

Appendix “J” Alternative Comparative Costs

**The City of Barrie - Bryne Drive Master Plan
Alternative Comparative Costs**

Table 8					
	Description	Unit	Quantity	Unit Price	Estimated Cost
Alternative 2	Alternative 2				
	Construction of new roadway	m	1,700	\$3,000.00	\$5,100,000.00
	Construction of road widening	m	440	\$750.00	\$330,000.00
	Allowance for crossing of Lover's Creek	m	25	\$10,000.00	\$250,000.00
	Allowance for crossing of Whiskey Creek	m	25	\$20,000.00	\$500,000.00
	Total Estimated Construction Cost				\$6,180,000.00
	Contingency (30%)				\$1,854,000.00
	Engineering (15%)				\$927,000.00
	TOTAL CONSTRUCTION				\$8,961,000.00
Alternative 3 and Alternative 3R	Alternative 3 and Alternative 3R				
	Construction of new roadway	m	1,826	\$3,000.00	\$5,478,000.00
	Construction of road widening	m	440	\$750.00	\$330,000.00
	Allowance for crossing of Lover's Creek (culvert) including relocation of a portion of the channel	m	35	\$10,000.00	\$350,000.00
	Allowance for crossing of south branch of Whiskey Creek (approvals, extended culvert and backfill)	LS	100%	\$260,500.00	\$385,000.00
	Allowance for crossing of north branch of Whiskey Creek (major culvert)	m	45	\$20,000.00	\$900,000.00
	Allowance for grading of berm crossing	LS	100%	\$1,012,000.00	\$1,012,000.00
	Allowance for relocation of CTV News Satellite Dish	LS	100%	\$150,000.00	\$150,000.00
	Total Estimated Construction Cost				\$8,605,000.00
	Contingency (30%)				\$2,581,500.00
Engineering (15%)				\$1,290,750.00	
	TOTAL CONSTRUCTION				\$12,477,250.00
Alternative 4	Alternative 4				
	Construction of new roadway	m	1,884	\$3,000.00	\$5,652,000.00
	Construction of road widening	m	440	\$750.00	\$330,000.00
	Allowance for crossing of Lover's Creek (culvert) including relocation of a portion of the channel	m	35	\$10,000.00	\$350,000.00
	Allowance for crossing of south branch of Whiskey Creek (bridge)	m2	1,239	\$2,000.00	\$2,478,000.00
	Allowance for crossing of north branch of Whiskey Creek (major culvert)	m	26	\$20,000.00	\$520,000.00
	Allowance for relocation of CTV News Satellite Dish	LS	100%	\$150,000.00	\$150,000.00
	Total Estimated Construction Cost				\$9,480,000.00
Contingency (30%)				\$2,844,000.00	
Engineering (15%)				\$1,422,000.00	
	TOTAL CONSTRUCTION				\$13,746,000.00
Alternative 5	Alternative 5				
	Construction of new roadway	m	1,909	\$3,000.00	\$5,727,000.00
	Construction of road widening	m	440	\$750.00	\$330,000.00
	Allowance for crossing of Lover's Creek (culvert) including relocation of a portion of the channel	m	35	\$10,000.00	\$350,000.00
	Allowance for crossing of south branch of Whiskey Creek (bridge)	m2	1,344	\$2,000.00	\$2,688,000.00
	Allowance for crossing of north branch of Whiskey Creek (major culvert)	m	42	\$20,000.00	\$840,000.00
	Allowance for relocation of CTV News Satellite Dish	LS	100%	\$150,000.00	\$150,000.00
	Total Estimated Construction Cost				\$10,085,000.00
Contingency (30%)				\$3,025,500.00	
Engineering (15%)				\$1,512,750.00	
	TOTAL CONSTRUCTION				\$14,623,250.00

Notes & Assumptions:

- 1 The City of Barrie has recently updated the unit prices and the City's revised average cost for a new, 18 m width of asphalt within a 30 m wide ROW in 2014 dollars is \$3,000/m. The preliminary lengths of road for the five alignment alternatives are listed above, resulting in the updated construction cost estimates (Copy of City's spreadsheets included).
- 2 Based on recent contracts involving construction of small and large concrete box culverts, the typical average cost per meter is \$10,000 and \$20,000 respectively.
- 3 Using the MTO documented benchmark costs for bridges of any type, indexed to 2015 monies, a unit price of \$2000/m2 for the deck area has been assumed for conceptual costing purposes. This cost includes: structure excavation, dewatering, piling, footings, abutments, piers, formwork, falsework, access to structure, reinforcing steel, deck, beams, parapet wall,
- 4 Based on information provided to by Skelton Brumwell & Associates the Lump Sum price for the relocation of the CTV News Satellite dish is \$150,000. Alternative 2 is the only alternative that does not require this cost allowance due to the location of the intersection at Harvie road and Bryne Drive, which is East of the existing Satellite Dish.