



**Alberni Valley Regional Airport (CBS8)
Runway Extension
Class 'A' Estimate of Probable Costs
Runway 30 Extension 324m (1063 ft)**

January 23, 2015

Item	Estimate of Probable Costs Summary				Total
1.00	Civil General Requirements				\$ 360,000
2.00	Civil Site Works - Runway Extension (324m x 30m)				\$ 4,960,420
	Total Estimate of Probable Construction Costs				\$ 5,320,420
3.00	Estimated Engineering Costs - Design, Construction Inspection (rounded)			4%	\$ 212,800
4.00	Project Contingencies (rounded)			8%	\$ 425,600
	Total Estimate of Probable Project Costs				\$ 5,958,820

Item	Description	Unit	Est Quantity	Unit Price	Total Price
1.00	Civil General Requirements				
1.01	Temporary Facilities - Mob / Demob, Survey etc.	Lump Sum	1	\$ 150,000	\$ 150,000
1.02	Tree Clearing/Felling for Obstacle Limitation Surface (OLS) Compliance	Hectare	50	\$ 3,700	\$ 185,000
1.03	Conduct Testing & Commissioning	Lump Sum	1	\$ 25,000	\$ 25,000
	Subtotal General Requirements				\$ 360,000
2.00	Civil Site Works - Runway Extension (324m x 30m)				
2.01	Clearing, Grubbing for Rwy Strip Along Extension	m ²	35,000	\$ 4	\$ 140,000
2.02	Topsoil Stripping and Stockpile for future reuse	m ³	4,200	\$ 13	\$ 54,600
2.03	Milling Existing HMAc (Approx. 50mm) for Butt Joint	m ²	60	\$ 17	\$ 1,020
2.04	Removal and Dispose On-Site - Drag Strip Asphalt Facilities - (Full Depth)	m ²	780	\$ 16	\$ 12,480
2.05	Common Excavation and Dispose On-Site - Runway Footprint (710mm structure) and Graded Strip - Depth Varies Based on Existing Ground	m ³	104,000	\$ 12	\$ 1,248,000
2.05	Place and Compact Fill	m ³	1,400	\$ 40	\$ 56,000
2.06	Granular Subbase Course (GSBC) - 420mm thick	m ³	4,100	\$ 55	\$ 225,500
2.07	Granular Base Course (GBC) - 200mm thick	m ³	2,000	\$ 60	\$ 120,000
2.07	3.5m Granular Shoulder - 90mm thick	m ³	220	\$ 60	\$ 13,200
2.08	Hot-Mix Asphalt Concrete Paving (HMAc) - 90mm thick	Tonne	2,200	\$ 160	\$ 352,000
2.09	Eradicate All Existing Runway 12-30 Centerline Pavement Markings, Runway 30 Threshold and Aiming Point Marking, Runway 12 Threshold and Aiming Point Marking (Black Paint)	Lump Sum	1	\$ 20,000	\$ 20,000
2.10	New Runway 12-30 Centerline Painting, Runway 30 Threshold, Aiming Point and Touchdown Zone Marking, Runway 12 Threshold, Aiming Point and Touchdown Zone Marking	Lump Sum	1	\$ 20,000	\$ 20,000
2.11	Geotextile fabric, Non-woven (Provisional Item)	m ²	5,000	\$ 4	\$ 20,000
2.12	Geogrid (Provisional Item)	m ²	5,000	\$ 4	\$ 20,000
2.13	Finish Grading	m ²	28,000	\$ 5	\$ 140,000
	3.5m Runway Widening Each Side (Total RWY Width of 30m) Runway Strip 75m Each Side of Centerline				
2.14	Clearing, Grubbing for Rwy Strip	m ²	81,000	\$ 4	\$ 324,000
2.15	Topsoil Stripping and Stockpile for future reuse	m ³	840	\$ 13	\$ 10,920
2.16	Milling Existing HMAc (Approx. 50mm) for Butt Joint	m ²	4,500	\$ 17	\$ 76,500
2.17	Common Excavation (81,000cu.m) and Place as Common Fill (50,000cu.m) - Runway Footprint (710mm structure) and 150m Graded Strip - Depth Varies Based on Existing Ground	m ³	130,000	\$ 10	\$ 1,300,000
2.17	Granular Subbase Course (GSBC) - 420mm thick	m ³	3,600	\$ 55	\$ 198,000
2.18	Granular Base Course (GBC) - 200mm thick	m ³	1,700	\$ 60	\$ 102,000
2.19	Hot-Mix Asphalt Concrete Paving (HMAc) - 90mm thick	Tonne	1,900	\$ 160	\$ 304,000
2.20	Eradicate Existing Pavement Markings	Lump Sum	1	\$ 3,000	\$ 3,000
2.21	New Pavement Markings (Edge Marking)	Lump Sum	1	\$ 3,000	\$ 3,000
2.21	New 600mm dia. CSP Extension	Lin.m.	85	\$ 140	\$ 11,900
2.22	New 900mm dia. CSP Extension	Lin.m.	110	\$ 180	\$ 19,800
2.23	Supply and Install 1200mm DIA. MH c/w Bedding and Backfill, including Frame and Grate	Lump Sum	1	\$ 6,000	\$ 6,000
2.24	Geotextile fabric, Non-woven (Provisional Item)	m ²	1,500	\$ 4	\$ 6,000
2.25	Geogrid (Provisional Item)	m ²	1,500	\$ 5	\$ 7,500
2.26	Finish Grading	m ²	29,000	\$ 5	\$ 145,000
	Subtotal Civil Works				\$ 4,960,420



Notes:

- 1.0 Costs noted above are estimates based on similar works completed over the past five years. It is not to be interpreted as a guarantee by Tetra Tech of the actual project costs. The actual project cost shall be determined by the tender and construction process.
- 2.0 The estimates include 2-5% contingency to account for fluctuations between assumptions made and actual ground conditions.
- 3.0 Quantity under item 1.02 is an estimate to cover costs associated with clearing OLS protrusions as surveyed by SNC Lavalin. It has been extrapolated to include additional clearing for the runway extension options. Some localized clearing efforts may be required for areas of taller trees outside the main clearing footprint.
- 4.0 Quantity under item 2.03 is based on the cut required for the runway extension plus the required runway strip and OLS allowances beyond the current Airport boundary. Due to a lack of survey beyond the present Airport fence, 20% has been added to this value to account for what is expected to be additional ground cut on the tree farm property.
- 5.0 Temporary Facilities have been estimated at 3%(rounded) of the Subtotal Civil Site Works.