

Region of Waterloo
Transportation Services
Transit Services

To: Planning and Works Committee
Meeting Date: February 7, 2023
Report Title: 2023 Proposed Transit Service Changes

1. Recommendation

That the Regional Municipality of Waterloo endorse and forward to the Strategic Planning and Budget Committee the proposed Public Transit service changes as set out in the Preliminary 2023 Grand River Transit Budget and as further described in report TSD-TRS-23-003, dated February 7, 2023, including:

- The addition of 41,400 net annual transit service hours in 2023 at an incremental 2023 property tax levy impact of \$3,518,000 (\$4,897,000 annualized), serving over 440,000 projected additional annual rides.
- The implementation of the Cambridge network redesign by Fall 2023
- The extension of the Route 79 Breslau pilot to the end of 2023
- The removal of two low-ridership transit routes (2 and 73) and the redeployment of those resources to service restoration and new service implementation.

2. Purpose / Issue:

This report provides a review of the 2023 transit budget proposals related to service levels, their impact on riders and responds to questions asked by Council during Plan and Budget Committee on January 18, 2023.

3. Strategic Plan:

The restoration and expansion of transit service levels supports Sustainable Transportation Objective 2.1: Enhance the transit system to increase ridership and ensure it is accessible and appealing to the public.

4. Report Highlights:

The 2023 GRT Service Plan proposed as part of the 2023 budget process serves to achieve several objectives:

- the restoration of services that were temporarily removed during the pandemic due to low ridership;
- adding resources back that were previously removed due to traffic patterns, as during the pandemic, traffic levels were lower and fewer resources were needed to maintain headways on certain routes; and
- implementation of services that were identified as part of the GRT Business Plan 2016-2021, as approved by Council (TES-TRS-17-15, dated August 22, 2017) and adjusted for postponed implementation due to the pandemic (TES-TRS-22-09, dated June 7, 2022).

In total, 41,400 net annual service hours are proposed to be added during 2023, representing approximately 5% more service than in 2022, at an incremental 2023 property tax levy impact of \$3,518,000 (\$4,897,000 annualized). Some expansions to meet service demands were effective in January while further service increases are planned to occur in June and September. The Cambridge network redesign is planned for Fall 2023 and the extension of Route 79 Breslau pilot to the end of 2023 has also been included. Two routes (2 and 73) are proposed to be removed due to low ridership in order to redeploy resources to serve more users through service restoration and new service implementation. Specifics related to service changes can be found in the Background section of this report.

5. Background:

The 2017-2021 GRT Business Plan service improvements were centred around a network redesign that emphasized several elements:

- Seamless connections to ION
- New express routes running on key corridors
- More frequent service on busy routes
- More direct routes supporting a grid network
- Fast and convenient electronic fare payment
- More comfortable rides, stops and stations

By implementing services that complete the essential elements of the last Business Plan, the structure of the service is well-positioned to handle the continuing increase in ridership and as a basis for the next Business Plan that is slated to begin in 2023.

In preparation of the 2023 operating budget proposal, staff projected that inflation (in particular increase in fuel costs) and service reinstatements that Council had directed to implement in 2023 would increase transit costs by over \$12M. In order to mitigate this impact, staff reviewed the proposed reinstatements in order to stagger their implementation based on customer demand, and identified proposals to discontinue routes with lowest ridership and limited customer impacts.

The service plans proposed as part of the 2023 budget process are generally for three purposes:

1. the restoration of services that were temporarily removed during the pandemic due to low ridership;
2. the realignment of bus schedules which had been adjusted due to low traffic levels, in order to achieve customer expectations in terms of on-time performance; and
3. the implementation of services that were identified as part of the GRT Business Plan 2016-2021, as approved by Council (TES-TRS-17-15) and had their implementation postponed due to the pandemic (TES-TRS-22-09).

The implementation of the service plan is staggered, with service improvements to respond to critical overcrowding starting January 2, while more structural changes would be implemented in the fall of 2023.

As the level of transit usage is considered, it should be noted that two terms are used – Boardings and Ridership. Boardings are a count of every time a passenger boards a bus or ION LRT which will reflect how loaded the vehicles are. Ridership reflects the overall journey of a passenger including when they pay a fare and all the transfers the person makes. A journey that includes one transfer from one bus to another would be counted as two boardings but only one ride.

Winter 2023 service changes and ridership impacts

- GRT reinstated 10-minute peak service to 201 and 202 iXpress routes starting January 2nd, 2023 to address overcrowding issues.
- Throughout the month of November, routes 201 and 202 met high demand leading to 20 to 25 trips per week with critical overcrowding (more than 55 customers per bus), accounting for more than half of the overcrowded trips across the network
- As of January 20th, both routes combined to additional 691 daily boardings, continuing an upward ridership trend with a 6% increase over fall 2022 levels.
- Staff project the service reinstatement to contribute at least 153,611 boardings for the whole year of 2023, corresponding to 109,953 new trips and 43,658 new transfers.

Route	Daily Boardings (fall 2022)	Daily Boardings (winter 2023)	% Change	2022 Boardings	Projected 2023 Boardings Increase	Projected 2023 Ridership Increase
201	7,814	8,369	7%	1,745,333	123,965	88,015
202	3,998	4,134	3%	871,523	29,647	21,938
TOTAL	11,812	12,503	6%	2,616,856	153,611	109,953

Fall 2023 service changes and ridership impacts

- GRT is proposing service changes for fall 2023 that would involve redesigning its Cambridge area network and improving midday/weekend service on priority routes.
- In order to mitigate the increase in costs due to inflation and to these service increases, the budget proposal also includes the removal of two bus routes which serve the lowest number of customers on our network.
- The service changes are expected to gain 633,353 annual boardings and lose 122,217 from service removals. The net impact would be a gain of 511,136 annual boardings.

Proposed Service Changes	Annualized Boardings Impact	Annualized Ridership Impact
Fall 2023 Cambridge Service Expansion	216,846	136,613
Fall 2023 Off-Peak Service Improvements	416,057	287,860
Fall 2023 Service Removal	- 122,217	-91,859
TOTAL	511,136	332,614

Fall 2023 service changes: Cambridge service expansion

- In report TES-TRS-22-09, Council confirmed direction to staff to implement changes to the Cambridge network, to improve services to east and north Galt and Preston and make better use of the 10-minute service on ION bus, albeit on a delayed schedule
- Staff projected daily boardings for modified Cambridge service expansion based on a medium growth scenario.

- The proposed route modifications will be presented in detail to Council in a subsequent report, in March 2023
- Weekday boardings are expected to increase by 8%, while Saturday and Sunday boardings are expected to increase 40% and 93% respectively.
- Staff project 216,846 annual boardings would be gained from implementing modified Cambridge service expansion (corresponding to 136,613 net new trips). Staff expect further ridership increases as new travel patterns develop in 2023 and 2024.

Day Type	Current Daily Boardings	Projected Daily Boardings	Difference	% Change	Projected Annual Boardings Impact	Projected Annual Ridership Impact
Weekday	4,513	4,891	378	8%	94,828	59,742
Saturday	2,553	3,575	1,022	40%	53,141	33,479
Sunday	1,426	2,751	1,325	93%	68,877	43,392
TOTAL					216,846	136,613

Fall 2023 service changes: off-peak service improvements

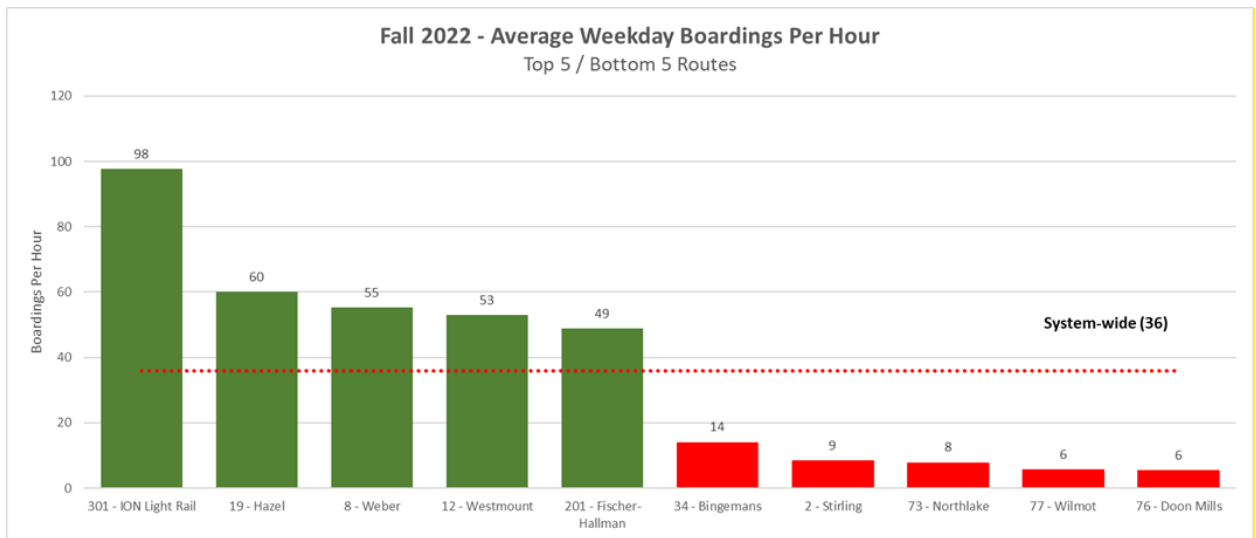
- Staff projected daily and annual boardings for individual service improvement items based on projected boardings hours.
- Staff project the service improvements would result in an increase of 897 weekday boardings, 1920 Saturday boardings, and 1,760 Sunday boardings.
- Staff project an increase of 416,507 annual boardings from the service improvements, corresponding to 287,860 net new trips.
- Service improvements on routes 31 and 33 would respond to the #1 customer request on our network (Appendix A), while improvements on routes 8 and 12 would attenuate crowding observed in Fall of 2022

Route	Description of Service Improvement	Service Type	Daily Hours	Projected Boardings Per Hour	Projected Annual Boardings	Projected Annual Ridership
8	15 min headway in midday	Weekday	11	30	82,830	57,153
12	15 min headway in midday	Weekday	14	30	105,420	71,686

31	Saturday service 645am-645pm, 30' headway	Saturday	48	20	49,920	38,438
31	Sunday service - 745-645pm, 30' headway	Sunday	44	20	45,760	35,235
33	Saturday service 645am-645pm, 30' headway	Saturday	36	20	37,440	23,213
33	Sunday service - 745-645pm, 30' headway	Sunday	33	20	34,320	21,278
36	Saturday service 645am-645pm, 30' headway	Saturday	12	20	12,480	8,611
36	Sunday service - 745-645pm, 30' headway	Sunday	11	20	11,440	7,894
Varied	Late Evening Service	Weekdays	15	10	36,897	24,352
TOTAL					416,507	287,860

Fall 2023 service changes: proposed service removals on low ridership routes

- In order to mitigate impacts of inflation and service improvements on the transit operating budget, staff reviewed all bus routes and identified routes 2 and 73 as candidates for removal. The savings realized on these two routes will enable the team to reallocate resources to other routes serving more customers.



- Local bus route 2 [Stirling] was identified as it is one of the bus routes that has the least recovered ridership from the pandemic (70% throughout the fall versus 95% network wide) and the lowest number of boardings per hour for a local route (in November 2022, an average of 8.4 customers boarded the bus every hour, versus 33 on average across all local bus routes). An analysis of impacts shows that a majority of customers currently served by route 2 could access the transit

network with nearby higher-frequency bus routes 201, 205, 1, 3, 12, and 16. Appendix B shows that only a fraction of the areas currently served is not within 450m of another bus route, and Appendix C shows that only 3 out of 46 impacted stops with no transit alternative are located in a lower-income area.

- BusPLUS route 73 [Northlake] was identified as it is the BusPLUS route which has the least recovered ridership from the pandemic (73% throughout the fall versus 150% for all BusPLUS routes) and a low number of boardings per hour (in November 2022, an average of 8.5 customers boarded the bus every hour, versus 12.4 on average for BusPLUS), and part of the neighbourhood is also served by alternate routes 9 and 19. An analysis of impacts shows that the Southeastern part of the neighbourhood can be served by route 9 (Appendix D), which starts service earlier in the morning and ends later at night, and provides higher peak and midday frequencies. Appendix E shows that none of the stops impacted are located in lower income areas.
- Staff project removing routes 2 and 73 would impact 443 weekday boardings, and 212 Saturday boardings. The annualized impact would amount to 122,217 boardings, which are significantly less than the additional boardings forecasted by reallocating the resources to the service improvements mentioned above.

Route	Description of Service being Removed	Service Type	Daily Boardings Impact	Annual Boardings Impact	Annual Ridership Impact
2	Weekday service	Weekday	386	96,886	69,758
2	Saturday service	Saturday	212	11,024	7,937
73	Weekday service	Weekday	57	14,307	14,164
				122,217	91,859

6. Area Municipality Communication and Public/Stakeholder Engagement:

Area Municipality Communication: None

Public/Stakeholder Engagement: Public consultation was held for the Cambridge network redesign. Service changes related to the Business Plan were reviewed through consultation during that process. Restoration needs were often identified as potential needs through public feedback on the service.

Opportunities for further customer outreach will be set up after Council approval of the 2023 budget, to inform and assist with service changes.

7. Financial Implications:

The operating costs for the proposed route adjustments are noted below. Note that the revenue estimated from the ridership changes are not included. The annualization of service re-instatements are based on the services that have been introduced in September 2022 and January 2023.

	Service Hours	2023 Impact (\$000's)	Annualized Impact (\$000's)
2022 Approved Budget	830,000		
In-year adjustments per TES-TRS-22-09			
University/ College Service Reinstatement, iXpress Route 201/202 Reinstatements	3,100		
Deferral of Cambridge Redesign	(8,000)		
2022 Approved Service Hours, as amended by Council	825,100		
Annualization of in-year University/ College Service Reinstatement, plus iXpress Route 201/202 Reinstatements per TES-TRS-22-09	20,800	\$1,783	\$1,783
Operational adjustments to maintain service levels January 1, 2023	10,500	\$717	\$869
Service Expansion June 26, 2023	1,500	\$122	\$122
Service Expansion September 4, 2023	6,100	\$503	\$1,510
Cambridge Redesign Modified Plan (Change from Spring to Fall)	6,000	\$494	\$1,480
Extend Route 79 Breslau Pilot (past March 2023)	1,500	\$312	\$373
Route removal (Rt. 2 and 73)	(5,000)	(\$413)	(\$1,240)
Subtotal 2023 Proposed Service Adjustments	41,400	\$3,518	\$4,897
2023 Proposed Service Hours	866,500		

8. Conclusion / Next Steps:

Any recommendations or motions approved by Committee will be forwarded to the Strategic Planning and Budget Committee for consideration as part of budget approval scheduled for February 22, 2023.

9. Attachments:

Appendix A - Customer Service Requests.docx

Appendix B - Route 2 Service Coverage Impact.pdf

Appendix C - Route 2 Income Characteristics with Community Housing Identified.pdf

Appendix D - Route 73 Service Coverage Impact.pdf

Appendix E - Route 73 Income Characteristics.pdf

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