TOLKO INDUSTRIES LTD.

BCW ECE - Ver 2016-02

Engineered Cost Estimate

ECE ID/Map Ref #: ECE 1

Licence A18672 **CP** 494 **Assoc. Block** LV3104

ECE Project Type:	Road Reactivation (i.)	**ECE Total Length (m)**	788

IAM in Effect: 2016
Cost Base Year 2014

ECE Description/Comments (consider pictures as supporting documentation)

Road reactivation including light brushing, grading/crowning, ditching and adding culverts.

Reappraised to include required blasting and dropping grass seeding

Brushing (Accepted template with standard machines and productivities accepted by Ministry, - July 1, 2016)

Dist (km)	*Features*	*Brushing Head on Tractor*	*Bobcat with Brushing Attachment*	*Feller Buncher*	*Grader Productivity (hrs/km)*	*Bulldozer Productivity (hrs/km)*	*Hoe Productivity (hrs/km)*	*Cost ($)*
0.8	light brushing (roadside only)	*Y*						$540.00
							Cost:	**$540.00**

Ditching (Accepted template with standard machines and productivities accepted by Ministry, - July 1, 2016)

Dist (km)	*Features*					*Bulldozer Productivity (hrs/km)*	*Hoe Productivity (hrs/km)*	*Cost ($)*
0.8	0-25% slope					10		$2,081.20
							Cost:	**$2,081.20**

Additional Road Works - Road Widening, realignment, addition of pullouts, equipment walking between projects

Add detail if needed.

Equipment Type	Function, Comments	TOTAL HRS	EQUIP RATE ($/HR)	TOTAL COST
Excavator - Small	work in conjunction with gravel truck to remove blasted material	9.5	$ 161.21	$ 1,531.50
Gravel truck	remove blasted material from area	9.5	$ 94.40	$ 896.80
Blasting (all found hourly rate)	Based on 2014-15 cost of drill/explosives/transport and insurance	6.0	$ 520.00	$ 3,120.00
			Total	**$ 5,548.30**

CULVERTS

Culvert Diameter (mm)	NUMBER	LENGTH (m)	CULVERT COST	TOTAL COST
400	4	10	$ 546	$ 2,184
			Total	**$ 2,184**

Project Total Cost	**$10,353.50**