

Report to Civic Works Committee

To: Chair and Members
Civic Works Committee

From: Kelly Scherr, P.Eng., MBA, FEC
Deputy City Manager, Environment & Infrastructure

Subject: Participation in Provincial Cargo E-bike Pilot

Date: June 21, 2022

Recommendation

That the on the recommendation of the Deputy City Manager, Environment and Infrastructure, the following actions be taken with respect to potential participation in the Province of Ontario's Cargo E-bike pilot program:

- a. this report **BE RECEIVED** for information;
- b. Civic Administration **BE AUTHORIZED** to advise the Province of Ontario that the City of London will be participating in both the commercial and personal components of the Cargo E-bike Pilot Program;
- c. Civic Administration **BE AUTHORIZED** to update relevant municipal by-laws to incorporate cargo e-bikes for personal use, and bring back a by-law to the Civic Works Committee (CWC) at a future meeting; and
- d. Civic Administration **BE AUTHORIZED** to develop a commercial use cargo e-bike pilot program, including licencing, permitting and by-law amendments and bring back a report at a future CWC meeting.

Executive Summary

Cargo e-bikes are a type of electric-powered bike with a platform or box to carry larger items like packages and boxes for deliveries. Individuals use them for transporting larger items for personal use (e.g., groceries) or children as passengers, often as an alternative to using an automobile. Businesses use them to deliver products and/or services. Cargo e-bikes, particularly personal use cargo e-bikes, are already present in London and it would be prudent to pilot a bylaw framework for their safe and efficient use.

The Province of Ontario has defined a cargo e-bike as being over 55 kilograms. Similar style e-bikes that are less than 55 kilograms are considered to be the same as standard e-bikes.

Ottawa and Toronto are currently participating in the provincial pilot, including the development of new permitting and licencing processes for commercial cargo e-bikes that include requirements for company logos and identifying numbers, offering annual short-term parking permits for each bike in use, and allowing commercial cargo e-bikes to be in loading zones and no-parking zones for up to 15 minutes.

In the Summer 2021, public input on the use of cargo e-bikes was gathered primarily through the Get Involved platform. For personal use cargo e-bikes, most respondents who had no experience with one expressed a willingness to try them. This group of respondents had some concerns about unsafe bike lanes and the chance of increasing congestion. Respondents with experience noted that this mode of transportation is environmentally friendly, helpful, and safe. This group of respondents also noted that more connected and safe dedicated bike lanes are required.

For commercial use cargo e-bikes, 32 per cent of respondents were willing to use it in the future for business purposes, and the other 68 per cent do not plan to own one in the future at this time.

The potential introduction of both personal and commercial use cargo e-bikes was also discussed with several City service areas and partner organizations. The overall themes to the feedback received included:

- Restrict all cargo e-bikes from riding or parking on sidewalks;
- Restrict commercial cargo e-bike use in parks, along pathways, and the Thames Valley Parkway (TVP);
- Enforcement will need to be addressed;
- Need dedicated parking locations for commercial cargo e-bikes;
- Develop education, including rules of the road, in advance of pilot participation; and
- Otherwise, treat cargo e-bikes the same as bicycles.

Based on feedback received, City staff recommend the following:

Join the pilot for personal cargo e-bikes, with associated by-law updates. This would include a review of current municipal by-laws. A review of municipal by-laws would also allow for the recognition of other, new, larger mobility devices, such as those envisioned for riders in the Province of Ontario's Urban Mobility Vehicle Pilot. This option is referred to in the report as A-1. Allow Personal Cargo E-bikes and Update By-law. This recommendation will allow Londoners to purchase any cargo e-bike, ride it legally (where allowed), and eliminate the need to recognise the difference between e-bikes under 55 kilograms and cargo e-bikes over 55 kilograms for enforcement purposes. The recommendation also recognises that a cargo e-bike can be a viable alternative to owning a second car. Personal cargo e-bikes would not be allowed to operate or park on sidewalks.

- Develop a pilot program for commercial use of cargo e-bikes, including licensing rules, fees and parking requirements. This is one action local businesses can take that supports the Climate Emergency Action Plan. Commercial cargo e-bikes would not be allowed to operate or park on sidewalks. This option is referred to in the report as B-1. Full Cargo E-bike Pilot Participation.

Financial Impact/Considerations

The costs associated with both the personal and commercial pilot projects are expected to be minor in nature as the number of cargo e-bikes is expected to be modest over the term of the pilot projects. Minor costs associated with educational and promotional materials, as well as the licensing of commercial pilot project participants, is expected to be between \$5,000 and \$10,000 and can be absorbed in existing budgets during the pilot projects.

Linkage to the Corporate Strategic Plan

Municipal Council's 2019-2023 Strategic Plan for the City of London continues to recognize the importance of active transportation, cycling, and the need for a more sustainable, inclusive, and resilient city. Personal and commercial cargo e-bike use addresses four of the five Areas of Focus, at various levels:

- Strengthening Our Community
- Building a Sustainable City
- Growing our Economy
- Creating a Safe London for Women and Girls

On April 23, 2019, the following was approved by Municipal Council with respect to climate change:

Therefore, a climate emergency be declared by the City of London for the purposes of naming, framing, and deepening our commitment to protecting our economy, our eco systems, and our community from climate change.

On April 12, 2022, Municipal Council approved the Climate Emergency Action Plan which includes Area of Focus 4, Transforming Transportation and Mobility.

Analysis

1.0 Background Information

1.1 Previous Reports Related to this Matter

Relevant reports that can be found at www.london.ca under Council meetings include:

- Cycling and Transportation Demand Management Upcoming Projects (March 30, 2021 meeting of CWC, Agenda Item # 2.12)

1.2 Background

In March 2021, the Province of Ontario launched a five-year Cargo E-bike Pilot Program. The pilot is intended to evaluate the use of cargo e-bikes for both personal and commercial purposes. As part of the pilot, Ontario municipalities first need to pass by-laws to define where they can operate, where they can be parked (e.g., within spots for motor vehicles), and the operating parameters for cargo e-bike operators and businesses. Figures 1 and 2 are examples of cargo e-bikes for personal use. Figures 3 and 4 are examples of cargo e-bikes for commercial use.

Figure 1 - Example of Personal Use Cargo E-bike



(Photo credit: Bunch Bikes)

Figure 2 - Example of Personal Use Cargo E-bike



(Photo credit Virtue Cycles)

Figure 3 - Example of Commercial Cargo E-bike



(Photo credit: UPS)

Figure 4 - Example of Commercial Cargo E-bike



(Photo credit: MTO)

Note that the provincial Moving Ontarians More Safety Act (MOMS Act) has altered what is considered a legal "e-bike" as one weighing under 55 kilograms (including a light-weight cargo-style e-bike), and a cargo e-bike as weighing over 55 kilograms.

Most personal cargo-style e-bikes are under 55 kilograms and so remain legal to ride as per the MOMS Act. They are not part of this pilot program. However, those over 55 kilograms are in violation of the Highway Traffic Act, unless the City opts into the provincial pilot. For this reason, the recommendation is to opt into the pilot and allow cargo e-bikes to operate in London. This recommendation will allow Londoners to purchase the cargo e-bike that meets their personal needs.

The Province also released a Municipal Guidelines document, which provides best practice guidelines for setting up and allowing commercial use cargo e-bikes (see Appendix A).

More information on the provincial pilot is available at <https://www.ontario.ca/page/cargo-e-bike-pilot-program> along with the Regulation: <https://www.ontario.ca/laws/regulation/210141>

1.3 Experience Elsewhere

Other Ontario municipalities participating in the provincial pilot include Ottawa and Toronto.

In the Summer of 2021, the City of Ottawa gathered public input on the use of cargo e-bikes. The City's two-year pilot launched in the Fall of 2021. It covers cargo e-bikes for personal use and commercial use. As part of the permit process for commercial cargo e-bikes, participating company logos and identifying numbers need to be displayed on the sides of the vehicles. Commercial operators making deliveries are able to buy an annual short-term parking permit for each bike in use, allowing the commercial cargo e-bikes to be in loading zones and no-parking zones for up to 15 minutes. Ottawa expects there could be 25 commercial cargo e-bikes operating in its downtown within the first two years of the pilot, along with additional cargo e-bikes in other areas of Ottawa that are strategic to the business community.

As of Spring 2022, the City of Toronto permitted the use of cargo e-bikes that weigh over 120 kilograms on public roads and bike lanes. Pending agreement on final details with several companies that do local deliveries, the City expects to be testing roughly 20 to 40 commercial cargo e-bikes in the downtown core. The commercial cargo e-bikes will be allowed to park in commercial loading and delivery parking zones currently used by trucks and vans.

2.0 Discussion and Considerations

2.1 Context

In March 2021, Council directed Civic Administration to prepare a plan and initiate a process to determine how a Cargo E-bike pilot might be undertaken in London, including the advantages and disadvantages of a program, potential restrictions on where cargo e-bikes may be used and parked, other operating and safety parameters, possible use in the municipal fleet operations, amendments that would be required to City by-laws, and to seek community and partner input. At the time of writing, the provincial Cargo E-bike pilot has less than four years left. The pilot project opportunity period for municipalities ends March 1, 2026.

2.2 Synopsis of Feedback

Over the Summer 2021, City staff requested input from Londoners (including businesses), City advisory committees, partner organizations and City service areas to help inform Council's choices for the provincial pilot. The highlights presented below are separated between personal cargo e-bikes and commercial cargo e-bikes.

Due to Covid-19 pandemic restrictions, public input on cargo e-bikes was gathered primarily through the Get Involved platform. Overall, the Get Involved website had 286 visitors, and 227 feedback forms were submitted. The feedback form was open for over

ten weeks. The questions dealt equally with personal and commercial use cargo e-bikes. The majority of questions were multiple choice.

A. Personal cargo e-bikes

Public Input Through Get Involved

Table 1 presents the overall breakdown of responses to whether they own or plan to own a personal large cargo e-bike. See Appendix B for more details.

Table 1 – Personal Cargo E-Bike Responses(a)

Do you own, or plan to own, a personal large cargo e-bike?	Total Responses [count and percentage]	People with experience using a cargo e-bike [count and percentage]	People without experience using a cargo e-bike [count and percentage]
Yes	34 (17%)	12 (41%)	22 (12%)
Maybe	28 (14%)	4 (14%)	24 (14%)
No	144 (70%)	13 (45%)	131 (74%)
Total	206	29	177

Note:

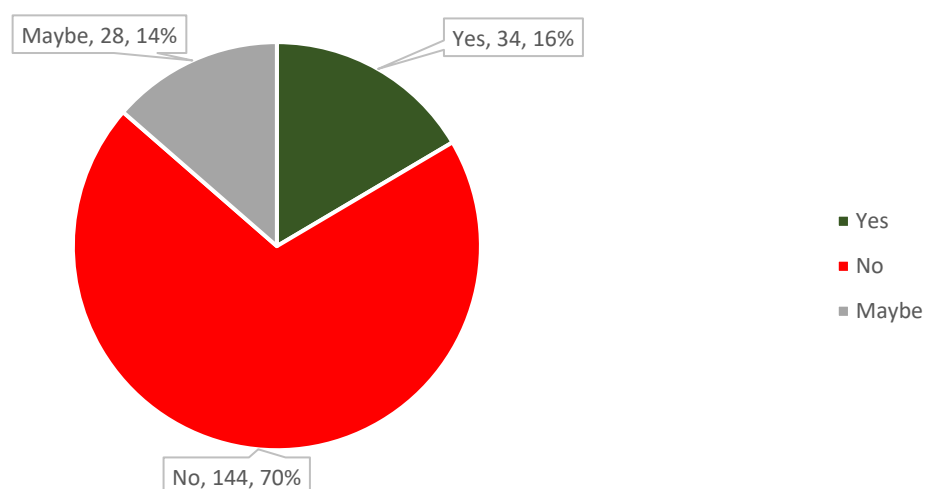
- (a) Respondents to the survey had the option to skip answering some questions. Due to this, the total count presented in all tables and charts is less than the total number of participations in the survey (227 responses).

Out of 206 total responses, 30 per cent of respondents (62 responses) said that they own, plan or may plan to own, a personal cargo e-bike (See Figure 5 below), whereas 70 per cent (144 responses) stated that they do not own, or plan to own a personal cargo e-bike.

In analysing the data, it was recognised that the confusion over the provincial definitions of small versus large cargo e-bikes may have affected respondents' answers. There does seem to be a general split of opinion between those who have tried a cargo e-bike compared to those who have not.

Figure 5: Breakdown of total respondents about whether they own or plan to own a large cargo e-bike

Do you own, or plan to own, a personal large cargo e-bike as defined by Ontario's provincial pilot project?
(Total Responses)



Out of the 49 responses under the group of “People with experience”, 55 per cent mentioned that they already own or plan to own a cargo e-bike in the future. This group had a positive impression about this mode of transportation. The comments regarding advantages were:

- 1- Great option for commuting;
- 2- Environmentally friendly; and
- 3- Helpful and safe.

Some of the concerns that were mentioned included the need for safer infrastructure, particularly dedicated bike lanes.

There were 177 responses submitted in the group of respondents who have not used any type of personal cargo e-bike before, with 74 per cent of the 177 respondents mentioning that they do not plan to own a personal cargo e-bike in the future. However, 26 per cent of respondents expressed an openness to using a personal cargo-e-bike, which may show that there is potential for their use to grow as more people are exposed to them.

Respondents in the group that has no experience with personal cargo e-bikes stated the advantages and disadvantages of cargo e-bikes. The comments regarding advantages were:

- 1- Love to try as another option for commuting;
- 2- It can benefit the environment; and
- 3- Can reduce the car reliance in the city.

Some of the concerns that were mentioned included:

- 1- Should first improve the infrastructure and make it safe/protected bike lanes/more lanes; and
- 2- It can be unsafe or a nuisance.

Generally, people with experience using or being around cargo e-bikes in other cities responded more favourably and with less concerns than those who had neither exposure or experience with them.

City Advisory Committees

No formal feedback on personal cargo e-bikes was received from those City advisory committees that were consulted. Individual committee members may have provided input through Get Involved.

City Service Areas and Partners

The potential introduction of both personal and commercial use cargo e-bikes will affect several City service areas and partner organizations. There are a few overall themes to the feedback received (see Appendix C). These include:

- Restrict personal use cargo e-bikes from sidewalks;
- Enforcement will need to be addressed; and
- Enforce like bicycle rules are currently enforced.

Other comments were not as consistent (i.e., support for their use from some and opposition to their use by others).

B. Commercial Cargo E-Bikes

Public Input Through Get Involved

Table 2 presents the overall breakdown of responses to whether they own or plan to own a large cargo e-bike for their business. See Appendix B for more details.

Table 2 Commercial Cargo E-bike Responses(a)

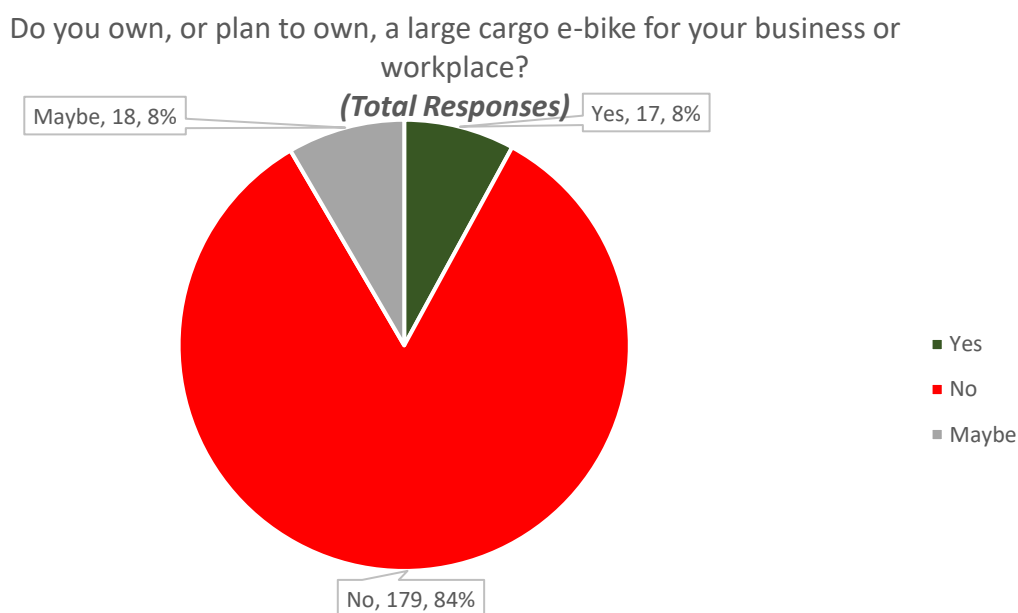
Do you own, or plan to own, a large cargo e-bike for your business or workplace?	Total Responses [count and percentage]	People with experience using a cargo e-bike [count and percentage]	People without experience using a cargo e-bike [count and percentage]
Yes	17 (8%)	9 (23%)	8 (5%)
Maybe	18 (8%)	4 (10%)	14 (8%)
No	179 (84%)	26 (67%)	153 (87%)
Total	214	39	175

Note:

- (a) Respondents to the survey had the option to skip answering some questions. Due to this, the total count presented in all tables and charts is less than the total number of participations in the survey (227 responses).

Of the 214 respondents who answered the question of whether they owned, or planned to own, a large cargo e-bike for their business or workplace, 84 per cent stated they did not. This is shown in Figure 6.

Figure 6: Breakdown of respondents who answered the question of whether they owned, or planned to own, a large cargo e-bike for their business or workplace



As for respondents who used a type of cargo e-bike for their business, 33 per cent (13 responses) were willing to use it in the future and the other 67 per cent (26 people) do not plan to own one in the future.

Most respondents (87 per cent) in the category of those who have not used any type of cargo e-bike for their business or workplace, do not plan to own one in the future. This could be due to the pilot still being new so many business owners have not considered cargo e-bikes for commercial purposes. This could also point to the opportunity to ask London business owners, particularly located downtown, more questions over the next year as the vehicles become more common for commercial use in other municipalities.

According to the responses to the question related to parking space for commercial purposes, most people do not have a parking space to store a cargo e-bike. That may be one reason why people do not plan to get one for their business.

City Advisory Committees

No formal feedback was received on commercial cargo e-bikes from those City advisory committees that were consulted. Individual committee members may have provided input through Get Involved.

City Service Areas and Partners

Some of the positive comments raised by City service areas and partners included:

- Provide free parking for two hours or less;
- Include as few restrictions on their use as possible; and
- Use in areas of the city where there is limited vehicle traffic for deliveries.

There are a few common concerns to the feedback received from City service areas:

- Restrict commercial use from sidewalks; parks, along pathways and the Thames Valley Parkway; and
- Enforcement may be a challenge in some areas of the city.

Other concerns raised include:

- Need dedicated parking locations; and
- Develop educational programs, including rules of the road, in advance of pilot participation.

2.3 Staff Recommendations

Based on the research, experience in other municipalities, and local feedback from Londoners, partner organizations, and City service areas, there are several options for proceeding with cargo e-bikes under the two choices provided by the Provincial pilot.

A. Personal cargo e-bikes

A-1. Allow Personal Cargo E-bikes and Update By-law

Participate fully in the pilot for personal cargo e-bikes (noting that personal cargo e-bikes under 55 kgs are already permitted) with associated by-law updates. Personal cargo e-bikes would not be allowed to operate or park on sidewalks. This would include a review of current municipal by-laws. A review of municipal by-laws would also allow for the recognition of other, new, large mobility devices, such as those envisioned for riders in the Province of Ontario's Urban Mobility Vehicle Pilot.

(<https://www.ontariocanada.com/registry/view.do?postingId=39027&language=en>)

A-2. Allow Personal Cargo E-bikes with Restrictions

Participate in the provincial pilot with several additional restrictions on where personal cargo e-bikes can operate (e.g., not allowed on sidewalks, multi-use pathways or the TVP) and where to park (e.g., not allowed on sidewalks). This would include a review of current municipal by-laws.

A-3. Do Not Join Provincial Pilot Monitor and Review Other Municipalities' Pilots

No participation in the provincial pilot. Personal use cargo e-bikes over 55 kilograms would not be allowed to operate anywhere in London.

City Staff Recommendation

Based on the feedback received, City staff recommend that Council move forward with Option A-1. This will allow Londoners to purchase any cargo e-bike, ride it legally where allowed under bylaw, and eliminate the need to recognise the difference between e-bikes under 55 kilograms and cargo e-bikes over 55 kilograms for enforcement purposes. For

some households, purchasing a cargo e-bike is an alternative to owning a second car and can help support goals related to active mobility and climate change as well.

B. Commercial cargo e-bikes

B-1. Full Cargo E-bike Pilot Participation

Fully participate in the pilot for commercial use cargo e-bikes city-wide, including the development of a licensing program. A short-term parking permit would be issued to each commercial cargo e-bike that allows the use of existing loading zones and no parking zones for up to 15 minutes while actively engaged in a delivery. Commercial use cargo e-bikes would be prohibited from operating or parking on the sidewalk, parking in bike lanes or other cycling facilities. Other prohibited areas will be addressed during licensing program and by-law development. This will include further investigating the local interest in commercial cargo e-bikes, and how other Ontario municipalities are developing commercial cargo e-bike programs (e.g., licensing, geographic service area, and parking).

B-2. Restricted Cargo E-bike Pilot Participation

Develop a pilot program for commercial use cargo e-bikes, including licensing fees, limiting to certain geographic service area(s) to be determined, and parking. This would be similar to B-1; however, the geographic area would focus on certain areas such as the broader downtown area, Old East Village, etc.

B-3. Do Not Join the Provincial Pilot; Monitor and Review Other Municipalities' Pilots

Do not opt into the provincial pilot (commercial use cargo e-bikes not allowed to operate in London). Under this option, City staff would learn from other Ontario municipalities' pilots and their municipal by-law updates. City staff would maintain and strengthen relationships with staff in other Ontario municipalities that have cargo e-bikes in place to learn from them. The City would wait until the end of the provincial pilot to do anything related to commercial cargo e-bikes.

City Staff Recommendation

Based on the feedback received, City staff recommend proceeding with B-1. This will allow the City to develop a commercial licensing program that supports local businesses across London that want to integrate cargo e-bikes in their business operations. Commercial e-cargo bikes can effectively replace some delivery vans in urban areas, thus providing a greener and more efficient option to support the same delivery demand. Using these vehicles supports the Climate Emergency Action Plan and can reduce delivery costs for businesses interested in adopting cargo e-bikes. Uptake under the commercial pilot program is expected to be modest, based on Ottawa's projection of 25 commercial cargo e-bikes in its pilot program and the Get Involved results for London

In addition, City staff recommend further investigation of possible cargo e-bike use in London's municipal fleet operations. Two municipal service areas have been piloting the use of (non-cargo) e-bikes since the Fall of 2021. So far, the municipal e-bikes have been well received and there may be applications for the use of cargo e-bikes in some municipal operations.

3.0 Financial Impact/Considerations

The costs associated with both the personal and commercial pilot projects are expected to be minor in nature as the number of cargo e-bikes is expected to be modest over the term of the pilot projects. A do-nothing approach would also require minor additional enforcement activity, as technically personal cargo e-bikes over 55 kilograms and all commercial cargo e-bikes would be prohibited from use in London and subject to enforcement action. Minor costs associated with educational and promotional materials, as well as the licensing of commercial pilot project participants, is expected to be between \$5,000 and \$10,000 and can be absorbed in existing budgets during the pilot projects.

4.0 Key Issues and Considerations

There are several issues and considerations with the provincial Cargo E-bike pilot. The key consideration with the provincial pilot is that it applies to both personal and commercial use cargo e-bikes. They need to be dealt with separately as the City has no control over the availability of cargo e-bikes for personal purchase and use. They are already in use in London. Personal cargo e-bikes cannot be regulated like commercial use vehicles can be regulated through licencing.

Both personal and commercial cargo e-bikes can present another transportation option for Londoners and business owners. They can help decrease delivery traffic in central areas and address the climate emergency by eliminating the need for some motor vehicle trips.

The confusing definition of what is considered a small cargo “e-bike” versus a large cargo e-bike most likely affected the results of the Get Involved feedback and general understanding of what is included in the pilot. With the new definition of a cargo e-bike now law, those personal cargo e-bikes currently in use that are over 55 kilograms, such as for transporting children and groceries, are illegal, unless the City opts into the provincial pilot.

Insurance needs are another consideration as part of the pilot. Municipalities that opt into the pilot must determine if insurance is required, both the type and coverage. This will be examined as part of program development.

Where the cargo e-bikes can park is another consideration. Vehicular spots could be re-designated for cargo e-bikes to further discourage sidewalk riding and parking, as well as obstructing bike lanes, transit stops and benches. In addition, any costs for cargo e-bike parking would also have to be determined. When asked whether they thought riders should pay for parking, Get Involved respondents did not have a definitive preference.

For commercial use cargo e-bikes, other municipalities, such as Ottawa, have developed a licencing system and parking permit to help regulate their use.

Conclusion

The provincial Cargo E-bike pilot ends March 1, 2026. Opting into the pilot is an opportunity for the City of London to provide another transportation option to Londoners. The two facets of the pilot, personal and commercial use, need to be dealt with separately. Personal cargo e-bikes are already in use in London. This needs to be recognised and addressed. This can be accomplished with the staff recommendation of Option A-1 - Allow Personal Cargo E-bikes and Update By-law. For commercial use cargo e-bikes, the staff recommendation is Option B-1 - Full Cargo E-bike Pilot Participation as part of the provincial pilot. This requires the development of a licencing and permitting program.

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Appendix A: Provincial Best Practice Guidelines

Appendix B: Large Cargo E-bike Final Analysis

Appendix C: City Service Area and Partner Cargo E-bike Key Points, Questions and Comments

APPENDIX A

Ontario Cargo e-Bike Pilot Program: Guidelines for Municipalities

Increasing options for businesses to meet delivery demands

Updated: May 2021

Ontario has created a five-year pilot framework for permitting the use of larger cargo power-assisted bicycles (cargo e-bikes) on Ontario roads, should municipalities choose to allow their use within their municipal boundaries.

Municipalities that want to allow cargo e-bikes to operate on their roads **must pass by-laws to permit their use** and may set out specific requirements, based on what is best for their communities.

Municipalities may also inform the Ministry of Transportation that they are participating in the pilot by sending a notification to SPDB@ontario.ca.

The Province has established the broad regulatory framework for cargo e-bikes. This includes the following vehicle and operating requirements:

Provincial Requirements

Provincial Vehicle Requirements

The vehicle is a pedal-driven bicycle of conventional exposed fork-and-frame bicycle design and appearance that:

- has two or three wheels
- is fitted at all times with pedals that are always operable to propel the bicycle
- has a platform, basket or container for carrying cargo, parcels or goods
- has steering handlebars
- has a weight of more than 55 kilograms
- has a width not exceeding 1.3 meters
- has a length not exceeding 4 meters
- has a height not exceeding 2.2 meters
- has wheels that have a width of not less than 35 millimeters and a diameter of not less than 350 millimeters
- does not have any structure that fully encloses the occupant area
- has an electric motor with a continuous rated output power not exceeding 1,000 watts that is incapable of providing propulsion assistance when the motor vehicle attains a speed of 32 kilometres per hour or more
- is not deemed a motor vehicle

Provincial Operating Requirements

- No drugs or alcohol permitted when operating a cargo e-bike (consequences under the Criminal Code of Canada may apply)
- Where permitted, the vehicle must be operated in the bicycle lane or to the right-most side of the roadway
- Operator must be age 16 or over
- Not permitted to tow devices or vehicles
- Not permitted to carry dangerous or hazardous goods
- Not permitted to leave the vehicle in a location that is intended for the passage of vehicles or pedestrians (i.e., bicycle lane or sidewalk)
- Helmets are required for all riders regardless of age
- Passengers are permitted if the passenger is using a seat designed for passenger use that is manufactured for the vehicle
- When operated at a time (i.e., night-time or in poor weather) where persons and vehicles are not clearly discernible at a distance of 150 metres or less, cargo e-bikes

must carry a lighted lamp displaying a white or amber light at the front and a lighted lamp displaying a red light at the rear (must be affixed to the vehicle, not the operator)

Municipal Considerations

Municipal Operating Parameters

Municipalities that want to allow cargo e-bikes to operate within their boundaries may wish to consider the below:

- Developing operating parameters for cargo e-bike companies and operators.
- Whether cargo e-bikes may be allowed to operate on sidewalks – sidewalks are for pedestrians, and operators should be considerate of persons with disabilities and/or limited mobility. Municipalities may wish to clearly communicate with companies about their expectations and requirements around contracts, business licences, operating agreements, etc.

Municipalities to consider:

- What are the most appropriate mechanisms to monitor, track and report on the use of cargo e-bikes under the pilot, including collisions?
- Where should cargo e-bikes be allowed to travel (e.g., bicycle lane, on roadways, bike paths, etc.)?
- A limit on the number of cargo e-bikes allowed in certain areas to combat congestion?
- How will cargo e-bikes integrate with other road users (e.g., pedestrians, cyclists, and people using personal mobility devices)?
- Whether a visible numerical identifier may be required for each vehicle in use?
- What contractual terms are required for commercial operators to provide data (such as GPS coordinates) to municipalities?
- Where and when should vehicles be permitted to stop/park for deliveries?
- What mechanism is in place for citizens to provide feedback or complaints (i.e., surveys or use of 311 lines)?
- How to ensure training for operators to meet all Occupational Health and Safety Act requirements?

Parking

The pilot program requires cargo e-bikes to be parked within spots for motor vehicles as these vehicles are not permitted to stop in places of passage for motor vehicles or pedestrians. In addition, municipalities may wish to consider clearly defining where cargo e-bikes can park (e.g., setting up designated parking locations). Designated parking locations provide control over their use and reduces interference with the public.

Municipalities may consider:

- Should there be overnight responsibility for cargo e-bike parking non-compliance?
- Who may receive the penalty if a cargo e-bike is not parked in a designated location?
- What penalty structure should apply if a cargo e-bike is not parked in a designated location?

Liability

Municipalities may consider:

- What are the possible options for commercial cargo e-bike companies to indemnify the municipality and hold appropriate insurance requirements with a distinction in insurance coverage required for commercial cargo e-bikes?

- What is the possible appropriate insurance coverage for commercial cargo e-bikes – the type and coverage amount?

Offences

Similar to bicycles, *Highway Traffic Act* (HTA) rules of the road apply to the operation of cargo e-bikes in Ontario. Penalties in HTA s. 228(8) also apply to violations of the pilot regulation (fine of \$250 to \$2,500). By-law offences may also apply. There are serious consequences for a cargo e-bike operator impaired by drugs, alcohol or both under the *Criminal Code of Canada*.

Data Collection

The Ministry of Transportation (MTO) requires data from municipalities to evaluate this pilot and determine any potential amendments required, if needed. Municipalities are required to provide information to the ministry if a municipal by-law is enacted to permit the use of cargo e-bikes on any roads within the municipality during the term of the pilot.

MTO will be evaluating the road safety impact of the pilot program and will require accurate and reliable data on all cargo e-bike collisions to do this effectively. Collisions, as defined in the *Highway Traffic Act* (HTA), must be reported using the Motor Vehicle Collision Report (MVCR) form (SR-LD-401) or an electronic collision data system when a reportable collision involving a cargo e-bike occurs. Collisions involving cargo e-bikes that do not meet the criteria of a reportable collision should be documented using your jurisdiction's incident reporting procedures. Municipalities are required to remit incident/collision and injury-related data to the province.

More Information

This document is a guide only. For official purposes, please refer to the Ontario *Highway Traffic Act* and its regulations. For more information, please see Ontario [Regulation Cargo E-Bikes](#) or visit ontario.ca.

APPENDIX B

Large Cargo E-bike Get Involved Feedback Analysis

Overall Insights

This analysis constitutes of two main groups:

- 1- **People with some experience** (defined as people who have used either smaller cargo-style e-bikes or a cargo e-bikes)
- 2- **People with no experience** (defined as people who have no experience using smaller cargo-style e-bikes or a cargo e-bikes)

People with some experience - 24 out of 178 (14 per cent) of respondents have some experience using both smaller cargo-style e-bikes or a cargo e-bikes. Most of the comments in this group were positive such as great alternative for commuting, fun, and environmentally friendly. However, more connected and safe dedicated bike lanes are required. Some people plan to own a cargo e-bike for their business.

People with no experience - 154 out of 178 (86 per cent) of respondents have no experience using a small or a large cargo e-bike. Of these 154 responses, most of respondents expressed willingness to try cargo e-bikes. However, this group of people had some concerns about unsafe bike lanes and the chance of increasing congestion. It is notable that most of respondents in this group do not own or plan to own a large cargo e-bike for their business. According to the responses to the question related to parking space, most people do not have a parking space to store a cargo e-bike. That may be one reason why people do not plan to get one for their business.

A. Feedback Form Analysis for Personal Cargo E-bikes

This table presents the overall breakdown of responses to whether they own or plan to own a personal large cargo e-bike:

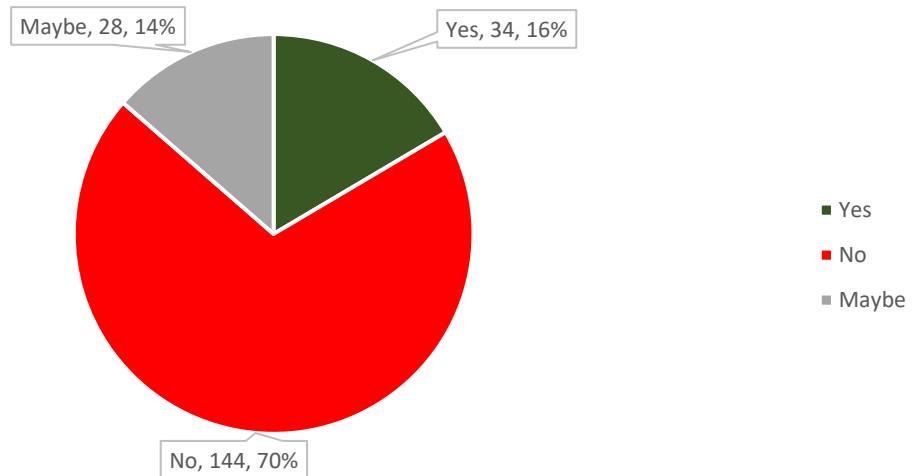
Do you own, or plan to own, a personal large cargo e-bike?	Total Responses [count and percentage]	People with experience using a cargo e-bike [count and percentage]	People without experience using a cargo e-bike [count and percentage]
Yes	34 (17%)	12 (41%)	22 (12%)
Maybe	28 (14%)	4 (14%)	24 (14%)
No	144 (70%)	13 (45%)	131 (74%)
Total	206	29	177

Note that respondents to the survey had the option to skip answering some questions. Due to this, the total count presented in all tables and charts is less than the total number of participations in the survey (227 responses).

The feedback form included a question where respondents were asked whether they own or plan to own a personal cargo e-bike in the future. This question in particular can provide useful insights into the overall public perception about cargo e-bikes.

Out of 206 total responses, 30 per cent of respondents (62 responses) said that they own, plan or may plan to own, a personal cargo e-bike, whereas 70 per cent (144 responses) stated that they do not own, or plan to own a personal cargo e-bike.

Do you own, or plan to own, a personal large cargo e-bike as defined by Ontario's provincial pilot project?
(Total Responses)

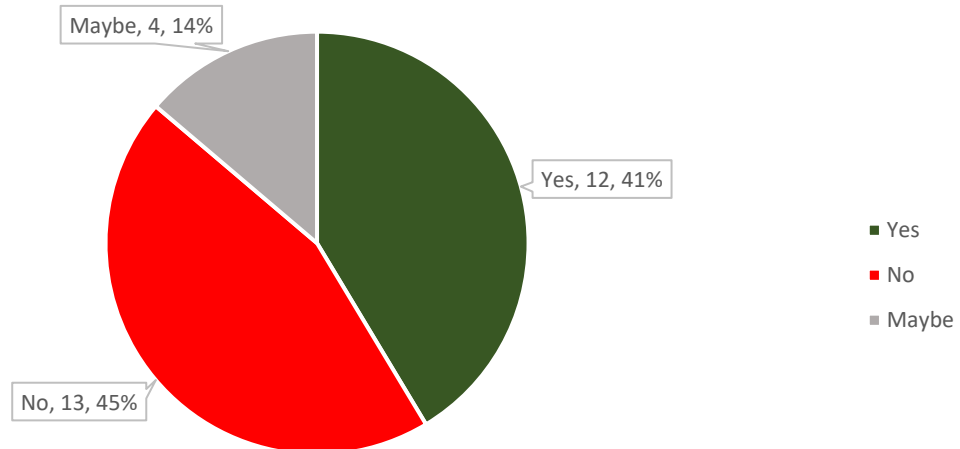


Note that respondents to the survey had the option to skip answering some questions. Due to this, the total count presented in all tables and charts is less than the total number of participations in the survey (227 responses).

A breakdown of previous chart based on the respondents' experience is provided below, considering if the respondent has used any type of cargo e-bike before or have not.

1. People with experience (have used either a large or a smaller cargo e-bike)

Do you own, or plan to own, a personal large cargo e-bike as defined by Ontario's provincial pilot project?
(People who have used a type of Cargo e-bike)



Note that respondents to the survey had the option to skip answering some questions. Due to this, the total count presented in all tables and charts is less than the total number of participations in the survey (227 responses).

In terms of experience, 29 respondents have used a type of cargo e-bike versus 177 people who have not used any type. Out of the 29 responses under the group of "People with experience", 55 per cent mentioned that they already own or plan to own a cargo e-bike in future. This indicates the willingness of people due to their positive experience about using cargo e-bike. It can also be a relatively strong conclusion that

whoever has used a cargo e-bike and has real-life experience, has a positive impression about this mode of transportation.

This group pointed out the pros and cons of cargo e-bikes. The comments regarding advantages included:

- 1- Great alternative for commuting;
- 2- Environmentally friendly; and
- 3- Helpful and safe.

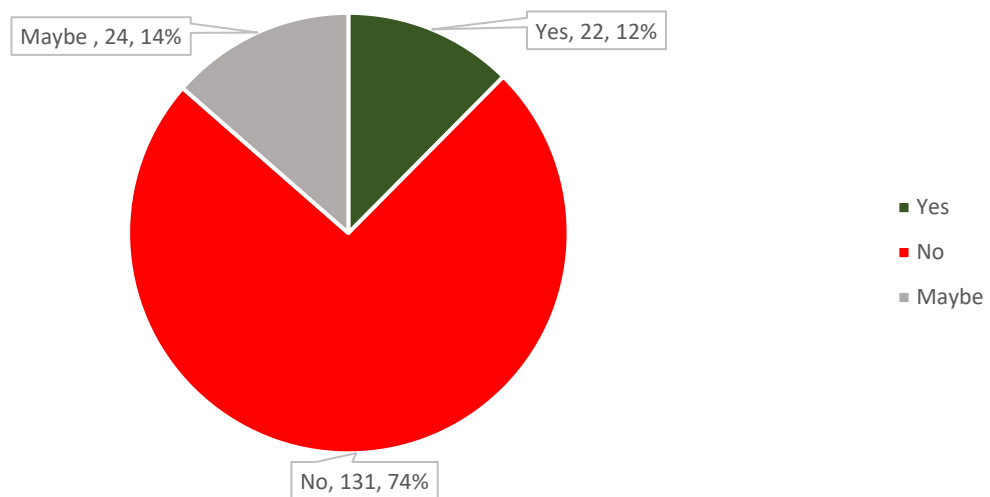
Concerns that were mentioned were:

- 1- Safer infrastructure (particularly dedicated bike lanes) is required;
- 2- It can be dangerous; and
- 3- It must be insured, licensed, and policed.

2. People without any experience (have not used a large or a smaller cargo e-bike)

Do you own, or plan to own, a personal large cargo e-bike as defined by Ontario's provincial pilot project?

(People who have NOT used any type of Cargo e-bike)



Note that respondents to the survey had the option to skip answering some questions. Due to this, the total count presented in all tables and charts is less than the total number of participations in the survey (227 responses).

In this group, 177 responses were submitted where respondents' have not used any type of cargo e-bike before. 74 per cent of the 177 people in this group mentioned that they do not own or plan to own a cargo e-bike in future. It is apparent that the positive/negative trend for comments is opposite in people who have experience using a cargo e-bike compared to those who have no experience. This can be due to fear of unknown and how the media, or social media, has presented cargo e-bikes.

Similar to the previous group, respondents under this group have stated the advantages and disadvantages of cargo e-bikes. The advantages include:

- 1- Love to try as an alternative option for commuting
- 2- It can benefit the environment
- 3- Can reduce the car reliance in the city

Disadvantages include:

- 1- Should first improve the infrastructure and make it safe/protected bike lanes/more lanes
- 2- It can be unsafe and nuisance
- 3- Concerns regarding unclear regulation and licensing

B. Feedback Form Analysis for Commercial Cargo E-bikes

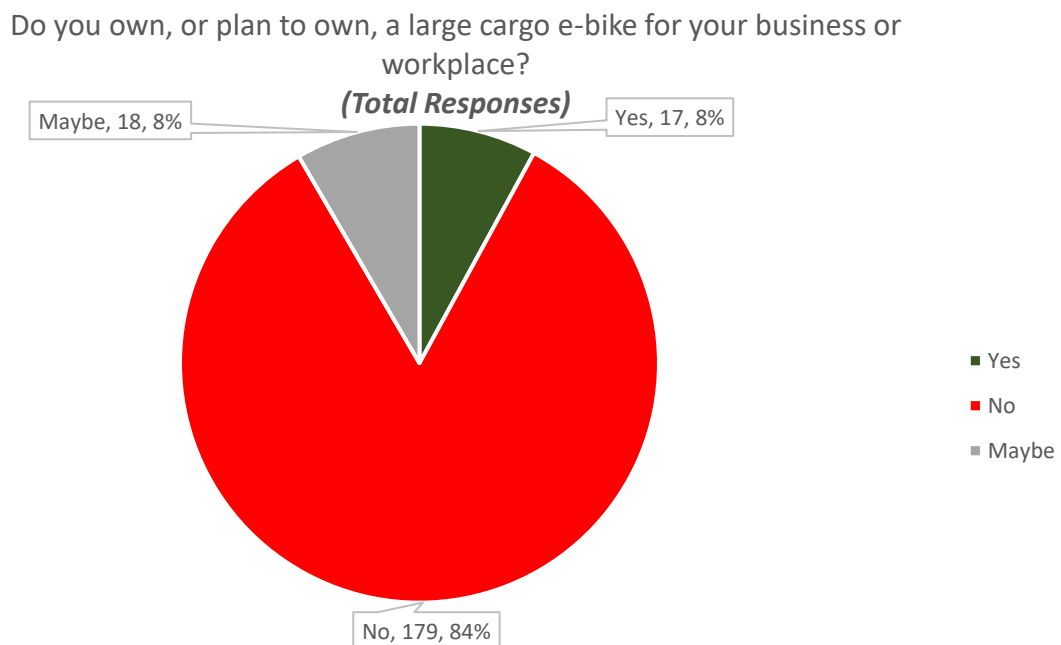
This table presents the overall breakdown of responses to whether they own or plan to own a large cargo e-bike for their business or workplace:

Do you own, or plan to own, a large cargo e-bike for your business or workplace?	Total Responses [count and percentage]	People with experience using a cargo e-bike [count and percentage]	People without experience using a cargo e-bike [count and percentage]
Yes	17 (8%)	9 (23%)	8 (5%)
Maybe	18 (8%)	4 (10%)	14 (8%)
No	179 (84%)	26 (67%)	153 (87%)
Total	214	39	175

Note that respondents to the survey had the option to skip answering some questions. Due to this, the total count presented in all tables and charts is less than the total number of participations in the survey (227 responses).

The feedback form included a question where respondents were asked whether they own or plan to own a cargo e-bike for their business in the future. This question in particular can provide useful insights into feasibility of commercial cargo e-bikes.

Out of 214 total responses, 16 per cent (35 responses) of respondents said that they own, plan or may plan to own, a personal cargo e-bike. Whereas 84 per cent (179 responses) stated that they do not own, or plan to own a personal cargo e-bike.

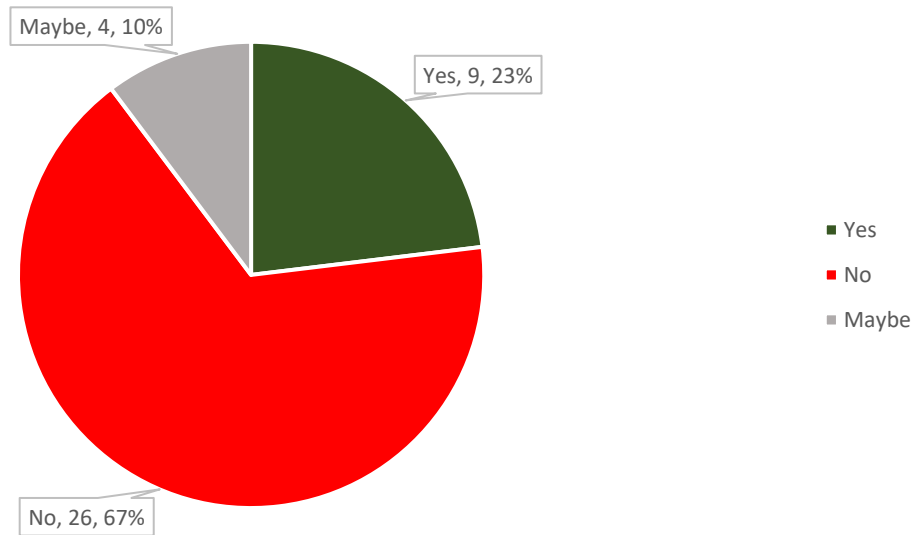


Note that respondents to the survey had the option to skip answering some questions. Due to this, the total count presented in all tables and charts is less than the total number of participations in the survey (227 responses).

1. People with experience (have used either a large or a smaller cargo e-bike)

Do you own, or plan to own, a large cargo e-bike for your business or workplace?

(People who have used a type of Cargo e-bike)



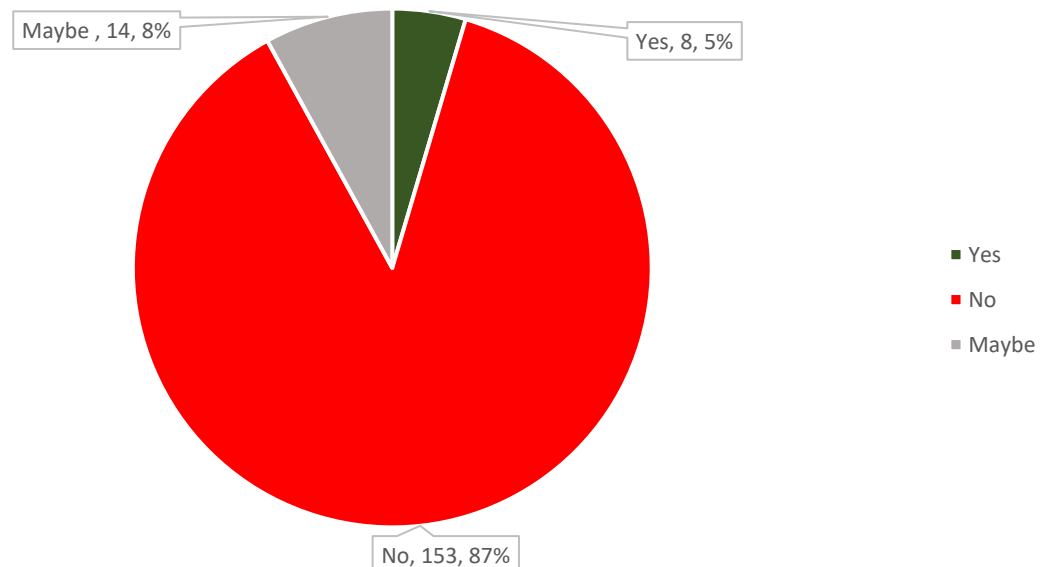
Note that respondents to the survey had the option to skip answering some questions. Due to this, the total count presented in all tables and charts is less than the total number of participations in the survey (227 responses).

39 respondents have used a type of cargo e-bike versus 175 people who have not used any type. Out of the 39 responses under the group of “People with experience”, 33 per cent mentioned that they own or may plan to own a commercial cargo e-bike in future.

2. People without any experience (have NOT used a large or a smaller cargo e-bike)

Do you own, or plan to own, a large cargo e-bike for your business or workplace?

(People who have NOT used any type of Cargo e-bike)



Note that respondents to the survey had the option to skip answering some questions. Due to this, the total count presented in all tables and charts is less than the total number of participations in the survey (227 responses).

175 responses were submitted in the group of respondents who have not used any type of cargo e-bike before. 87 per cent of the 175 people in this group mentioned that they do not own or may plan to own a commercial cargo e-bike in future.

APPENDIX C

City Service Area and Partners Cargo E-bikes Key Points, Questions and Comments

The following table is a synopsis of the points raised by those City service areas and City partner organizations who were asked to comment on a cargo e-bike discussion guide and feedback questions.

Service Area and Division/Section	Key Points, Questions and Comments
Risk Management	<p>Personal and Commercial:</p> <ul style="list-style-type: none"> • Safety for all users of the road/sidewalk and pathways is the ultimate goal. • Limiting use to specific facilities, speeds and penalties for misuse seem to be the way forward. • Starting as a pilot project, can adjust and modify accordingly if any challenges develop.
Transportation Planning & Design	<p>Personal:</p> <ul style="list-style-type: none"> • Yes for streets at 50km or less and bike lanes/cycle tracks. • Can make pathways and Thames Valley Parkway (TVP) work with speed limits and enforcement. <p>Commercial:</p> <ul style="list-style-type: none"> • Yes for streets at 50km or less and bike lanes/cycle tracks. • No to pathways and TVP
Road Operations	No change in winter service levels anticipated.
Legal Services	Preliminary observations provided on both personal and shared cargo e-bike programs.
Anti Racism Anti Oppression	<p>Personal:</p> <ul style="list-style-type: none"> • Conduct analysis of usership using an equity perspective. • What is the demographic most likely to benefit from the program?
Municipal Compliance	<p>Personal and Commercial:</p> <ul style="list-style-type: none"> • Expect calls about blocked sidewalks and other accessibility obstructions. • Need clarity on jurisdiction and resourcing when planning for anticipated complaints and expected compliance responses.
Planning and Development	<p>Personal and Commercial:</p> <ul style="list-style-type: none"> • Dedicate vehicle on-street or parking lot spaces for cargo bikes. • Free parking 2 hrs or less. • As few restrictions on their use as possible. • Enforce as little as possible. • Extremely difficult to regulate where personal vs. commercial cargo e-bikes are being operated.
Parks Planning and Operations	<p>Personal and Commercial:</p> <ul style="list-style-type: none"> • Concerned with large cargo e-bikes because of size and would not be safe on the existing very busy, two-way, 3 metre-wide pathways. • Pathways have multiple types of users. • Could trigger overhaul of entire TVP, which could lead to fragmented network. • Increase in user conflict complaints.

Service Area and Division/Section	Key Points, Questions and Comments
	<ul style="list-style-type: none"> • Increased risk for collisions and some sections difficult to reach for Emergency Medical Services (EMS). <p>Personal:</p> <ul style="list-style-type: none"> • Parking preference outside of parks. • No comment on 50km or less roads or bike lanes/cycle tracks. • Restricted from the park and pathway system. • Restricted from public parks. • Already have enforcement challenges. E cargo bikes would exacerbate current concerns. <p>Commercial:</p> <ul style="list-style-type: none"> • No comment on 50km or less roads or bike lanes/cycle tracks. • Restricted from the park and pathway system. • Restricted from public parks.
Tourism London	<p>Personal and Commercial:</p> <ul style="list-style-type: none"> • Need education for all that there will be more large cargo e-bikes around and rules for riders. • Dedicated lanes for bikes, e-scooters, cargo e-bikes etc. to avoid sidewalk riding. <p>Personal:</p> <ul style="list-style-type: none"> • Main areas of the city, in line with other areas bicycle and e-scooter would be in place. Grocery stores, markets for pick-ups, including downtown. • No preference where to use. Up to user where they are most comfortable. • Enforce like bikes. Add signage and education pre-launch. <p>Commercial:</p> <ul style="list-style-type: none"> • Areas of the city where there is limited vehicle traffic for deliveries. • No preference where to use. Up to user where they are most comfortable.
Downtown London	Shared Get Involved link with membership
London Police Service	<p>Personal and Commercial:</p> <ul style="list-style-type: none"> • E-bikes very regulated. • Enforcement circumstantial. • Further discussion with LPS and City By-law at a later time.
Middlesex London Health Unit	Not able to comment due to resource commitment to the pandemic.
London Transit Commission	<p>Personal and Commercial:</p> <ul style="list-style-type: none"> • Parked away from transit stops (doors). • Restrict on sidewalks and enforce as bikes are already for sidewalk riding. No other restrictions.
Western University	<p>Note: Participation on Western property in the provincial pilot is not up to the City of London.</p> <p>No comments received but want to be kept in loop.</p>