

**Document 3 – Estimated Road Safety-related 2019 City of Ottawa Investments**

In the table below are listed the estimated 2019 City of Ottawa investments related to road safety by project description.

**Estimated 2019 Road Safety Related Budget: \$ 25,155.00**

Capital Account	Project Description	2019 Total in Thousands (\$000)	2019 Budget Capital Narrative	Road Safety Contribution	Department	Service Area	Emphasis Area
909388	2019 Sidewalks & Pathways - Citywide	2,675	Reconstruction of existing sidewalks and pathways that have deteriorated to a point requiring replacement, and are not subject to reconstruction as part of a coordinated road, sewer, or water construction project. This project is for work to be delivered by a boundary municipality or another City department.	Ensuring that the sidewalks and pathways are in good repair and usable provides for safe spaces for pedestrians to move through the city.	Planning, Infrastructure and Economic Development	Infrastructure Services	Vulnerable Road Users
909464	2019 Active Transportation Missing Links	193	This funding is for the planning, design, construction, and project management of pedestrian and cycling linkages that are not identified in the affordable network. These linkages may represent gaps in the network that were created by the implementation of other unrelated projects. The funds may be also used for active transportation links as part of Stage 2, identified in various Community Design Plans, other policy documents, or identified based on community needs.	This program allows for the implementation of projects to connect pedestrian and cycling facilities to allow for a more continuous network. The Federal Highway Administration considers the addition of sidewalks as a safety countermeasure based on proven effectiveness and benefits in the reduction of collisions with pedestrians walking along a roadway.	Transportation Services	Transportation Planning	Vulnerable Road Users
909465	2019 Pedestrian Access-Intersect & Ramp	200	This funding supports planning, design and implementation of accessible pedestrian facilities that are not captured through road reconstruction or development projects. The program removes obstructions and installs short sections of sidewalks, curb ramps, TWSIs (Tactile Walking Surface Indicators), and AODA upgrades at intersections, while bringing facilities in line with current accessibility design standards and legislation. Locations are prioritized based on opportunities to coordinate with other capital works projects, technical feasibility, and community need (e.g. links to public transit, schools, parks and other destinations). Typically two to three sites could be addressed per year.	Providing well designed, accessible pedestrian facilities where none existed, helps to improve on the safety and mobility of pedestrians. The Federal Highway Administration considers the addition of sidewalks as a safety countermeasure based on proven effectiveness and benefits in the reduction of collisions with pedestrians walking along a roadway.	Transportation Services	Transportation Planning	Vulnerable Road Users
909470	2019 Area Traffic Management	745	This on-going program encompasses a process to ensure that streets within existing neighbourhoods are utilized appropriately and that the impact of motorized vehicles on these neighbourhoods is minimized while improving the safety and the quality of life of everyone impacted by the use of the street. This program follows the Council-approved Area Traffic Management Guidelines (2004) which directs how study requests and recommended measures should be prioritized. Recommended measures could include both traffic management options as well as physical measures such as traffic calming features within the communities. While this program is the main source of funding for the implementation of approved measures, some are included in the road reconstruction program. Potential projects are subject to change pending actual prioritization requirements of the ATM Program as per the Council-approved process.	Traffic calming contributes to a reduction in speeds and volumes. Speed reductions result in fewer collisions and lower collision severities while lower volumes provide an improved environment for vulnerable road users.	Transportation Services	Transportation Planning	High Risk Drivers

Capital Account	Project Description	2019 Total in Thousands (\$000)	2019 Budget Capital Narrative	Road Safety Contribution	Department	Service Area	Emphasis Area
909484	2019 Sidewalks & Pathways - Other	200	Reconstruction of existing sidewalks and pathways that have deteriorated to a point requiring replacement, and are not subject to reconstruction as part of a coordinated road, sewer, or water construction project. This project is for work to be delivered by a boundary municipality or another City department.	Ensuring that the sidewalks and pathways are in good repair and usable provides for safe spaces for pedestrians to move through the city.	Planning, Infrastructure and Economic Development	Infrastructure Services	Vulnerable Road Users
909316	2019 New Traffic Control Devices	2,430	Annual growth within the City impacts traffic and pedestrian conditions at affected intersections, to the point that some meet Provincial warrants for the installation of traffic control signals or pedestrian signals. For locations that meet the warrants, this program provides for their installation including related intersection modifications and/or alternate means of traffic control such as roundabouts or unsignalized pedestrian crossing devices, including variations of the Pedestrian Crossover. The program funds the applicable portion of the data collection program, assessment of traffic and pedestrian volumes versus Provincial warrants for the justification of signalization, the design of intersections at which modifications are required for effective traffic operation and any associated communication required to support them. Candidate locations are reassessed and ranked annually. Those locations above the funding cutoff line, which, after investigation are found not to be supported technically or otherwise, will be discarded and replaced with candidate locations from below the cutoff. Phase 1 projects represent funding for preliminary or detailed design and Phase 2 projects represent funding for detailed design and/or construction.	Traffic signals are used to assign vehicular, cyclists and pedestrian right-of-way. Traffic signals help with the movement of traffic in an orderly way, while reducing conflicts between the various road user groups. When warranted, signals can reduce the frequency of certain types of collisions such as angle collisions. While in some cases, rear end collisions may increase, angle collisions typically result in more severe injury collisions.	Transportation Services	Traffic Services	Intersections
909317	2019 Safety Improvement Program	1,031	This project funds the Safety Improvement Program (SIP) which monitors 15,000 reported traffic collisions annually in order to identify locations with existing road safety issues based on collision trends. The program undertakes roadway modifications at these locations to help improve road safety performance of the City's transportation network.	This program identifies collision trends and seeks to address these trends by applying engineering countermeasures. This helps to increase road safety as countermeasures are selected based on proven, well researched measures that demonstrated benefits when used to address certain collision types involving various road users.	Transportation Services	Traffic Services	All
909466	2019 Pedestrian Facilities Program	2,239	This funding supports the planning, design, construction, and project management of standalone facilities for pedestrians, focusing on delivery of projects identified in the Ottawa Pedestrian Plan (OPP). The projects identified as a priority for 2020 funding are identified below; funding will also be used to progress other Council-approved OPP projects subject to availability. Some of the pedestrian projects were advanced through the PTIF program and therefore \$258k of the 2020 funding will be used to eliminate a portion of the PTIF project debt financing. - Ahearn Avenue - Farrow to Scrivens - Castlefrank Road - Sheldrake (N) to Sheldrake (S) - Connaught Avenue / Roman Avenue - Carling to Hindley - Leacock Drive (outside) - Beaverbrook to The Parkway - Varley Drive (inside) - Beaverbrook to Milne	Providing well designed, accessible pedestrian facilities where none existed, helps to improve on the safety and mobility of pedestrians. The Federal Highway Administration considers the addition of sidewalks as a safety countermeasure chosen based on proven effectiveness and benefits in the reduction of collisions with pedestrians walking along a roadway.	Transportation Services	Transportation Planning	Vulnerable Road Users

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909467	2019 Cycling Facilities Program	4,377	This funding addresses the need for major structures (bridges or tunnels) which improve connectivity for cyclists and pedestrians where natural or man-made barriers exist. Funds are for design and construction of the pedestrian and cycling bridge over the Rideau River at Carleton University being delivered through the Stage 2 LRT project. Additional funding is required in subsequent years to fully fund the construction of this bridge. Some funding may also be used to advance design, explore cost-sharing opportunities, and identify improved structural pedestrian and cycling connection enhancements as opportunities arise. This account will be used for all aspects of project delivery such as planning, design, consultation, project management, and construction.	Providing well designed, continuous cycling facilities helps to improve on cycling safety and mobility. Providing a dedicated space for cyclists, with appropriate treatments at intersections (where the potential for various conflicts with vehicles are the greatest), creates a greater separation from vehicles helping to improve on safety and comfort for cyclists.	Transportation Services	Transportation Planning	Vulnerable Road Users
909058	2019 Post LRT Improvements Scott Street (Holland to Bayview)	2,500	This funding will add features along Scott Street between Holland Avenue and Bayview Station to enhance the pedestrian, cycling, and transit environments after the Transitway detour is removed in 2019. The traffic study and detailed design will prioritize features for implementation including transit passenger landing platforms, segregation for on-road cycling facilities, protected intersections, pavement markings, and other related measures.	Providing well designed, continuous cycling facilities helps to improve on cycling safety and mobility. Providing a dedicated space for cyclists, with appropriate treatments at intersections (where the potential for various conflicts with vehicles are the greatest), creates a greater separation from vehicles helping to improve on safety and comfort for cyclists. Providing well designed, accessible pedestrian facilities where none existed, helps to improve on the safety and mobility of pedestrians. The Federal Highway Administration considers the addition of sidewalks as a safety countermeasure chosen based on proven effectiveness and benefits in the reduction of collisions with pedestrians walking along a roadway.	Transportation Services	Transportation Planning	Vulnerable Road Users
909468	2019 Development Sidewalks	153	Funding is required for the design and construction of sidewalk linkages that cannot be secured from developments under the Planning Act resulting in gaps in pedestrian connectivity. Projects typically address situations where existing communities need to be linked to a new development across vacant land.	Providing well designed, accessible pedestrian facilities where none existed, helps to improve on the safety and mobility of pedestrians. The Federal Highway Administration considers the addition of sidewalks as a safety countermeasure chosen based on proven effectiveness and benefits in the reduction of collisions with pedestrians walking along a roadway.	Transportation Services	Transportation Planning	Vulnerable Road Users
909395	2019 Accessible Pedestrian Signal/ Pedestrian Countdown Signal	600	Currently there are 1,178 traffic control signals in Ottawa and 945 locations are equipped with audible pedestrian signal features and 998 are equipped with Pedestrian Countdown Signals (PCS). Staff currently equip all new traffic control signals and those undergoing major rehabilitation with PCS and Accessible Pedestrian Signals (APS) to comply with the Design of Public Spaces Standards of the Accessibility for Ontarians with Disabilities Act, 2005 (AODA). The cost to install APS and PCS in these cases are absorbed within the associated capital project. This annual Accessible Pedestrian Signal / Pedestrian Countdown Signal Program also funds the retrofit of existing traffic control signals with accessible pedestrian devices, at locations specifically requested by mobility challenged pedestrians or through community groups. This program was created out of Council direction from Report ACS2009-CCV-AAC-0002.	Accessible designs for pedestrian facilities at traffic signals improves safety of pedestrians with mobility challenges. It allows for improved crossing performance by providing additional guidance for pedestrians to help them accurately judge the start of the WALK signal phase and locating the push button. In the past few years, changes to traditional standard intersection designs and signalization have made these features essential to assist with a safe crossing. Pedestrian countdown timers encourage pedestrians to cross the roadway within the allocated time and help to reduce the risk of conflicts with vehicles.	Transportation Services	Traffic Services	Vulnerable Road Users

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909322	2019 Advance Traffic Management Systems	405	Intelligent Transportation Systems is the application of advanced and emerging technologies (computers, sensors, controls, communications, and electronic devices) in transportation to save lives, time, money, energy and the environment. Smart Growth demands that before investing in additional road infrastructure, and while awaiting the introduction of improved mass-transit systems, every available ounce of capacity must be squeezed out of our existing road network. Furthermore, evaluating V2I (connected Vehicle to Infrastructure) technologies will result in enhanced vehicle, cycling and pedestrian safety, as well as sustainable and improved mobility. It will identify features and components required of our systems to ensure the city stays ahead in this rapidly expanding area of mobility and advanced technologies. This can only be done through application of relatively low-cost, ITS enhancements, such as those associated with Advanced Traffic Management Systems.	Continued collaboration and support of the Ottawa L5 CAV Test Tracks, managed by Invest Ottawa, is enabling City staff to review, investigate and test new technologies and understand the City's needed involvement in furthering road safety. Projects such as EcoDrive are examining the potential fuel and environmental benefits of providing signal timing information to drivers, but could form the basis for autonomous vehicles being directed by the traffic signals to begin slowing and thus reduce rear-end collisions and red light running. As the technologies mature, there will also exist opportunities to improve the safety of vulnerable road users through advanced warning systems, dynamic accommodations, as well as communication tools between car and person/cyclist.	Transportation Services	Traffic Services	All
909320	2019 Life Cycle Renewal Traffic Control Signals	1,665	This project consists of multiple items, including the upgrade of traffic signal controllers and underground traffic signal infrastructure. This will enable the use of traffic actuated strategies on the City's central traffic control computer systems, as well the modification of traffic signal displays and operation which are needed to accommodate traffic growth.	Traffic signals are used to assign vehicular, cyclists and pedestrian right-of-way. Traffic signals help with the movement of traffic in an orderly way, while reducing conflicts between the various road user groups including vulnerable road users, vehicles, transit and in some cases railway operations. A safe, reliable, well maintained and easily diagnosed traffic control system helps prevent, reduce and facilitate a quick response to traffic signal failures. This keeps the traffic signal system network operating in a safe and efficient manner.	Transportation Services	Traffic Services	Intersections
909396	2019 Safer Roads Ottawa	420	Safer Roads Ottawa (SRO) is a partnership between Ottawa Fire Services, Ottawa Paramedic Service, Ottawa Police Service, Ottawa Public Health, and the Transportation Services Department, who are committed to preventing or eliminating road deaths and serious injuries for all people in the City of Ottawa. This is accomplished through culture change, community engagement, and development of a sustainable safe transportation environment. Safer Roads Ottawa acts as the umbrella program and key point of contact for all road safety initiatives originating from the City of Ottawa. The goal is to ensure that all corporate road safety initiatives are coordinated and fully supported by the City's internal partners, while developing, engaging, and investing in various community road safety partners. Service Enhancement funding will be used to develop enhanced city-wide programming, including more robust awareness campaigns and outreach activities, based on the focus areas of the existing Safer Roads Ottawa Program approved by Council in 2011.	Partnerships between various stakeholders strengthens the commitment to road safety with the goal of preventing or eliminating road deaths and serious injuries. This ensures that all corporate road safety initiatives are coordinated and fully supported by the City's internal partners, while developing, engaging, and investing in various community road safety partners.	Transportation Services	Traffic Services	All

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909397	2019 Pedestrian Safety Evaluation Prog.	380	Pedestrian safety is an integral component of the City's road safety strategy. The Pedestrian Safety Evaluation Program (PSEP) is a customized process that combines traffic engineering with public engagement, for prioritizing and programming pedestrian related road safety improvements to signalized and non-signalized intersections. Intersections are ranked based on risk to pedestrians, collision history, and public feedback. The goal of this program is to mitigate the frequency and severity of preventable collisions involving pedestrians, by providing guidance in the selection of cost-effective countermeasures. The PSEP is used in conjunction with the current Safety Improvement Program (SIP) studies, in the preliminary design stages of capital rehabilitation projects. Service Enhancement funding will enable the program to have a greater impact on the safety and mobility of pedestrians, with the ability to implement geometric modifications to one of the highest ranked locations every year. Locations identified for modifications will be selected annually as per the existing program.	This program helps to mitigate the frequency and severity of preventable collisions involving pedestrians, by providing guidance in the selection of cost-effective countermeasures.	Transportation Services	Traffic Services	Vulnerable Road Users
909398	2019 Cycling Safety Program	105	The Cycling Safety Improvement Program (CSIP) ensures a well-defined process which combines traffic engineering, observed behaviours, and risk mitigation measures to enable on-going road safety improvements, for benefit to cyclists within the City of Ottawa. Since 2012, Traffic Services staff have been coordinating the CSIP, focusing on identifying problem locations, making recommendations for improvements, and proposing a process for continuous improvement of cycling safety. Proposed recommendations to enhance specific locations are identified following consultation with members of the public and occasionally through project specific Working Groups. The goal is to improve 10 locations per year, by way of installing pavement markings and signs, or implementing minor geometric changes to the roadway.	This program helps to mitigate the frequency and severity of preventable collisions involving cyclists, by providing on-going improvements to cycling safety.	Transportation Services	Traffic Services	Vulnerable Road Users
909547	2019 Traffic & Pedestrian Safety Enhance	1,630	2020 Traffic & Pedestrian Safety Enhancement Program - Ward Initiatives Traffic Services works collaboratively with each Ward Councillor to identify sites for the enhancement of road safety through the installation of temporary traffic calming measures. Examples of treatments covered by the program include: <ul style="list-style-type: none"> <li>• Speed display boards (permanent or temporary);</li> <li>• Painting of speed limits on the road;</li> <li>• Temporary traffic calming devices (flexible centreline signage);</li> <li>• Potential for signage indicating entering a community;</li> <li>• Use of planters on local streets to create chicanes;</li> <li>• Use of temporary posts to create bulb outs and a narrower street.</li> </ul> 2020 locations to be identified in consultation with Ward Councillors in Q4 2019 and Q1 2020.	Traffic calming contributes to a reduction in speeds and volumes. Speed reductions result in fewer collisions and lower collision severities while lower volumes provide an improved environment for vulnerable road users.	Transportation Services	Traffic Services	High Risk Drivers

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909548	2019 Pedestrian Crossover Program	500	The Pedestrian Crossover Program supports the installation of pedestrian crossovers (PXOs) as a type of traffic control in Ottawa. Crossovers and their associated crosswalks are located at low speed, low-medium volume intersections, midblock and at roundabouts. They provide pedestrians the right of way over vehicles when crossing the road. The program's processes and criteria are established based on Provincial regulations to address warrants, to determine PXO locations and to select the appropriate type of PXO. The program complements other sustainable transportation programs, promotes walking as a form of transportation and exercise, supports accessibility, enhances senior mobility and is relied upon by OSTA for children's active transportation to and from school.	PXO traffic control devices allow for the assignment of right-of-way to pedestrians. Pedestrian safety is improved by facilitating a safe crossing of the roadway and encouraging pedestrians to cross at controlled locations.	Transportation Services	Traffic Services	Vulnerable Road Users
Operating budget	2019 Adult School Crossing Guard Program	2,707	The Adult School Crossing Guard program supports the install of new and existing crossing guards at warranted locations across the City. The program is funded by the City of Ottawa and contracted out to the Ottawa Safety Council. The program supports safe and active routes to school for children. Guards are located at crossings with a minimum of 10 school age pedestrians where vehicle conflict potential is high. These crossing include: all way stops, signalized intersections, pedestrian crossovers and mid-block locations.	The program provides controlled crossing at locations where there was none or enhances control at existing PXO, stop controlled or signalized locations for school aged children walking to or from school.	Transportation Services	Traffic Services	Vulnerable Road Users