Appendix H – yongeTOmorrow Short-list Evaluation

City of Toronto

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Yonge Street EA Appendix - Short List Evaluation

SHORT LIST EVALUATION									SHORT LIST ALTERNATIVE 1			
OBJECTIVE	CRITERIA ID	CRITERIA	DESCRIPTION	INDICATOR ID	INDICATOR	QUALTIATIVE / QUANTITATIVE	UNITS (FOR QUANTITATIVE MEASURES) / LEVELS (FOR QUALITATIVE MEASURES)	DATA SOURCE	METRIC	COMMENTS	SCORE	SUMMARY
Mobility	M1	Pedestrian Movement	Provides the opportunity to significantly improve pedestrian movement by adding space for movement both along and across Yonge Street to accommodate rowing pedestrian volumes.	M1.1	Pedestrian clearway area along Yonge St between College St and Queen St	Quantitative	square metres	Proposed Design	Daytime: 9,478m² Nighttime: 9,478m²	Lowest amount of pedestrian clearway space of the four alternatives and absence of pedestrian priority areas. Nighttime is same across all alternatives.	--	Limited extra space for pedestrian activity. Does not address crowding and crossings at busiest locations in 2031.
				M1.2	Length of sidewalk with peak hour Pedestrian Comfort Level (PCL) along Yonge St between College St and Queen St in the following categories: comfortable; acceptable; at risk; unacceptable / uncomfortable	Quantitative	metres	DYBIA / City of Toronto	Comfortable: 1508m Acceptable: 246m At risk: 0m Unacceptable: 334m	Dundas St to Dundas Sq (both sides) and Dundas Sq to Shuter (west side) are "unacceptable".		
				M1.3	Length of sidewalk not adjacent to motorized traffic along Yonge St between College St and Queen St: daytime, nighttime	Quantitative	metres	Proposed Design	Daytime: 0m Nighttime: 0m	Sidewalks for entire length of Yonge St are adjacent to motorized traffic at all times.		
				M1.4	Degree of separation between pedestrians and traffic along Yonge St between College St and Queen St	Qualitative	High / medium / low degree	Proposed Design	Low degree	Lowest amount of seperation between pedestrians and traffic. A buffer zone on both sides of the street (which may be occupied by street amenities, patios, greening and/or loading bays) provides 3.5m of seperation between College St and Elm St; between Dundas Sq and Queen St this is 2.7m wide.		
	M2	Cycling	Provides a major north-south connection through downtown and improved experience for cyclists on Yonge Street.	M2.1	Level of conflict between pedestrians and cyclists along Yonge St between College St and Queen St.	Qualitative	Low / medium / high level	Proposed Design	Medium level	Absence of dedicated bike lane, and presence of sidewalks along entire length of Yonge St limits the potential for conflict between pedestrians and cyclists. Potential for conflict remains on blocks with crowding and busy intersections between Edward St and and Dundas Sq.	--	Provides the least improvement for cyclists travelling on Yonge Street.
				M2.2	Level of conflict between motorised vehicles and cyclists along Yonge St between College St and Queen St	Qualitative	Low / medium / high level	Proposed Design	High level	Absence of dedicated bike lanes along Yonge St presents potential for conflict between motorised vehicles and cyclists.		
	M3	Transit	Supports efficient operation of bus and streetcar routes identified by TTC to meet ridership demand and allows streetscape improvements to surface transit stops and transfers.	M3.1a	Change in surface transit average journey time on University Ave: AM peak	Quantitative	seconds	Aimsun	NB: +4 / SB: +53	Generally larger impacts to east-west streetcars, with smaller impacts to north-south bus routes. Impacts are generally larger in the PM peak, particularly for the streetcar on Dundas St. Overall, this alternative has the least impact on transit journey times. NB: University Ave is in the meso portion of the model; other streets are in the micro (more detailed) portion of the model. Consequently, University Ave changes are not directly comparable with other streets.	+	Lowest impact on buses and streetcar routes due to diverting drivers.
				M3.1b	Change in surface transit average journey time on University Ave: PM Peak	Quantitative	seconds	Aimsun	NB: -3 / SB: +12			
				M3.2a	Change in surface transit average journey time on Bay St: AM peak	Quantitative	seconds	Aimsun	NB: +8 / SB: +10			
				M3.2b	Change in surface transit average journey time on Bay St: PM Peak	Quantitative	seconds	Aimsun	NB: +32 / SB: +18			
				M3.3a	Change in surface transit average journey time on College/Carlton St: AM peak	Quantitative	seconds	Aimsun	EB: +8 / WB: -14			
				M3.3b	Change in surface transit average journey time on College/Carlton St: PM Peak	Quantitative	seconds	Aimsun	EB: +20 / WB: -2			
				M3.4a	Change in surface transit average journey time on Dundas St: AM peak	Quantitative	seconds	Aimsun	EB: -1 / WB: +4			
				M3.4b	Change in surface transit average journey time on Dundas St: PM Peak	Quantitative	seconds	Aimsun	EB: +107 / WB: +67			
				M3.5a	Change in surface transit average journey time on Queen St: AM peak	Quantitative	seconds	Aimsun	EB: -25 / WB: +28			
				M3.5b	Change in surface transit average journey time on Queen St: PM Peak	Quantitative	seconds	Aimsun	EB: +7 / WB: -14			
	M4	Driving	Provides suitable vehicle access to support business operation, tourism and servicing of the neighbourhood.	M4.1a	Change in traffic average journey time on University Ave: AM peak	Quantitative	seconds	Aimsun	NB: +7 / SB: +25	Impacts mainly seen on north-south roads, with generally larger impacts in the PM peak. Substantial increase in travel time for open portions of Yonge St because of the lane reduction (to a single lane in each direction) and turning vehicles that cause significant queues. Notable increase in Bay St in the PM peak, but this is lower than for the other alternatives. Overall, this alternative has the least impact on traffic journey times. NB: University Ave is in the meso portion of the model; other streets are in the micro (more detailed) portion of the model. Consequently, University Ave changes are not directly comparable with other streets.	+	Lower impact to road network performance with fewer mitigation measures required.
				M4.1b	Change in traffic average journey time on University Ave: PM Peak	Quantitative	seconds	Aimsun	NB: +5 / SB: +28			
				M4.2a	Change in traffic average journey time on Yonge St: AM peak	Quantitative	seconds	Aimsun	NB: +98 / SB: +137			
				M4.2b	Change in traffic average journey time on Yonge St: PM Peak	Quantitative	seconds	Aimsun	NB: +262 / SB: +172			
				M4.3a	Change in traffic average journey time on Bay St: AM peak	Quantitative	seconds	Aimsun	NB: +18 / SB: +34			
				M4.3b	Change in traffic average journey time on Bay St: PM Peak	Quantitative	seconds	Aimsun	NB: +56 / SB: +41			
				M4.4a	Change in traffic average journey time on College/Carlton St: AM peak	Quantitative	seconds	Aimsun	EB: +6 / WB: -8			
				M4.4b	Change in traffic average journey time on College/Carlton St: PM Peak	Quantitative	seconds	Aimsun	EB: -8 / WB: -13			
				M4.5a	Change in traffic average journey time on Dundas St: AM peak	Quantitative	seconds	Aimsun	EB: -8 / WB: +3			
				M4.5b	Change in traffic average journey time on Dundas St: PM Peak	Quantitative	seconds	Aimsun	EB: -23 / WB: +26			
				M4.6a	Change in traffic average journey time on Queen St: AM peak	Quantitative	seconds	Aimsun	EB: +2 / WB: +19			
				M4.6b	Change in traffic average journey time on Queen St: PM Peak	Quantitative	seconds	Aimsun	EB: +12 / WB: +5			
				M4.7	Impact to access to off-street parking on Yonge St between College St and Queen St: daytime and nighttime	Qualitative	Low / medium / high	Aimsun	Low	Access to all parking lots adjacent to Yonge St retained.		
				M4.8	Change in total traffic	Quantitative	vehicle-kilometres	Aimsun	AM: -1.7%; PM:-1.1%	Minor reduction in total traffic, but with the smallest reduction compared to the other alternatives.		
				M4.9	Change in average vehicle speed	Quantitative	km/hr	Aimsun	AM: -0.5km/hr; PM:-0.4km/hr	Smallest reduction in travel speeds of the four alternatives.		
Liveability	L1	Pedestrian Experience	Provides the opportunity to significantly improve the pedestrian experience with a unified streetscape and public realm while not impacting pedestrian movement.	L1.1	Length of street dedicated to daytime pedestrianization on Yonge St between College St and Queen St	Quantitative	Linear length (m) of daytime pedestrianizaton	Proposed Design	Total Length: 0m	Provides the least amount of space for public realm improvements. Gerrard St to College St has a 3.5m wide furnishing and marketing zone on each side, and Queen St to Gerrard St has a 2.7m wide furnishing and marketing zone on each side. Therefore limited amount of space for street furniture.	-	In areas of highest pedestrian crowding, there won't be enough space for street furniture.
	L2	Events, Festivals and Parades	Supports Yonge Street's role as cultural corridor by improving the streets ability to provide flexible space and operations for new and existing events, festivals and parades.	L2.1	Length of street dedicated to daytime pedestrianization on Yonge St between College St and Queen St	Qualitative	Linear length (m) of daytime pedestrianizaton	Proposed Design	Total Length: 0m	As the road will generally remain open at all times, events using the road will require road closures and diversions to be implemented.	-	Road closures required for events on all blocks.
	L3	Public Safety	Prioritizes the safety of pedestrians and cyclists by reducing vehicle speeds and mode conflicts and by providing space for lighting, sight lines and emergency services.	L3.1	Level of conflict between modes along Yonge St between College St and Queen St	Qualitative	Low / medium / high	Proposed Design	High	Absence of dedicated bike lane poses high conflict potential between vehicles and cyclists. Provides the lowest degree of seperation between pedestrians and traffic. Potential for conflict with pedestrians remain on blocks with crowding and busy crossings between Edward St and and Dundas Sq.	--	Provides lowest level of protection for pedestrians and cyclists.
				L3.2	Risk of Yonge St between College St and Queen St feeling unsafe at night	Qualitative	Low / medium / high risk	Proposed Design	Low risk	Overnight access for vehicles along full length of Yonge St minimizes risk of street feeling isolated and lacking in activity at night. Access for night buses, taxis and ride share vehicles overnight provide travel options on Yonge St.		
				L3.3	Ease of emergency service vehicle access to the street	Qualitative	High / medium / low ease	Proposed Design	High ease	Emergency vehicles are able to operate on all sections of Yonge St at any time.		
Prosperity	P1	Retail & Tourism	Support's Yonge Street's role as a priority retail street by adding space for patios and vending and providing a streetscape which provides a pleasant experience to shop, dine and explore.	P1.1	Length of street dedicated to daytime pedestrianization on Yonge St between College St and Queen St for potential patios, store frontages and street vendors	Quantitative	metres	Proposed Design	0m	Provides the least amount of space for on-street economic activity. Some space is present along sidewalk frontage areas: Gerrard S to College St has a 3.5m wide furnishing and marketing zone on each side, and Queen St to Gerrard St has a 2.7m wide furnishing and marketing zone on each side.	-	In areas of highest pedestrian crowding there won't be enough space for patios.
	P2	Cost Effectiveness	Improves Yonge Street in a cost effective manner [note that this is considered from the Short List Selection onwards].	P2.1	Relative cost of supply and installation for bollards.	Qualitative	Low / medium / high	Proposed Design	Low	Bollards are not required to manage timed or one-way access.	++	Lower costs associated with managing driving access (bollards etc.) and public realm improvements.
	P3	Curbside Activity	Supports appropriate access and level of service for ride hailing, goods movement and municipal services to support business and tourism.	P3.1	Access to laneways and servicing areas along Yonge St between College St and Queen St	Qualitative	High / medium / low level	Proposed Design	High level	Access to all laneways and servicing areas retained.	++	Good access throughout for deliveries, ride hailing, servicing and off street parking.
				P3.2	Length of Yonge St accessible to taxis and ride hailing services: daytime and nighttime	Quantitative	metres	Proposed Design	Daytime: 873m Nighttime: 873m	Provides access for taxi and ride hailing services for the entire length of Yonge St at all times.		
				P3.3	Length of Yonge St available for construction of laybys accessible during daytime	Quantitative	metres	Proposed Design	873m	Presence of two traffic lanes provides opportunity to construct daytime laybys on both sides of the street along the entire length of Yonge St.		
Sustainability	S1	Natural Environment	Supports a healthier and more resilient streetscape by providing opportunities for tree planting.	S1.1	Length of street with daytime pedestrianization that provides opportunities for tree planting on Yonge St between College St and Queen St	Quantitative	metres	Proposed Design	0m	Provides the least amount of space for tree planting opportunities. Gerrard St to College St has a 3.5m wide furnishing and marketing zone on each side, and Queen St to Gerrard St has a 2.7m wide furnishing and marketing zone on each side; a limited amount of space to share between tree planting, patios and loading bays.	-	In areas of highest pedestrian crowding there will not be enough room for tree planting.
	S2	Flexibility & Innovation	Provides flexible and adaptable street design that can respond to changing demands and needs.	S2.1	Ease of altering operation in the future to reflect changing pattern of use on Yonge St, without requiring significant investment in further construction.	Qualitative	High / medium / low ease	Proposed Design	Low ease	Altering operations in the presence of driving lanes will require mitigation measures on alternative routes.	-	Presence of driving lanes limits level of flexibility on regular & short term basis.
				S2.2	Ease of altering physical elements along Yonge St between College St and Queen St on regular and short term basis	Qualitative	High / medium / low ease	Proposed Design	Low ease	Implementing any temporal restrictions in the presence of driving lantes will require short-term traffic impact mitigation on alternative routes.		
	S3	Health & Wellbeing	Encourages walking, cycling and transit use for all ages and abilities by providing safe, convenient and attractive facilities.	S3.1	Length of street dedicated to supporting active modes of transportation (walking & cycling) along Yonge St between College St and Queen St	Qualitative	High / medium / low level	Proposed Design	Medium level	Wider pedestrian clearway and more attractive streetscape may encourage more people to use active forms of transportation on Yonge St. Reduction in driving lanes and reduced speeds will create a more attractive environment for cycling in a shared space.	-	Reduced driving lanes provide some traffic calming and an improved pedestrian environment helps, helping promote active modes.

SHORT LIST EVALUATION									SHORT LIST ALTERNATIVE 2			
OBJECTIVE	CRITERIA ID	CRITERIA	DESCRIPTION	INDICATOR ID	INDICATOR	QUALTIATIVE / QUANTITATIVE	UNITS (FOR QUANTITATIVE MEASURES) / LEVELS (FOR QUALITATIVE MEASURES)	DATA SOURCE	METRIC	COMMENTS	SCORE	SUMMARY
Mobility	M1	Pedestrian Movement	Provides the opportunity to significantly improve pedestrian movement by adding space for movement both along and across Yonge Street to accommodate rowing pedestrian volumes.	M1.1	Pedestrian clearway area along Yonge St between College St and Queen St	Quantitative	square metres	Proposed Design	Daytime: 11,128m² Nighttime: 9,478m²	During the daytime, 11,128m² of pedestrian clearway along Yonge St which includes 3,650m² of space from daytime pedestrianisation between Elm St and Dundas Sq. Nighttime is same across all alternatives.	+	Addresses crowding and crossings at busiest locations in 2031.
				M1.2	Length of sidewalk with peak hour Pedestrian Comfort Level (PCL) along Yonge St between College St and Queen St in the following categories: comfortable; acceptable; at risk; unacceptable / uncomfortable	Quantitative	metres	DYBIA / City of Toronto	Comfortable: 1754m Acceptable: 0m At risk: 72m Unacceptable: 262m	Dundas St to Dundas Sq (both sides) and Dundas Sq to Shuter (west side) are "unacceptable". (West side of Dundas St to Dundas Sq improves to "at risk" when considered in combination with east side.)		
				M1.3	Length of sidewalk not adjacent to motorized traffic along Yonge St between College St and Queen St: daytime, nighttime	Quantitative	metres	Proposed Design	Daytime: 374m Nighttime: 1746m	Sidewalks between College St and Elm St, and between Dundas Sq and Queen St, are adjacent to motorized traffic during the day. At night sidewalks along the entire length of Yonge St are adjacent to motorized traffic.		
				M1.4	Degree of separation between pedestrians and traffic along Yonge St between College St and Queen St	Qualitative	High / medium / low degree	Proposed Design	Medium degree	Presence of pedestrianized areas between Elm St and Dundas Sq provides a high level of seperation from traffic. Outside pedestrianized areas, a buffer zone on both sides of the street (which may be occupied by street amenities, patios, greening and/or loading bays) provides 3.5m of seperation between College St and Gerrard St; between Gerrard St and Elm St, and between Dundas Sq and Queen St this is 2.7m wide.		
	M2	Cycling	Provides a major north-south connection through downtown and improved experience for cyclists on Yonge Street.	M2.1	Level of conflict between pedestrians and cyclists along Yonge St between College St and Queen St.	Qualitative	Low / medium / high level	Proposed Design	Medium level	Cyclists may cycle through the pedestrianized area between between Elm St and Dundas Sq which may lead to potential conflict with pedestrians. Absence of dedicated bike lanes and the presence of sidewalks outside the pedestrianized area limits the potential for conflict between pedestrians and cyclists.	!	Provides some added comfort for cyclists travelling on Yonge Street in pedestrian priority areas and one way sections.
				M2.2	Level of conflict between motorised vehicles and cyclists along Yonge St between College St and Queen St	Qualitative	Low / medium / high level	Proposed Design	Medium level	Absence of dedicated bike lanes between College St and Elm St, and between Dundas Sq and Queen St, presents potential for conflict between motorised vehicles and cyclists within these blocks. Level of conflict is lowered between Gerrard St to Elm St and Dundas Sq to Shuter St due to restricted one-way traffic movement during the daytime. Improvement to cycling on Yonge St, due to daytime pedestrianized blocks between Elm St and Dundas Sq. Level of conflict in these blocks increases at nighttime when the night bus is in operation.		
	M3	Transit	Supports efficient operation of bus and streetcar routes identified by TTC to meet ridership demand and allows streetscape improvements to surface transit stops and transfers.	M3.1a	Change in surface transit average journey time on University Ave: AM peak	Quantitative	seconds	Aimsun	NB: -1 / SB: +74	Streetcars face moderate increases in travel time, as do buses on Bay St. NB: University Ave used the meso-scale model; other streets used the micro-scale model. Consequently, University Ave changes are not directly comparable with other streets.	!	Some mitigation measures required to manage impacts on buses and streetcars.
				M3.1b	Change in surface transit average journey time on University Ave: PM Peak	Quantitative	seconds	Aimsun	NB: -3 / SB: +17			
				M3.2a	Change in surface transit average journey time on Bay St: AM peak	Quantitative	seconds	Aimsun	NB: +16 / SB: +43			
				M3.2b	Change in surface transit average journey time on Bay St: PM Peak	Quantitative	seconds	Aimsun	NB: +56 / SB: +14			
				M3.3a	Change in surface transit average journey time on College/Carlton St: AM peak	Quantitative	seconds	Aimsun	EB: +26 / WB: +0			
				M3.3b	Change in surface transit average journey time on College/Carlton St: PM Peak	Quantitative	seconds	Aimsun	EB: +34 / WB: +2			
				M3.4a	Change in surface transit average journey time on Dundas St: AM peak	Quantitative	seconds	Aimsun	EB: -11 / WB: +1			
				M3.4b	Change in surface transit average journey time on Dundas St: PM Peak	Quantitative	seconds	Aimsun	EB: +124 / WB: +13			
				M3.5a	Change in surface transit average journey time on Queen St: AM peak	Quantitative	seconds	Aimsun	EB: -2 / WB: +56			
				M3.5b	Change in surface transit average journey time on Queen St: PM Peak	Quantitative	seconds	Aimsun	EB: +19 / WB: -15			
	M4	Driving	Provides suitable vehicle access to support business operation, tourism and servicing of the neighbourhood.	M4.1a	Change in traffic average journey time on University Ave: AM peak	Quantitative	seconds	Aimsun	NB: +32 / SB: +34	Substantial increases in travel times for Church St southbound . Moderate negative effects on travel times on Queen St. Overall, this Alternative has modest negative effects on journey times. NB: University Ave used the meso-scale model; other streets used the micro-scale model. Consequently, University Ave changes are not directly comparable with other streets.	!	Higher impact to road network performance requiring some mitigation measures.
				M4.1b	Change in traffic average journey time on University Ave: PM Peak	Quantitative	seconds	Aimsun	NB: +7 / SB: +61			
				M4.2a	Change in traffic average journey time on Yonge St: AM peak	Quantitative	seconds	Aimsun	NB: -278 / SB: -300			
				M4.2b	Change in traffic average journey time on Yonge St: PM Peak	Quantitative	seconds	Aimsun	NB: -295 / SB: -303			
				M4.3a	Change in traffic average journey time on Bay St: AM peak	Quantitative	seconds	Aimsun	NB: +68 / SB: +58			
				M4.3b	Change in traffic average journey time on Bay St: PM Peak	Quantitative	seconds	Aimsun	NB: +169 / SB: +24			
				M4.4a	Change in traffic average journey time on College/Carlton St: AM peak	Quantitative	seconds	Aimsun	EB: -3 / WB: -7			
				M4.4b	Change in traffic average journey time on College/Carlton St: PM Peak	Quantitative	seconds	Aimsun	EB: -10 / WB: -11			
				M4.5a	Change in traffic average journey time on Dundas St: AM peak	Quantitative	seconds	Aimsun	EB: -51 / WB: -25			
				M4.5b	Change in traffic average journey time on Dundas St: PM Peak	Quantitative	seconds	Aimsun	EB: -45 / WB: +19			
				M4.6a	Change in traffic average journey time on Queen St: AM peak	Quantitative	seconds	Aimsun	EB: +39 / WB: +36			
				M4.6b	Change in traffic average journey time on Queen St: PM Peak	Quantitative	seconds	Aimsun	EB: +26 / WB: +23			
				M4.7	Impact to access to off-street parking on Yonge St between College St and Queen St: daytime and nighttime	Qualitative	Low / medium / high	Aimsun	Medium impact	Access to all parking lots adjacent to Yonge St retained, although access routes may become more indirect. Access to the Eaton Centre Yonge Parkade retained via Shuter St. Access to Dundas Sq parking garage maintained via Victoria St and Yonge St northbound, while the existing entry route from Yonge St southbound will become unavailable.		
				M4.8	Change in total traffic	Quantitative	vehicle-kilometres	Aimsun	AM: -0.9%; PM:-4.7%	Modest decrease in AM traffic and a signifcant decrease in PM traffic, likely caused by congestion levels within the model.		
				M4.9	Change in average vehicle speed	Quantitative	km/hr	Aimsun	AM: -0.7km/hr; PM:-0.6km/hr	Modest decrease in average traffic speeds, likely caused by congestion levels within the model.		
Liveability	L1	Pedestrian Experience	Provides the opportunity to significantly improve the pedestrian experience with a unified streetscape and public realm while not impacting pedestrian movement.	L1.1	Length of street dedicated to daytime pedestrianizaton on Yonge St between College St and Queen St	Quantitative	Linear length (m) of daytime pedestrianizaton	Proposed Design	Total Length: 250m	Provides some space for public realm improvements. Pedestrianized blocks between Elm St and Dundas Sq provide 250m of continuous length for streetscape and public realm improvements. This supplements the furnishing and marketing zone of 3.5m wide on each side between Gerrard St and College St, and 2.7m wide between Gerrard St and Elm St, and between Dundas Sq and Queen St.	+	In a few areas of crowding, there won't be enough space for street furniture.
	L2	Events, Festivals and Parades	Supports Yonge Street's role as cultural corridor by improving the streets ability to provide flexible space and operations for new and existing events, festivals and parades.	L2.1	Length of street dedicated to daytime pedestrianization on Yonge St between College St and Queen St	Qualitative	Linear length (m) of daytime pedestrianizaton	Proposed Design	Total Length: 250m	Between College St and Elm St, and between Dundas Sq and Queen St, the road will generally remain open at all times, therefore events using the road in these blocks will require road closures and diversions to be implemented. Events using the road between Elm St and Dundas Sq would only require road closures and diversion if they take place during the nighttime.	+	Supports events associated with Yonge-Dundas Square.
	L3	Public Safety	Prioritizes the safety of pedestrians and cyclists by reducing vehicle speeds and mode conflicts and by providing space for lighting, sight lines and emergency services.	L3.1	Level of conflict between modes along Yonge St between College St and Queen St	Qualitative	Low / medium / high	Proposed Design	Medium	Absence of dedicated bike lane poses conflict potential between vehicles and cyclists. Presence of pedestrianized blocks between Elm St and Dundas Sq provides high degree of seperation between pedestrians and traffic. Potential for conflict with pedestrians remain on blocks with crowding and busy crossings outside of pedestrianized area. Fewer conflict points at intersections (including between vehicles and pedestrians) during the daytime, between Queen St and Gerrard St due to pedestrianization and one-way restrictions. Reduced number of lanes and minimal lane widths encourage lower vehicle speeds, reducing severity of conflicts. Level of conflict increases at nighttime when the night bus is in operation.	!	Pedestrian priority zones protect active modes on only the busiest sections of Yonge Street.
				L3.2	Risk of Yonge St between College St and Queen St feeling unsafe at night	Qualitative	Low / medium / high risk	Proposed Design	Low risk	Overnight timed access for vehicles along full length of Yonge St minimizes risk of street feeling isolated and lacking in activity at night. Access for night buses, taxis and ride share vehicles overnight provide travel options for those on Yonge St.		
				L3.3	Ease of emergency service vehicle access to the street	Qualitative	High / medium / low ease	Proposed Design	Medium ease	Emergency vehicles are able to operate on all sections of Yonge St at any time. However, there may be impedence due to bollards used to manage temporal / one-way vehicle access at the Gerrard St, Elm St, Edward St, Dundas St, Dundas Sq, Shuter St and Queen St intersections.		
Prosperity	P1	Retail & Tourism	Support's Yonge Street's role as a priority retail street by adding space for patios and vending and providing a streetscape which provides a pleasant experience to shop, dine and explore.	P1.1	Length of street dedicated to daytime pedestrianization on Yonge St between College St and Queen St for potential patios, store frontages and street vendors	Quantitative	metres	Proposed Design	250m	Provides some space for on-street economic activity. Presence of pedestrianized area between Elm St and Dundas Sq provides additional space for on-street economic activity, maximising how this space and the central boulevard can be used. More limited space available along remainder of Yonge St within 2.7m wide (between College St and College St) and 3.5m wide (between Gerrard St and Elm St / Dundas Sq and Queen St) furnishing and marketing zone.	+	Space for permanent and temporary patios/vending in the busiest sections.
	P2	Cost Effectiveness	Improves Yonge Street in a cost effective manner [note that this is considered from the Short List Selection onwards].	P2.1	Relative cost of supply and installation for bollards.	Qualitative	Low / medium / high	Proposed Design	Medium	Bollards are required at 7 intersections to manage timed or one-way access. In addition to the construction cost for these bollards, there will be ongoing management and maintenance costs.	+	Higher costs associated with managing driving access (bollards etc.) and public realm improvements.
	P3	Curbside Activity	Supports appropriate access and level of service for ride hailing, goods movement and municipal services to support business and tourism.	P3.1	Access to laneways and servicing areas along Yonge St between College St and Queen St	Qualitative	High / medium / low level	Proposed Design	Medium level	Access to all laneways and servicing areas retained, although access may become indirect during the daytime due to restrictions on Yonge St between Dundas Sq and Edward St. Access is retained for the entire length of the street at nighttime between 12:00AM and 7:00AM.	+	Timed driving access restrictions limited to Dundas Square to Elm Street.
				P3.2	Length of Yonge St accessible to taxis and ride hailing services: daytime and nighttime	Quantitative	metres	Proposed Design	Daytime: 686m Nighttime: 873m	Provides access for taxi and ride hailing services between College St and Elm St, and between Dundas Sq and Queen St in the daytime; and for the entire length of Yonge St at nighttime.		
				P3.3	Length of Yonge St available for construction of laybys accessible during daytime	Quantitative	metres	Proposed Design	686m	Opportunity to construct daytime laybys from College St to Elm St, and from Dundas Sq to Queen St.		
Sustainability	S1	Natural Environment	Supports a healthier and more resilient streetscape by providing opportunities for tree planting.	S1.1	Length of street with daytime pedestrianization that provides opportunities for tree planting on Yonge St between College St and Queen St	Quantitative	metres	Proposed Design	250m	Provides some space for tree planting opportunities. Presence of pedestrianized area between Elm St and Dundas Sq provides additional space for street furniture and patios, thereby increasing potential space available for tree planting. This supplements the furnishing and marketing zone of 3.5m wide on each side between Gerrard St and College St, and 2.7m wide between Gerrard St and Elm St, and between Dundas Sq and Queen St.	+	In most blocks there will be opportunities for tree planting.
	S2	Flexibility & Innovation	Provides flexible and adaptable street design that can respond to changing demands and needs.	S2.1	Ease of altering operation in the future to reflect changing pattern of use on Yonge St, without requiring significant investment in further construction.	Qualitative	High / medium / low ease	Proposed Design	High ease	As through traffic already restricted on Yonge St, the ease of altering operations in the future is increased.	+	Good flexibility in the vicinity of Yonge-Dundas Square.
				S2.2	Ease of altering physical elements along Yonge St between College St and Queen St on regular and short term basis	Qualitative	High / medium / low ease	Proposed Design	High ease	As through traffic already restricted on Yonge St, the ease of extending temporal restrictions to further blocks and/or amending the timing of temporal restrictions is increased.		
	S3	Health & Wellbeing	Encourages walking, cycling and transit use for all ages and abilities by providing safe, convenient and attractive facilities.	S3.1	Length of street dedicated to supporting active modes of transportation (walking & cycling) along Yonge St between College St and Queen St	Qualitative	High / medium / low level	Proposed Design	High level	Wider pedestrian clearway and more attractive streetscape may encourage more people to use active forms of transportation on Yonge St. In addition, pedestrianized blocks between Elm St and Dundas Sq will provide a significantly more attractive pedestrian environment. Pedestrianized blocks between Elm St and Dundas Sq may also encourage cycling at low speeds in a shared space with pedestrians. Reduction in driving lanes and reduced speeds will create a more attractive environment for cycling in a shared space with traffic.	+	Good support for active modes in busiest pedestrian areas.

SHORT LIST EVALUATION									SHORT LIST ALTERNATIVE 3			
OBJECTIVE	CRITERIA ID	CRITERIA	DESCRIPTION	INDICATOR ID	INDICATOR	QUALTIATIVE / QUANTITATIVE	UNITS (FOR QUANTITATIVE MEASURES) / LEVELS (FOR QUALITATIVE MEASURES)	DATA SOURCE	METRIC	COMMENTS	SCORE	SUMMARY
Mobility	M1	Pedestrian Movement	Provides the opportunity to significantly improve pedestrian movement by adding space for movement both along and across Yonge Street to accommodate rowing pedestrian volumes.	M1.1	Pedestrian clearway area along Yonge St between College St and Queen St	Quantitative	square metres	Proposed Design	Daytime: 14,134m² Nighttime: 9,478m²	During the daytime, 14,134m² of pedestrian clearway along Yonge St which includes 9,271m² of space from daytime pedestrianisation between Gerrard St and Queen St. Nighttime is same across all alternatives.	++	Best addresses crowding and crossings in 2031 throughout focus area.
				M1.2	Length of sidewalk with peak hour Pedestrian Comfort Level (PCL) along Yonge St between College St and Queen St in the following categories: comfortable; acceptable; at risk; unacceptable / uncomfortable	Quantitative	metres	DYBIA / City of Toronto	Comfortable: 1944m Acceptable: 0m At risk: 72m Unacceptable: 72m	West side of the street between Dundas Sq to Dundas St is "unacceptable". This improves to "at risk" when considered in combination with the east side.		
				M1.3	Length of sidewalk not adjacent to motorized traffic along Yonge St between College St and Queen St: daytime, nighttime	Quantitative	metres	Proposed Design	Daytime: 1278m Nighttime: 1746m	Sidewalks between College St and Gerrard St, are adjacent to motorized traffic during the day. At night sidewalks along the entire length of Yonge St are adjacent to motorized traffic.		
				M1.4	Degree of separation between pedestrians and traffic along Yonge St between College St and Queen St	Qualitative	High / medium / low degree	Proposed Design	High degree	Presence of pedestrianized areas between Gerrard St and Queen St provides the maximum level of seperation between pedestrians and traffic. Outside pedestrianized areas, a buffer zone on both sides of the street (which may be occupied by street amenities, patios, greening and/or loading bays) provides 3.5m of seperation between College St and Gerrard St.		
	M2	Cycling	Provides a major north-south connection through downtown and improved experience for cyclists on Yonge Street.	M2.1	Level of conflict between pedestrians and cyclists along Yonge St between College St and Queen St.	Qualitative	Low / medium / high level	Proposed Design	High level	Cyclists may cycle through the pedestrianized area between between Gerrard St and Queen St which may lead to potential conflict with pedestrians. Absence of dedicated bike lanes and the presence of sidewalks outside the pedestrianized area limits the potential for conflict between pedestrians and cyclists.	+	Provides the most comfort for cyclists travelling on Yonge Street within pedestrian priority areas.
				M2.2	Level of conflict between motorised vehicles and cyclists along Yonge St between College St and Queen St	Qualitative	Low / medium / high level	Proposed Design	Low level	Absence of dedicated bike lanes between College St and Gerrard St presents potential for conflict between motorised vehicles and cyclists within these blocks. Improvement to cycling on Yonge St, due to daytime pedestrianized blocks between Gerrard St and Queen St. Level of conflict in these blocks increases at nighttime when the night bus is in operation.		
	M3	Transit	Supports efficient operation of bus and streetcar routes identified by TTC to meet ridership demand and allows streetscape improvements to surface transit stops and transfers.	M3.1a	Change in surface transit average journey time on University Ave: AM peak	Quantitative	seconds	Aimsun	NB: +0 / SB: +62	Significant negative effects on routes 501/502 eastbound in PM period, caused by general network congestion in the model. Other streetcars face moderate increases in travel time. Bay St bus routes (6A/6B) are most negatively affected by this alternative, because of general congestion. NB: University Ave used the meso-scale model; other streets used the micro-scale model. Consequently, University Ave changes are not directly comparable with other streets.	-	Some mitigation measures required to manage impacts on buses and streetcars.
				M3.1b	Change in surface transit average journey time on University Ave: PM Peak	Quantitative	seconds	Aimsun	NB: -3 / SB: +4			
				M3.2a	Change in surface transit average journey time on Bay St: AM peak	Quantitative	seconds	Aimsun	NB: +28 / SB: +79			
				M3.2b	Change in surface transit average journey time on Bay St: PM Peak	Quantitative	seconds	Aimsun	NB: +80 / SB: +38			
				M3.3a	Change in surface transit average journey time on College/Carlton St: AM peak	Quantitative	seconds	Aimsun	EB: +76 / WB: +44			
				M3.3b	Change in surface transit average journey time on College/Carlton St: PM Peak	Quantitative	seconds	Aimsun	EB: +46 / WB: +2			
				M3.4a	Change in surface transit average journey time on Dundas St: AM peak	Quantitative	seconds	Aimsun	EB: -6 / WB: +18			
				M3.4b	Change in surface transit average journey time on Dundas St: PM Peak	Quantitative	seconds	Aimsun	EB: +157 / WB: +74			
				M3.5a	Change in surface transit average journey time on Queen St: AM peak	Quantitative	seconds	Aimsun	EB: +13 / WB: +48			
				M3.5b	Change in surface transit average journey time on Queen St: PM Peak	Quantitative	seconds	Aimsun	EB: +53 / WB: +16			
	M4	Driving	Provides suitable vehicle access to support business operation, tourism and servicing of the neighbourhood.	M4.1a	Change in traffic average journey time on University Ave: AM peak	Quantitative	seconds	Aimsun	NB: +22 / SB: +54	Performs significantly worse at the network level when compared to the other options. This indicates significant congestion and gridlock in the model due to the full Yonge St closure. Substantial increases in travel times for Church St southbound. Moderate negative effects on travel times on Queen St. Overall, this alternative has the most negative effects on journey times. NB: University Ave used the meso-scale model; other streets used the micro-scale model. Consequently, University Ave changes are not directly comparable with other streets.	-	Higher impact to road network performance requiring some mitigation measures.
				M4.1b	Change in traffic average journey time on University Ave: PM Peak	Quantitative	seconds	Aimsun	NB: +13 / SB: +70			
				M4.2a	Change in traffic average journey time on Yonge St: AM peak	Quantitative	seconds	Aimsun	NB: -278 / SB: -300			
				M4.2b	Change in traffic average journey time on Yonge St: PM Peak	Quantitative	seconds	Aimsun	NB: -295 / SB: -303			
				M4.3a	Change in traffic average journey time on Bay St: AM peak	Quantitative	seconds	Aimsun	NB: +76 / SB: +76			
				M4.3b	Change in traffic average journey time on Bay St: PM Peak	Quantitative	seconds	Aimsun	NB: +252 / SB: +28			
				M4.4a	Change in traffic average journey time on College/Carlton St: AM peak	Quantitative	seconds	Aimsun	EB: +13 / WB: +20			
				M4.4b	Change in traffic average journey time on College/Carlton St: PM Peak	Quantitative	seconds	Aimsun	EB: +21 / WB: -4			
				M4.5a	Change in traffic average journey time on Dundas St: AM peak	Quantitative	seconds	Aimsun	EB: -47 / WB: -6			
				M4.5b	Change in traffic average journey time on Dundas St: PM Peak	Quantitative	seconds	Aimsun	EB: -19 / WB: +99			
				M4.6a	Change in traffic average journey time on Queen St: AM peak	Quantitative	seconds	Aimsun	EB: +32 / WB: -35			
				M4.6b	Change in traffic average journey time on Queen St: PM Peak	Quantitative	seconds	Aimsun	EB: +46 / WB: +52			
				M4.7	Impact to access to off-street parking on Yonge St between College St and Queen St: daytime and nighttime	Qualitative	Low / medium / high	Aimsun	High impact	Access to all parking lots adjacent to Yonge St retained, although access routes may become more indirect. Access to the Eaton Centre Yonge Parkade retained via Shuter St. Access to Dundas Sq parking garage maintained via Victoria St, and the existing entry route from Yonge St will become unavailable.		
				M4.8	Change in total traffic	Quantitative	vehicle-kilometres	Aimsun	AM: -4.0%; PM:-11.8%	Highest decrease in traffic volumes of the alternatives, with a major decrease in PM traffic levels in particular. Likely driven by poor network performance and increases in travel time.		
				M4.9	Change in average vehicle speed	Quantitative	km/hr	Aimsun	AM: -1.2km/hr; PM:-1.1km/hr	Largest decrease in travel time, indicating congestion from full closure of Yonge St		
Liveability	L1	Pedestrian Experience	Provides the opportunity to significantly improve the pedestrian experience with a unified streetscape and public realm while not impacting pedestrian movement.	L1.1	Length of street dedicated to daytime pedestrianization on Yonge St between College St and Queen St	Quantitative	Linear length (m) of daytime pedestrianizaton	Proposed Design	Total Length: 750m	Provides the most space for public realm improvements. Pedestrianized blocks between Gerrard St and Queen St provide 750m of continuous length for streetscape and public realm improvements. This supplements the furnishing and marketing zone of 3.5m wide on each side between Gerrard St and College St.	++	Significant space for permanent and temporary furnishings to improve the pedestrian experience.
	L2	Events, Festivals and Parades	Supports Yonge Street's role as cultural corridor by improving the streets ability to provide flexible space and operations for new and existing events, festivals and parades.	L2.1	Length of street dedicated to daytime pedestrianization on Yonge St between College St and Queen St	Qualitative	Linear length (m) of daytime pedestrianizaton	Proposed Design	Total Length: 750m	Between College St and Gerrard St, the road will generally remain open at all times, therefore events using the road in these blocks will require road closures and diversions to be implemented. Events using the road between Gerrard St and Queen St would only require road closures and diversion if they take place during the nighttime. Layout caters for events and on-street programming. Road closures for events will be less difficult as no through traffic and most of Yonge St already pedestrianized during daytime.	++	Strongly supports events on all blocks where tourism is high.
	L3	Public Safety	Prioritizes the safety of pedestrians and cyclists by reducing vehicle speeds and mode conflicts and by providing space for lighting, sight lines and emergency services.	L3.1	Level of conflict between modes along Yonge St between College St and Queen St	Qualitative	Low / medium / high	Proposed Design	Low	Absence of dedicated bike lane poses conflict potential between vehicles and cyclists. Presence of pedestrianized blocks between Gerrard St and Queen St provides high degree of seperation between pedestrians and traffic. Fewer conflict points at intersections (including between vehicles and pedestrians) during the daytime, between Queen St and Gerrard St due to pedestrianization. Reduced number of lanes and minimal lane widths encourage lower vehicle speeds, reducing severity of conflicts. Level of conflict increases at nighttime when the night bus is in operation.	++	Conflicts with drivers are reduced the most with a large pedestrian priority zone.
				L3.2	Risk of Yonge St between College St and Queen St feeling unsafe at night	Qualitative	Low / medium / high risk	Proposed Design	Low risk	Overnight timed access for vehicles along full length of Yonge St minimizes risk of street feeling isolated and lacking in activity at night. Access for night buses, taxis and ride share vehicles overnight provide travel options for those on Yonge St.		
				L3.3	Ease of emergency service vehicle access to the street	Qualitative	High / medium / low ease	Proposed Design	Medium ease	Emergency vehicles are able to operate on all sections of Yonge St at any time. However, there may be impedence due to bollards used to manage temporal / one-way vehicle access at the Gerrard St, Elm St, Edward St, Dundas St, Dundas Sq, Shuter St and Queen St intersections.		
Prosperity	P1	Retail & Tourism	Support's Yonge Street's role as a priority retail street by adding space for patios and vending and providing a streetscape which provides a pleasant experience to shop, dine and explore.	P1.1	Length of street dedicated to daytime pedestrianization on Yonge St between College St and Queen St for potential patios, store frontages and street vendors	Quantitative	metres	Proposed Design	750m	Provides the most space for on-street economic activity. Pedestrianized area between Gerrard St and Queen St gives a significant amount of additional space for on-street economic activity, maximising how this space and the central boulevard can be used. More limited space available along remainder of Yonge St within 2.7m wide furnishing and marketing zone.	++	Significant space for permanent and temporary patios/vending in blocks associated with entertainment.
	P2	Cost Effectiveness	Improves Yonge Street in a cost effective manner [note that this is considered from the Short List Selection onwards].	P2.1	Relative cost of supply and installation for bollards.	Qualitative	Low / medium / high	Proposed Design	High	Bollards are required at 8 intersections to manage timed or one-way access. In addition to the construction cost for these bollards, there will be ongoing management and maintenance costs.	-	Highest costs associated with managing driving access (bollards etc.) and public realm improvements.
	P3	Curbside Activity	Supports appropriate access and level of service for ride hailing, goods movement and municipal services to support business and tourism.	P3.1	Access to laneways and servicing areas along Yonge St between College St and Queen St	Qualitative	High / medium / low level	Proposed Design	Medium level	Access to all laneways and servicing areas retained, although access may become indirect during the daytime due to restrictions on Yonge St between Queen St and Edward St, and between Walton St and Gerrard St. Access is retained for the entire length of the street at nighttime between 12:00AM and 7:00AM.	--	Highest level of timed driving access restrictions from Queen Street to Gerrard Street.
				P3.2	Length of Yonge St accessible to taxis and ride hailing services: daytime and nighttime	Quantitative	metres	Proposed Design	Daytime: 234m Nighttime: 873m	Provides access for taxi and ride hailing services between College St and Gerrard St in the daytime; and for the entire length of Yonge St at nighttime.		
				P3.3	Length of Yonge St available for construction of laybys accessible during daytime	Quantitative	metres	Proposed Design	234m	Opportunity to construct daytime laybys from College St to Gerrard St.		
Sustainability	S1	Natural Environment	Supports a healthier and more resilient streetscape by providing opportunities for tree planting.	S1.1	Length of street with daytime pedestrianization that provides opportunities for tree planting on Yonge St between College St and Queen St	Quantitative	metres	Proposed Design	639m	Provides the most space for tree planting opportunities. Presence of pedestrianized area between Gerrard St and Queen St provides additional space for street furniture and patios, thereby increasing potential space available for tree planting. This supplements the furnishing and marketing zone of 3.5m wide on each side between Gerrard St and College St.	++	Significant space for available for planting.
	S2	Flexibility & Innovation	Provides flexible and adaptable street design that can respond to changing demands and needs.	S2.1	Ease of altering operation in the future to reflect changing pattern of use on Yonge St, without requiring significant investment in further construction.	Qualitative	High / medium / low ease	Proposed Design	High ease	As through traffic already restricted on Yonge St, the ease of altering operations in the future is increased.	++	Highest level of flexibility throughout blocks associated with events, tourism and growth.
				S2.2	Ease of altering physical elements along Yonge St between College St and Queen St on regular and short term basis	Qualitative	High / medium / low ease	Proposed Design	High ease	As through traffic already restricted on Yonge St, the ease of extending temporal restrictions to further blocks and/or amending the timing of temporal restrictions is increased.		
	S3	Health & Wellbeing	Encourages walking, cycling and transit use for all ages and abilities by providing safe, convenient and attractive facilities.	S3.1	Length of street dedicated to supporting active modes of transportation (walking & cycling) along Yonge St between College St and Queen St	Qualitative	High / medium / low level	Proposed Design	High level	Wider pedestrian clearway and more attractive streetscape may encourage more people to use active forms of transportation on Yonge St. In addition, pedestrianized blocks between Gerrard St and Queen St will provide a significantly more attractive pedestrian environment. Reduction in driving lanes and pedestrianization will create a more attractive environment for cycling in a shared space. Very high level of encouragement of walking, cycling and transit use, due to reduction of motorized vehicle dominance, including presence of many pedestrianized blocks.	++	Extent of pedestrian priority zones provides highest support for active modes.

SHORT LIST EVALUATION									SHORT LIST ALTERNATIVE 4			
OBJECTIVE	CRITERIA ID	CRITERIA	DESCRIPTION	INDICATOR ID	INDICATOR	QUALTIATIVE / QUANTITATIVE	UNITS (FOR QUANTITATIVE MEASURES) / LEVELS (FOR QUALITATIVE MEASURES)	DATA SOURCE	METRIC	COMMENTS	SCORE	SUMMARY
Mobility	M1	Pedestrian Movement	Provides the opportunity to significantly improve pedestrian movement by adding space for movement both along and across Yonge Street to accommodate rowing pedestrian volumes.	M1.1	Pedestrian clearway area along Yonge St between College St and Queen St	Quantitative	square metres	Proposed Design	Daytime: 12,058m² Nighttime: 9,478m²	During the daytime, 12,058m² of pedestrian clearway along Yonge St which includes 5,078m² of space from daytime pedestrianisation between Gerrard St and Dundas Sq. Nighttime is same across all alternatives.	+	Mostly addresses crowding and crossings at busiest locations and in sections experiencing development.
				M1.2	Length of sidewalk with peak hour Pedestrian Comfort Level (PCL) along Yonge St between College St and Queen St in the following categories: comfortable; acceptable; at risk; unacceptable / uncomfortable	Quantitative	metres	DYBIA / City of Toronto	Comfortable: 1754m Acceptable: 0m At risk: 72m Unacceptable: 262m	Dundas Sq to Shuter Street (west side) is "Unacceptable" (West side of Dundas St to Dundas Sq improves to "at risk" when considered in combination with east side).		
				M1.3	Length of sidewalk not adjacent to motorized traffic along Yonge St between College St and Queen St: daytime, nighttime	Quantitative	metres	Proposed Design	Daytime: 604m Nighttime: 1746m	Sidewalks between College St and Gerrard St, and between Dundas Sq and Queen St, are adjacent to motorized traffic during the day. At night sidewalks along the entire length of Yonge St are adjacent to motorized traffic.		
				M1.4	Degree of separation between pedestrians and traffic along Yonge St between College St and Queen St	Qualitative	High / medium / low degree	Proposed Design	High degree	Presence of pedestrianized areas between Gerrard St and Dundas Sq provides the maximum level of seperation between pedestrians and traffic. Outside pedestrianized areas, a buffer zone on both sides of the street (which may be occupied by street amenities, patios, greening and/or loading bays) provides 3.5m of seperation between College St and Gerrard St; between Dundas Sq and Queen St this is 2.7m wide.		
	M2	Cycling	Provides a major north-south connection through downtown and improved experience for cyclists on Yonge Street.	M2.1	Level of conflict between pedestrians and cyclists along Yonge St between College St and Queen St.	Qualitative	Low / medium / high level	Proposed Design	Medium level	Cyclists may cycle through the pedestrianized area between between Gerrard St and Dundas Sq which may lead to potential conflict with pedestrians. Absence of dedicated bike lanes and the presence of sidewalks outside the pedestrianized area limits the potential for conflict between pedestrians and cyclists.	-	Provides some added comfort for cyclists travelling on Yonge Street in pedestrian priority areas and one way sections.
				M2.2	Level of conflict between motorised vehicles and cyclists along Yonge St between College St and Queen St	Qualitative	Low / medium / high level	Proposed Design	Medium level	No dedicated bike lanes provided along Yonge St between College St and Gerrard St, and between Shuter St and Queen St, therefore potential for conflict between motorised vehicles and cyclists at all times within these blocks. Level of conflict is lowered between Dundas Sq to Shuter St due to restricted one-way traffic movement during the daytime. Improvement to cycling on Yonge St, due to daytime pedestrianized blocks between Gerrard St and Dundas Sq. Level of conflict in these blocks increases at nighttime when the night bus is in operation.		
	M3	Transit	Supports efficient operation of bus and streetcar routes identified by TTC to meet ridership demand and allows streetscape improvements to surface transit stops and transfers.	M3.1a	Change in surface transit average journey time on University Ave: AM peak	Quantitative	seconds	Aimsun	NB: -2 / SB: +109	Streetcars face significant increases in travel time, particularly on College/Carlton. NB: University Ave used the meso-scale model; other streets used the micro-scale model. Consequently, University Ave changes are not directly comparable with other streets.	-	Some mitigation measures required to manage impacts on buses and streetcars.
				M3.1b	Change in surface transit average journey time on University Ave: PM Peak	Quantitative	seconds	Aimsun	NB: -3 / SB: +7			
				M3.2a	Change in surface transit average journey time on Bay St: AM peak	Quantitative	seconds	Aimsun	NB: +3 / SB: +57			
				M3.2b	Change in surface transit average journey time on Bay St: PM Peak	Quantitative	seconds	Aimsun	NB: +30 / SB: +5			
				M3.3a	Change in surface transit average journey time on College/Carlton St: AM peak	Quantitative	seconds	Aimsun	EB: +77 / WB: +32			
				M3.3b	Change in surface transit average journey time on College/Carlton St: PM Peak	Quantitative	seconds	Aimsun	EB: +85 / WB: +12			
				M3.4a	Change in surface transit average journey time on Dundas St: AM peak	Quantitative	seconds	Aimsun	EB: -25 / WB: +7			
				M3.4b	Change in surface transit average journey time on Dundas St: PM Peak	Quantitative	seconds	Aimsun	EB: +99 / WB: -38			
				M3.5a	Change in surface transit average journey time on Queen St: AM peak	Quantitative	seconds	Aimsun	EB: +2 / WB: +154			
				M3.5b	Change in surface transit average journey time on Queen St: PM Peak	Quantitative	seconds	Aimsun	EB: +14 / WB: -14			
	M4	Driving	Provides suitable vehicle access to support business operation, tourism and servicing of the neighbourhood.	M4.1a	Change in traffic average journey time on University Ave: AM peak	Quantitative	seconds	Aimsun	NB: +9 / SB: +48	Overall, this alternative has modest negative effects on journey times. NB: University Ave used the meso-scale model; other streets used the micro-scale model. Consequently, University Ave changes are not directly comparable with other streets.	-	Higher impact to road network performance requiring some mitigation measures.
				M4.1b	Change in traffic average journey time on University Ave: PM Peak	Quantitative	seconds	Aimsun	NB: +4 / SB: +59			
				M4.2a	Change in traffic average journey time on Yonge St: AM peak	Quantitative	seconds	Aimsun	NB: -278 / SB: -300			
				M4.2b	Change in traffic average journey time on Yonge St: PM Peak	Quantitative	seconds	Aimsun	NB: -295 / SB: -303			
				M4.3a	Change in traffic average journey time on Bay St: AM peak	Quantitative	seconds	Aimsun	NB: +57 / SB: +81			
				M4.3b	Change in traffic average journey time on Bay St: PM Peak	Quantitative	seconds	Aimsun	NB: +94 / SB: +20			
				M4.4a	Change in traffic average journey time on College/Carlton St: AM peak	Quantitative	seconds	Aimsun	EB: -4 / WB: +13			
				M4.4b	Change in traffic average journey time on College/Carlton St: PM Peak	Quantitative	seconds	Aimsun	EB: -14 / WB: -10			
				M4.5a	Change in traffic average journey time on Dundas St: AM peak	Quantitative	seconds	Aimsun	EB: -43 / WB: -22			
				M4.5b	Change in traffic average journey time on Dundas St: PM Peak	Quantitative	seconds	Aimsun	EB: -50 / WB: -39			
				M4.6a	Change in traffic average journey time on Queen St: AM peak	Quantitative	seconds	Aimsun	EB: +32 / WB: +25			
				M4.6b	Change in traffic average journey time on Queen St: PM Peak	Quantitative	seconds	Aimsun	EB: +14 / WB: +6			
				M4.7	Impact to access to off-street parking on Yonge St between College St and Queen St: daytime and nighttime	Qualitative	Low / medium / high	Aimsun	Medium impact	Access to all parking lots adjacent to Yonge St retained, although access routes may become more indirect. Access to the Eaton Centre Yonge Parkade retained via Shuter St. Access to Dundas Sq parking garage maintained via Victoria St and Yonge St northbound, while the existing entry route from Yonge St southbound will become unavailable.		
				M4.8	Change in total traffic	Quantitative	vehicle-kilometres	Aimsun	AM: -0.9%; PM:-0.4%	Small change in traffic levels of any of the Altneratives, but still a decrease.		
				M4.9	Change in average vehicle speed	Quantitative	km/hr	Aimsun	AM: -0.8km/hr; PM:-0.3km/hr	Modest decrease in average traffic speeds, likely caused by congestion levels within the model.		
Liveability	L1	Pedestrian Experience	Provides the opportunity to significantly improve the pedestrian experience with a unified streetscape and public realm while not impacting pedestrian movement.	L1.1	Length of street dedicated to daytime pedestrianization on Yonge St between College St and Queen St	Quantitative	Linear length (m) of daytime pedestrianizaton	Proposed Design	Total Length: 380m	Provides moderate space for public realm improvements. Pedestrianized blocks between Gerrard and Dundas Sq provide 380m of continuous length for streetscape and public realm improvements. This supplements the furnishing and marketing zone of 3.5m wide on each side between Gerrard St and College St, and 2.7m wide between Dundas Sq and Queen St.	+	In a few areas of crowding, there won't be enough space for street furniture.
	L2	Events, Festivals and Parades	Supports Yonge Street's role as cultural corridor by improving the streets ability to provide flexible space and operations for new and existing events, festivals and parades.	L2.1	Length of street dedicated to daytime pedestrianization on Yonge St between College St and Queen St	Qualitative	Linear length (m) of daytime pedestrianizaton	Proposed Design	Total Length: 380m	Increased space available for on-street programming and events along length of Yonge St. Between College St and Gerrard St, and between Dundas Sq and Queen St, the road will generally remain open at all times, therefore events using the road in these blocks will require road closures and diversions to be implemented. Events using the road between Gerrard St and Dundas Sq would only require road closures and diversion if they take place during the nighttime. Layout caters for events and on-street programming. Road closures for events will be less difficult as no through traffic during daytime.	+	Supports events near Yonge-Dundas Square and Ryerson Campus.
	L3	Public Safety	Prioritizes the safety of pedestrians and cyclists by reducing vehicle speeds and mode conflicts and by providing space for lighting, sight lines and emergency services.	L3.1	Level of conflict between modes along Yonge St between College St and Queen St	Qualitative	Low / medium / high	Proposed Design	Low	Absence of dedicated bike lane poses conflict potential between vehicles and cyclists. Presence of pedestrianized blocks between Gerrard St and Dundas Sq provides high degree of seperation between pedestrians and traffic. Fewer conflict points at intersections (including between vehicles and pedestrians) during the daytime, between Shuter St and Gerrard St due to pedestrianization and one-way restrictions. Reduced number of lanes and minimal lane widths encourage lower vehicle speeds, reducing severity of conflicts. Level of conflict increases at nighttime when the night bus is in operation.	+	Pedestrian priority zones protect active modes near Ryerson and where development is planned.
				L3.2	Risk of Yonge St between College St and Queen St feeling unsafe at night	Qualitative	Low / medium / high risk	Proposed Design	Low risk	Overnight timed access for vehicles along full length of Yonge St minimizes risk of street feeling isolated and lacking in activity at night. Access for night buses, taxis and ride share vehicles overnight provide travel options for those on Yonge St.		
				L3.3	Ease of emergency service vehicle access to the street	Qualitative	High / medium / low ease	Proposed Design	Medium ease	Emergency vehicles are able to operate on all sections of Yonge St at any time. However, there may be some minor impedence due to bollards used to manage temporal / one-way vehicle access at the Gerrard St, Elm St, Edward Street, Dundas St, Dundas Sq and Shuter Street intersections.		
Prosperity	P1	Retail & Tourism	Support's Yonge Street's role as a priority retail street by adding space for patios and vending and providing a streetscape which provides a pleasant experience to shop, dine and explore.	P1.1	Length of street dedicated to daytime pedestrianization on Yonge St between College St and Queen St for potential patios, store frontages and street vendors	Quantitative	metres	Proposed Design	380m	Provides moderate space for on-street economic activity. Presence of pedestrianized area between Gerrard St and Dundas Sq provides additional space for on-street economic activity, maximising how this space and the central boulevard can be used. More limited space available along remainder of Yonge St within 2.7m wide (between College St and College St) and 3.5m wide (between Dundas Sq and Queen St) furnishing and marketing zone.	+	Space for permanent and temporary patios /vending in the busiest sections and where the number of small shops is high.
	P2	Cost Effectiveness	Improves Yonge Street in a cost effective manner [note that this is considered from the Short List Selection onwards].	P2.1	Relative cost of supply and installation for bollards.	Qualitative	Low / medium / high	Proposed Design	Medium	Bollards are required at 7 intersections to manage timed or one-way access. In addition to the construction cost for these bollards, there will be ongoing management and maintenance costs.	+	Higher costs associated with managing driving access (bollards etc.) and public realm improvements.
	P3	Curbside Activity	Supports appropriate access and level of service for ride hailing, goods movement and municipal services to support business and tourism.	P3.1	Access to laneways and servicing areas along Yonge St between College St and Queen St	Qualitative	High / medium / low level	Proposed Design	Medium level	Access to all laneways and servicing areas retained, although access may become indirect during the daytime due to restrictions on Yonge St between Dundas Sq and Edward Street, and between Walton St and Gerrard St. Access is retained for the entire length of the street at nighttime between 12:00AM and 7:00AM.	-	Timed driving access restrictions from Dundas Square to Gerrard Street.
				P3.2	Length of Yonge St accessible to taxis and ride hailing services: daytime and nighttime	Quantitative	metres	Proposed Design	Daytime: 571m Nighttime: 873m	Provides access for taxi and ride hailing services between College St and Gerrard St, and between Dundas Sq and Queen St in the daytime; and for the entire length of Yonge St at nighttime.		
				P3.3	Length of Yonge St available for construction of laybys accessible during daytime	Quantitative	metres	Proposed Design	571m	Opportunity to construct daytime laybys between College St and Gerrard St, and between Dundas Sq and Queen St.		
Sustainability	S1	Natural Environment	Supports a healthier and more resilient streetscape by providing opportunities for tree planting.	S1.1	Length of street with daytime pedestrianization that provides opportunities for tree planting on Yonge St between College St and Queen St	Quantitative	metres	Proposed Design	302m	Provides moderate space for tree planting opportunities. Presence of pedestrianized area between Gerrard and Dundas Sq provides additional space for street furniture and patios, thereby increasing potential space available for tree planting. This supplements the furnishing and marketing zone of 3.5m wide on each side between Gerrard St and College St, and 2.7m wide between Dundas Sq and Queen St.	+	In most blocks there will be opportunities for tree planting.
	S2	Flexibility & Innovation	Provides flexible and adaptable street design that can respond to changing demands and needs.	S2.1	Ease of altering operation in the future to reflect changing pattern of use on Yonge St, without requiring significant investment in further construction.	Qualitative	High / medium / low ease	Proposed Design	High ease	As through traffic already restricted on Yonge St, the ease of altering operations in the future is increased.	+	Good flexibility in the vicinity of Yonge-Dundas Square and section where development is planned.
				S2.2	Ease of altering physical elements along Yonge St between College St and Queen St on regular and short term basis	Qualitative	High / medium / low ease	Proposed Design	High ease	As through traffic already restricted on Yonge St, the ease of extending temporal restrictions to further blocks and/or amending the timing of temporal restrictions is increased. Easier to change street layout, as some blocks already pedestrianized during the daytime.		
	S3	Health & Wellbeing	Encourages walking, cycling and transit use for all ages and abilities by providing safe, convenient and attractive facilities.	S3.1	Length of street dedicated to supporting active modes of transportation (walking & cycling) along Yonge St between College St and Queen St	Qualitative	High / medium / low level	Proposed Design	High level	Wider pedestrian clearway and more attractive streetscape may encourage more people to travel by foot on Yonge St. In addition, pedestrianized blocks between Gerrard St and Dundas Sq will provide a significantly more attractive pedestrian environment. Reduction in driving lanes and pedestrianization will create a more attractive environment for cycling in a shared space. High level of encouragement of walking, cycling and transit use, due to reduction of motorized vehicle dominance, including presence of pedestrianized blocks.	+	Good support for active modes in areas experiencing crowding and development.

SHORT LIST EVALUATION									OVERALL SUMMARY
OBJECTIVE	CRITERIA ID	CRITERIA	DESCRIPTION	INDICATOR ID	INDICATOR	QUALTIATIVE / QUANTITATIVE	UNITS (FOR QUANTITATIVE MEASURES) / LEVELS (FOR QUALITATIVE MEASURES)	DATA SOURCE	SUMMARY
Mobility	M1	Pedestrian Movement	Provides the opportunity to significantly improve pedestrian movement by adding space for movement both along and across Yonge Street to accommodate rowing pedestrian volumes.	M1.1	Pedestrian clearway area along Yonge St between College St and Queen St	Quantitative	square metres	Proposed Design	Alternative 3 adds significant space for pedestrians to address crowding. Alternatives 2 and 4 also add significant space, but address crowding at busiest locations to a lesser degree.
				M1.2	Length of sidewalk with peak hour Pedestrian Comfort Level (PCL) along Yonge St between College St and Queen St in the following categories: comfortable; acceptable; at risk; unacceptable / uncomfortable	Quantitative	metres	DYBIA / City of Toronto	
				M1.3	Length of sidewalk not adjacent to motorized traffic along Yonge St between College St and Queen St: daytime, nighttime	Quantitative	metres	Proposed Design	
				M1.4	Degree of separation between pedestrians and traffic along Yonge St between College St and Queen St	Qualitative	High / medium / low degree	Proposed Design	
	M2	Cycling	Provides a major north-south connection through downtown and improved experience for cyclists on Yonge Street.	M2.1	Level of conflict between pedestrians and cyclists along Yonge St between College St and Queen St.	Qualitative	Low / medium / high level	Proposed Design	All alternatives include a new connection on University Avenue. Alternative 3 provides the best cycling environment on Yonge St. Alternatives 2 and 4 provide a better cycling environment on Yonge St, but with one-way restrictions during the daytime.
				M2.2	Level of conflict between motorised vehicles and cyclists along Yonge St between College St and Queen St	Qualitative	Low / medium / high level	Proposed Design	
	M3	Transit	Supports efficient operation of bus and streetcar routes identified by TTC to meet ridership demand and allows streetscape improvements to surface transit stops and transfers.	M3.1a	Change in surface transit average journey time on University Ave: AM peak	Quantitative	seconds	Aimsun	Alternative 1 has the least impact on transit operations, whereas Alternatives 2, 3 and 4 have a similar level of impact. In all alternatives, mitigation measures should be considered to minmize impacts.
				M3.1b	Change in surface transit average journey time on University Ave: PM Peak	Quantitative	seconds	Aimsun	
				M3.2a	Change in surface transit average journey time on Bay St: AM peak	Quantitative	seconds	Aimsun	
				M3.2b	Change in surface transit average journey time on Bay St: PM Peak	Quantitative	seconds	Aimsun	
				M3.3a	Change in surface transit average journey time on College/Carlton St: AM peak	Quantitative	seconds	Aimsun	
				M3.3b	Change in surface transit average journey time on College/Carlton St: PM Peak	Quantitative	seconds	Aimsun	
				M3.4a	Change in surface transit average journey time on Dundas St: AM peak	Quantitative	seconds	Aimsun	
				M3.4b	Change in surface transit average journey time on Dundas St: PM Peak	Quantitative	seconds	Aimsun	
				M3.5a	Change in surface transit average journey time on Queen St: AM peak	Quantitative	seconds	Aimsun	
				M3.5b	Change in surface transit average journey time on Queen St: PM Peak	Quantitative	seconds	Aimsun	
	M4	Driving	Provides suitable vehicle access to support business operation, tourism and servicing of the neighbourhood.	M4.1a	Change in traffic average journey time on University Ave: AM peak	Quantitative	seconds	Aimsun	Alternative 1 has the least impact on traffic operations, whereas Alternatives 2, 3 and 4 have a similar level of impact. In all alternatives, mitigation measures should be considered to minmize impacts.
				M4.1b	Change in traffic average journey time on University Ave: PM Peak	Quantitative	seconds	Aimsun	
				M4.2a	Change in traffic average journey time on Yonge St: AM peak	Quantitative	seconds	Aimsun	
				M4.2b	Change in traffic average journey time on Yonge St: PM Peak	Quantitative	seconds	Aimsun	
				M4.3a	Change in traffic average journey time on Bay St: AM peak	Quantitative	seconds	Aimsun	
				M4.3b	Change in traffic average journey time on Bay St: PM Peak	Quantitative	seconds	Aimsun	
				M4.4a	Change in traffic average journey time on College/Carlton St: AM peak	Quantitative	seconds	Aimsun	
				M4.4b	Change in traffic average journey time on College/Carlton St: PM Peak	Quantitative	seconds	Aimsun	
				M4.5a	Change in traffic average journey time on Dundas St: AM peak	Quantitative	seconds	Aimsun	
				M4.5b	Change in traffic average journey time on Dundas St: PM Peak	Quantitative	seconds	Aimsun	
				M4.6a	Change in traffic average journey time on Queen St: AM peak	Quantitative	seconds	Aimsun	
				M4.6b	Change in traffic average journey time on Queen St: PM Peak	Quantitative	seconds	Aimsun	
				M4.7	Impact to access to off-street parking on Yonge St between College St and Queen St: daytime and nighttime	Qualitative	Low / medium / high	Aimsun	
				M4.8	Change in total traffic	Quantitative	vehicle-kilometres	Aimsun	
				M4.9	Change in average vehicle speed	Quantitative	km/hr	Aimsun	
Liveability	L1	Pedestrian Experience	Provides the opportunity to significantly improve the pedestrian experience with a unified streetscape and public realm while not impacting pedestrian movement.	L1.1	Length of street dedicated to daytime pedestrianization on Yonge St between College St and Queen St	Quantitative	Linear length (m) of daytime pedestrianizaton	Proposed Design	All alternatives provide significant additional space for potential streetscape / public realm improvements along the length of Yonge St. Alternatives with more daytime pedestrianisation increase the potential to make use of this space without affecting pedestrian crowding.
	L2	Events, Festivals and Parades	Supports Yonge Street's role as cultural corridor by improving the streets ability to provide flexible space and operations for new and existing events, festivals and parades.	L2.1	Length of street dedicated to daytime pedestrianization on Yonge St between College St and Queen St	Qualitative	Linear length (m) of daytime pedestrianizaton	Proposed Design	All alternatives cater for events and on-street programming. Alternatives 2, 3 and 4 would better facilitate events that require closure of Yonge St, with Alternative 3 doing so most readily.
	L3	Public Safety	Prioritizes the safety of pedestrians and cyclists by reducing vehicle speeds and mode conflicts and by providing space for lighting, sight lines and emergency services.	L3.1	Level of conflict between modes along Yonge St between College St and Queen St	Qualitative	Low / medium / high	Proposed Design	Alternatives 3 and 4 have a greater positive impact on safety (compared to Alternatives 1 and 2), as they remove more conflicts.
				L3.2	Risk of Yonge St between College St and Queen St feeling unsafe at night	Qualitative	Low / medium / high risk	Proposed Design	
				L3.3	Ease of emergency service vehicle access to the street	Qualitative	High / medium / low ease	Proposed Design	
Prosperity	P1	Retail & Tourism	Support's Yonge Street's role as a priority retail street by adding space for patios and vending and providing a streetscape which provides a pleasant experience to shop, dine and explore.	P1.1	Length of street dedicated to daytime pedestrianization on Yonge St between College St and Queen St for potential patios, store frontages and street vendors	Quantitative	metres	Proposed Design	All alternatives provide significant additional space for patios and vending along the length of Yonge St. Alternatives with more daytime pedestrianisation increase the potential to make use of this space and the central boulevard without affecting pedestrian crowding.
	P2	Cost Effectiveness	Improves Yonge Street in a cost effective manner [note that this is considered from the Short List Selection onwards].	P2.1	Relative cost of supply and installation for bollards.	Qualitative	Low / medium / high	Proposed Design	Costs differ depending on level of management needed for time of day access. Alternative 1 is the cheapest and Altnerative 3 is the most expensive, with Alternatives 2 and 4 falling in between.
	P3	Curbside Activity	Supports appropriate access and level of service for ride hailing, goods movement and municipal services to support business and tourism.	P3.1	Access to laneways and servicing areas along Yonge St between College St and Queen St	Qualitative	High / medium / low level	Proposed Design	All alternatives retain appropriate access for ride hailing, goods movement and municipal services, but Alternative 1 offers the most access during the day and Alternative 3 offers the least. An intermediate level of access is provided in Alternatives 2 and 4.
				P3.2	Length of Yonge St accessible to taxis and ride hailing services: daytime and nighttime	Quantitative	metres	Proposed Design	
				P3.3	Length of Yonge St available for construction of laybys accessible during daytime	Quantitative	metres	Proposed Design	
Sustainability	S1	Natural Environment	Supports a healthier and more resilient streetscape by providing opportunities for tree planting.	S1.1	Length of street with daytime pedestrianization that provides opportunities for tree planting on Yonge St between College St and Queen St	Quantitative	metres	Proposed Design	All alternatives provide significant additional space for potential greening along the length of Yonge St. Alternatives with more daytime pedestrianisation increase the potential to make use of this space without affecting pedestrian crowding.
	S2	Flexibility & Innovation	Provides flexible and adaptable street design that can respond to changing demands and needs.	S2.1	Ease of altering operation in the future to reflect changing pattern of use on Yonge St, without requiring significant investment in further construction.	Qualitative	High / medium / low ease	Proposed Design	Alternatives 2, 3 and 4 offer greater flexibility than Alternative 1, duo to the presence of pedestrianized blocks.
				S2.2	Ease of altering physical elements along Yonge St between College St and Queen St on regular and short term basis	Qualitative	High / medium / low ease	Proposed Design	
	S3	Health & Wellbeing	Encourages walking, cycling and transit use for all ages and abilities by providing safe, convenient and attractive facilities.	S3.1	Length of street dedicated to supporting active modes of transportation (walking & cycling) along Yonge St between College St and Queen St	Qualitative	High / medium / low level	Proposed Design	Alternatives 2, 3 and 4 encourage walking, cycling and transit use to a greater degree than Alternative 1, due to the presence of pedestrianized blocks.