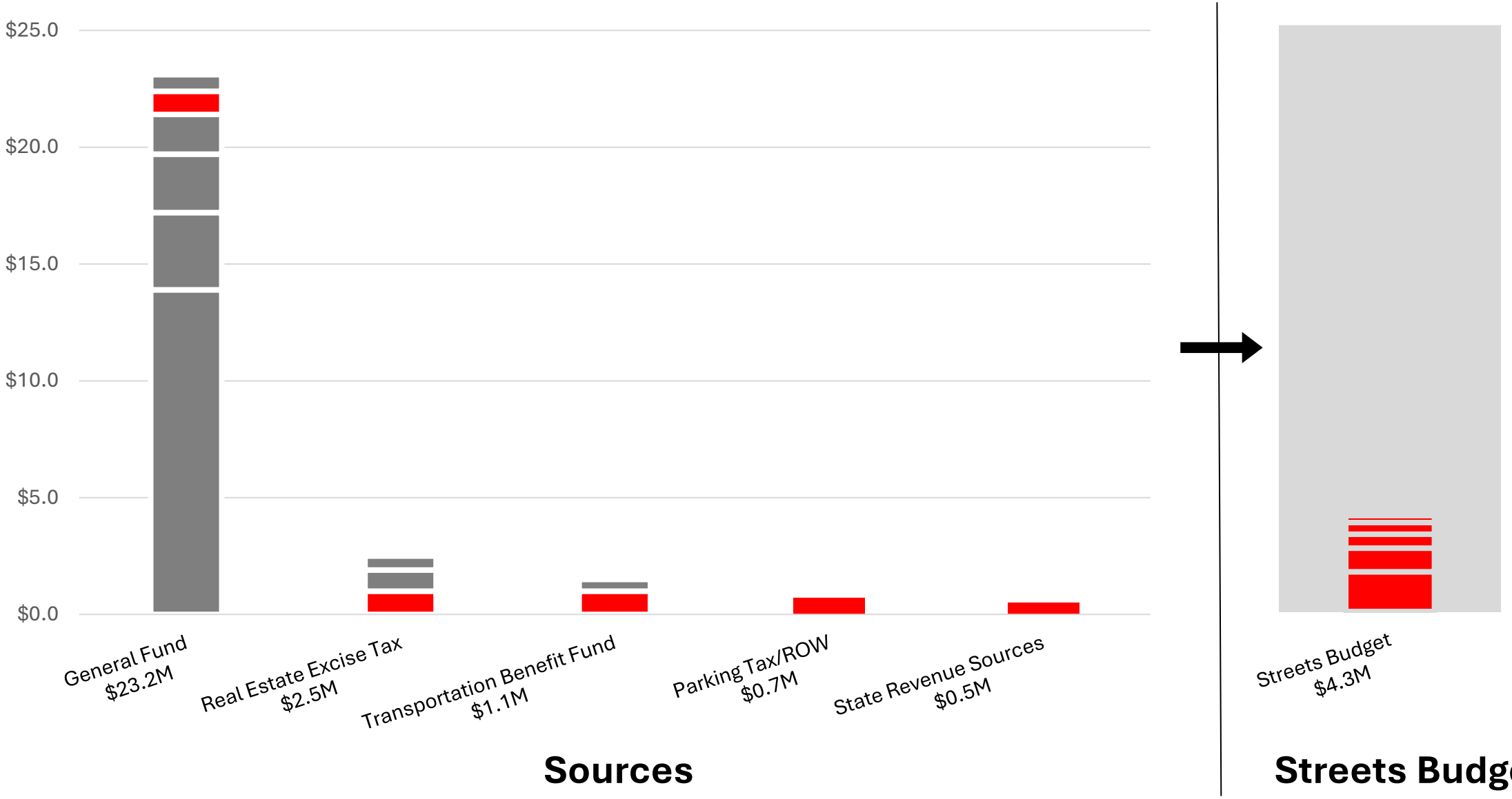
As pavement conditions decline, the cost to repair skyrockets.

Condition:	*Few superficial cracks*	*Linear & "alligator cracks"*	*Extensive "alligator cracks", potholes*
Treatment:	*Slurry seal*	*Crack seal/resurface*	*Reconstruct*
Cost:	*$5,000/city block*	*$75,000/city block*	*$250,000/city block*

Review of Street Fund Revenue and Expenses

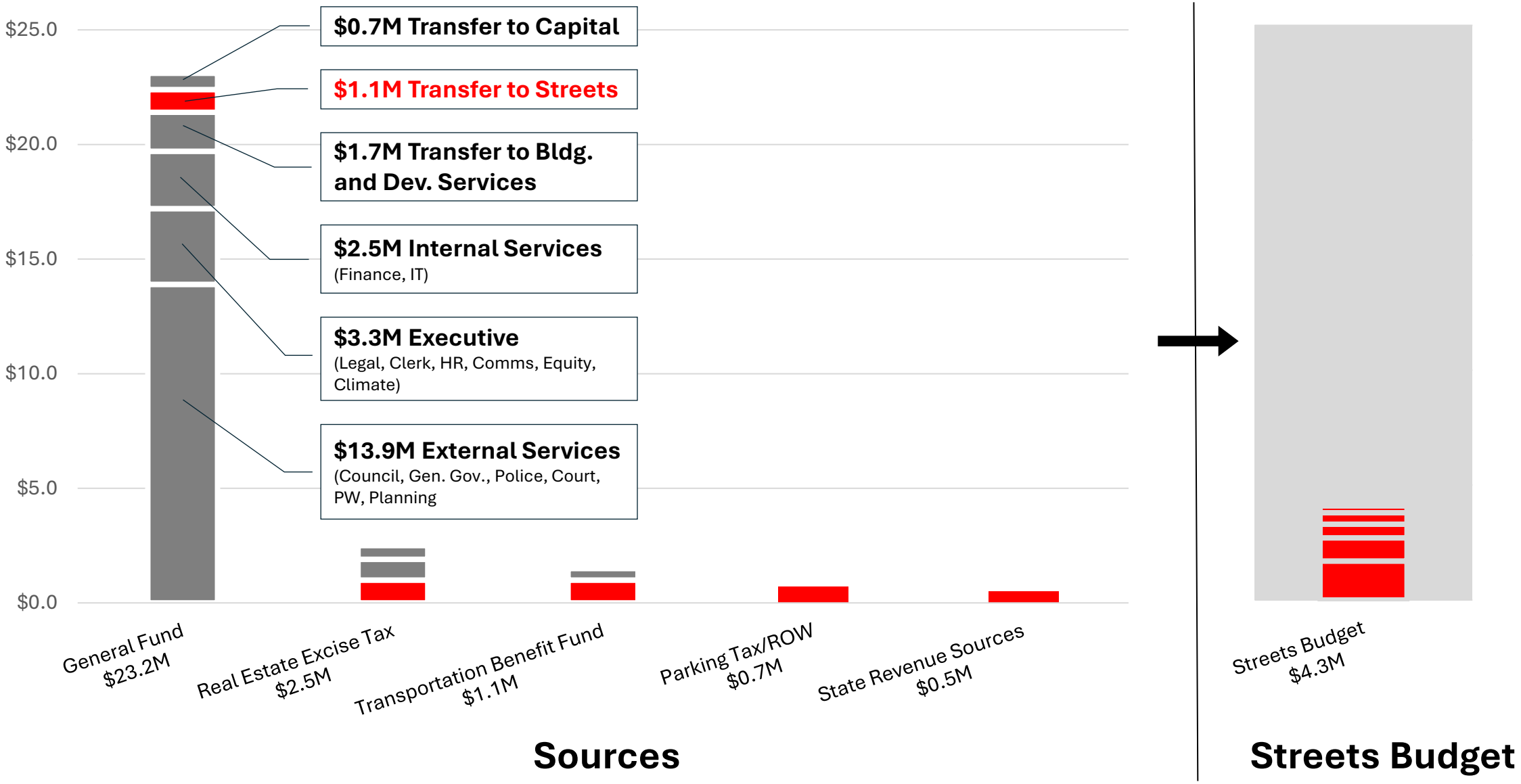
2025 Streets Operating Budget

A (red) portion of many different sources contribute to the Streets Budget



2025 Streets Operating Budget

A (red) portion of many different sources contribute to the Streets Budget



2025 Streets Operating Budget

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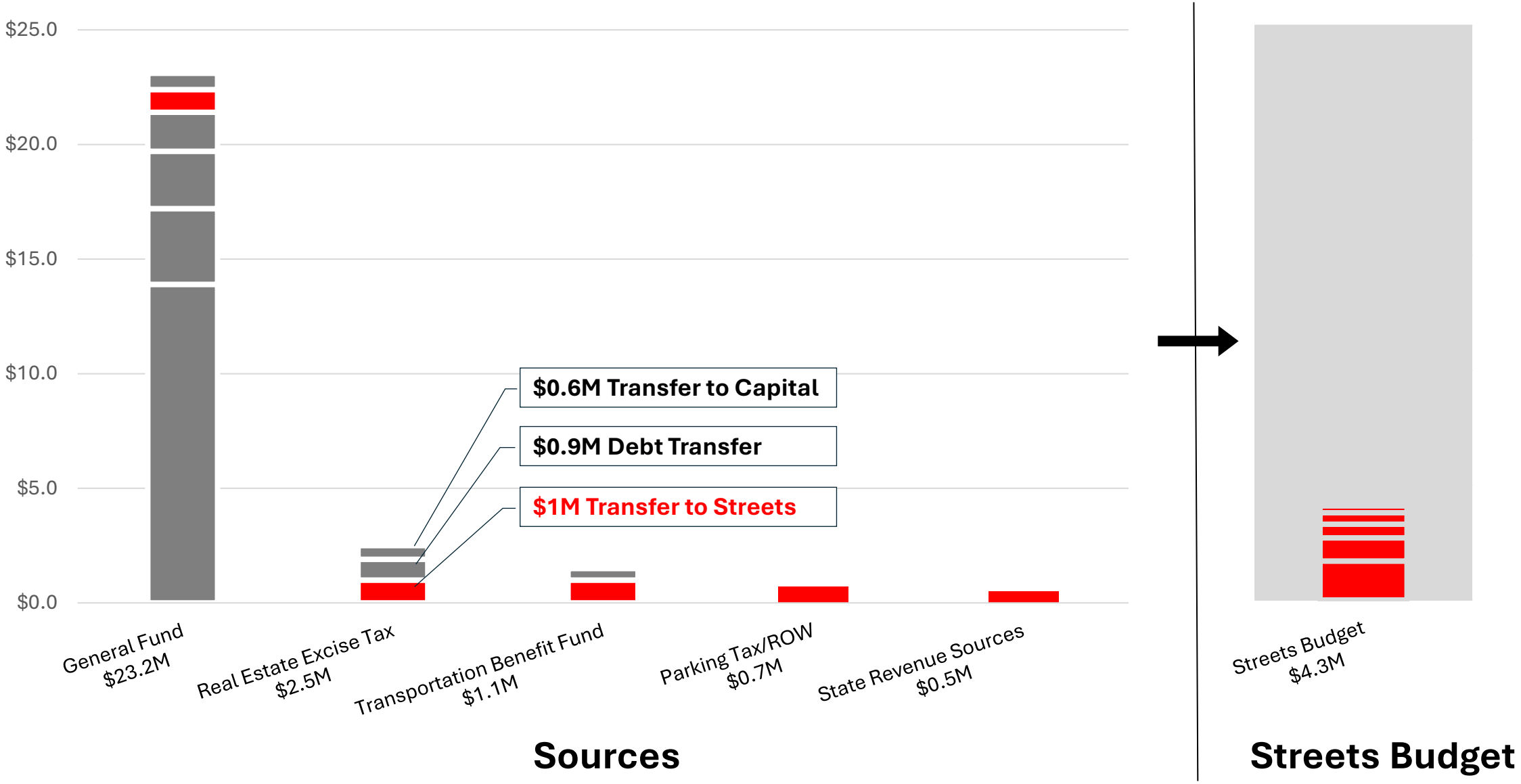

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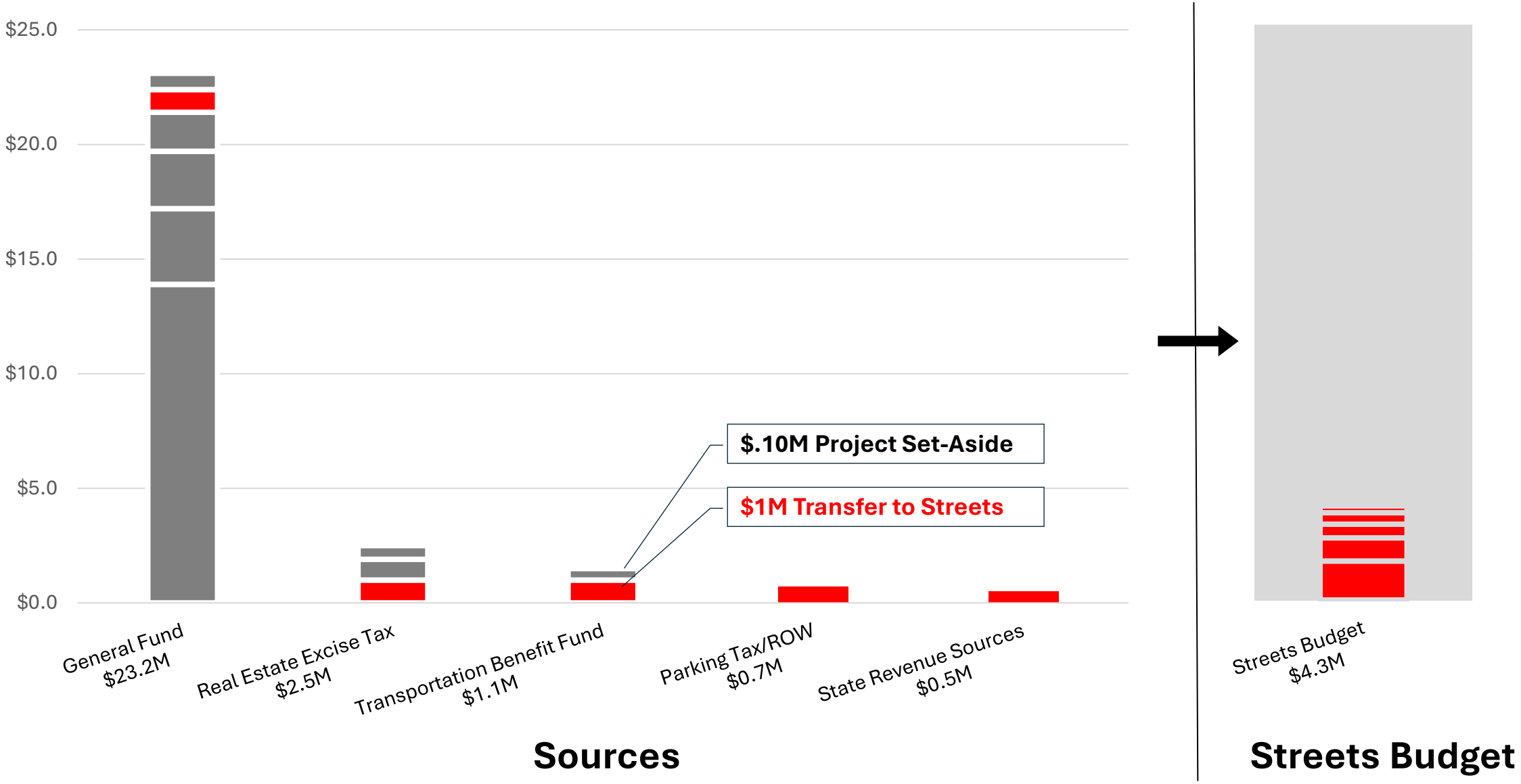

2025 Streets Operating Budget

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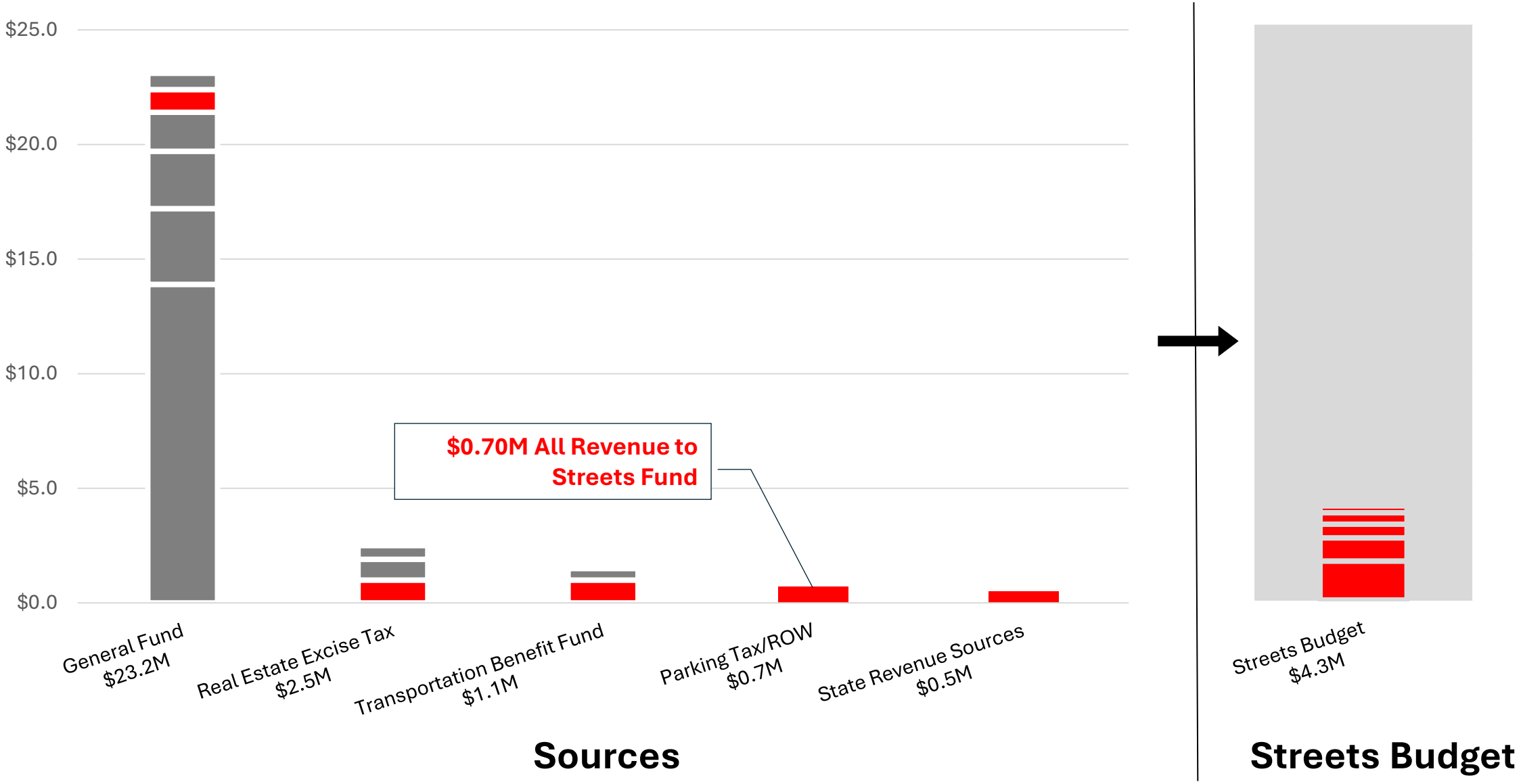

2025 Streets Operating Budget

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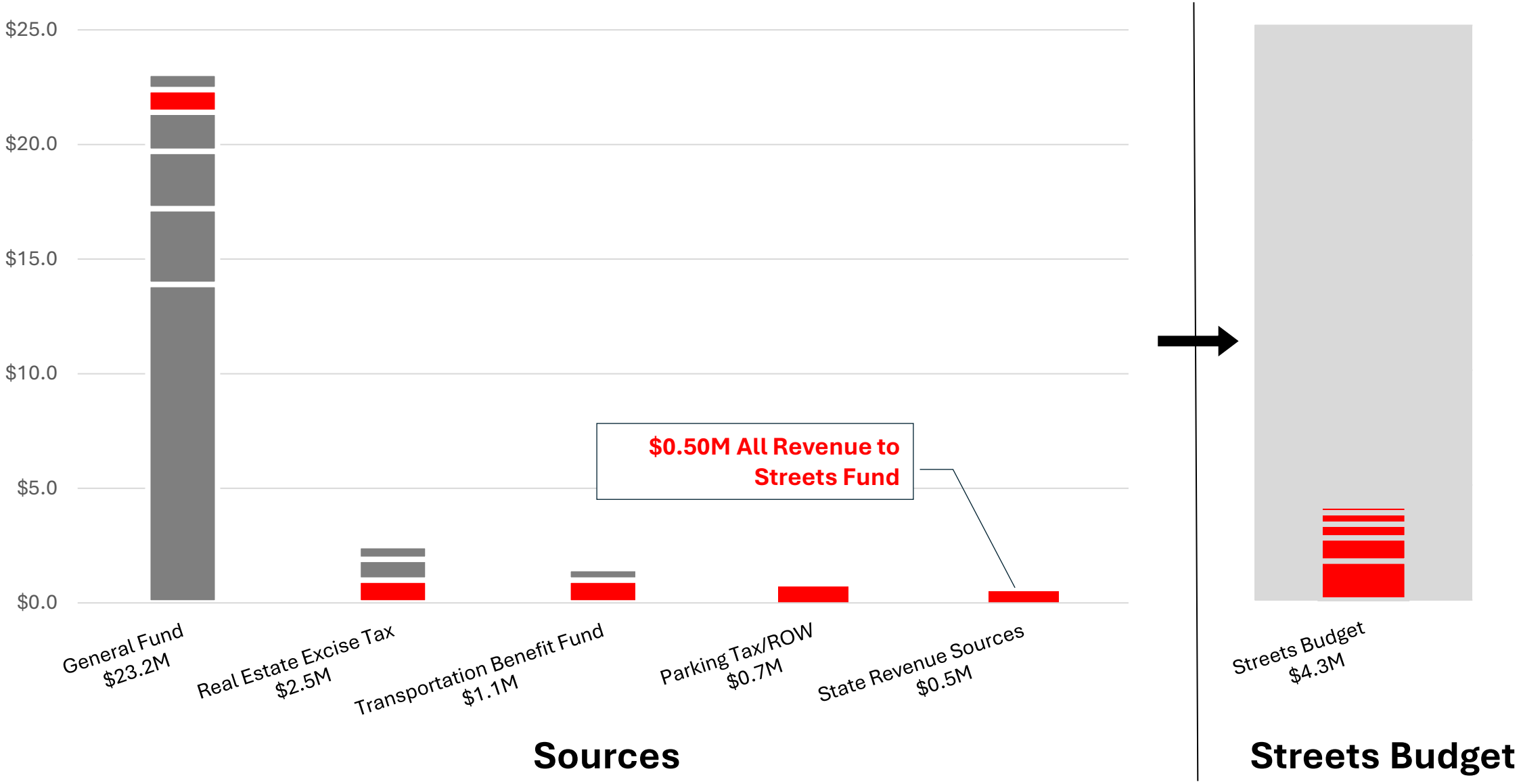

2025 Streets Operating Budget

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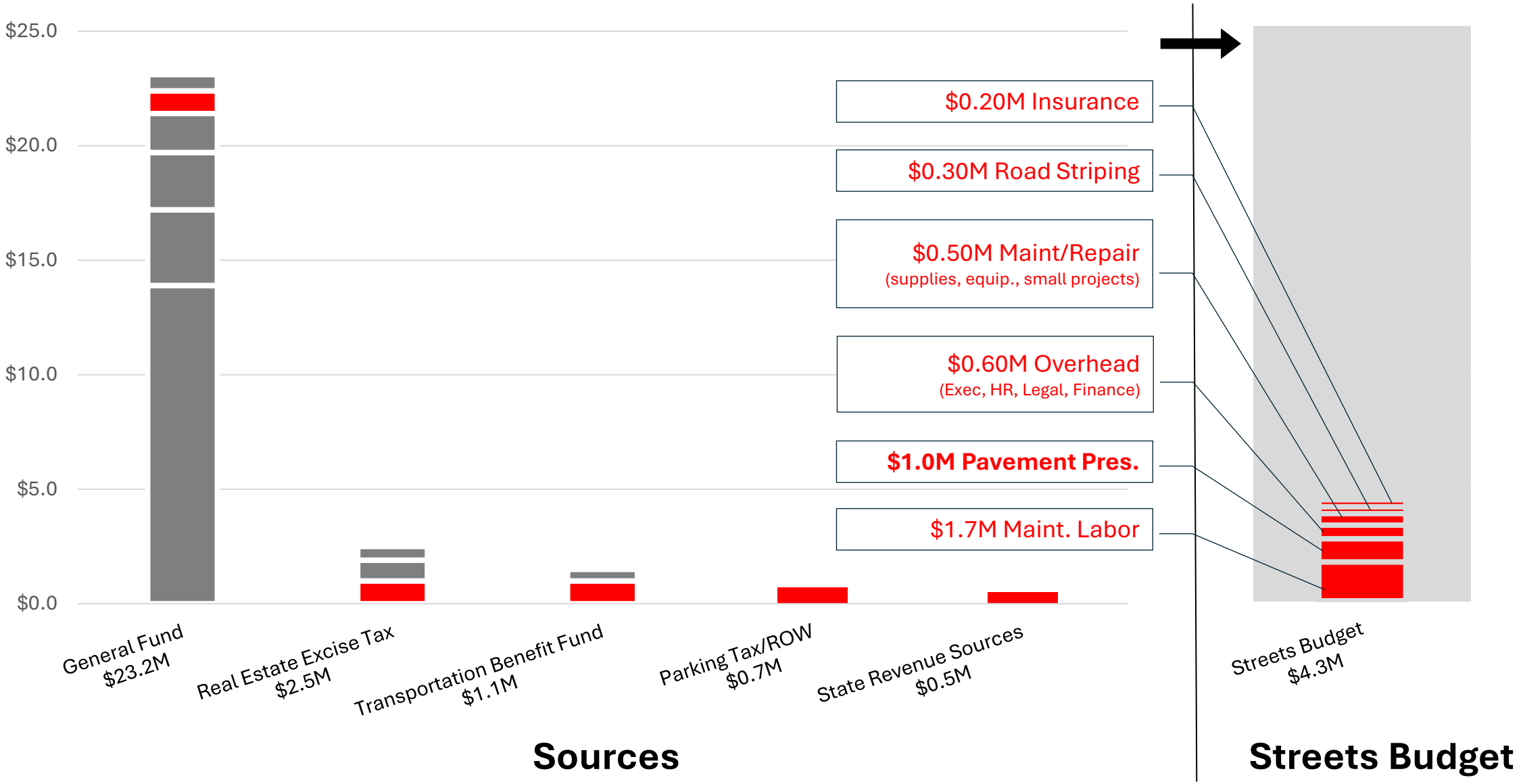

Recap Revenue Options

Pavement Management Strategies Summary Table

Categories	Description of Strategy	Impact on Achieving Sustainable Pavement Management Strategy
Budget & Efficiencies	Additional revenues directed towards street maintenance	●
	Utilize multi-year contracting to reduce procurement costs	◒
	Expand crack, chip, and slurry sealing	◒
	Increase staffing for more patching and overlay prep work	◒
	Purchase paver and milling machine	◒
Regulatory & Policy Changes	Expand standard street patch requirements	◒
	Implement/increase street cut fee	◒
	Water, sewer, stormwater utility contributions	◒
	Modify target PCI for arterials/collectors versus local roads	◒
Funding Strategies	Solid waste haulers fee – new contract	◒
	Street levy	●
	Increase car tab fees and/or sales tax	●
	Local Improvement District	◒

LEGEND

- ○ Unknown/ none
- ◒ minimal
- ◒ medium
- ◒ high
- ● very high

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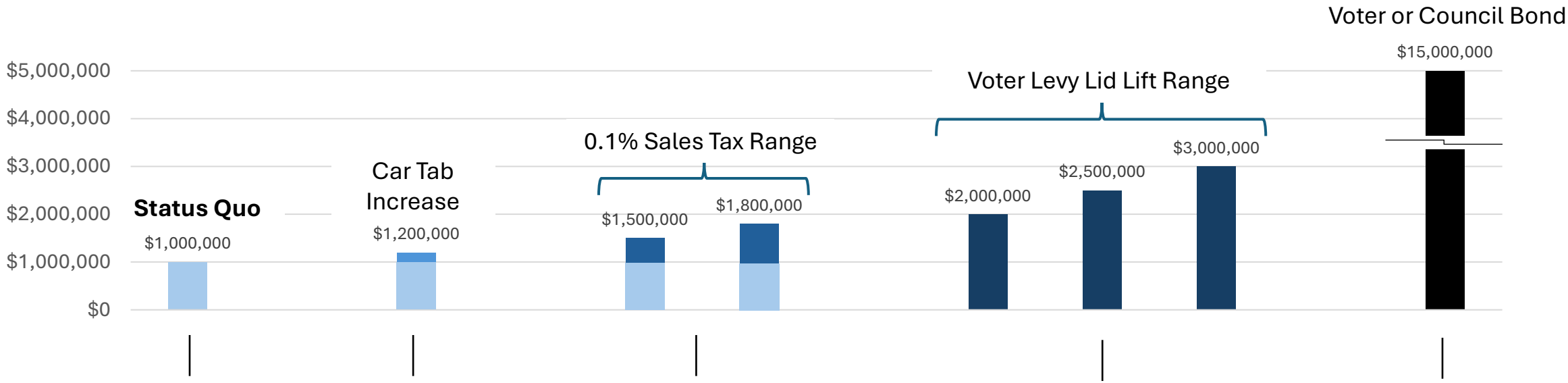
New Revenue Sources for Pavement Preservation



No financial impact on residents

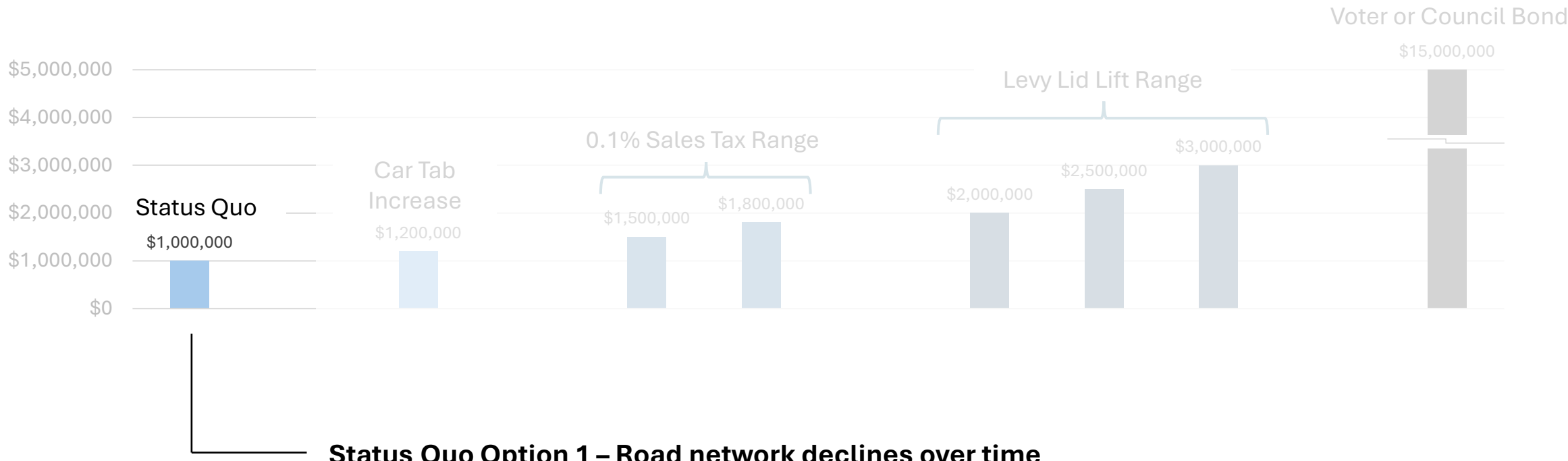
- $200K increase over Status Quo
- Residents pay additional $10 / vehicle / year

- $500-$800K increase over Status Quo
- Residents and visitors pay a tax on spending
- Total possible revenue = $800K; City Council considering

- New funds
- Financial impact on residents = $200-$300 per year on average
- **$2.9M** identified as amount needed for pavement sustainability

- New funds
- $1.1M annual payment for 20-years

New Revenue Sources for Pavement Preservation



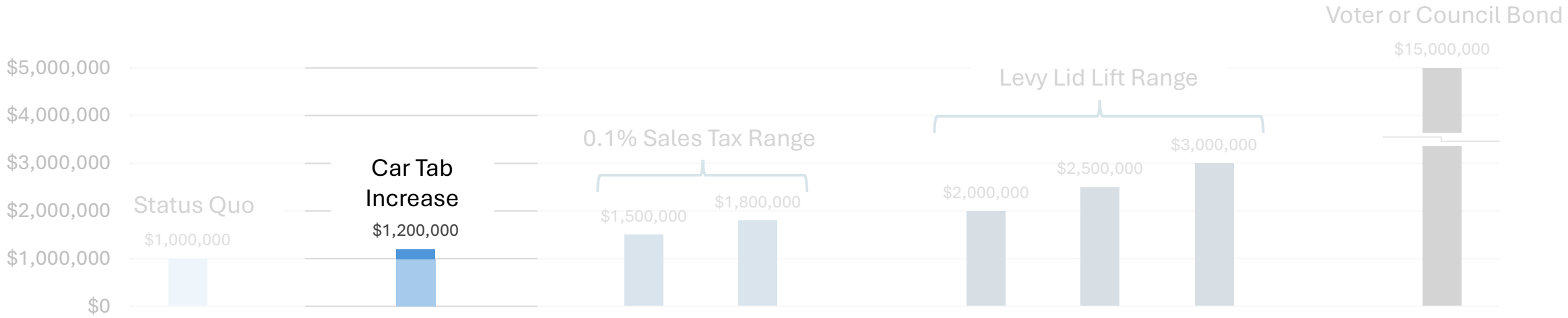
Status Quo Option 1 – Road network declines over time

- No change to current practice
- Chip seal high-volume roads; Recycle and repave local access roads

Status Quo Option 2 - **High-volume roads decline slower; local access decline quicker**

- Focus all funds on chip seal/preventive maintenance of high-volume roads
- Maintain local access roads with City forces

New Revenue Sources for Pavement Preservation



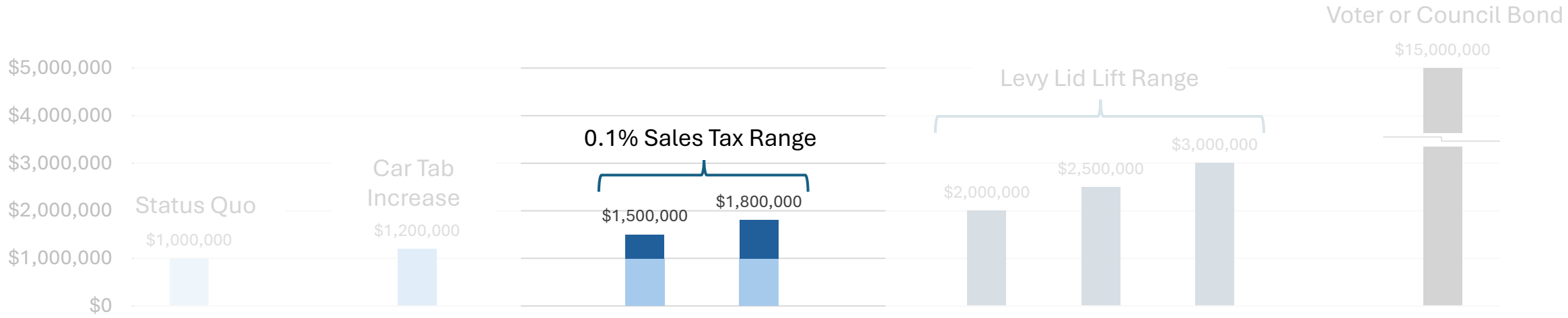
Car Tab Option 1 - Road network declines over time

- Increase amount of chip seal maintenance on high-volume roads
- Increase amount of reclaim/re-pave of local access roads

Car Tab Option 2 - High-volume roads decline slower; local access decline quicker

- Increase chip seal/preventive maintenance of high-volume roads
- Maintain local access with City forces

New Revenue Sources for Pavement Preservation



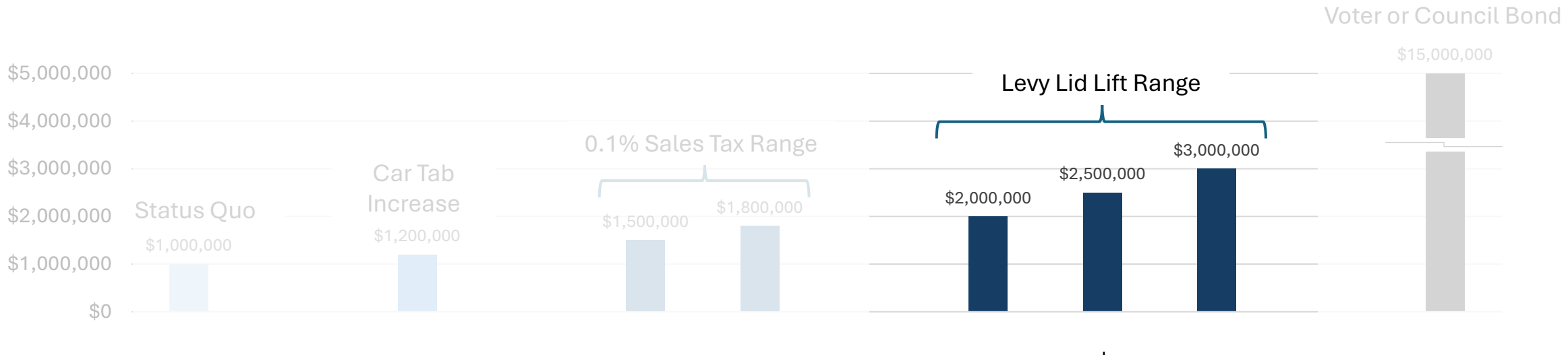
Sales Tax Option 1 - Moderate decline of all road types

- Increase amount of chip seal maintenance on high-volume roads
- Increase amount of reclaim/re-pave on local access roads

Sales Tax Option 2 - High-volume roads decline slower; local access decline quicker

- Increase chip seal/preventive maintenance of high-volume roads
- Maintain local access with City forces

New Revenue Sources for Pavement Preservation



$2M Annual Prop. Tax Levy Option* – Moderate decline of all road types

- Overlay and chip seal of high-volume roads
- Maintain local access with City forces

$2.5 Annual Prop. Tax Levy Option – Stabilize all road types**

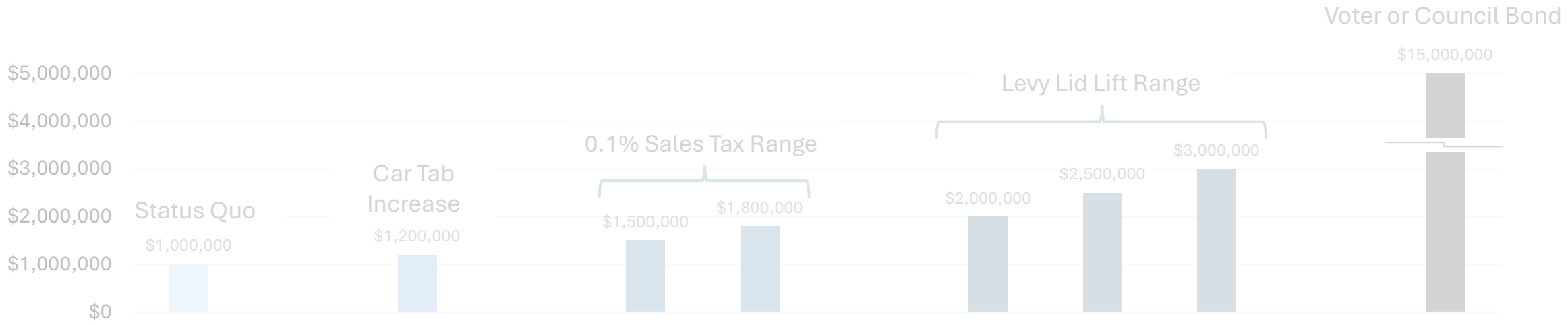
- Overlay and chip seal high volume roads
- Recycle and repave local access roads

$3M Annual Prop. Tax Levy Option* – All road needs**

- Overlay and chip seal high volume roads
- Recycle and repave local access roads
- Build fund for road reconstructions sustainable transportation

* ~**$14**/month per household
** **~$17**/month per household
*** **~$20**/month per household
****Add **$3/month** per $500K additional

New Revenue Sources for Pavement Preservation



$2M Annual Prop. Tax Levy Option* – Moderate decline of all road types

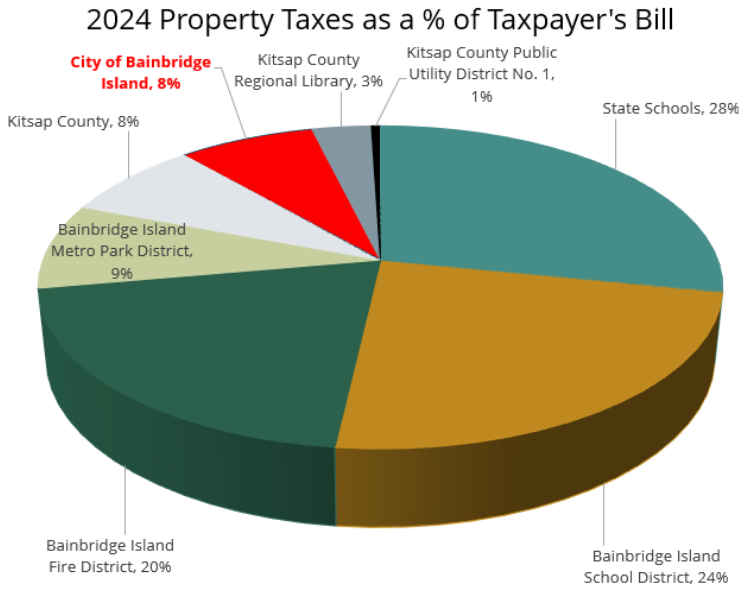
- Overlay and chip seal of high-volume roads
- Maintain local access with City forces

$2.5 Annual Prop. Tax Levy Option – Stabilize all road types**

- Overlay and chip seal high volume roads
- Recycle and repave local access roads

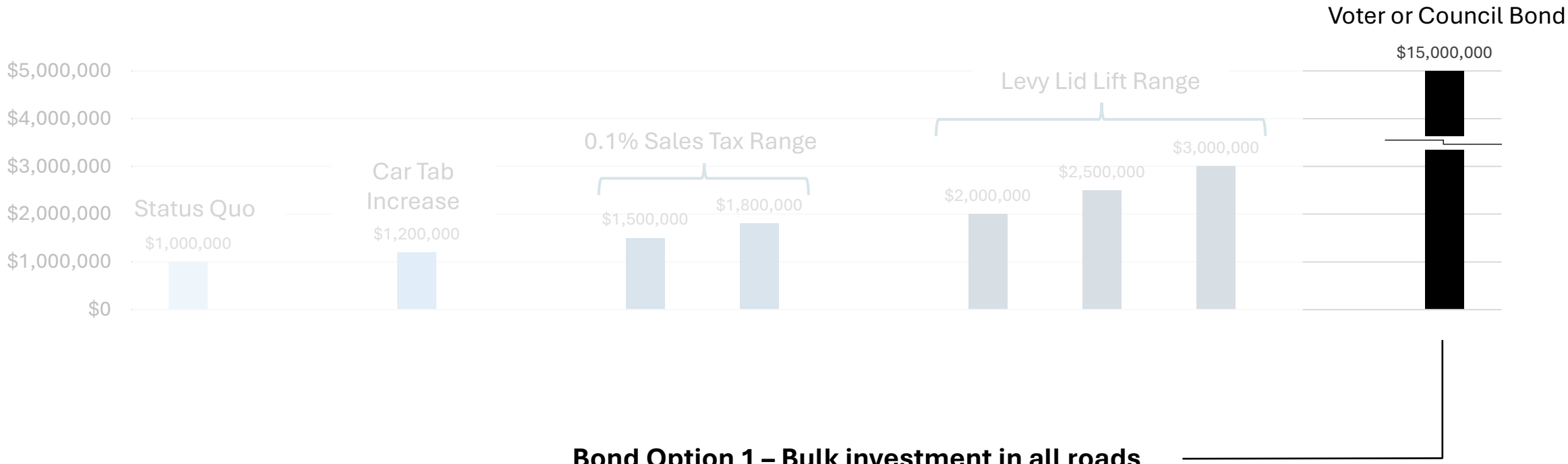
$3M Annual Prop. Tax Levy Option* – All road needs**

- Overlay and chip seal high volume roads
- Recycle and repave local access roads
- Build fund for road reconstructions and Sustainable Transportation



Note: COBI receives 8% of collected property taxes

New Revenue Sources for Pavement Preservation



Bond Option 1 – Bulk investment in all roads

- Develop a package of overlay, chip seal and preventative maintenance for all road types that maintains highest overall pavement conditions in 20-years

Bond Option 2 – Bulk investment in high-volume roads

- Develop a package of overlay and chip seal for high-volume roads that maintains highest pavement condition in 20-years
- Maintain local access with city forces

Kirkland Example

Street Levy

- Voters passed permanent levy lift in 2012
- Titled “Proposition 1: City Street Maintenance and Pedestrian Safety”
- Generates $2.9 million annually to fund
  - Arterial overlay program
  - Slurry seal preservation program for local streets
  - Neighborhood ped/bike safety projects
  - Requires an annual report to monitor progress towards goals
- Approved by 55% of voters
- No organizations were formed to promote or oppose the levy

CITY OF BAINBRIDGE ISLAND

Council Discussion

City of Bainbridge Island - List of Roads in Poorest Condition (<40 PCI Score)

Street Inventory and Condition Summary - Sorted by Street Name

GISID	On Street	From Street	To Street	FunCL	Pavement Width (ft)	Pavement Length (ft)	Condition Summary: Surface Distress Index (SDI)	Roughness Index (RI)	Structural Index (SI)	Pavement Cndtn Index (PCI)	Strength Rating	Condition Rating	Current Segment PCI (CPCI)
2002	NE Baker Hill Rd	NE Dotson Lp	DS@304E Lynwood Center Rd	Secondary Arterial	22	93	12	67	60	**12**	Mod	V Poor	**12**
2712	Madison Ave N	Henshaw Ln	Madrona Way NE	Secondary Arterial	35	641	20	61	13	**20**	Weak	V Poor	**20**
1005	NE Baker Hill Rd	Blakely Heights Dr W	NE Blakely Heights Dr	Secondary Arterial	23	1,045	20	66	80	**21**	Strng	V Poor	**20**
2281	NE Baker Hill Rd	Lynwood Center Rd	DS@211E Lynwood Center Rd	Secondary Arterial	22	211	22	43	100	**23**	Strng	V Poor	**22**
2505	Madison Ave NE	Madison Ave N	Bainbridge Aquatic Cntr Dr	Secondary Arterial	27	948	31	68	37	**31**	Weak	Poor	**30**
2658	Madison Ave N	Winslow Way E	Henshaw Ln	Secondary Arterial	35	431	32	58	1	**32**	Weak	Poor	**32**
1987	Madison Ave NE	Kimiko Ln	NE New Brooklyn Rd	Secondary Arterial	27	1,007	33	64	69	**33**	Mod	Poor	**33**
1600	Madison Ave NE	Ordway Elem School	Kimiko Ln	Secondary Arterial	28	389	35	74	2	**35**	Weak	Poor	**35**
1593	Fletcher Bay Rd NE	Johnson Farm Ln	NE High School Rd	Secondary Arterial	23	1,990	39	83	24	**39**	Weak	Poor	**39**
2520	NE Lovgreen Rd E	State Hwy 305 NE	Pleasant Pl	Collector	22	503	23	77	47	**23**	Mod	V Poor	**23**
2229	NE Country Club Rd	Toe Jam Hill Rd NE	DS@80E Toe Jam Hill Rd NE	Collector	25	80	27	53	10	**27**	Weak	Poor	**26**
2370	NE Country Club Rd	DS@80E Toe Jam Hill Rd NE	Upper Farms Rd NE	Collector	20	3,796	28	43	28	**28**	Weak	Poor	**27**
2681	Toe Jam Hill Rd NE	NE South Beach Rd	South Beach Dr	Collector	25	196	29	20	1	**29**	Weak	Poor	**29**
2478	Sunrise Dr NE	Woodhaven Ln	Puget Bluff Ln	Collector	25	70	30	71	60	**30**	Mod	Poor	**30**
2649	NE Country Club Rd	DS@2277E Fort Ward Hill Rd NE	Toe Jam Hill Rd NE	Collector	25	768	30	60	2	**30**	Weak	Poor	**30**
9003	Winslow Way W	Finch Pl SW	Winslow Way E	Collector	28	295	33	36	2	**33**	Weak	Poor	**32**
2748	Wing Point Way NE	Park Ave NE	Wing Point Rd NE	Collector	20	236	34	51	51	**34**	Mod	Poor	**33**
1996	Agate Pass Rd	Mariner Ave	NE Sanwick Pl	Collector	21	238	34	74	60	**34**	Mod	Poor	**34**
2540	Manitou Beach Dr	Falk Rd NE	Manitou Park Blvd NE	Collector	20	1,026	35	45	55	**35**	Mod	Poor	**35**
2182	NE Hildebrand Ln	EOP	Tormey Ln	Collector	22	584	36	50	5	**36**	Weak	Poor	**36**
1435	Finch Pl SW	EOP	Winslow Way W	Residential Suburban	23	297	12	30	60	**12**	Mod	V Poor	**11**
2642	Gordon Dr NE	NE County Park Rd	EOP	Residential Suburban	15	1,028	16	48	60	**16**	Mod	V Poor	**15**
2227	NE Seabold Rd	Harvey Rd NE	Komedal Rd NE	Residential Suburban	19	450	17	45	60	**17**	Mod	V Poor	**17**
2673	Ewing St	Main St NE	EOP	Residential Suburban	23	172	18	20	60	**18**	Mod	V Poor	**17**
2058	Fieldstone Ln	NE Koura Rd	Fieldstone Ln NE	Residential Suburban	21	318	19	49	60	**19**	Mod	V Poor	**18**
2710	Logg Rd NE	Gertie Johnson Rd	Logg Rd	Residential Suburban	21	437	20	0	60	**20**	Mod	V Poor	**20**
2088	NE Ralston Rd	Silven Ave	Henderson Rd NE	Residential Suburban	21	644	20	31	60	**21**	Mod	V Poor	**20**
2086	Maiden Ln	Beverly Ln	EOP	Residential Suburban	31	492	21	50	60	**21**	Mod	V Poor	**20**
1229	Ellingsen Rd	Ellingsen	Phelps Rd NE	Residential Suburban	18	2,430	21	65	60	**21**	Mod	V Poor	**20**
2084	Springridge Rd NE	NE Bligh Ct	NE Fletcher Blvd	Residential Suburban	22	140	21	39	60	**21**	Mod	V Poor	**20**
2083	Upper Farms Rd NE	Beans Bight Rd NE	NE Country Club Rd	Residential Suburban	21	2,336	21	43	60	**21**	Mod	V Poor	**20**
2068	Broom St NE	EOP	County Road 226	Residential Suburban	19	140	21	2	60	**21**	Mod	V Poor	**21**
1348	NE Knight Rd	Knight Rd	Stonebridge Ln	Residential Suburban	18	309	21	59	60	**21**	Mod	V Poor	**21**
2759	NE Forest Glade Ln	Battle Point Dr NE	EOP	Residential Suburban	21	489	21	20	60	**21**	Mod	V Poor	**21**
1419	Fort St	Pleasant Beach Dr NE	NE Tani Creek Rd	Residential Suburban	21	1,285	21	0	60	**21**	Mod	V Poor	**21**
1969	NE Blakely Heights Ct	NE Blakely Heights Dr	EOP	Residential Suburban	21	552	22	55	60	**22**	Mod	V Poor	**21**
1392	NE Manual Rd	Little Harbor Ln	EOP	Residential Suburban	16	607	22	34	60	**22**	Mod	V Poor	**22**
1556	Sunrise Dr NE	NE Albertson Rd	NE Valley Rd	Residential Suburban	18	661	23	35	60	**23**	Mod	V Poor	**22**
1405	Beans Bight Rd NE	Beans Bight	Upper Farms Rd NE	Residential Suburban	15	1,004	23	44	60	**23**	Mod	V Poor	**22**
2012	Misty Vale Pl	Sunrise Dr NE	Woodhaven Ln	Residential Suburban	22	862	23	82	60	**23**	Mod	V Poor	**23**
2518	Sunset Ave	NE Morgan Ave	EOP	Residential Suburban	14	1,109	23	62	60	**23**	Mod	V Poor	**23**
2524	NE Knight Rd	Stonebridge Ln	Sunrise Dr NE	Residential Suburban	18	650	24	53	60	**24**	Mod	V Poor	**24**
2528	Genevieve Pl	NE Koura Rd	EOP	Residential Suburban	31	346	24	42	60	**24**	Mod	V Poor	**24**
2527	Viewcrest Pl NE	Viewcrest Ave	EOP	Residential Suburban	21	164	24	0	60	**24**	Mod	V Poor	**24**
2526	Kings Pl	EOP	Commodore Ln NW	Residential Suburban	22	257	24	0	60	**24**	Mod	V Poor	**24**
1197	NE Intrepid Ct	NE Bolero Dr	EOP	Residential Suburban	13	125	25	42	60	**25**	Mod	Poor	**25**
2211	Crystal Springs Dr NE	DS@4496N NE Sullivan Rd	EOP	Residential Suburban	21	1,743	26	0	60	**26**	Mod	Poor	**25**
2369	Bucsit Ln NE	Belle Hill Ln	NE Wardwell Rd	Residential Suburban	21	995	26	32	60	**26**	Mod	Poor	**25**
2373	Meadowmeer Ln	Meer Ct	Mandus Olson Rd	Residential Suburban	20	222	26	61	60	**26**	Mod	Poor	**26**
2374	NE Wardwell Rd	NE Triple Crown Dr	DS@492N NE Triple Crown Dr	Residential Suburban	19	492	26	11	60	**26**	Mod	Poor	**26**
2175	Pinto Ct	EOP	NE Baker Hill Rd	Residential Suburban	21	208	26	50	60	**26**	Mod	Poor	**26**
2173	Ward Ave NE	Ewing St	EOP	Residential Suburban	21	151	27	71	60	**27**	Mod	Poor	**26**
2216	Island Ave NE	EOP	DS@654N EOP	Residential Suburban	15	654	27	14	60	**27**	Mod	Poor	**26**
2052	Birkland Rd NE	NE Blakely Ave	Elephant Ln	Residential Suburban	21	672	28	39	60	**28**	Mod	Poor	**27**
1377	Kaleetan Pl NE	Cave Ave NE	Hyak Pl NE	Residential Suburban	24	150	27	26	60	**28**	Mod	Poor	**27**
1432	NE Casey St	Ferncliff Ave NE	Springwood	Residential Suburban	21	1,349	28	62	60	**28**	Mod	Poor	**28**
1411	Birkland Rd NE	Elephant Ln	EOP	Residential Suburban	21	510	28	35	60	**29**	Mod	Poor	**28**
2157	Matsu Pl NE	NE Bayhill Rd	EOP	Residential Suburban	34	363	29	63	60	**29**	Mod	Poor	**29**
1220	Wimsey Ave	EOP	NE Eagle Harbor Dr	Residential Suburban	30	1,260	29	61	60	**29**	Mod	Poor	**29**
1575	Kaleetan Pl NE	Hyak Pl NE	EOP	Residential Suburban	36	150	29	18	60	**29**	Mod	Poor	**29**
2603	NE Country Club Rd	Upper Farms Rd NE	DS@830E Upper Farms Rd NE	Residential Suburban	21	830	29	39	60	**29**	Mod	Poor	**29**
1053	Crystal Springs Dr NE	NE Sullivan Rd	DS@3448N NE Sullivan Rd	Residential Suburban	21	3,448	29	62	60	**29**	Mod	Poor	**29**
2201	NE Knight Rd	DS@356E EOP	Knight Rd	Residential Suburban	18	282	30	49	60	**30**	Mod	Poor	**29**
2479	Springridge Rd NE	EOP	Hansen Rd NE	Residential Suburban	21	1,740	30	61	60	**30**	Mod	Poor	**29**
2474	NE Ralston Rd	DS@265N EOP	Silven Ave	Residential Suburban	21	326	30	44	60	**30**	Mod	Poor	**30**
1131	Three T Rd	NE Blakely Ave	Blakely Hill Rd NE	Residential Suburban	23	926	31	68	60	**32**	Mod	Poor	**31**
2395	Spargur Loop Rd	NE Hidden Cove Rd E	Phelps Rd NE	Residential Suburban	16	3,324	32	39	60	**32**	Mod	Poor	**31**
2061	Crystal Springs Dr NE	DS@3448N NE Sullivan Rd	DS@4496N NE Sullivan Rd	Residential Suburban	21	1,048	32	19	60	**32**	Mod	Poor	**32**
2506	Kallgren Rd NE	NE Roberts Rd	NE Winther Rd	Residential Suburban	20	1,312	32	73	60	**32**	Mod	Poor	**32**
2760	NE Lovgreen Rd W	Minnie Rose Ln NE	State Hwy 305 NE	Residential Suburban	19	2,831	32	75	60	**32**	Mod	Poor	**32**
2600	NE Knight Rd	EOP	DS@356E EOP	Residential Suburban	21	356	32	0	60	**32**	Mod	Poor	**32**
2423	Winslow Way W	Lovell Ave SW	Grow Ave NW	Residential Suburban	20	324	32	16	80	**32**	Strng	Poor	**32**
2584	Yeomalt Pl	Yeomalt Point Dr	EOP	Residential Suburban	19	316	33	30	60	**33**	Mod	Poor	**32**
2650	Misty Vale Pl	Woodhaven Ln	Spray Falls St	Residential Suburban	21	696	33	79	60	**33**	Mod	Poor	**32**
2471	Hyla Ave NE	NE Albertson Rd	NE Valley Rd	Residential Suburban	16	650	34	10	60	**34**	Mod	Poor	**33**
2470	Ward Ave NE	NE Eagle Harbor Dr	Ewing St	Residential Suburban	22	628	34	62	60	**34**	Mod	Poor	**33**
1381	Mariner Ave	EOP	Agate Pass Rd	Residential Suburban	21	1,308	34	47	60	**34**	Mod	Poor	**33**
1401	Meer Ct	Meadowmeer Ln	EOP	Residential Suburban	41	152	34	52	60	**34**	Mod	Poor	**33**
2320	NE Grizdale Ln	NE Stager Ct	NE Hudson Ct	Residential Suburban	21	447	34	47	60	**34**	Mod	Poor	**34**
1400	Blue Pond Pl	EOP	NE Koura Rd	Residential Suburban	21	320	34	62	60	**34**	Mod	Poor	**34**
1433	Pitcairn Pl NE	NE Fletcher Bay Rd	EOP	Residential Suburban	40	163	34	29	60	**34**	Mod	Poor	**34**
3069	Taylor Ave NE	NE Eagle Harbor Dr	EOP	Residential Suburban	21	398	34	87	60	**34**	Mod	Poor	**34**
1263	Springridge Rd NE	NE Fletcher Bay Rd	DS@529N NE Fletcher Bay Rd	Residential Suburban	23	529	35	60	60	**35**	Mod	Poor	**35**
1015	Springridge Rd NE	NE Fletcher Blvd	EOP	Residential Suburban	70	43	35	1	60	**35**	Mod	Poor	**35**
1095	NE Koura Rd	Williams Ln	Olympic Terrace Ave	Residential Suburban	21	653	35	59	60	**35**	Mod	Poor	**35**
1591	John St NE	NE Cascade Ave	NE Manor Ln	Residential Suburban	20	377	36	49	60	**36**	Mod	Poor	**36**
2486	NE Bligh Ct	Springridge Rd NE	EOP	Residential Suburban	37	344	36	75	60	**36**	Mod	Poor	**36**
2662	Broom St NE	County Road 226	NE County Park Rd	Residential Suburban	19	829	37	43	60	**37**	Mod	Poor	**37**
2159	Welfare Ave	NE Old Creosote Rd	EOP	Residential Suburban	20	1,325	37	31	60	**37**	Mod	Poor	**37**
2160	NE County Park Rd	Grotle Rd NE	Broom St NE	Residential Suburban	18	580	38	42	60	**38**	Mod	Poor	**37**
1389	NE Eagle Harbor Dr	EOP	NE Wyatt Way	Residential Suburban	21	920	38	15	60	**38**	Mod	Poor	**38**
2745	Teem Loop Rd	Fairfield Pl	Sumanee Pl NE	Residential Suburban	19	579	38	69	60	**38**	Mod	Poor	**38**
1453	New Holland Ct	EOP	Finch RD NE	Residential Suburban	20	618	38	64	60	**38**	Mod	Poor	**38**
3037	Trimble Ave NE	NE Grizdale Ln	Laughing Salmon Ln	Residential Suburban	25	188	38	57	60	**38**	Mod	Poor	**38**
2284	Ewing St	Ward Ave NE	Main St NE	Residential Suburban	21	206	39	44	60	**39**	Mod	Poor	**39**
1980	Lafayette St	Washington Ave NE	Euclid Ave NE	Residential Suburban	18	648	40	71	60	**40**	Mod	Poor	**39**
2403	Pleasant Beach Dr NE	Campbell St NE	W Blakely Rd NE	Residential Suburban	22	225	40	46	60	**40**	Mod	Marginal	**40**
2400	NE North Tolo Rd	Battle Point Dr NE	EOP	Residential Suburban	16	1,300	40	55	60	**40**	Mod	Marginal	**40**
2654	Deercliff Rd	Fawn Pl	Ferncliff Ave NE	Residential Urban	22	269	11	42	60	**11**	Mod	V Poor	**11**
2732	NE Meadowmeer Circle	Chatham Pl NE	Tyler Pl NE	Residential Urban	19	605	12	67	30	**12**	Weak	V Poor	**11**
2013	Lariat Lp	NE Baker Hill Rd	NE Baker Hill Rd	Residential Urban	21	1,815	12	47	60	**12**	Mod	V Poor	**12**
1345	Deercliff Rd	Eaglecliff Rd	Fawn Pl	Residential Urban	25	454	15	51	60	**15**	Mod	V Poor	**15**

2010	Washington Ave	Euclid Ave NE	Euclid Ave NE	Residential Urban	22	419	15	39	60	**15**	Mod	V Poor	**15**
1344	Dapple Ct	Palamino Dr	EOP	Residential Urban	22	1,176	15	44	60	**15**	Mod	V Poor	**15**
2420	Eaglecliff Rd	Beaver Bend	Ferncliff Ave NE	Residential Urban	26	358	17	71	60	**17**	Mod	V Poor	**17**
2445	NE Woodbank Dr	NE Fletcher Bay Rd	Bay St	Residential Urban	18	959	17	60	60	**17**	Mod	V Poor	**17**
1383	NE Meadowmeer Circle	Tyler Pl NE	Chadwick Pl NE	Residential Urban	21	406	18	74	60	**18**	Mod	V Poor	**18**
3016	NE Meadowmeer Circle	Astor Ct NE	Chatham Pl NE	Residential Urban	20	244	18	75	60	**18**	Mod	V Poor	**18**
2419	Midships Pl	EOP	Capstan Dr	Residential Urban	58	78	18	12	60	**18**	Mod	V Poor	**18**
1234	Donald Pl NE	Eagle Pl	EOP	Residential Urban	20	348	19	47	60	**19**	Mod	V Poor	**18**
1231	Commodore Ln NW	Jeanette Pl	Lewis Pl	Residential Urban	23	179	19	48	30	**19**	Weak	V Poor	**19**
1954	Blue Heron Ave NE	Wallace Way NE	Ihland Pl NE	Residential Urban	22	369	23	55	60	**23**	Mod	V Poor	**22**
2521	Arthur Pl	EOP	Commodore Ln NW	Residential Urban	32	229	23	19	60	**23**	Mod	V Poor	**23**
2522	Lovell Ave NW	Horizon Pl	NE High School Rd	Residential Urban	22	502	24	42	60	**24**	Mod	V Poor	**23**
2525	Soundview Dr NE	Robertson Ave NE	NE Kitsap Ave	Residential Urban	20	388	24	57	60	**25**	Mod	V Poor	**24**
2523	Eaglecliff Rd	Deercliff Rd	Beaver Bend	Residential Urban	25	719	25	69	60	**25**	Mod	V Poor	**25**
2519	Radio School Rd	Radio School Rd NE	EOP	Residential Urban	29	214	25	60	60	**25**	Mod	Poor	**25**
2368	NE Rhodes End	EOP	Sorrel Way	Residential Urban	22	1,177	26	65	60	**26**	Mod	Poor	**25**
1396	Commodore Ln NW	Susan Pl	Edna Pl	Residential Urban	25	171	26	56	30	**26**	Weak	Poor	**26**
1020	Isaac Ave NE	EOP	Ferncliff Ave NE	Residential Urban	31	779	27	67	60	**27**	Mod	Poor	**26**
2665	Lytle Rd NE	NE Beck Rd	EOP	Residential Urban	19	1,277	27	0	60	**27**	Mod	Poor	**27**
2380	Ihland Pl NE	Madison Ave N	Blue Heron Ave NE	Residential Urban	22	707	27	54	60	**27**	Mod	Poor	**27**
2476	Jeanette Pl	EOP	Commodore Ln NW	Residential Urban	30	230	27	23	60	**28**	Mod	Poor	**27**
2189	Murden Cove Dr	Manitou Beach Dr	Manitou Beach Dr	Residential Urban	20	1,943	28	49	60	**28**	Mod	Poor	**27**
2372	NE Woodbank Dr	EOP	NE Fletcher Bay Rd	Residential Urban	18	140	28	27	60	**28**	Mod	Poor	**27**
2409	Commodore Ln NW	Edna Pl	EOP	Residential Urban	34	501	28	63	60	**28**	Mod	Poor	**28**
2016	Deercliff Rd	EOP	Eaglecliff Rd	Residential Urban	28	153	28	60	60	**28**	Mod	Poor	**28**
2150	Commodore Ln NW	Elizabeth Pl	Arthur Pl	Residential Urban	21	322	28	43	60	**28**	Mod	Poor	**28**
1208	Washington Ave	DS@848N Euclid Ave NE	Meigs St	Residential Urban	22	305	29	74	60	**29**	Mod	Poor	**28**
2604	Mattson Pl NE	NE Beck Rd	EOP	Residential Urban	22	1,266	30	48	60	**30**	Mod	Poor	**29**
2648	Madrona Dr NE	Fairview Ave NE	Dingley Rd NE	Residential Urban	21	1,210	30	48	60	**30**	Mod	Poor	**29**
2477	Grow Ave NW	Ihland Way NW	NE High School Rd	Residential Urban	25	668	30	68	60	**30**	Mod	Poor	**30**
2475	Robertson Ave NE	Belfair Ave	Soundview Dr NE	Residential Urban	18	665	31	61	60	**31**	Mod	Poor	**30**
2392	Fairview Ave NE	Madrona Dr NE	EOP	Residential Urban	23	377	32	6	60	**32**	Mod	Poor	**31**
3043	Commodore Ln NW	Arthur Pl	Commodre Ln NE	Residential Urban	23	192	32	63	60	**32**	Mod	Poor	**32**
2585	Devenny Ave NE	EOP	NE Evergreen Ave	Residential Urban	14	396	33	31	60	**33**	Mod	Poor	**32**
1387	Eakin Dr NW	Eakin Dr NW	DS@789E Eakin Dr NW	Residential Urban	18	789	33	51	60	**33**	Mod	Poor	**32**
1359	Forest Ln	NE Koura Rd	EOP	Residential Urban	22	1,172	33	75	60	**33**	Mod	Poor	**33**
2651	Whited Pl	Commodore Ln NW	EOP	Residential Urban	37	130	33	8	80	**33**	Strng	Poor	**33**
1451	NE Meadowmeer Rd	Peggy Ln NE	Medway Ln NE	Residential Urban	19	413	34	69	60	**34**	Mod	Poor	**33**
1264	Nakata Pl NW	Ihland Way NW	EOP	Residential Urban	35	392	34	58	60	**34**	Mod	Poor	**34**
1016	Washington Ave	Euclid Ave NE	DS@848N Euclid Ave NE	Residential Urban	22	848	35	57	60	**35**	Mod	Poor	**34**
1313	Harbor Pl	NE Eagle Harbor Dr	NE Eagle Harbor Dr	Residential Urban	22	783	35	47	60	**36**	Mod	Poor	**35**
2414	Sea Ray Pl	EOP	Capstan Dr	Residential Urban	43	228	36	87	60	**36**	Mod	Poor	**36**
2663	Eagle Pl	Donald Pl NE	EOP	Residential Urban	19	186	36	26	80	**37**	Strng	Poor	**36**
2262	Washington Ave	Meigs St	Lafayette St	Residential Urban	21	358	37	71	60	**37**	Mod	Poor	**37**
2432	Wallace Way NW	Lovell Ave NW	Grow Ave NW	Residential Urban	20	324	38	31	60	**38**	Mod	Poor	**38**
2399	NE Monte Vista Dr	EOP	Monte Vista Pl NE	Residential Urban	22	1,282	38	45	60	**38**	Mod	Poor	**38**
2283	Edna Pl	Commodore Ln NW	EOP	Residential Urban	46	119	38	9	60	**39**	Mod	Poor	**38**
3002	Irene Pl NE	Eagle Pl	EOP	Residential Urban	16	462	40	33	60	**40**	Mod	Poor	**39**
1394	Fletcher Blvd	EOP	Bay St	Residential Urban	22	488	40	8	60	**40**	Mod	Marginal	**40**