BCW ECE - Ver 2016-02

Engineered Cost Estimate

ECE ID/Map Ref #: ECE 15

Licence TFL 49 **CP** 991 **Assoc. Block** AB7021

ECE Project Type:	Road Reactivation (i.)	ECE Total Length (m)	620

IAM in Effect: 2016
Cost Base Year 2014

ECE Description/Comments (consider pictures as supporting documentation)

4.3.6 (6)(i) Road Reactivation activities necessary to re-open a road where there were no prior road management obligations

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 ($)*
0.6	light brushing (roadside only)	*Y*						$405.00
	<50% brush	*Y*	Y		2			$0.00
	>50% brush				5	5		$0.00
	>50% brush and 2-10cm diameter				10	10		$0.00
	>50% brush and >10cm diameter			*Y*	10	10		$0.00
							Cost:	**$405.00**

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 ($)*
	0-25% slope					10		$0.00
	25-45% slope					10	10	$0.00
	>45% slope					15	15	$0.00
							Cost:	**$0.00**

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

	Features	Hand Falling with Spotter			Equipment Use			*Cost ($)*
		Days	*Snagfaller (hrs)*	*Spotter (hrs)*	*Days*	*Skidder (hrs)*	*Hoe (hrs)*	
	Light snag falling >6km per day		10	10		10	10	$0.00
	Moderate snag falling 3-6km per day		10	10		10	10	$0.00
	Heavy snag falling <3km per day		10	10		10	10	$0.00
							Cost:	**$0.00**

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			$ 180.90	
Crawler Tractor -Med	Subgrade re-construction	2.0	$ 216.95	$ 433.90
Crawler Tractor -Large			$ 260.15	
Loader			$ 181.75	
Gravel truck			$ 94.40	
Artic. Dump Truck			$ 161.45	
Lowbed 5 Axle			$ 109.15	
Lowbed 7 Axle			$ 137.70	
Grader			$ 158.55	
Labourer			$ 37.86	
Rock Drill			$ 249.06	
Blasting (all found hourly rate)	Based on 2014-15 cost of drill/explosives/transport and insurance		$ 520.00	
			Total	**$ 433.90**

Road Widening Upgrade - FREDS Volume Estimate

Note: Used when a section of upgrade requires subgrade widening and volumes are determined in RoadEng/volume calculator and esimated using FREDS

CHAINAGE		Comment	DISTANCE (m)	TOTAL COST
POC	POT			
		Road Widening - Refer to FREDS	0	
		Road Widening - Refer to FREDS	0	
		Road Widening - Refer to FREDS	0	
		Total	**0.0**	**$ -**

Grading

Add detail if needed.

Equipment Type	Comments	DISTANCE (m)	TOTAL HRS	EQUIP RATE ($/HR)	TOTAL COST
Cat 140M, 140M2		620	1.2	$ 158.55	$ 190.26
				$ 158.55	
				$ 158.55	
				$ 158.55	
	Total Length	**620**		**Total**	**$ 190.26**

Miscellaneous Activities

Add detail if needed.

Activity	Comments	DISTANCE (m)	#	Units	Rate	TOTAL COST
Grass Seeding	1 bag/250m both sides of road	620	2.48	bags	$ 70.00	$ 173.60
	400m/hr both sides - min 4hrs		4	hrs	$ 37.86	$ 151.44
	Crew transport		1	days	$ 50.00	$ 50.00
Snag Falling	Crew transport		0	manday	$ 50.00	$ -
Signage	Km/safety signs average=$50/km		0	Kms	$ 50.00	$ -
Survey-Road design	Survey Crew - day rate		0	days	$ 800.00	$ -
Other - Geotextile Grid				per 100 LM	$ 635.00	
Other - Geotextile Fabric				per 100 LM	$ 505.00	
Other - Geotech?						
Other						
					Total	**$ 375.04**

CULVERTS

Culvert Diameter (mm)	NUMBER	LENGTH (m)	CULVERT COST	TOTAL COST
			Total	**$ -**

GRAVEL

CHAINAGE in metres		DISTANCE (m)	Distance to Pit (km)	Road Group	TOTAL COST
POC	POT				
		0			$ -
		0			$ -
		0			$ -
				Total Cost	**$ -**

Project Total Cost	**$1,404.20**
Cost/km	**$ 2,264.84**