

PRINCETON & DISTRICT AQUATIC CENTRE
FEASIBILITY STUDY
Princeton, British Columbia
design by Bruce Carscadden Architect Inc.

Preliminary Cost Estimate
May 25, 2011
(Updated November 2008 Estimate)

PROFESSIONAL QUANTITY SURVEYORS
VALUE ANALYSTS
LEED™ ACCREDITED PROFESSIONAL

JBA

James Bush & Associates Ltd., Professional Quantity Surveyors
13657-20A Avenue, South Surrey, BC, V4A 9V7
Phone (604) 535-5800 Fax (604) 535-5836 Email jim@jba.bc.ca

INTRODUCTION

- 1 General: This Cost Estimate is intended to provide a realistic assessment of the direct and indirect construction costs for the proposed new AQUATIC CENTRE located in Princeton BC
- The scope of this project includes the construction of a new 17,000SF Single storey wood frame building on concrete foundation, clad with prefinished metal roofing and siding, finishes to commercial standard. Pool facilities include a lap pool, leisure pool, family hot pool, sauna and various pool activity/play features.
- We are assuming LEED GOLD Equivalent level of design.
- 2 Documentation: The following documentation forms the basis for this estimate:
JUNE 26, 2008 Drawings by BRUCE CARSCADDEN ARCHITECT INC.
- Architectural drawings, elevations & information (3 SHEETS)
 - Structural, Mechanical, Electrical, Civil design not available at this feasibility stage
 - Soils Investigation report was NOT received
 - Civil & Utility Drawings, Landscape Design were NOT received.
- 3 Approach: From the foregoing documentation and information, quantities of all major building elements were assessed, and where possible, measured and priced out at rates considered competitive for a project of this type, under a competitively bid, Lump Sum (fixed price), CCDC2 form of contract in Princeton, BC (traditional design-bid-build procurement).
- Although implementation options have not been explored at this point, there are a number of procurement methods that would suit this type of project - construction management style of contract or design build. Our estimate would accommodate these alternate options.
- 4 Scope Outline Estimate includes
- Standard strip foundations, spread pad footings and 100mm slab on grade
 - No Allowance for soils anchors for seismic foundations
 - Heavy timber roof truss, 2x10" wood joist roof structure on load bearing concrete block walls
 - Exterior wall cladding - prefinished metal cladding on rigid insulation and sheathing.
 - Prefinished metal roofing systems, with integral insulation, Flat roofs SBS
 - All work carried out during normal working hours. No compressed construction schedule.
 - Durable Finishes - ceramic tile floors, epoxy painted block walls
- 5 Cost Base: All unit costs used in the estimate have been calculated using current dollars, that is, as if this project was bid in MAY 2011.
- We have included 10% for ESCALATION Contingency to account for market and material increases from now up until the start of construction, assumed to be 24mths from now.
- 6 Contingencies We have included for 10% Design Contingency as the design is in the preliminary stage
- We have included Construction Contingency for change orders during construction as part of the soft costs

INTRODUCTION

7 Taxes: Payable Portion of HST has been included, adjusted at the Municipal rebate rate.
Municipalities are able to claim a 100 per cent rebate of the 5 per cent federal portion of the HST (which replaces the GST in B.C.) and a 75 per cent rebate of the 7 per cent provincial portion of the HST. Payable portion calculated to 1.75%

8 Soft Costs An allowance of 25% has been made for SOFT COSTS to provide for

- Owner's Project Administrative staff and associated management
- Design and Engineering Fees & Expenses
- Change Orders during construction
- Project Soft Costs: Legal, Accounting, Wrap-up all risk Insurance, Testing
- Office Equipment
- Furniture and Furnishings
- Moving Costs / Temporary Facilities
- Owners Project Management & Independent Commissioning

9 Gross Floor Areas The following areas have been measured in accordance with the CIQS standard method of measurement (i.e. GFA measured to outside line of exterior wall with deductions made for spaces that are open to below).

GROSS FLOOR AREA	METRIC	IMPERIAL
Main Floor	1,579 m2	17,000 SF
Mezzanine	79 m2	845 SF
TOTAL GFA (M2)	1,658 m2	17,845 SF

10 Estimate Caveats and Expectation of Accuracy The estimate prepared by JBA reflects probable construction costs prevailing in the location of PRINCETON at the date of this report and is a determination of fair market value for the construction of this project and should not be taken as a prediction of the lowest price.

Our expectation of accuracy at this early stage of the design process, factoring in the depth of work undertaken in preparation of this estimate, the extremely variable construction market and the time period before this project is tendered: would be +5% to -10%

The pricing assumes competitive bidding for every portion of the construction work including all sub-contractors as well as general contractors work and assumes a minimal of 3-5 bidders. If fewer bids are received, the bid results can be expected to be higher.

JBA does not have control over the cost of labour, materials, equipment, over a contractor's method of determining bid prices, or over competitive bidding, market conditions. Accordingly JBA cannot and does not warrant or represent that bid prices will not vary from this estimate

PRINCETON & DISTRICT AQUATIC CENTRE

May 25, 2011

FEASIBILITY STUDY

Princeton, British Columbia

design by Bruce Carscadden Architect Inc.

PROJECT COST SUMMARY			Preliminary Estimate - Updated	
BUILDING CONSTRUCTION	17,845 SF	\$360.33		\$6,430,100
<i>Heavy Wood Frame, Slab on Grade, Load Bearing Block</i>				
Foundations			318,000	
Structure			1,049,900	
Exterior Envelope - Wall & roof			1,298,800	
Interior construction			145,400	
Finishes			261,500	
Fittings & Equipment			174,900	
Electrical			531,100	
Mechanical			893,900	
Pool Construction			643,600	
Selective Demolition			25,000	
General Contractor Overhead and Fee			531,700	
Design Contingency		10%	556,300	
SITE DEVELOPMENT AND RENOVATION WORKS				\$240,000
Site Clearing, Tree Removal, Organics, Earthwork			With Building	
New Canopy			With Building	
Concrete paving, pavers, planters			80,000	
Soft Landscaping			30,000	
Mechanical Civil Services (storm, sewer, water)			80,000	
Electrical Civil Services - Service from Existing Building			50,000	
SUB-TOTAL CONSTRUCTION (Excluding HST)			\$373.78	\$6,670,100
Furniture, Furnishings & Equipment				
Soft Costs - Permits/Fees, Project Management, Legal, Finance, Admin.				
Contingency for Construction Change Orders			25%	\$1,668,000
Project Administrative Costs, Insurance, Permits. Etc.				
Payable HST (Municipal Rebate - 100%/5%GST, 75%/7%PST)			1.75%	\$145,900
Escalation from Estimate Date to Start of Construction - 24 mths			10%	\$848,000
TOTAL PROJECT COST		Summer 2013 Constr		\$9,332,000

Element	Element Cost			Sub-total	Total Cost	Rate per M2		Percent
	Quantity	Unit Rate				Sub-total	Total	
1. SUBSTRUCTURE					318,000		191.82	4.9%
(a) Strip Foundations & Foundation Wall	1,579 m2	90.80		143,400		86.50		
• 75mm gravel blinding layer	459 m2	3.60	1,700					
• Formwork, Place conc & finishing	525 m2	105.00	55,100					
• Rebar	16,640 kg	1.90	31,600					
• Concrete Supply incl. pump cost	223 m3	198.00	44,100					
• Perimeter insulation & protection bd	143 m2	48.00	6,900					
• Embeds & miscell hardware			4,000					
(b) Earthwork for building	1,579 m2	110.55		174,600		105.32		
• Site Prep/Bulk excavation for building footprint	616 m3	38.00	23,400					
• Bulk excavation for pool tank	821 m3	48.00	39,400					
• Detailed excavation for foundations	426 m3	55.00	23,400					
• Dispose of excavated material off site	1,759 m3	28.00	49,300					
• Resue excavated material backfill, compacted	293 m3	22.00	6,400					
• Imported Granular base, compacted	312 m3	54.00	16,800					
• Sedimentation control, wheel wash			15,900					
• Traffic Control			Not Required					
(c) Special Conditions				0		0.00		
• Piling / Preload / Soils Anchors			Not Included					
2. STRUCTURE					1,049,900		633.29	16.3%
(a) Slab on Grade (excl. Pool slab)	1,154 m2	79.87		92,200		55.61		
• Fine Grade & Compact Slab base	1,154 m2	2.80	3,200					
• Concrete Supply incl. pump cost	179 m3	198.00	35,400					
• Finishing	1,154 m2	18.00	20,800					
• Rebar 10m at 300 EW	13,419 kg	1.90	25,500					
• Poly VB	1,154 m2	4.20	4,800					
• tie into existing slab - drilled/epoxy starter	100 No.	25.00	2,500					
(b) Upper floor Structure	79 m2			42,700		25.76		
• Structural Steel, metal deck, topping	79 m2	435.00	34,100					
• Fire proofing underside 2nd floor	79 m2	110.00	8,600					
(c) Structural Walls - Int/Ext Wood Frame / Block	1,560 m2	151.05		235,600		142.11		
• exterior walls, steel frame	832 m2	108.00	89,900					
• interior block walls	620 m2	196.00	121,400					
• masonry fire wall adjacent extg	108 m2	225.00	24,300					
(d) Roof construction - Sloped - Wood Truss	1,869 m2	363.42		679,400		409.81		
• 2x12 wood joist framing /purlins etc,	1,869 m2	85.00	158,900					
• GL wood trusses	1,869 m2	125.00	233,700					
• miscel metal connections/hardware/cranage			Item 58,900					
• 5/8" plywood deck	1,869 m2	13.89	26,000					
• Framing labour	1,869 m2	108.00	201,900					
3. EXTERIOR CLADDING					1,298,800		783.43	20.2%
(a) Roof finish	1,869 m2	286.24		535,100		322.77		
• Prefinished Metal Roofing - Sloped Roof	1,369 m2	225.00	308,100					
• SBS Membrane to Flat roofs	400 m2	180.00	72,000					
• Skylight	100 m2	1,100.00	110,000					
• Metal Flashing - fascias, parapets, ridge etc	250 m	95.00	23,800					
• Metal Flashing - against exiting building	24 m	135.00	3,200					
• Snow guards			5,000					
• Wall / roof flashing / vents etc.			13,000					
(b) Walls below ground floor				0		0.00		
(c) Exterior Wall Cladding (refer also struc)	592 m2	476.95		282,500		170.40		
• stud framing and sheathing - see struct			see struct					
• Peel n stick air/VB, 75mm Insulation	592 m2	38.00	22,500					
• Exterior sheathing board	592 m2	29.00	17,200					
• Prefinished Cladding on furring channels	592 m2	410.00	242,800					
(d) Windows	240 m2			204,000		123.05		
• Prefinished Aluminum windows	240 m2	850.00	204,000					
(e) Exterior doors & screens	9 Lvs	2,622.22		23,600		14.24		
• H/M Door, Frame & Hardware, Painting - single	2 LVS	1,780.00	3,600					
• Fully glazed entry doors	3 Pair	4,500.00	13,500					
• Overhead Door	1 No.	6,500.00	6,500					
(f) Canopy				216,500		130.59		
• Glazed Entry Canopy (incl. Structure)	110 m2	1,350.00	148,500					
• Swimmers Sundeck Canopy	100 m2	680.00	68,000					
(g) Soffit Finish	57 m2	649.34		37,100		22.38		
• Finish soffit	290 m2	128.00	37,100					
(g) Sunshades				0		0.00		

COST ESTIMATE - ELEMENTAL SUMMARY

Element	Element Cost			Sub-total	Total Cost	Rate per M2		Percent
	Quantity	Unit Rate				Sub-total	Total	
4. INTERIOR PARTITIONS					133,400		80.47	2.1%
(a) Permanent partitions	35 m2			4,400		2.65		
• block partition walls			see struct					
• metal stud partition & drywall	35 m2	125.00	4,400					
(b) Glazed Interior Windows & Sidelights	105 m2	950.00		99,800		60.20		
(c) Operable Partition				0		0.00		
(d) Interior Doors, frames, Hardware	15 lvs	1,093.33		16,400		9.89		
• H/M doors & H/M frames	9 Lvs	950.00	8,600					
• Fully glazed doors	6 Lvs	1,300.00	7,800					
(e) Finish Hardware	15 lvs	850.00		12,800		7.72		
5. VERTICAL MOVEMENT					12,000		7.24	0.2%
(a) Stairs - mech room access	1 Fit	12,000.00		12,000				
(b) Elevator				0				
6. INTERIOR FINISHES					261,500		157.74	4.1%
(a) Floor finishes & Rubber Base	1,005 m2	111.54		112,100		67.62		
• Conc Flooring - exposed finish, non slip	109 m2	53.00	5,800					
• Ceramic tile to floors - Change/pool deck	643 m2	118.00	75,900					
• Ceramic tile to floors - Viewing, Lobby	253 m2	120.00	30,400					
(b) Ceiling finishes	1,005 m2	68.66		69,000		41.62		
• Drywall to underside first floor	79 m2	53.00	4,200					
• Tbar Ceilings - Lobby/Admin/Circ	253 m2	68.00	17,200					
• Painted drywall on furring (impact resistant)	196 m2	130.00	25,500					
• paint exposed Structure	1,050 m2	21.00	22,100					
(c) Wall finish	2,499 m2	32.17		80,400		48.50		
• Paint Finish - block fill/epoxy	1,239 m2	14.60	18,100					
• Wood Panelling/MDF - Lobby	100 m2	150.00	15,000					
• Tectum sound board	300 m2	105.00	31,500					
• Paint Walls	1,260 m2	12.50	15,800					
7. FITTINGS & EQUIPMENT					174,900		105.50	2.7%
(a) Millwork	1,658 m2	30.16		50,000		30.16		
• Reception								
• Vanities								
• change Room Benchs								
(b) Tackboards / Whiteboards		Item		1,500		0.90		
(c) Miscell Specialties - access panels, fire extg cab		Item		2,500		1.51		
(d) Lockers	88.0 No	350.00		30,800		18.58		
(e) WC Access/Ptns (non destructible type)				40,100		24.19		
• WC Accessories	9 Sets	1,250.00	11,300					
• WC Ptns	6 Sets	1,800.00	10,800					
• Shower/Change Cubicles / Bench	12 No.	1,500.00	18,000					
(f) Signage		Item		50,000		30.16		
8. ELECTRICAL	1,658 m2	320.34			531,100		320.36	8.3%
9. MECHANICAL	1,658 m2	539.20			893,900		539.20	13.9%
(a) Plumbing & drainage, gas piping, roof drains	1,658 m2	103.03		170,800		103.03		
• Fixtures (WC, Lav, Showers) HD-SS Type			131,500					
• Roof drainage	1,869 m2	21.00	39,300					
(b) Fire protection - sprinklers	1,658 m2	36.17		60,000		36.19		
(c) HVAC	1,658 m2	350.00		580,200		349.97		
(d) Controls	1,658 m2	50.00		82,900		50.00		
10. POOL CONSTRUCTION & SPECIALTIES					643,600		388.22	10.0%
(a) Pool Tank Construction				141,800		85.53		
• Curved perimeter wall construction incl. Kim conc	125 m	789.34	98,700					
• Seating steps	26 m	418.50	10,900					
• Premium for pool slab - sloped/curved, Kim conc	425 m2	75.00	32,200					
(b) Pool Finishes				121,800		73.47		
• Tile pool slab	425 m	128.00	54,400					
• Tile Pool walls	188 m	143.00	26,800					
• Pool edge	125 m	325.00	40,600					
(c) Pool Specialties/Equipment				105,000		63.34		
• Sprays		Allowance	20,000					
• Bulkhead - fixed/floating		Allowance	25,000					
• Sauna		Allowance	10,000					
• Slide / waterfall / play features		Allowance	50,000					
(d) Pool Mechanical - Filtration/Pumps/Surge Tank				275,000		165.88		
• Pool Mechanical equipment		Item	275,000					
11. SELECTIVE DEMOLITION					25,000		15.08	0.4%
(a) Remove exterior finish tie into existing		Allow		25,000		15.08		
DIRECT SITE OVERHEADS & SUPERVISION				6.8%	360,600		217.51	5.6%
GC MARK-UP & MANAGEMENT FEE				3.0%	171,100		103.21	2.7%
DESIGN CONTINGENCY				10.0%	556,300			8.7%
TOTAL NET BUILDING CONSTRUCTION COST (Excluding HST)					\$6,430,100		\$3,878.60	100%
GROSS FLOOR AREA: (New)	1,658 m2		17,845 SF				\$360.33 /SF	

BUILDING STATISTICS & SPACE SUMMARY

BUILDING STATISTICS		
<i>Element</i>	<i>Qty (m2)</i>	<i>Qty (SF)</i>
Main Floor	1,579.3	17,000.0
UPPER Floor - Mech Mezzanine	78.5	845.0
Upper Floor (Main Floor)		
Gross Floor Area (GFA)	1,657.8	17,845.0
Maximum Building Height	7.000	23.0
Footprint /GFA - NEW ADDN	1,579.3	17,000.0
Upper floor construction	78.5	845.0
Exterior Wall Length	168.0	551.2
Exterior Wall Area	832.3	8,958.9
Roof Area - New Construction	1,869.4	20,122.7
Window Area	240.0	2,583.4
Roof Overhang	290.1	3,122.6

BUILDING SPACE SUMMARY		
<i>Space Description</i>	<i>Areas (m2)</i>	<i>Areas (SF)</i>
MAIN FLOOR	1,499.0	16,135.2
Lobby-Entry	100.0	1,076.4
Viewing - corridor - circulation	153.0	1,646.9
Family Change-Washroom-Shower	92.0	990.3
Womens Change-Washroom-Shower	52.0	559.7
Mens Change-Washroom-Shower	52.0	559.7
Pool Storage	40.0	430.6
Electrical	15.0	161.5
Custodian	7.0	75.3
Shipping	32.0	344.4
Sauna	15.0	161.5
Pool deck	432.0	4,650.0
Main Pool	485.0	5,220.5
Family Hot Tub	24.0	258.3
UPPER FLOOR - Mech Mezz	78.0	1,044.0
Mechanical	68.0	732.0
Stair	10.0	312.0
<i>Wall thickness</i>	<i>3.96%</i>	<i>61.9</i>
TOTAL	1,560.9	16,801.0