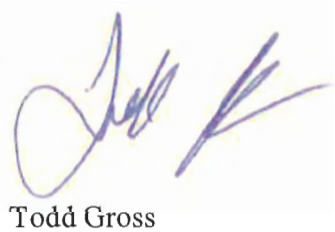
City of Richmond

Report to Committee

To:	Parks, Recreation and Cultural Services Committee	**Date:**	September 26, 2024
From:	Todd Gross Director, Parks Services	**File:**	06-2400-20-RAIL1/Vol 01
Re:	**Railway Greenway Lighting – Engagement Results and Next Steps**		

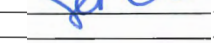
Staff Recommendation

That Option 1, "Develop a Hybrid Lighting Implementation Plan", as outlined in the staff report titled "Railway Greenway Lighting – Engagement Results and Next Steps", dated September 26, 2024, from the Director, Parks Services, be endorsed.



Todd Gross
Director, Parks Services
(604-247-4942)

Att. 2

REPORT CONCURRENCE		
ROUTED TO:	**CONCURRENCE**	**CONCURRENCE OF GENERAL MANAGER**
Finance Department	☑	
Engineering	☑	
Environment and Climate	☑	
Transportation	☑	
SENIOR STAFF REPORT REVIEW	**INITIALS:**	**APPROVED BY CAO**
		

Staff Report

Origin

At the October 19, 2022, Public Works and Transportation Committee meeting, a Richmond resident presented concerns about user safety after dark along the Railway Greenway. A petition to "install lighting and integrate other safety enhancements that are consistent with Crime Prevention through Environmental Design (CPTED), pedestrian, and cyclist safety standards" with 56 signatures was also submitted. As a result, staff received the following referral:

> *Refer presentation and the petition on the railway greenway to staff for review of CPTED principles and other relevant City of Richmond strategies and report back to Committee with an implementation plan.*

Following the referral, in early 2023 staff procured the services of a qualified electrical engineer to review lighting levels along the Railway Greenway. At the July 19, 2023, Parks, Recreation and Cultural Services Committee meeting, staff presented a report with the following recommendation that was endorsed by Council:

> *That a public consultation and engagement process be initiated to determine community preferences for lighting along the Railway Greenway, as outlined in the staff report titled "Potential Enhancements to the Railway Greenway," dated June 15, 2023, from the Director, Parks Services.*

The purpose of this report is to present the results of the public engagement process and outline recommended next steps.

This report supports Council's Strategic Plan 2022–2026 Focus Area #1 Proactive in Stakeholder and Civic Engagement:

> *Proactive stakeholder and civic engagement to foster understanding and involvement and advance Richmond's interests.*

This report supports Council's Strategic Plan 2022–2026 Focus Area #2 Strategic and Sustainable Community Growth:

> *Strategic and sustainable growth that supports long-term community needs and a well-planned and prosperous city.*
>
> *2.4 Enhance Richmond's robust transportation network by balancing commercial, public, private and active transportation needs.*

This report supports Council's Strategic Plan 2022–2026 Focus Area #6 A Vibrant, Resilient and Active Community:

> *Vibrant, resilient and active communities supported by a wide variety of opportunities to get involved, build relationships and access resources.*

6.2 Enhance the City's network of parks, trails and open spaces.

Background

2024 Public Engagement Process

The Railway Greenway lighting public engagement process sought to understand resident preferences for lighting along the greenway between Westminster Highway and Garry Street. These boundaries were established as the extents of the study area to capture the sections of the Railway Greenway that are most heavily vegetated and separated from adjacent roadways, and which therefore receive the least amount of light from existing sources. Between May 28 and June 30, 2024, staff led a comprehensive public engagement process that consisted of two in-person open house events (hosted outside Branscombe House along the Railway Greenway) and a Let's Talk Richmond survey that was made available in both digital and hard copy formats. The engagement process was widely promoted on social media and via signage installed along the Railway Greenway. Display boards outlining the project background, key considerations, and potential lighting strategies were presented at open house events and made available on the Let's Talk Richmond survey page – refer to Attachment 1.

As part of the engagement process, four potential lighting strategies were outlined for consideration. They provided a range of distinct options that allowed respondents to express clear preferences for a general approach to lighting.

These strategies are visually depicted in Attachment 1; they are:

Strategy A: Functional, Continuous Lighting

This approach would consist of regularly spaced light poles, at approximately 30 metres on centre, along the entire Railway Greenway (between Westminster Highway and Garry Street).

Strategy B: Functional, Intermittent Lighting

This approach would establish lighting priority areas (i.e., those that are determined to be particularly dark and pose the greatest challenges from a safety/navigation standpoint) and consist of light poles spaced at approximately 30 metres on centre within these areas.

Strategy C: Ambient, Continuous Lighting

This approach would utilize alternative lighting elements (e.g., bollard lights) to provide ambient lighting at regular intervals along the entire Railway Greenway (between Westminster Highway and Garry Street).

Strategy D: Ambient, Intermittent Lighting

This approach would establish lighting priority areas (i.e., those that are determined to be particularly dark and pose the greatest challenges from a safety/navigation standpoint) and utilize alternative lighting elements (e.g., bollard lights) to provide ambient lighting within these areas.

Analysis

Public Engagement Results

The Railway Greenway lighting public engagement process successfully reached a large number of Richmond residents. By the end of the survey period, 529 individual responses were received, including both digital and hard copy submissions. Additional comments were received verbally at open house events and via emails to staff; these were recorded and consolidated along with survey responses.

A detailed summary of the community engagement results is provided in the Railway Greenway Lighting Engagement Survey Report (Attachment 2). Overall, 78.5 per cent of respondents indicated support for lighting along the greenway, 14.8 per cent indicated they did not support lighting along the greenway, and 6.7 per cent were undecided. Further, 84.5 per cent of respondents felt that installing lights along the greenway could be beneficial for improving accessibility, visibility and safety.

The following table outlines resident support for the lighting strategies that were presented.

Table 1: Resident Support for Lighting Strategies

Lighting Strategies	Resident Support
Strategy A: Functional, Continuous Lighting	31.7%
Strategy B: Functional, Intermittent Lighting	19.1%
Strategy C: Ambient, Continuous Lighting	25.6%
Strategy D: Ambient, Intermittent Lighting	23.5%
Continuous Lighting	57.3%
Intermittent Lighting	42.6%
Functional Lighting	50.8%
Ambient Lighting	49.1%

Respondents indicated strong support for lighting strategies that seek to reduce adverse impacts on both adjacent residents and wildlife.

The survey provided respondents with the opportunity to submit written comments. For those who expressed support for lighting, the following is a summary of the comments received:

- Lighting would increase safety and visibility.
- Lighting would increase use in the dark, before dawn and after dusk, and during fall and winter months.
- Lighting would increase usage by certain user groups, including women, children, seniors, and people with disabilities.
- Lighting would help motorists see cyclists and pedestrians more clearly.

- Lighting would expand recreational options, e.g., dog walking, running, cycling, etc.
- Lighting would deter human-wildlife conflict.

For those who expressed a lack of support for lighting, the following is a summary of comments received:

- Lighting is not necessary since there are currently no safety issues.
- Lighting is not necessary since there is enough light year-round.
- Lighting is not necessary, as there is an existing, well-lit option along Railway Avenue for cyclists and pedestrians.
- Lighting would disrupt nearby residents with increased light at night.
- Lighting is not a good use of money.
- Lighting is not necessary since there are few users outside of daylight hours.
- Lighting may increase the number of users at night, potentially encouraging behaviour that would disturb nearby residents.

Next Steps

Based on the feedback received through the public engagement process, staff have identified the following options for consideration by Council.

Option 1 – Develop a Hybrid Lighting Implementation Plan (Recommended)

Option 1 is to develop a hybrid lighting implementation plan that addresses the range of preferences expressed by residents through the Railway Greenway lighting public engagement process. The results of the engagement convey a clear preference for lighting, however respondents were divided in terms of preferences for continuous (57.3 per cent) vs. intermittent lighting (42.6 per cent), and functional (50.8 per cent) vs. ambient lighting (49.1 per cent). These results indicate that a hybrid approach is essential to best meet the range of preferences and needs of the community. While further cost estimating would be required to confirm expected costs following development of the implementation plan, an initial order of magnitude estimate for this hybrid lighting approach is $1,255,000.

If Option 1 is endorsed, staff would develop a hybrid lighting implementation plan that is informed by the results of the Railway Greenway lighting public engagement process. It is expected that this plan would feature a range of lighting types, including both standard pedestrian light poles and alternative forms of lighting, e.g., bollard lights, and locations that employ continuous and intermittent lighting based on site-specific conditions. The lighting implementation plan would include assessment and mitigation of lighting impacts on both adjacent residents and wildlife within the greenway corridor. Mitigation measures are expected to include utilizing lights with appropriate colour temperature, luminaires with adequate house-side and up-light shielding, and lighting controls. The development of a hybrid lighting implementation plan will incorporate a review of industry best practices, and applicable City guidelines and policies, which will inform the proposed landscape lighting approach.

Following an internal process, staff will report to Council with the recommended lighting implementation plan and an updated cost estimate for consideration. With Council endorsement,

the services of a team of qualified professionals would be procured – funded by an existing Council-approved capital project, Parks Advance Planning and Design (2023) – in order to prepare detailed design drawings and a construction cost estimate. Should Council endorse Option 1, the Railway Greenway lighting implementation project will be included as a 2026 capital submission for Council consideration in the 5 Year Capital Plan (2025–2029) as part of the 2025 budget process. Upon receipt of a construction cost estimate in 2025, the capital submission will be resubmitted for Council consideration as part of the 2026 budget process.

Option 1 is recommended, as it will ensure that a future lighting plan best addresses the range of preferences expressed by residents through the Railway Greenway lighting public engagement process. A hybrid lighting implementation plan will be informed by a thorough review of site-specific conditions and best practices, and afford an opportunity to devise the most effective, economical approach for the City.

Option 2 – Proceed with Implementation of Functional, Continuous Lighting (Not recommended)

Option 2 is to proceed with implementation of functional, continuous lighting along the Railway Greenway between Westminster Highway and Garry Street. This lighting strategy would consist of regularly spaced light poles at approximately 30 metres on centre. It would also include assessment and mitigation of lighting impacts on both adjacent residents and wildlife within the greenway corridor. Mitigation measures are expected to include utilizing lights with appropriate colour temperature, luminaires with adequate house-side and up-light shielding, and lighting controls. It is estimated that the initial order of magnitude cost to implement this option would be approximately $1,566,000. A detailed construction cost estimate would be required to confirm the estimated cost to the City.

If Option 2 is endorsed, the services of a team of qualified professionals would be procured — funded by an existing Council-approved capital project, Parks Advance Planning and Design (2023) — in order to prepare detailed design drawings and an updated construction cost estimate. Should Council endorse Option 2, the Railway Greenway lighting implementation project will be included as a 2026 capital submission for Council consideration in the 5 Year Capital Plan (2025–2029) as part of the 2025 budget process. Upon receipt of a construction cost estimate in 2025, the capital submission will be resubmitted for Council consideration as part of the 2026 budget process.

Option 2 is not recommended, as it would fail to address the range of preferences expressed by residents through the Railway Greenway lighting public engagement process, and restrict the opportunity for modifications based on a thorough review of site-specific conditions, as well as established and/or emerging best practices. While Strategy A: Functional, Continuous Lighting received the highest overall support (31.7 per cent of respondents), 68.3 per cent of respondents selected one of the three alternative lighting strategies. Option 2 would not address these preferences, and may fail to identify potential innovative approaches and cost savings that could be offered by a hybrid implementation plan.

Option 3 – Status Quo, Continue to Monitor Conditions and Community Need (Not recommended)

Option 3 is to maintain the status quo and continue to monitor conditions along the Railway Greenway as they relate to public health, safety, and welfare.

If Option 3 is endorsed, the City would continue to prioritize landscape maintenance to meet CPTED standards and mitigate safety concerns, e.g., tree and shrub pruning and mowing to preserve clear sightlines, but opportunities for future lighting would not be explored at this time. The 2026 capital submission for Railway Greenway lighting implementation would not be included in the 2025 budget process.

This option is not recommended, as it would fail to address a clear preference for lighting, as indicated by the broader Richmond community through the Railway Greenway lighting engagement process.

Financial Impact

Should Council endorse Option 1 or 2, staff would procure the services of a team of qualified professionals – funded by an existing Council-approved capital project Parks Advance Planning and Design (2023) – to prepare detailed design drawings and a construction cost estimate. The Railway Greenway lighting implementation project will be included with a high level cost estimate as a 2026 capital submission for Council consideration in the 5 Year Capital Plan (2025–2029) as part of the 2025 budget process. Upon receipt of a detailed construction cost estimate in 2025, the capital submission will be resubmitted for Council consideration as part of the 2026 budget process.

Operating Budget Impact

Upon receipt of the detailed design drawings and construction cost estimate, an OBI will be included in the capital submission for Council consideration as part of the 2026 budget process. Should Council endorse Option 3, there would be no financial impact at this time.

Conclusion

Between May 28 and June 30, 2024, staff conducted a comprehensive, citywide public engagement process to determine community preferences for lighting along the Railway Greenway. The engagement succeeded in reaching a significant number of Richmond residents, of which a clear majority (78.5 per cent) expressed support for lighting along the greenway.

Due to the lack of a clear preference for one of the four lighting strategies outlined, staff recommend proceeding with Option 1, to develop a hybrid lighting implementation plan. This process will strive to best meet the range of preferences expressed by the community, and devise a plan that is informed by a thorough review of site-specific conditions and best practices. Staff will target a report to Council in Q1 2025 outlining a recommended lighting implementation plan for consideration. With endorsement of the plan, the services of a team of qualified professionals would be procured – funded by an existing Council-approved capital project Parks Advance Planning and Design (2023) – to develop detailed design drawings and a construction cost

estimate. A 2026 capital submission for Railway Greenway lighting implementation would be brought forward for Council consideration as part of the 2025 budget process.

Kevin Fraser
Research Planner 2
(604-233-3311)

Att.
1: Railway Greenway Lighting Engagement Boards
2: Railway Greenway Lighting Engagement Survey Report

Railway Greenway Lighting Engagement

Project Background

At the October 19, 2022, Public Works and Transportation Committee meeting, a delegation presented concerns about user safety after dark along the Railway Greenway. A petition to install lighting and explore opportunities for safety enhancements was also submitted. In 2023, Parks staff studied lighting options and their associated cost implications, and made a recommendation for a community engagement process to determine preferences for lighting along the Railway Greenway, which was endorsed by Council.

Currently, lighting in City parks is limited to sites where it is deemed necessary to ensure safe passage or access to amenities that operate after dark, such as sports fields and community facilities. In these cases, lights typically operate on a movement sensor or timer from dusk to dawn.

The Railway Greenway is unique in Richmond: it provides important ecosystem services as an ecological corridor while offering a multi-use path (MUP) for various modes of active transportation. The MUP serves as one of Richmond's busiest cycling routes. Data from 2020 and 2021 indicated average daily cycling trips ranging from approximately 700 to 1,000 for the months of April through August. Public amenities, such as community gardens, are also located along the Railway Greenway.

Current conditions along the Railway Greenway - view facing north

Current conditions along the Railway Greenway - view facing south

There is an existing on-road bicycle lane on each side of Railway Avenue that runs parallel to the Railway Greenway between Granville Avenue and Garry Street, along with a City sidewalk on the east side of the street. Both of these transportation facilities are illuminated by roadway lighting.

Richmond

Railway Greenway Lighting Engagement

Ecological Impact

The Railway Greenway serves as an ecological corridor that provides ecosystem services including rainwater storage and filtration, cooling, and food sources and habitat for birds and insects. It is an important part of the City's Ecological Network. Some forms of lighting may have detrimental impacts on plants and animals within the Railway Greenway. Potential strategies to reduce these impacts include specifying lights that are movement sensor or timer-operated.

Railway Greenway ecological and active transportation corridor

Active Transportation

The Railway Greenway also serves as an important active transportation corridor in the City's network. A 4-metre wide multi-use path (MUP) accommodates mixed modes of transportation (e.g., walking and rolling) and is one of the busiest cycling routes in the City. While there are no lights within the greenway at present, some sections, especially those with proximity to intersections and Railway Avenue, receive light spillage from streetlights. The sidewalk and bike lanes along Railway Avenue are illuminated by existing streetlights, offering an alternative path of travel.

Impact on Adjacent Residences

As the City contemplates the prospect of lighting along the Railway Greenway, avoiding any negative impacts for adjacent residents is a top priority. Should the broader Richmond community indicate support for lighting, City staff would develop an implementation strategy that is sensitive to adjacent residences and employs measures to avoid increased late night activity and light trespass (e.g., by employing lights operated on movement sensors or timers and outfitted with shields).

Lighting Strategies and Cost Implications

In 2023, City staff procured the services of a qualified electrical engineer to complete a Railway Greenway lighting study. Since the City does not have established light standards for parks, the City's Engineering Design Specifications for Roadway Lighting were used. These specifications are based on Illuminating Engineering Society (IES) standards and can be applied to off-street pathways in addition to roadways. The findings of the lighting study demonstrated that the majority of the Railway Greenway MUP does not meet City standards, with the exception of areas in close proximity (less than 30 metres) to lit intersections.

Railway Greenway Lighting Engagement

A number of lighting strategies are possible:

Strategy A: Functional, Continuous Lighting

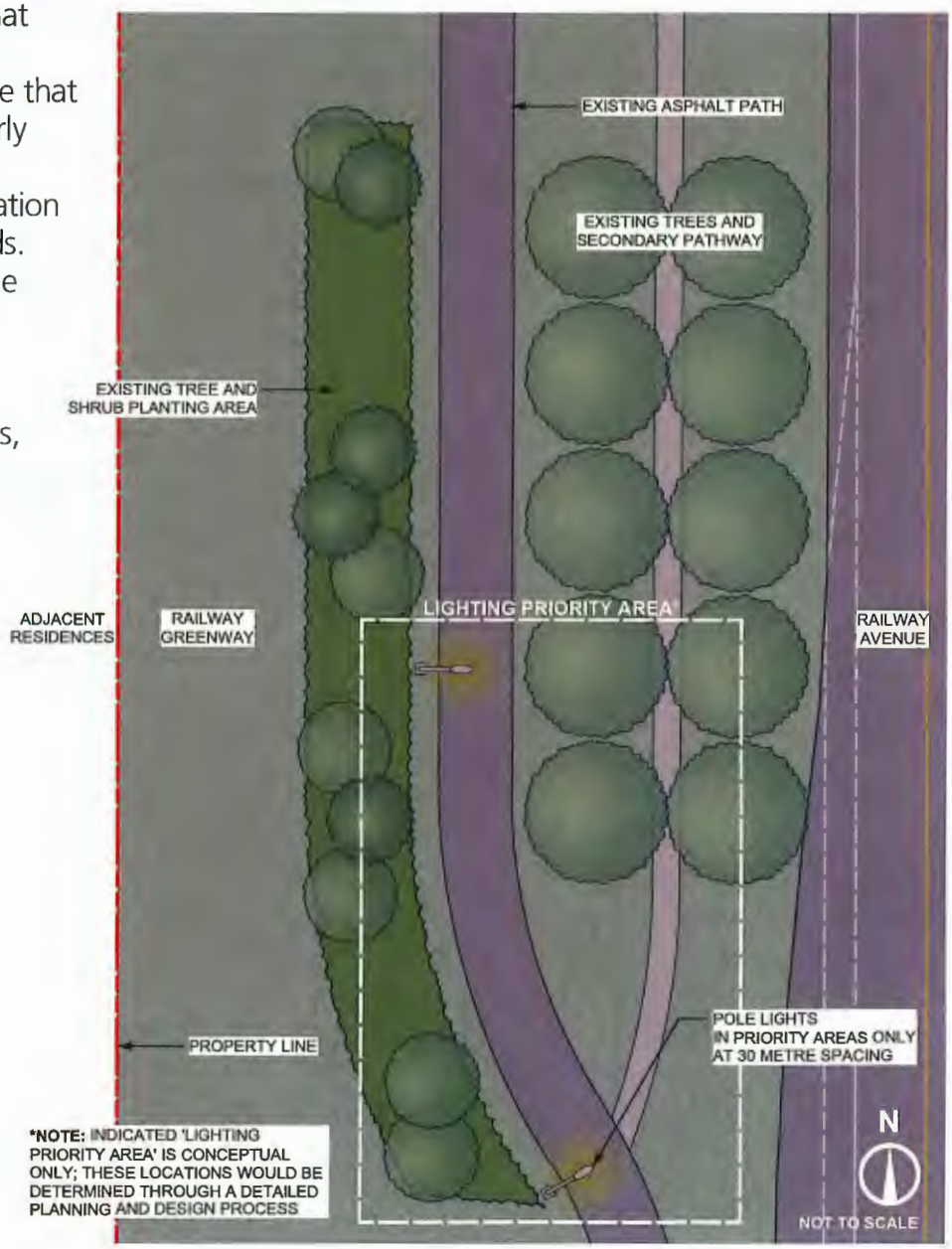
This approach would ensure that light levels along the entire Railway Greenway (between Westminster Highway and Garry Street) meet City standards, adopted accessibility guidelines and best practices, etc. This strategy would require pole lights spaced at approximately 30 metres on centre. Of the possible strategies, this approach is anticipated to have the second highest cost.

Note: The lighting strategy options indicated on these plans are schematic only. They are intended to visually communicate the approximate arrangement, quantity, and general style of light fixtures that corresponds to each strategy at a conceptual level. Pending the results of this community engagement process and direction from Council, any prospective lighting strategy would require a detailed planning and design process to determine next steps.

Railway Greenway Lighting Engagement

Strategy B: Functional, Intermittent Lighting

This approach would ensure that light levels within established lighting priority areas (i.e., those that are determined to be particularly dark and pose the greatest challenges from a safety/navigation standpoint) meet City standards. This strategy would require pole lights spaced at approximately 30 metres on centre within established lighting priority areas. Of the possible strategies, this approach is anticipated to have the lowest cost.



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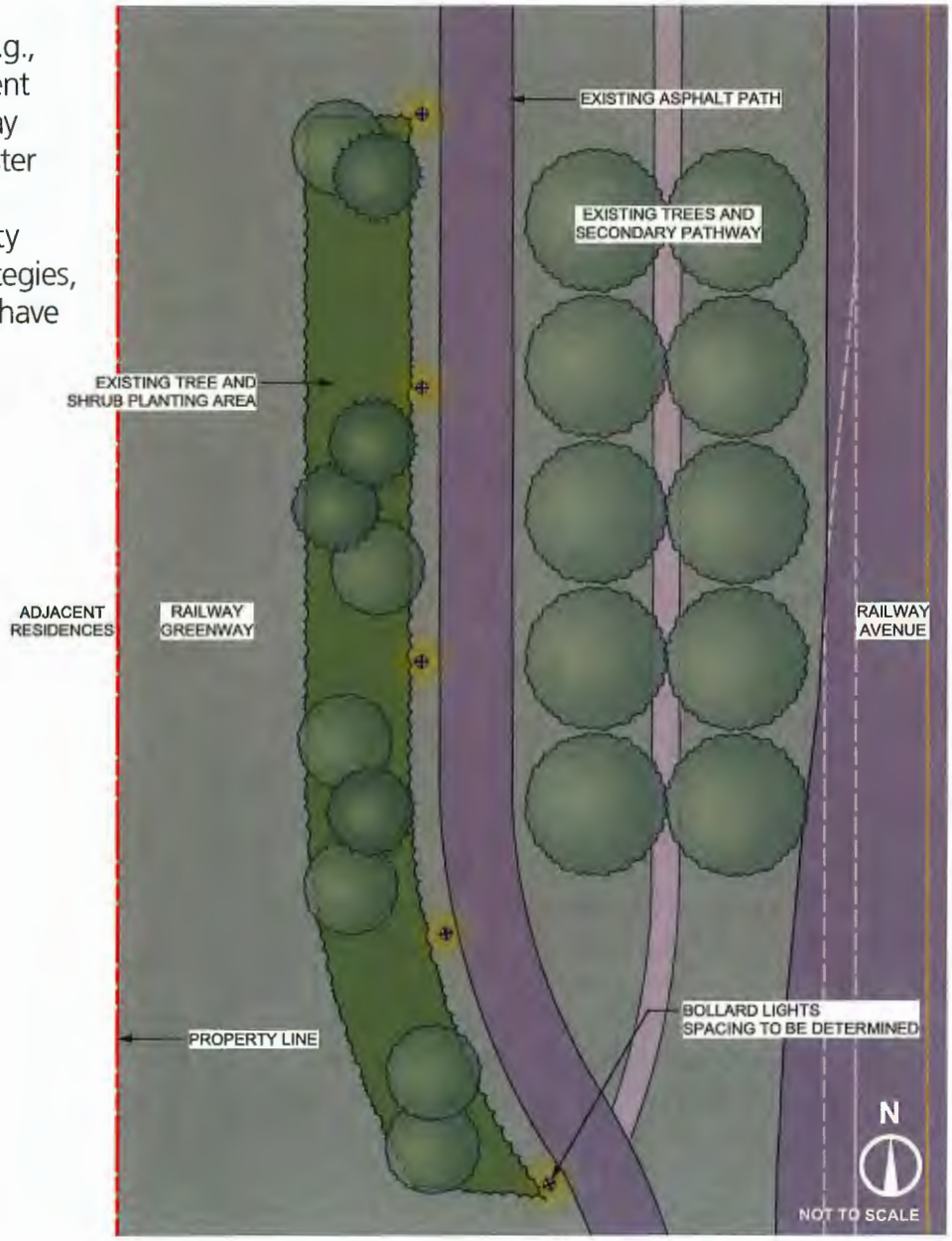
Railway Greenway Lighting Engagement

Strategy C: Ambient, Continuous Lighting

This approach would utilize alternative lighting elements (e.g., bollard lights) to provide ambient lighting along the entire Railway Greenway (between Westminster Highway and Garry Street).
Light levels would not meet City standards. Of the possible strategies, this approach is anticipated to have the highest cost.



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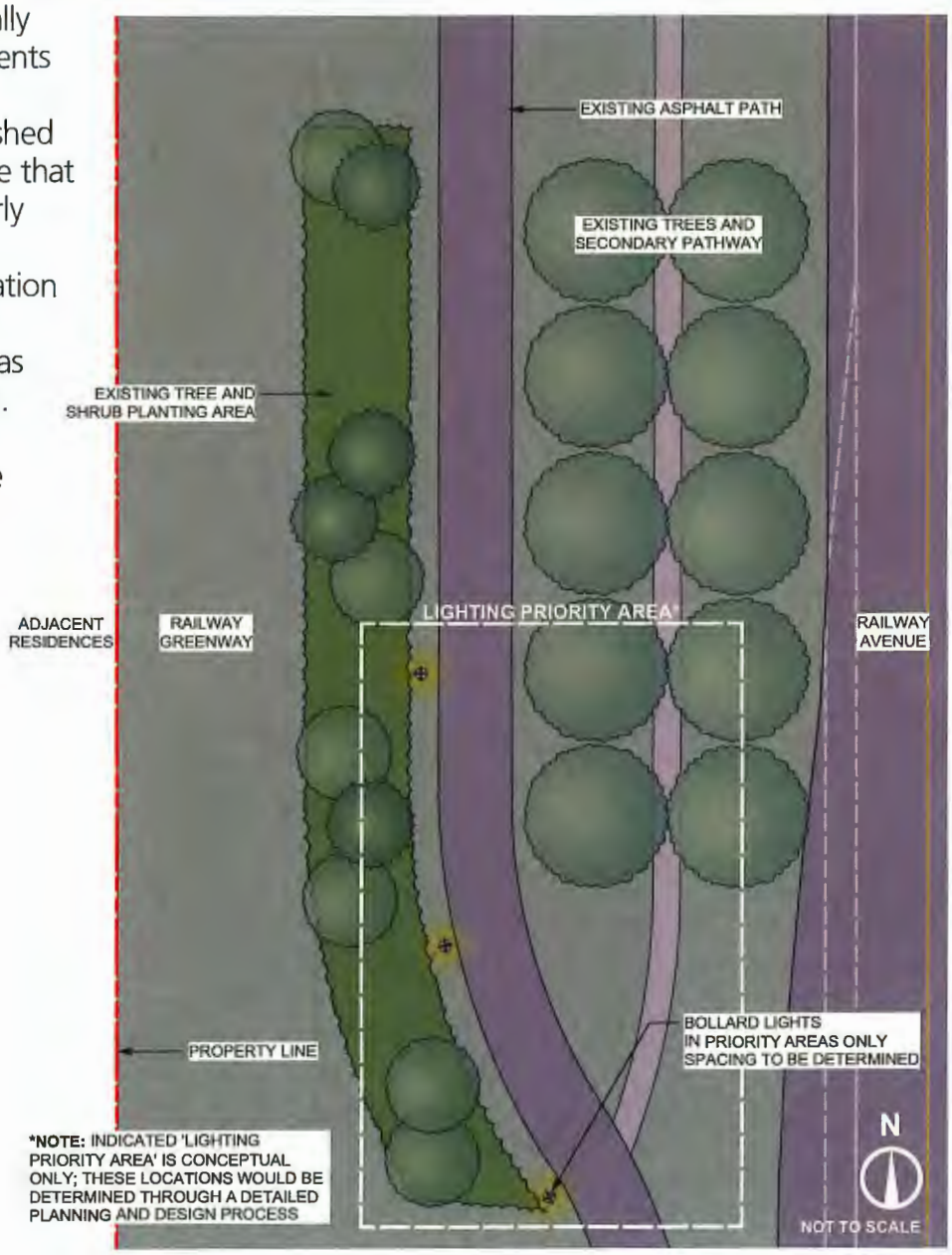
Railway Greenway Lighting Engagement

Strategy D: Ambient, Intermittent Lighting

This approach would strategically locate alternative lighting elements (e.g., bollard lights) to provide ambient lighting within established lighting priority areas (i.e., those that are determined to be particularly dark and pose the greatest challenges from a safety/navigation standpoint). Light levels within established lighting priority areas would not meet City standards. Of the possible strategies, this approach is anticipated to have the second lowest cost.

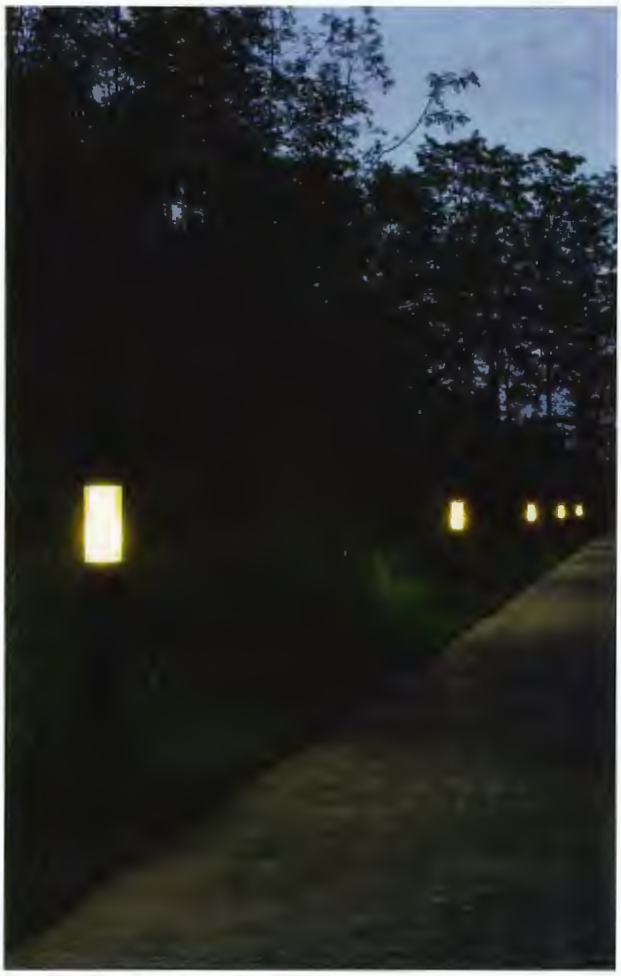


Note: The lighting strategy options indicated on these plans are schematic only. They are intended to visually communicate the approximate arrangement, quantity, and general style of light fixtures that corresponds to each strategy at a conceptual level. Pending the results of this community engagement process and direction from Council, any prospective lighting strategy would require a detailed planning and design process to determine next steps.

Railway Greenway Lighting Engagement

Potential Lighting Types

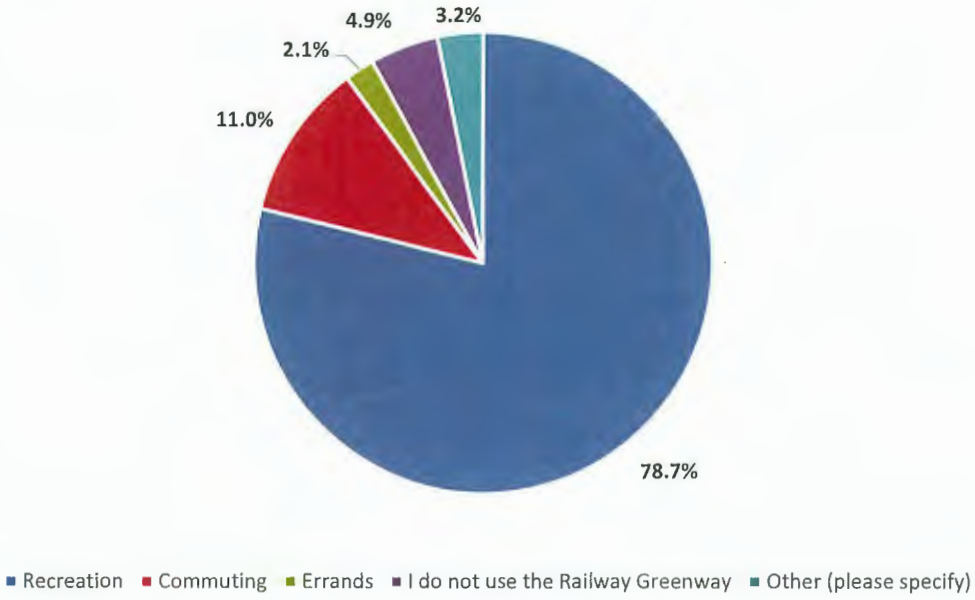
Example of pedestrian scale pole lights along multi-use path on Sea Island (photo credit: City of Richmond)



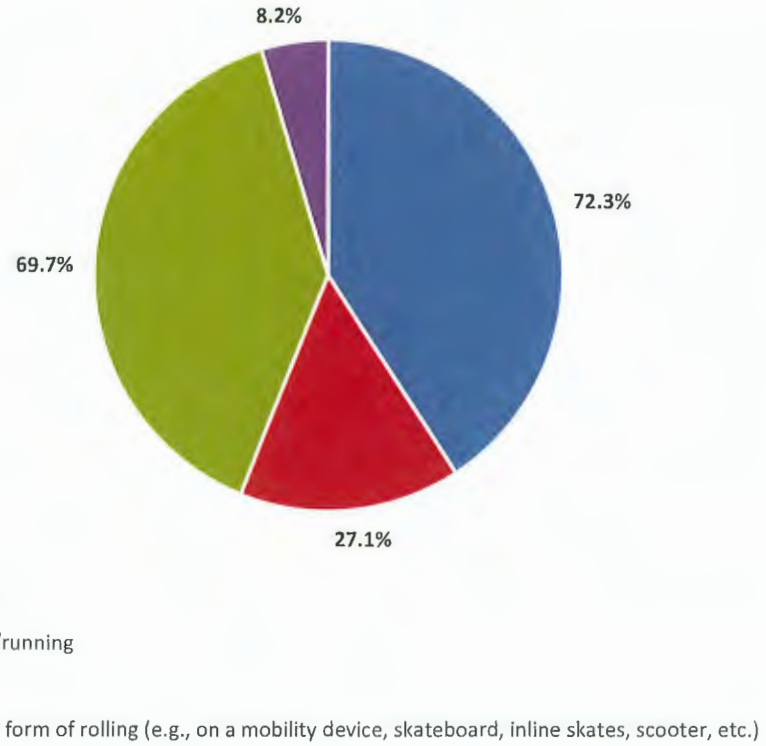
Example of bollard lights (photo credit: Albert Leuchten)

Note: The lighting styles shown in the above images are representative only. Specific fixtures, spacing, quantities, and locations would be determined through a future planning and design process.

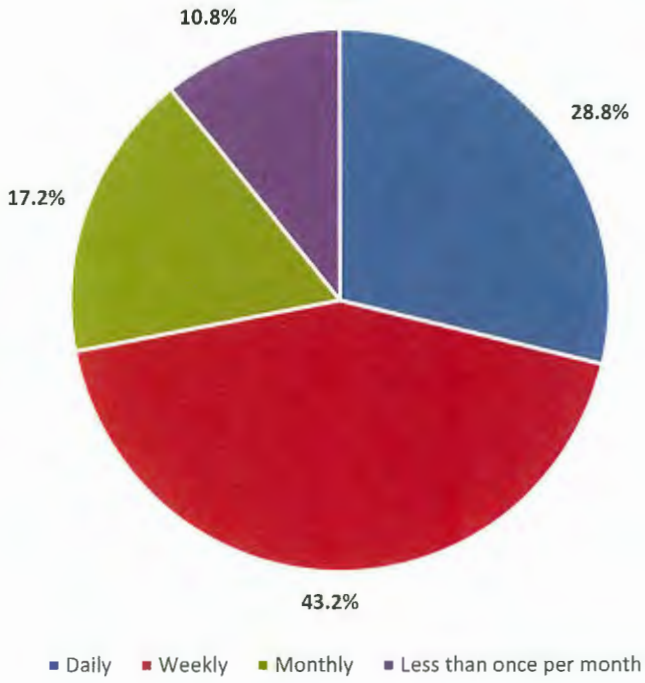
I primarily use the Railway Greenway for the following purpose:



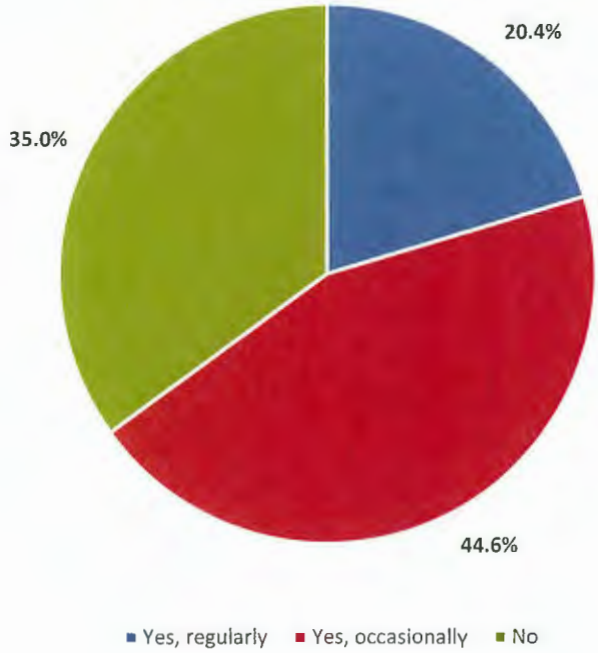
I typically use the Railway Greenway by (select all that apply):



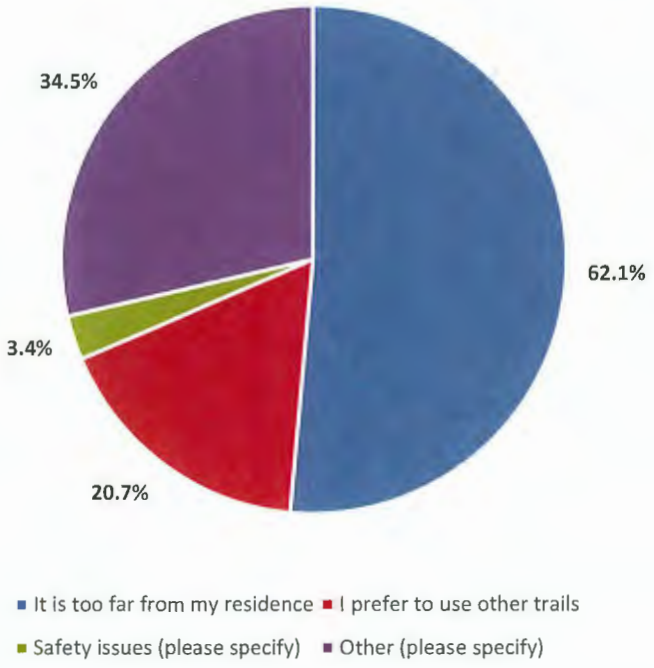
I typically use the Railway Greenway with the following frequency:



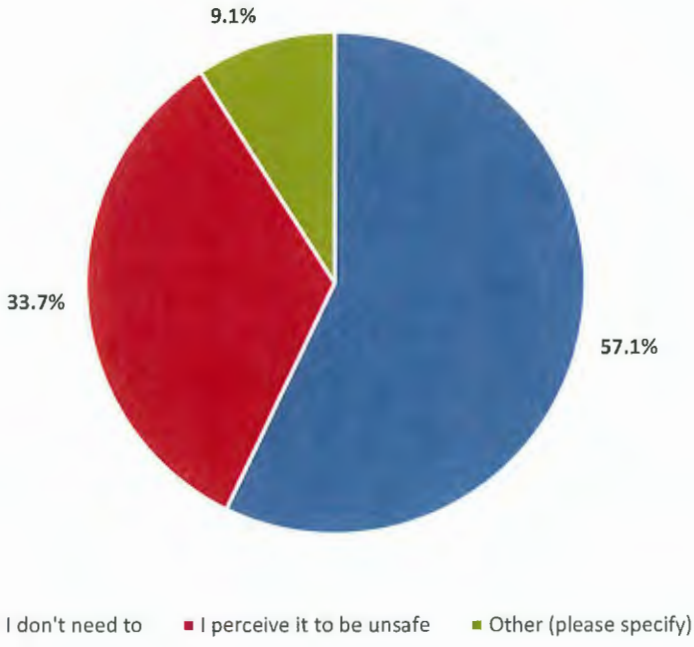
I use the Railway Greenway outside daylight hours:



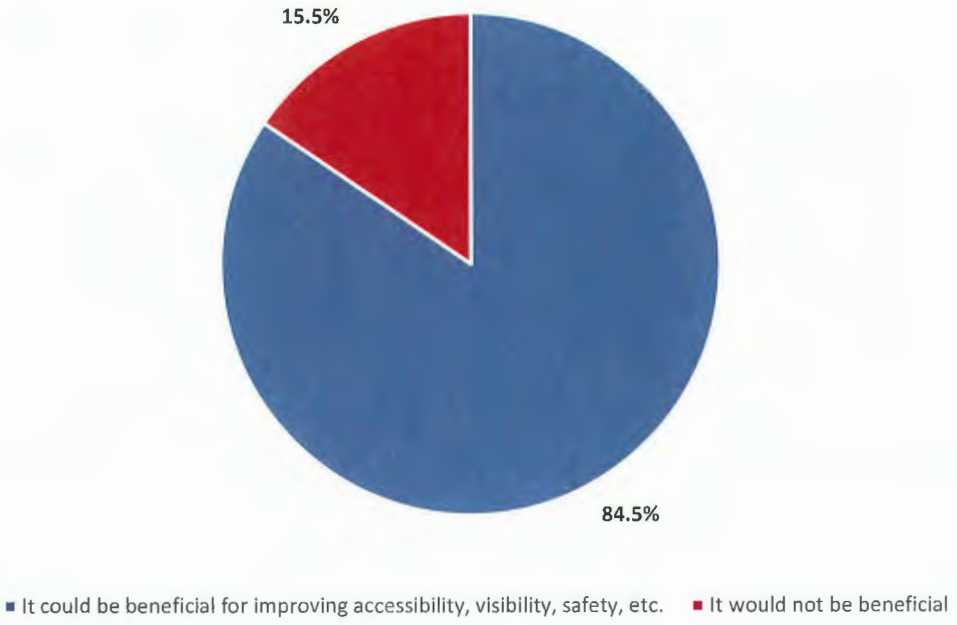
I do not use the Railway Greenway for the following reasons (select all that apply):



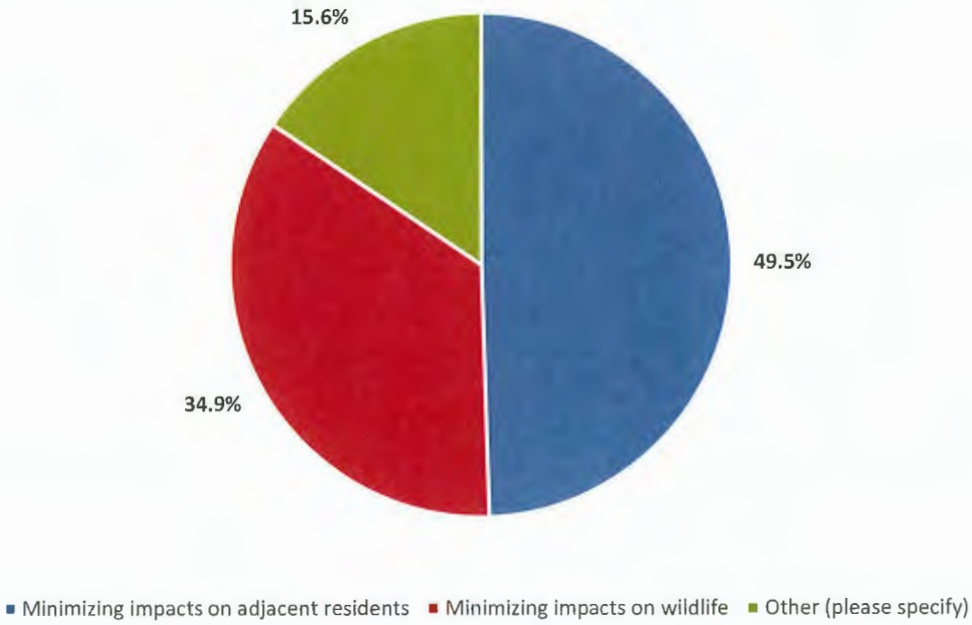
I do not use the Railway Greenway outside daylight hours because:



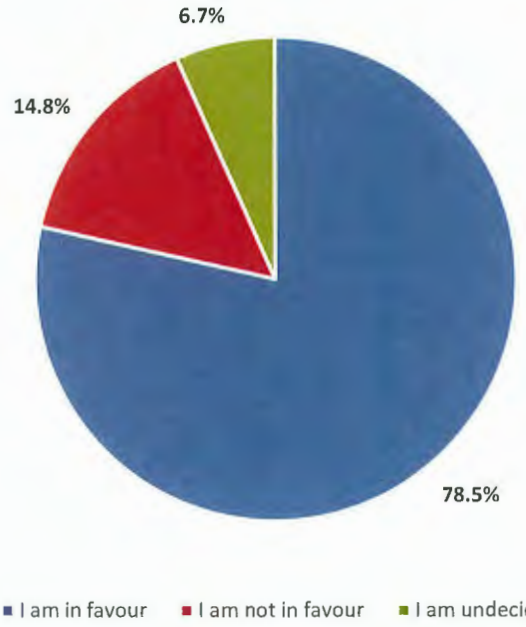
I feel the following way about the prospect of installing lighting along the Railway Greenway:



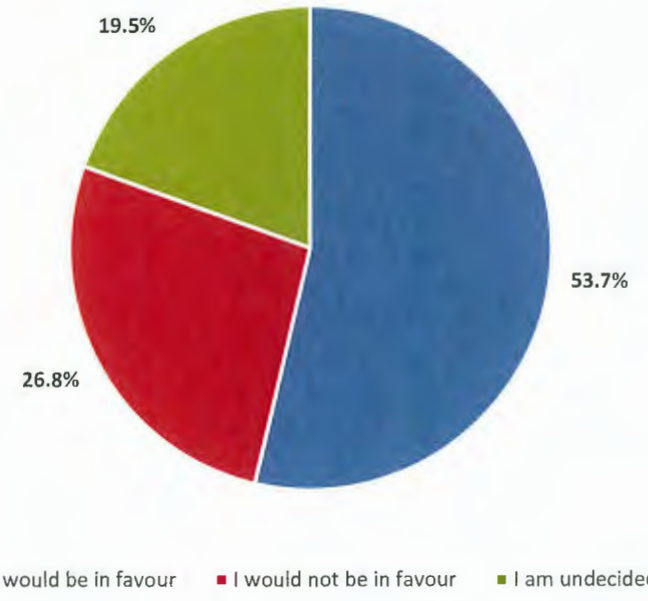
If lighting were to be installed along the Railway Greenway, I feel the most attention should be directed toward (select one):



I feel the following way about the City exploring opportunities to introduce lighting along the Railway Greenway:

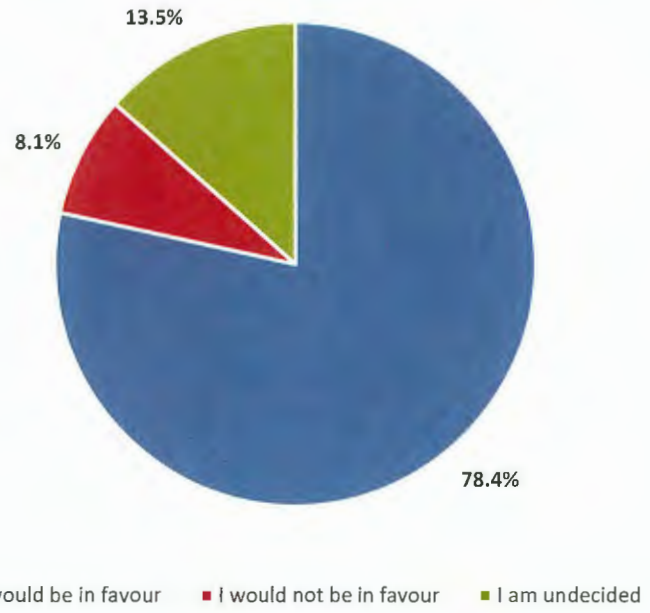


If lighting were to be installed along the Railway Greenway, I would feel the following way about lights operated with a movement sensor or timer:

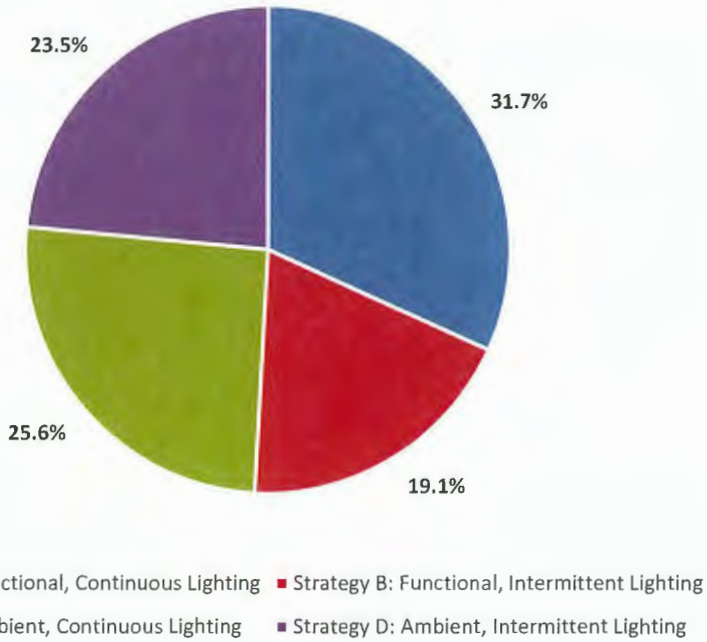


PRCS – 64

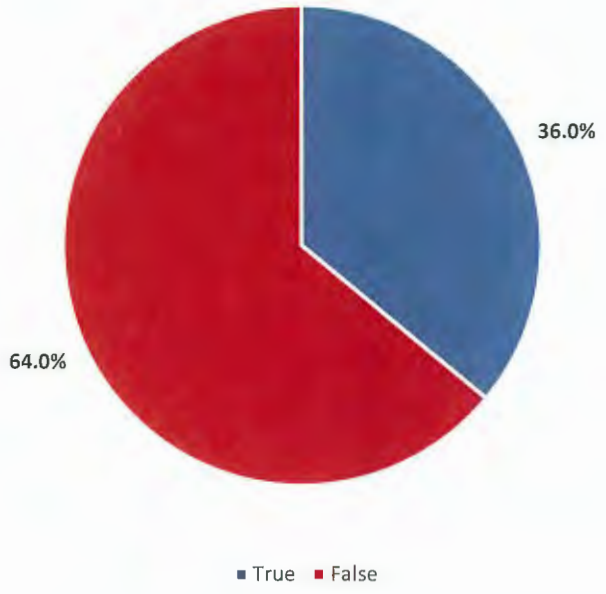
If lighting were to be installed along the Railway Greenway, I would feel the following way about wildlife-friendly lighting strategies:



I have reviewed the "Lighting Strategies" info sheet and support the following Railway Greenway lighting strategy:



I live adjacent to the Railway Greenway:



I heard about this engagement via (check all that apply):