



Off-site Levy Bylaw Review

Preliminary Transportation Rate

July 25, 2023



Today's Agenda

1. Welcome & Agenda Overview
2. Transit Buses
3. Traffic Signals
4. Always Available for All Ages and Abilities (5A) Network
5. Discussion & Next Steps



Meeting Norms

- **Presentations:** Hold questions until the end.
- **Tone:** Keep a positive tone. Discuss ideas on addressing issues.
- **Listen & Respect:** Every voice is an important voice. Everyone participants, no one dominates
- **Sounds:** Mute your mic when you are not talking (online). Speak-up so that those online can hear (in-person).
- **Sights:** You are encouraged to turn on your camera if you are online.
- **Discussion:** If you would like to comment or have a question, please raise your hand (in-person/online). We will get to you in order as best as we can.



TR Levy Rate Model Adjustments

Tab	Action	Impact
4 Leviable Infrastructure	Macleod Trail / 194 Avenue SE Interchange: class 1 (pre-tender) estimate \$120M	Levy rate, rate of expenditures. Cost estimate was \$80M.
7 Financial Model	Priority projects being reassessed	Impacts projects and timing of spending

Under consideration:

2023 estimate for non-residential building construction price index, 10.4% per Calgary's *Spring 2023 Calgary and Region Economic Outlook, 2023-2028* ([Calgary & Region Economic Outlook 2023-2028](#))

Preliminary Transit Bus Levy Rate

	2023 Posted Rates (\$/ha)	2024 Inflation- Adjusted Rate (\$/ha)*	Preliminary 2024 Rate (\$/ha)	Change (%)
Transit Bus Levy Rate	4,585	5,062	18,595	267%

*Posted rate escalated by 10.4%, the 2023 estimate for non-residential building construction price index per Calgary’s *Spring 2023 Calgary and Region Economic Outlook, 2023-2028* ([Calgary & Region Economic Outlook 2023-2028](#))



Major Model Assumptions

Item	Description
Denominator	<ul style="list-style-type: none"> Includes all leviable land in approved Area Structure Plans
Land Absorption	<ul style="list-style-type: none"> Steady decline in DA's from 2027 to 2055
Expenditures	<ul style="list-style-type: none"> All buses purchased within the model period Buses purchased in lots of 20, as and when sufficient funds are available in the Transit OSL balance Note: depends on corresponding Council approval of operating budget
Levy Rate	<ul style="list-style-type: none"> Balances expenditures with revenues to achieve \$0 at the end of the model period

Rate Increase Drivers

Factor	2016	2024	Comments
Cost per bus	\$411k	\$732k	<ul style="list-style-type: none"> • Switch from diesel to compressed natural gas (CNG): +\$80k • Inflation – WPU1413 vs NRBCPI
Level of service	1 bus per 3,333 people	1 bus per 1,763 people	<ul style="list-style-type: none"> • 2016 bylaw based on existing greenfield service • 2024 bylaw based on citywide population-to-fleet ratio
Forecast population served	340,918 (2015 – 2044)	414,426 (2023 – 2055)	<ul style="list-style-type: none"> • Higher densities expected in the leviabile greenfield



Cost per Bus

- Switch from diesel to compressed natural gas (CNG): +\$80k
- Inflation: WPU1413 Transportation Equipment: Truck and Bus Bodies

	2017	2018	2019	2020	2021	2022
WPU1413 Index (Truck and Bus Bodies)	241.1	250.5	260	263.8	285.695	329.714
Index Variation		3.90%	3.79%	1.46%	8.30%	15.41%
Cumulative Variation		3.90%	7.84%	9.42%	18.50%	36.75%

	2017	2018	2019	2020	2021	2022
Non-Residential Building Construction Price Index (Q4)	100.4	103.4	104.2	104.6	112.4	120.7
Index Variation		2.99%	0.77%	0.38%	7.46%	7.38%
Cumulative Variation		2.99%	3.78%	4.18%	11.95%	20.22%

Sources:

- <https://fred.stlouisfed.org/series/WPU1413>
- <https://www150.statcan.gc.ca/t1/tbl1/en/tv.action?pid=1810027601&pickMembers%5B0%5D=2.7&pickMembers%5B1%5D=3.1&cubeTimeFrame.startMonth=01&cubeTimeFrame.startYear=2017&cubeTimeFrame.endMonth=01&cubeTimeFrame.endYear=2023&referencePeriods=20170101%2C20230101>

Level of Service: population per bus

Element	2016	2019	2022	Average
# 40' Buses in fleet	732	744	742	739
# of People	1,235,171	1,285,344	1,389,200	1,303,238
# of People per 1 bus	1,687	1,728	1,872	1,763
Forecast population in leviabile ASP lands:				396,220
Infrastructure Need = Forecast population / # people per bus =				225

2016 Bylaw Adjusted – for reference

Element	2016 Bylaw	2016 with adjusted level of service
# of People per 1 bus	3,333	1,763
Forecast population	396,220	396,220
Infrastructure need	102	193
Cost per bus	\$411k	\$411k
Total cost	41,922,000	79,323,000
Greenfield Area	10,462	10,462
Levy Rate	4,007	7,582



Level of Service

Primary Transit in the greenfield:

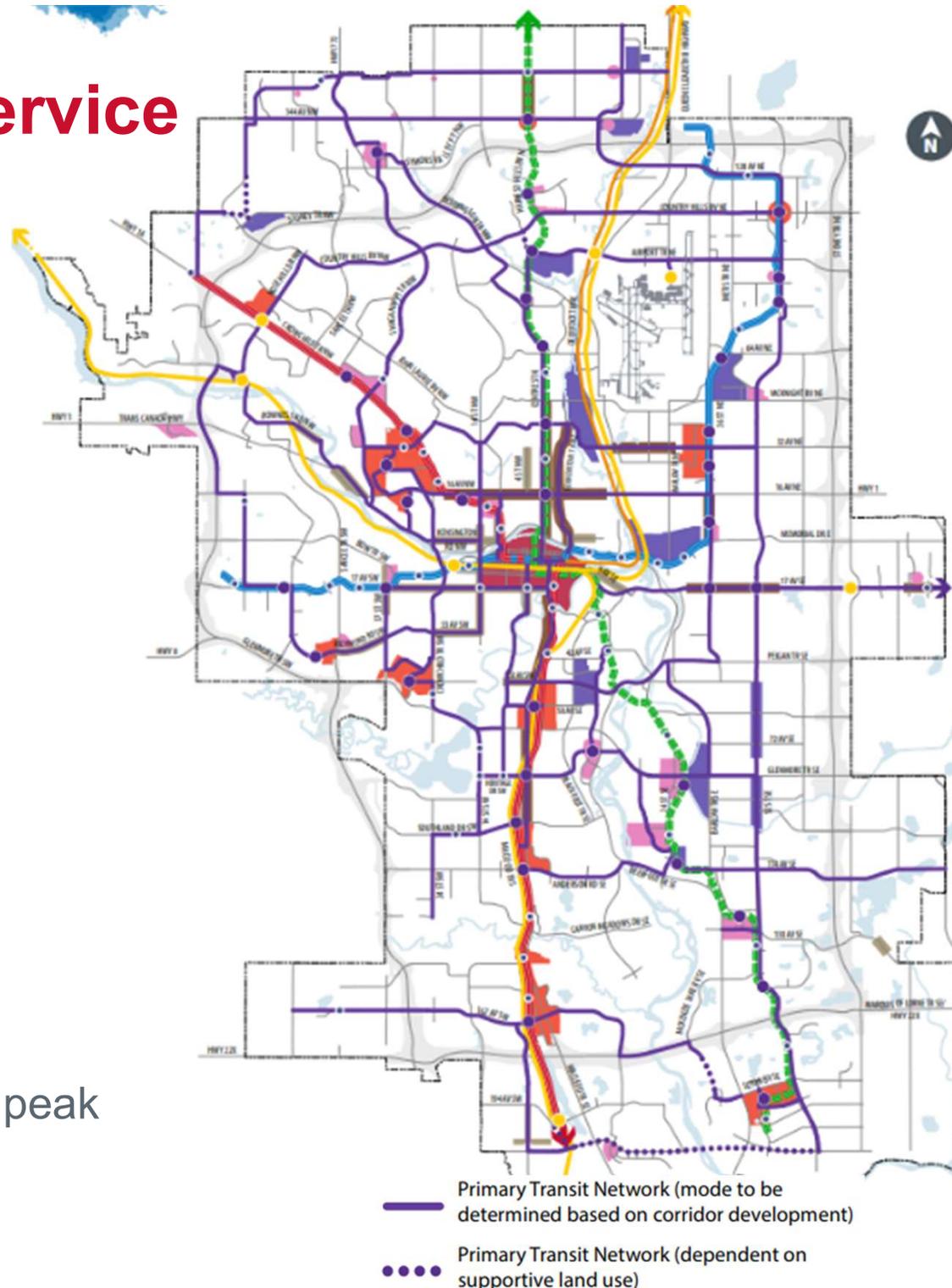
- **MAX Routes**

- MAX Purple (17 Avenue SE)
- MAX 305 (to Westview)
- MAX 301 (Centre Street N)
- MAX Teal extension (114 Avenue SE)
- 52 Street E from Saddletowne to Seton
- 144 Avenue N
- 162 Avenue SW

- **Other BRT's**

- Shaganappi Trail NW
- 160 Avenue N
- Country Hills Boulevard
- 128 Avenue NE
- Seton to Somerset
- 212 Avenue S

Community Routes: target 15-minute peak hour frequency per ASP analysis



 Primary Transit Network (mode to be determined based on corridor development)
 Primary Transit Network (dependent on supportive land use)

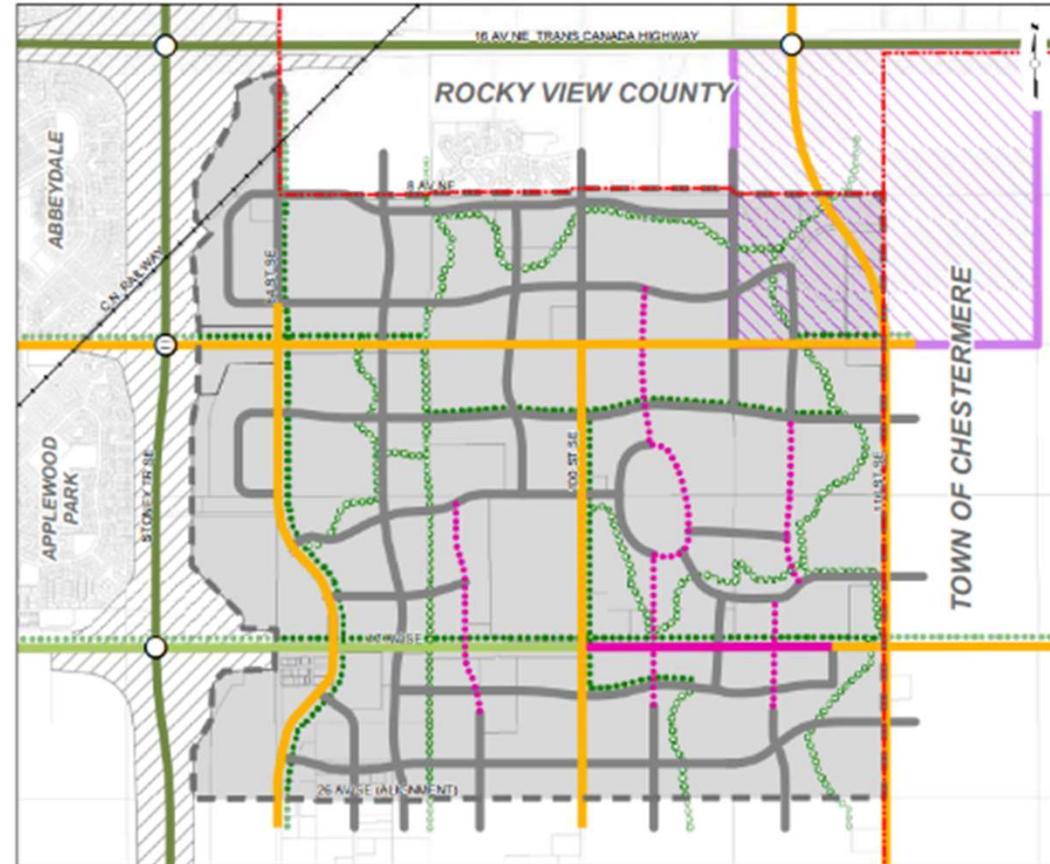


Traffic Signals

- Greenfield estimate: 519 new traffic signals
- Cost per signal: \$300k

Locations based on ASP's:

- Major/arterial roads: every intersection
- Urban/neighbourhood boulevards, and parkways: every intersection
- Collector/ collector intersections: half of intersections
- Minus existing signals



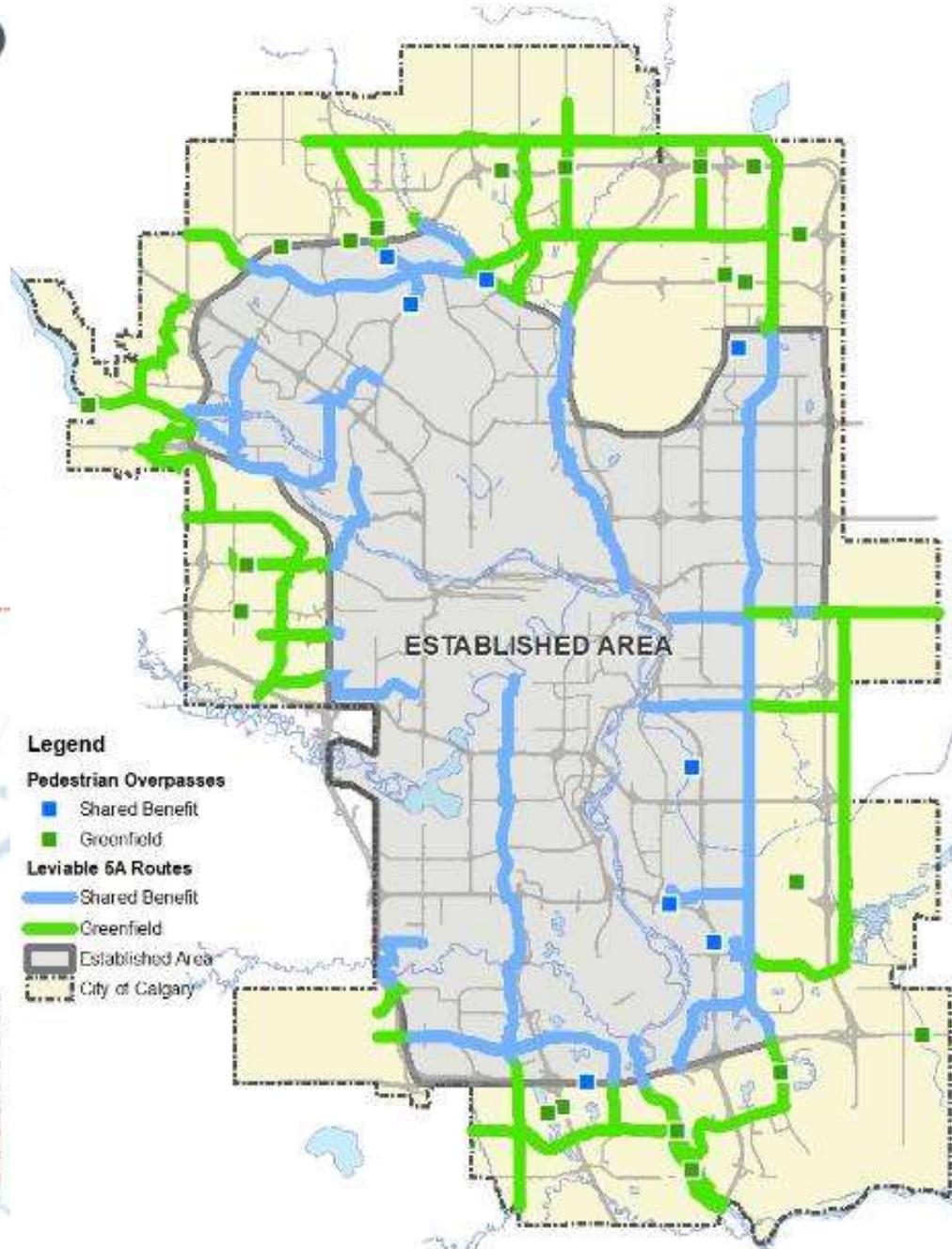
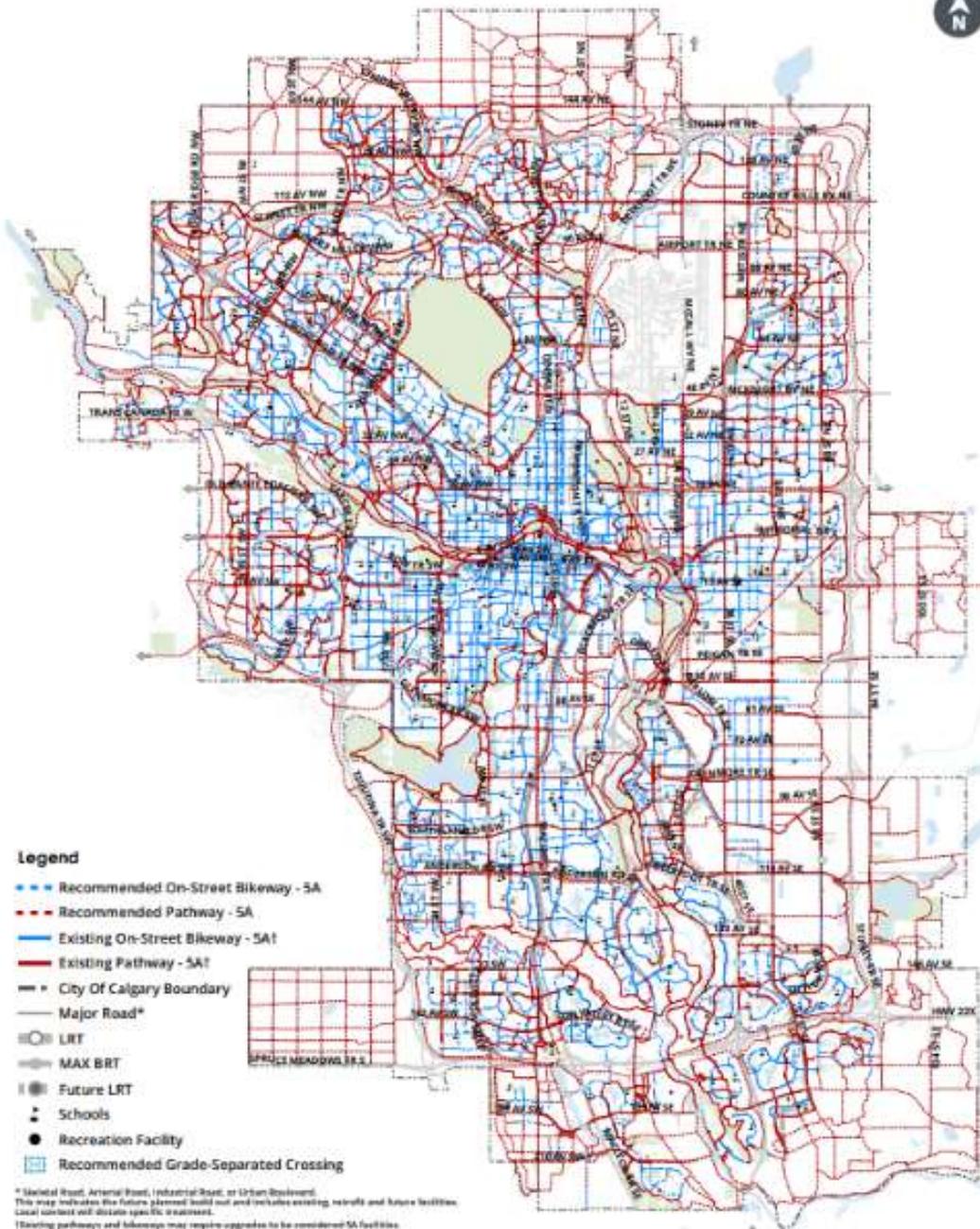
Map 10

Transportation Network





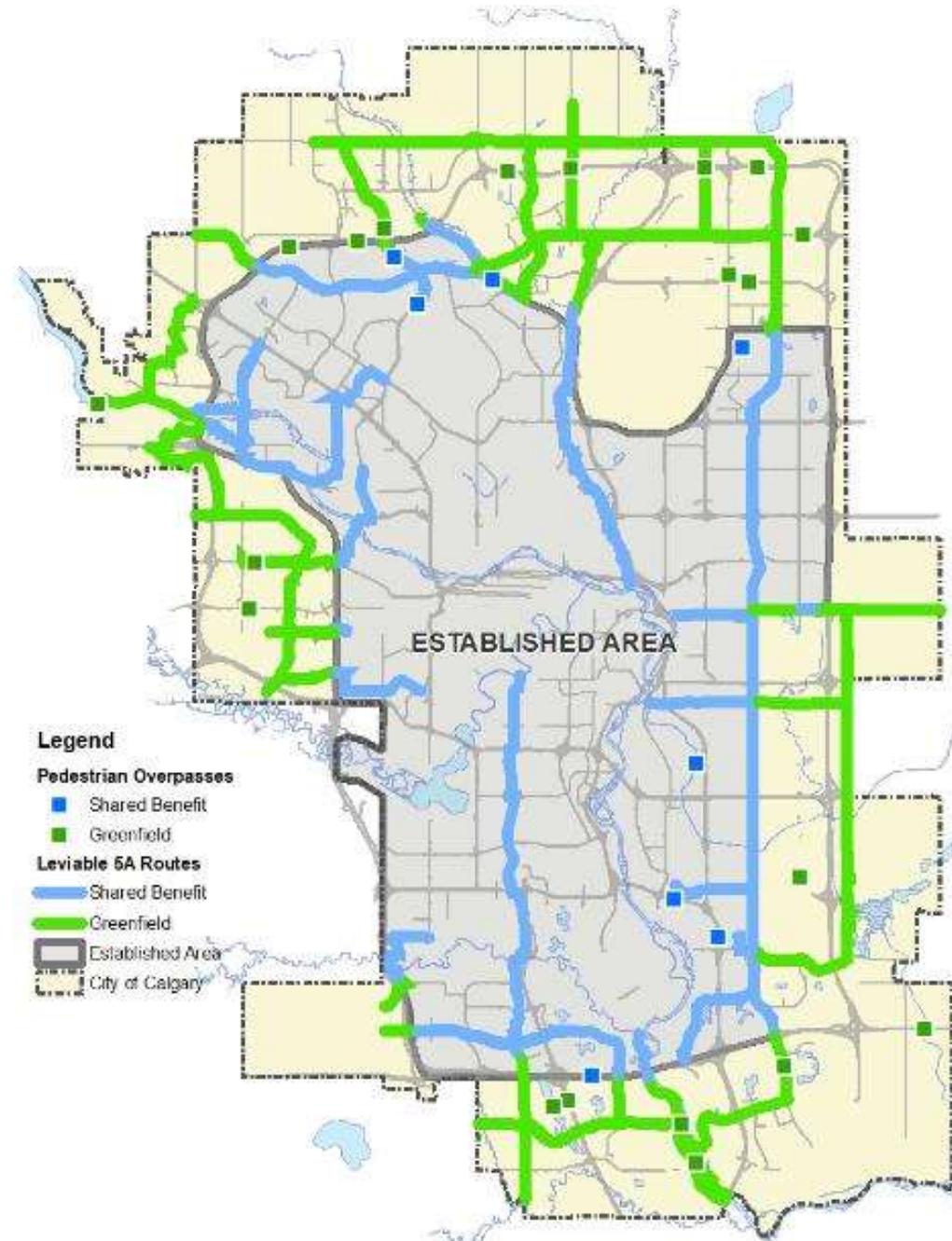
5A Network





5A Network

- 30 Routes located in all four quadrants of the city.
- Connecting New/ Actively Developing Communities, and Non-GMO Industrial Land with Major Activity Centres, adjacent communities, and transit stations.
- Routes comprised of a combination of:
 - Existing Pathways
 - Proposed Pathways
 - Existing Bikeways
 - Proposed Bikeways
- Routes include infrastructure identified as part of associated Area Structure Plans, in progress municipal and provincial infrastructure projects, as well as new infrastructure identified within the Council approved CTP.



5A Network

Section	Total Cost	Leviable Cost
Greenfield pathways and bikeways	37,000,000	18,826,753
Established Area pathways and bikeways	29,000,000	6,200,809
Total	66,000,000	25,027,562

Costs include:

Existing Pathway	Proposed Pathway	Existing Bikeway	Proposed Bikeway	Misc. Infrastructure
Widen to 3m	New in: <ul style="list-style-type: none"> Road ROW Park ROW 	Upgrade to: <ul style="list-style-type: none"> Bike Boulevard Marked Bicycle Lanes Protected Bicycle Lanes 	New: <ul style="list-style-type: none"> Bicycle Boulevard Marked Bicycle Lane Protected Bicycle Lane 	<ul style="list-style-type: none"> Intersection upgrade Intersection signalization Lighting improvements Tree removal/ relocation Shallow utility impact/ relocation Deep utility impact/ relocation Retaining wall



Preliminary Rates – July 19, 2023

	2023 Posted Rates (\$/ha)	2024 Inflation- Adjusted Rate (\$/ha)*	Preliminary 2024 Rate (\$/ha)	Change (%)
Transit Bus Levy Rate	4,585	5,062	18,595	267%
Transportation Levy Rate**	156,694	172,990	155,184	-10.3%
Total	161,279	178,052	173,779	-2.4%

*Posted rate escalated by 10.4%, the 2023 estimate for non-residential building construction price index per Calgary’s *Spring 2023 Calgary and Region Economic Outlook, 2023-2028* ([Calgary & Region Economic Outlook 2023-2028](#))

**In 2022 dollars

Next Steps

Finalize:

- Levy rate models
- White papers
- Project summaries

September:

- Wrap up working groups
- Report and bylaw preparation

Target: December Executive Committee



Thank you!