

APPENDIX E  
ALTERNATIVE TRAIL ALIGNMENTS (PHASE 2)  
EVALUATION CRITERIA, INDICATORS AND  
MEASURES FOR ASSIGNING SCORES

TABLE 1: PHASE 2 EVALUATION CRITERIA, INDICATORS AND MEASURES FOR ASSIGNING SCORES

CRITERIA	INDICATORS	SCORE	MEASURES FOR ASSIGNING SCORES
<b>FUNCTIONAL VALUE</b>			
Meets project high level goal #1: Trail is located within the valley lands	Located within natural areas and/or zoned parks	(+2)	80-100% of trail located within valley lands or zoned parks
		(+1)	60-79% of trail located within valley lands or zoned parks
		0	40-59% of trail located within valley lands or zoned parks
		(-1)	20- 39% of trail located within valley lands or zoned parks
		(-2)	0-19% of trail located within or valley lands or zoned parks
Meets project high level goal #2: Trail supports multi-users	Accessibility, access grades (between areas), topography	(+2)	No grades to access, generally flat and even terrain
		(+1)	No grades and generally flat and even terrain
		0	Some minimal grades and varying topography
		(-1)	Meets one or more: steep grade to access, varying topography
		(-2)	Meets all: steep grade to access, varying topography
Meets access requirements for infrastructure maintenance vehicles and for police and emergency medical services vehicles	Access grades, topography, access proximity to infrastructure, turn radius for infrastructure maintenance vehicles (Parks, Forestry & Recreation, Toronto Water) and police and emergency medical service vehicles (excluding fire trucks)	(+2)	Flat and even terrain, few to no sharp turns, located adjacent to infrastructure
		(+1)	Flat and even terrain, few wide turns, provides improved access to infrastructure
		0	Contains both positive and negative elements (roughly equal in amount)
		(-1)	Meets one: steep access, varying topography, many bends
		(-2)	Meets two or more: steep access, varying topography, many bends, does not improve access to infrastructure
Promotes future opportunities to create local community connections	Potential for trail to create or preclude future desired or identified community access points and trails (Victoria Village, Linkwood Lane Park, Eglinton Ave., Wynford Concord, and Flemingdon)	(+2)	Currently connects to existing community connections
		(+1)	Allows for easily implemented connections
		0	Allows for technically complex/costly connections
		(-1)	Eliminates some future connections
		(-2)	Eliminates all future connections
Meets objectives for additional planning initiatives (not related to this EA scope)	Potential to meet objectives for additional initiatives or projects related to the Study Area (e.g. Don Watershed Plan, Eglinton Crosstown LRT, Pan Am Path, and increased parklands).	(+2)	Meets all
		(+1)	Meets at least one
		0	Does not meet nor preclude, or meets one but increases difficulty to implement another initiative or project
		(-1)	Does not meet and increases the difficulty to implement additional initiative or project
		(-2)	Does not meet any additional objectives and precludes them
Functional value as a travel route	Continuity, disruptions, frequency of stops, length of trail, connections to multi-modal transportation (e.g. St. Dennis bike lanes)	(+2)	Meets all: no turns or disruptions, shortest length, easy transitions between areas and adjacent trails or travel routes
		(+1)	Meets most: no disruptions, easy transitions between areas and adjacent trails or travel routes
		0	Meets one but is longest length: no disruptions, easy transitions between areas and adjacent trails or travel routes
		(-1)	Some disruptions, long trail length
		(-2)	Many disruptions, long trail length
<b>NATURAL AND PHYSICAL ENVIRONMENT</b>			
Potential impact to terrestrial vegetation and communities	Quality and quantity of vegetation removed, with consideration for L rankings, invasive and non-native species	(+2)	Least amount of vegetation removed, majority invasive species, within area of large amounts of informal trails
		(+1)	Least to median amount of vegetation removed, majority invasive or non-native species, L+ species
		0	Median amount of vegetation removed, majority L5 species or unknown
		(-1)	Median to greatest amount of vegetation removed, majority of species native, presence of L1-3 species
		(-2)	Greatest amount of vegetation removed, majority of species native, presence of L1-L3 species
Potential impact to wildlife habitat and connectivity	Location of trail through valley lands, forest, wetlands, and undisturbed areas, length of trail, and barriers (fence)	(+2)	Smallest portion of trail through valley lands and/or forests, shortest overall length, furthest away from wetlands
		(+1)	Small portion of trail through valley lands and/or forests, relatively short overall length or within areas of large disturbances, relatively far from wetlands

CRITERIA	INDICATORS	SCORE	MEASURES FOR ASSIGNING SCORES
		0	A median portion of trail through valley lands and/or forest, median overall length, within areas of disturbance, adjacent wetland
		(-)1	A large portion of the trail through valley lands and/or forests, long overall length, or creates a barrier to wildlife movement, directly impacts one wetland
		(-)2	Majority of trail through valley lands and/or forests, longest overall length, creates a barrier to wildlife movement, directly impacts more than one wetland
Potential impact to aquatic habitat	Quantity of riparian vegetation removed, number of additional bridges, distance of trail to river.	(+)2	No removal of riparian vegetation (15 m buffer), trail leads users away from trampled banks, least amount of bridges, trail outside of floodplain
		(+)1	Minimal amount of vegetation removed, majority of trail leads users away from trampled banks, few bridges
		0	Median amount of vegetation removed, median amount of bridges
		(-)1	Large amount of vegetation removed, large amount of bridges, trail within floodplain
		(-)2	Largest amount of vegetation removed, largest amount of bridges, trail adjacent river
Potential impacts on surface drainage and groundwater	Potential impact on natural surface drainage paths together with potential alterations to groundwater regime	(+)2	Shortest length paving of natural areas, away from drainage paths, no cutting or filling of surface or groundwater drainage paths
		(+)1	Shortest length of paving of natural areas, partially disrupts drainage paths
		0	Median length of paving of natural areas, some segments extend through drainage paths
		(-)1	Longest length paving of natural areas, away from channel or drainage paths
		(-)2	Longest length paving of natural areas, trail close to channel or drainage paths
Potential impacts to East Don River processes	Potential impact on channel erosion, flood levels, channel hydraulics, water quality.	(+)2	Furthest away from river's edge, least number of bridge crossings, no filling in of floodplain, fewest impacts on flow hydraulics
		(+)1	Majority away from river's edge, least number of bridge crossings, no erosion or slope mitigation required, minor filling in floodplain required.
		0	Majority away from river's edge, medium number of bridge crossings, no erosion or slope mitigation required.
		(-)1	Majority of trail close to river's edge, most number of bridges, some filling in of floodplain, some impacts on hydraulics
		(-)2	Entire trail alignment close to river's edge, erosion and slope mitigation required, channel alteration required, most number of bridges.
Potential to provide additional benefits to the natural and physical environment	Facilitates required erosion control works, increase natural cover, protection and/or restoration of valley system (beyond scope of the EA)	(+)2	Provides one or more potential additional ecological benefit
		(+)1	Provides one potential additional ecological benefit
		0	Does not provide nor preclude additional ecological benefits beyond the scope of the EA
		(-)1	No potential to provide additional ecological benefits, and precludes one other opportunity
		(-)2	No potential to provide additional ecological benefits, and precludes all other opportunities
<b>SOCIAL AND CULTURAL ENVIRONMENT</b>			
Impact to public safety objectives	Proximity to potentially hazardous situations or infrastructure such as: river, rail lines, road ways, hydro towers; sight lines and amount of turns	(+)2	No hazards
		(+)1	Meets one hazard
		0	Meets two hazards
		(-)1	Meets three hazards
		(-)2	Meets more than three hazards
Disruption to Local Study Area business operations and services provided.	Acquisition, easement or license agreements, potential to impede current operations and public use (Flemingdon Park Golf Club golf course, Hydro One, Metrolinx/GO Transit)	(+)2	No impact to business or operations or public use
		(+)1	Shared use of land, operations or public use not impacted
		0	License agreement required, operations and use not impacted
		(-)1	Easement required potential to impact operations and public use
		(-)2	Acquisition required (operations would cease), impact to public use

CRITERIA	INDICATORS	SCORE	MEASURES FOR ASSIGNING SCORES
Aesthetics	Access to natural areas, varying landscapes, potential opportunities for views and rest areas, sight barriers	(+2)	Meets all: access to river, provides additional future opportunities for views and rest areas, passes through a variety of landscapes
		(+1)	Meets at least one: access to river, provides additional future opportunities for views and rest areas, passes through a variety of landscapes
		0	Access to natural areas
		(-1)	Limited access to natural area, no opportunities for rest areas
		(-2)	No access to natural area, sight barriers present
User Experience	Potential to provide enhanced user experience for each user group (fitness users, limited mobility, nature enjoyment, transportation)	(+2)	Provides the most variation for all user groups
		(+1)	Provides the second most variation for many user groups
		0	Provides some variation for some user groups
		(-1)	Only provides enhanced user experience for one user group
		(-2)	Does not provide enhanced user experience for any user group
Noise Level	Proximity to works yards, rail line, road, industrial/commercial areas	(+2)	Located furthest away from all works yard, rail line and road that noise would be minimal
		(+1)	Located second furthest away, that some noise would be heard
		0	Located third furthest away, that noise would be heard
		(-1)	Adjacent to one, works yard, rail line, road or other
		(-2)	Adjacent to one or more or directly on right of way of works yard, rail line, road or other
Potential to impact known or potential archaeological sites, built heritage sites, and cultural heritage landscapes	Potential sites, known sites, trail utilizes already disturbed areas.	(+ 2)	Full trail will not impact any areas of known archaeological, built heritage and/or cultural heritage landscapes and sites
		(+1)	3/4 of the trail will not impact any areas of known archaeological, built heritage and/or cultural heritage landscapes and sites
		0	n/a
		(-1)	Less than 1/2 trail route is in an area of archaeological potential
		(-2)	More than 1/2 trail route is in an area of archaeological potential
<b>COST</b>			
Capital Cost	Number of bridge structures, addition or movement of infrastructure, tunnels under the railway, channel restoration and slope stabilization, existing paved routes, and total length of trail through valley.	(+ 2)	Lowest relative capital cost
		(+1)	Lowest to median relative capital cost
		0	Median capital cost
		(-1)	Median to highest relative capital cost
		(-2)	Highest relative capital cost
Operational and Maintenance Cost	Future risks due to flooding erosion and potential groundwater issues, the number of bridge or tunnel structures, additional built infrastructure, and trail length	(+ 2)	Least relative maintenance required, entire trail outside regional flood levels
		(+1)	Least relative maintenance required, majority of trail within regional flood levels/meander belt
		0	Median maintenance costs expected
		(-1)	Significant maintenance required, primarily due to close proximity of trail to river
		(-2)	Highest expected levels of maintenance required, primarily due to close proximity of trail to river and highest number of bridge crossings
Land Acquisition Cost/Additional Non Construction Related Costs*	Potential additional costs to acquire land, easement agreements, cost to mitigate impacts outside of the trail	(+ 2)	No known additional costs
		(+1)	Minimal additional costs (e.g., easements)
		0	Medium additional costs
		(-1)	High additional costs
		(-2)	Highest additional costs

CRITERIA	INDICATORS	SCORE	MEASURES FOR ASSIGNING SCORES
<b>TECHNICAL</b>			
Technical Feasibility	Private property disruptions, physical constraints such as traversing steep gradients, ability to open cut rail crossings, use of at-grade rail crossings, proximity to Hydro One infrastructure & practicality of slope or erosion stabilization measures	(+) 2	All technical criteria and constraints easily met, including physical, landowner, trail standards, etc.
		(+)1	All technical criteria and constraints able to be met, including physical, landowner, trail standards, etc.
		0	Technical constraints met with significant costs associated with overcoming constraints
		(-)1	Technical constraints limit feasibility of implementation, with significant costs or disruptions occur
		(-)2	Technical constraints completely inhibit feasibility of implementation
Ease of Implementation	Approvals, both community and landowner acceptance, length of time to implement, required closure of rail lines at tunnel locations	(+) 2	Easiest implementation with minimal environmental impacts and majority community and landowner support, nominal approvals required
		(+)1	Easy to implement with majority community and landowner support
		0	Potential challenges with community/landowner support.
		(-)1	Landowners do not prefer trail alignment, expropriation required, significant approvals required.
		(-)2	Landowners and permitting agencies may not approve trail alignment, approvals may be in doubt