

July 3, 2018

Suite 200 - 1530 56th Street
Delta, BC V4L 2A8
Canada

TURNBULL CONSTRUCTION PROJECT MANAGERS

Suite 1670 Central City Tower,
13450 102nd AVE, Surrey, BC V3T 5X3

T: 604.616.0406
E: ross@rtaqs.com
W: www.rtaqs.com

Attention: Geoff Watson, P.Eng., LEED AP, MBA
Principal

CRYSTAL POOL, VICTORIA, BC CLASS C CONSTRUCTION ESTIMATE

We have reviewed the design documents, prepared a "New Scheme" Class 'C' schematic design estimate (based on schematic design information) priced in Q3 2018 Victoria, BC dollars, and enclose our report.

Please note the conditions on which the costs are based and the items excluded.

Yours very truly,



Ross Templeton MRICS, PQS
Principal

Construction Cost Class C Estimate – July 3, 2018

PROJECT DESCRIPTION

The project scope includes the new construction of a replacement Crystal Pool & Wellness Centre in Victoria, BC as fully described in HCMA Architecture + Design new scheme schematic design package.

CONSTRUCTION COST SUMMARY

Element	Feb 15, 18 Class C Estimate \$	July 3, 18 Class C Estimate \$	Cost Variance (+/-) \$
Substructure (including Rock Blasting)	4,875,000	7,086,600	2,211,600
Structure	5,327,800	6,036,700	708,900
Exterior Enclosure	9,178,100	7,876,500	(1,301,600)
Partitions & Doors	2,779,800	2,445,700	(334,100)
Finishes	3,607,600	4,009,100	401,500
Fittings & Equipment	2,576,700	3,887,000	1,310,300
Mechanical	7,270,000	7,220,700	(49,300)
Electrical	4,185,300	2,973,800	(1,211,500)
General Requirements (Division 1) (on Building)	3,184,000	3,322,900	138,900
Construction Management Fee (on Building)	1,289,500	1,345,800	56,300
Net Building Cost	\$ 44,273,800	\$ 46,204,800	\$ 1,931,000
Net Building Cost \$/m ²	\$ 5,607/m ²	\$ 5,691/m ²	\$ 84/m ²
Net Building Cost \$/sqft	\$ 521/sqft	\$ 529/sqft	\$ 8/sqft
Sitework	4,104,400	2,262,600	(1,841,800)
Ancillary Work (Demolition & HazMat)	1,329,500	1,579,500	250,000
General Requirements (Division 1) (on Site Works)	434,700	307,400	(127,300)
Construction Management Fee (on Site Works)	176,100	124,500	(51,600)
Design Pricing Contingency	2,515,900	2,523,900	8,000
Escalation Contingency	6,551,500	6,572,300	20,800
Construction Contingency	Excluded	Excluded	Excluded
Total Construction Costs (excluding GST)	\$ 59,385,900	\$ 59,575,000	\$ 189,100
Gross Floor Area (m ²)	7,896 m ²	8,119 m ²	223 m ²
Total Construction Costs (excluding GST) \$/m ²	\$7,521/m ²	\$7,338/m ²	\$ (183)/m ²
Total Construction Costs (excluding GST) \$/sqft	\$699/sqft	\$682/sqft	\$ (17)/sqft

Class C Schematic Design construction cost estimates are typically +/- 15% in accuracy with many variables influencing the final construction price including most importantly the final design scope parameters.

Please refer to the appended Class C estimate for the estimate detail and elemental summary.

The February 15, 2018 Class C estimate totalled \$59,385,900. This estimate shows a total construction increase of \$189,100 excluding soft costs, items excluded and GST.

Construction Cost Class C Estimate – July 3, 2018

SEPARATE PRICES

Please refer to the final pages of the attached estimate for the separate price detail (all costs presented below are Net Cost Increases in Q2 2018 \$ without Div. 1, CM fee, contingencies, soft costs or GST):

▪ #1 - Raised Roof and Clearstory Over Large Multi-Purpose Room	ADD \$ 183,400
▪ #3 - Enhanced Building Envelope Performance	ADD \$ 4,300
▪ b - Replace Double Glazed Curtain Wall with Triple Glazed Curtain Wall	ADD \$ 2,363,600
▪ c - Replace 100mm rigid insulation with 200mm to Wall Below Grade	ADD \$ 158,400
▪ d - Replace 100mm rigid insulation with 200mm to Slab on Grade	ADD \$ 126,000
▪ e - Replace 200mm rigid insulation with 300mm rigid insulation to Roof	ADD \$ 259,300
▪ f - Replace 100mm rigid insulation with 150mm rigid to Exterior Soffits	ADD \$ 7,400
▪ g - Replace Double Glazed skylight with Triple Glazed skylight	ADD \$ 331,000
▪ #7 - Basement Floor To Be Slab on Grade Instead of Bonded Membrane	ADD \$ 251,700
▪ #8 - Acoustically Isolated Floor at Fitness Area	ADD \$ 198,600
▪ #9 - Reinstate park Over the Footprint of the Existing Building	ADD \$ 653,000
▪ Mech Separate Price #2 - Add Condensing boilers 500 kW	SAVE \$ 295,000
▪ Mech Separate Price #3 - Add Air to Water 4 pipe heat pump	SAVE \$ 290,000
▪ Mech Separate Price #5&6 - Delete Rainwater harvesting/purification/heat recovery	SAVE \$ 100,000

AREA ANALYSIS

Gross Floor Area measured in conformance to CIQS (Canadian Institute of Quantity Surveyors) rules of measurement:

Class C Estimate Comparison	Feb 15, 18	July 3, 18	Variance (+/-)
Basement	1,224 m ²	1,359 m ²	135 m ²
Surge Tank	0 m ²	93 m ²	93 m ²
Level 1	4,742 m ²	4,939 m ²	197 m ²
Level 2	1,930 m ²	1,728 m ²	(202) m ²
Gross Floor Area (used for \$/m²):	7,896 m²	8,119 m²	223 m²

PROJECT CALENDAR

We have assumed a construction start date of Q2/Q3 2019, a mid-point of Q2/Q3 2020 and construction completion Q2/Q3 2021 with a total construction schedule timeline of 26-28 months (including HazMat abatement, demolition and parking lot/reinstatement coming upon completion of the new facility).

CONTRACT CONDITIONS

The costs are based on the work being executed through a CM @ Risk - CCDC 5A to CCDC2 competitive tender contract on standard form documents tendered through BC Bid with no onerous supplementary conditions. Tenders will be received from at least five qualified bidders with tenders received from three sub-contractors for each major sub-trade (mechanical, pool equipment, electrical, concrete, steel, framing and drywall).

EXCLUSIONS

- Soft costs unless identified included (legal, financing, land are excluded)
- Unforeseen existing ground and dewatering conditions, no allowance for pre-load or piles (rock blasting is included)
- Out of hours working premium / restricted working hours / restricted noise conditions
- Off-site utility upgrades
- Site works outside property line
- Construction works outside the defined scope
- Hazmat Abatement costs (beyond the included \$500,000 allowance; no HazMat report received)
- Phasing of the works or Accelerated Schedule
- Moving or decanting costs
- Loose fittings, furnishings and equipment
- Goods & Services Tax (GST)
- Extraordinary Market Conditions
- Cost escalation past the anticipated mid-point of construction (assumed Q2/Q3 2020)
- Construction Contingency (Change Orders)
- Items listed as 'excluded' in the estimate detail

DESIGN PRICING CONTINGENCY

The project is at schematic design stage and a design pricing contingency of five percent (5%) has been included to cover pricing variances that may occur with specification changes and design detailing clarifications. This contingency will reduce to zero at tender stage.

CONSTRUCTION CONTINGENCY

Construction projects are rarely completed without some level of change and often additional scopes of work are required. We recommend the owner carry an additional sum in their budget to help offset any unforeseen costs that may arise during construction. We recommend an amount of five percent (5%) of the construction cost is carried in a separate owner-owned budget which has been excluded from this estimate.

INFLATION AND MARKET CONDITIONS

Escalation of twelve-point-four percent (12.4%) has been included in the estimate based on a construction start date of Q2/Q3 2019, a mid-point of Q2/Q3 2020 and construction completion Q2/Q3 2021 calculated at six percent (6%) per annum for Victoria for both 2018, 2019 and 2020).

DOCUMENTS AND DATA

This cost plan estimate has been prepared using the following:

- 2017 07 05 Geotech report
- 2018 06 07 Revision 1 to SD Costing Drawings - Arch.
- 2018 06 07 Revision 1 to SD Costing Drawings - Struc.
- 2018 05 25 Envelope Memo
- 2018 05 25 SD Acoustical report
- 2018 05 25 SD Architectural drawings
- 2018 05 25 SD Electrical report
- 2018 05 25 SD Landscape drawings
- 2018 05 25 SD Mechanical report
- 2018 05 25 SD Structural drawings
- 2018 05 25 SD Structural report
- 2018 05 29 Civil Drawings

DRAFT

CLASS 'C' SCHEMATIC DESIGN ESTIMATE - July 3, 2018

ELEMENTAL COST ANALYSIS

ELEMENT	Total Quantity	Unit	Average Unit Rate	ESTIMATED COST (\$)		
				GFA =	8,119 m ²	
				\$	\$/m ²	%
SUBSTRUCTURE				7,086,600	873	15%
Standard Foundations	8,119	m ²	208	1,686,700	208	
Basement Excavation (including Rock Blasting)	43,957	m ³	123	5,399,900	665	
STRUCTURE				6,036,700	744	13%
Lowest Floor Construction	2,524	m ²	327	825,700	102	
Upper Floor Construction	4,236	m ²	362	1,534,200	189	
Stair Construction	212	riser	779	165,100	20	
Roof Construction	5,191	m ²	676	3,511,700	433	
EXTERIOR ENCLOSURE				7,876,500	970	17%
Walls Below Grade	3,170	m ²	479	1,517,400	187	
Walls Above Grade	103	m ²	738	76,000	9	
Structural Walls Above Grade	85	m ²	320	27,200	3	
Windows & Entrances	2,805	m ²	1,232	3,455,900	426	
Exterior Doors	29	lvs.	2,717	78,800	10	
Roof Covering	5,191	m ²	258	1,339,200	165	
Skylights	331	m ²	1,837	608,000	75	
Projections	8,119	m ²	95	774,000	95	
PARTITIONS & DOORS				2,445,700	301	5%
Fixed Partitions	6,107	m ²	295	1,798,600	222	
Structural Partitions	1,216	m ²	325	395,500	49	
Movable Partitions	0	m ²	0	0	0	
Interior Doors	137	lvs.	1,836	251,600	31	
FINISHES				4,009,100	494	9%
Floor Finishes	9,009	m ²	212	1,906,500	235	
Ceiling Finishes	8,026	m ²	183	1,465,300	180	
Wall Finishes	10,443	m ²	61	637,300	78	
FITTINGS & EQUIPMENT				3,887,000	479	8%
Metals	8,119	m ²	66	534,100	66	
Millwork	8,119	m ²	44	356,900	44	
Specialties	8,119	m ²	112	906,000	112	
Equipment	8,119	m ²	236	1,915,000	236	
Elevators	5	stop	35,000	175,000	22	
MECHANICAL				7,220,700	889	16%
Plumbing & Drainage	8,119	m ²	351	2,851,600	351	
Fire Protection	8,119	m ²	35	284,100	35	
HVAC	8,119	m ²	447	3,630,000	447	
Controls	8,119	m ²	56	455,000	56	
ELECTRICAL				2,973,800	366	6%
Service & Distribution	8,119	m ²	95	772,100	95	
Lighting, Devices & Heating	8,119	m ²	168	1,364,100	168	
Systems & Ancillaries	8,119	m ²	103	837,600	103	
GENERAL REQUIREMENTS & CM FEE (BUILDING)				4,668,700	575	10%
General Requirements (Div.1)			8.0%	3,322,900	409	
Fee			3.0%	1,345,800	166	
NET BUILDING COST (EXCL. CONTINGENCIES)				46,204,800	5,691	100%

CLASS 'C' SCHEMATIC DESIGN ESTIMATE - July 3, 2018

ELEMENTAL COST ANALYSIS

ELEMENT	Total Quantity	Unit	Average Unit Rate	ESTIMATED COST (\$)		
				GFA =	8,119 m ²	
				\$	\$/m ²	%
SITWORK (ON SITE)				2,262,600	279	
Site Preparation	8,119	m ²	51	410,700	51	
Hard Surfaces	8,119	m ²	86	696,700	86	
Improvements	8,119	m ²	27	218,300	27	
Landscaping	8,119	m ²	66	535,300	66	
Mechanical Site Services (On Site)	8,119	m ²	34	280,000	34	
Electrical Site Services (On Site)	8,119	m ²	15	121,600	15	
ANCILLARY WORK				1,579,500	195	
Demolition	1	sum	1,079,500	1,079,500	133	
Hazardous Materials Abatement	1	sum	500,000	500,000	62	
GENERAL REQUIREMENTS & CM FEE (SITE)				431,900	53	
General Requirements (Div.1)			8.0%	307,400	38	
Fee			3.0%	124,500	15	
CONTINGENCIES				9,096,200	1,120	
Design Pricing Contingency			5.0%	2,523,900	311	
Construction Contingency (Excluded)			0.0%	0	0	
Escalation Contingency (2 years @ 6% p.a.)			12.4%	6,572,300	809	
CONSTRUCTION TOTAL (Excluding GST & Soft Costs)				\$59,575,000	7,338	

CLASS 'C' SCHEMATIC DESIGN ESTIMATE - July 3, 2018

COMPARISON WITH PREVIOUS ESTIMATE

ELEMENT	Previous Class 'C' Estimate 15-Feb-18 7,896 m ²	Current Class 'C' Estimate 3-Jul-18 8,119 m ²	Variance (+/-) 223 m ²
		\$	\$
SUBSTRUCTURE	4,875,000	7,086,600	2,211,600
Standard Foundations	646,400	1,686,700	1,040,300
Basement Excavation	4,228,600	5,399,900	1,171,300
STRUCTURE	5,327,800	6,036,700	708,900
Lowest Floor Construction	837,200	825,700	(11,500)
Upper Floor Construction	1,129,000	1,534,200	405,200
Stair Construction	132,400	165,100	32,700
Roof Construction	3,229,200	3,511,700	282,500
EXTERIOR ENCLOSURE	9,178,100	7,876,500	-1,301,600
Walls Below Grade	786,600	1,517,400	730,800
Walls Above Grade	405,300	76,000	(329,300)
Structural Walls Above Grade	120,200	27,200	(93,000)
Windows & Entrances	5,035,700	3,455,900	(1,579,800)
Exterior Doors	50,200	78,800	28,600
Roof Covering	1,307,200	1,339,200	32,000
Skylights	967,900	608,000	(359,900)
Projections	505,000	774,000	269,000
PARTITIONS & DOORS	2,779,800	2,445,700	-334,100
Fixed Partitions	2,112,200	1,798,600	(313,600)
Structural Partitions	423,900	395,500	(28,400)
Movable Partitions	0	0	-
Doors	243,700	251,600	7,900
FINISHES	3,607,600	4,009,100	401,500
Floor Finishes	1,981,000	1,906,500	(74,500)
Ceiling Finishes	831,300	1,465,300	634,000
Wall Finishes	795,300	637,300	(158,000)
FITTINGS & EQUIPMENT	2,576,700	3,887,000	1,310,300
Metals	451,800	534,100	82,300
Millwork	294,400	356,900	62,500
Specialties	870,500	906,000	35,500
Equipment	785,000	1,915,000	1,130,000
Elevators	175,000	175,000	-
MECHANICAL	7,270,000	7,220,700	-49,300
Plumbing & Drainage	2,993,600	2,851,600	(142,000)
Fire Protection	277,400	284,100	6,700
HVAC	3,544,000	3,630,000	86,000
Controls	455,000	455,000	-
ELECTRICAL	4,185,300	2,973,800	-1,211,500
Service & Distribution	2,040,200	772,100	(1,268,100)
Lighting, Devices & Heating	1,309,300	1,364,100	54,800
Systems & Ancillaries	835,800	837,600	1,800
GENERAL REQUIREMENTS & CM FEE (BUILDING)	4,473,500	4,668,700	195,200
General Requirements (Div.1)	3,184,000	3,322,900	138,900
Fee	1,289,500	1,345,800	56,300
NET BUILDING COST (EXCL. CONTINGENCIES)	44,273,800	46,204,800	1,931,000

CLASS 'C' SCHEMATIC DESIGN ESTIMATE - July 3, 2018

COMPARISON WITH PREVIOUS ESTIMATE

ELEMENT	Previous Class 'C' Estimate 15-Feb-18 7,896 m ²	Current Class 'C' Estimate 3-Jul-18 8,119 m ²	Variance (+/-) 223 m ²
		\$	\$
SITWORK	4,104,400	2,262,600	-1,841,800
Site Preparation	681,000	410,700	(270,300)
Hard Surfaces	828,500	696,700	(131,800)
Improvements	1,590,800	218,300	(1,372,500)
Landscaping	438,800	535,300	96,500
Mechanical Site Services	295,000	280,000	(15,000)
Electrical Site Services	270,300	121,600	(148,700)
ANCILLARY WORK	1,329,500	1,579,500	250,000
Demolition	1,079,500	1,079,500	-
Hazardous Materials Abatement	250,000	500,000	250,000
GENERAL REQUIREMENTS & FEE	610,800	431,900	-178,900
General Requirements	434,700	307,400	(127,300)
Fee	176,100	124,500	(51,600)
CONTINGENCIES	9,067,400	9,096,200	28,800
Design Pricing Contingency	2,515,900	2,523,900	8,000
Construction Contingency (Excluded)	0	0	-
Escalation Contingency (2 years @ 6% p.a.)	6,551,500	6,572,300	20,800
CONSTRUCTION TOTAL (Excluding GST & Soft Costs)	59,385,900	59,575,000	189,100

CLASS 'C' SCHEMATIC DESIGN ESTIMATE - July 3, 2018

ELEMENTAL COST ANALYSIS					Gross Floor Area:		8,119	m ²
					\$	\$/m ²		
SUBSTRUCTURE					7,086,600	873	15%	
Standard Foundations					1,686,700	208		
Pad footing F5 - 3000x3000x400 dp	6	no.	3,334.33	20,000				
Excavation and disposal								
Backfill								
Concrete supply, 30 MPa								
Formwork								
Rebar								
Placing of concrete								
Blinding course concrete supply								
Placing of blinding course: pump								
Strip footing F4 - 1800x300 dp	40	m	521.40	20,900				
Excavation and disposal								
Backfill								
Concrete supply, 30 MPa								
Formwork								
Rebar								
Placing of concrete								
Strip footing keyway 50 x 100								
Blinding course concrete supply								
Placing of blinding course: pump								
Strip footing F4 - 1800x300 dp; curved	20	m	541.60	10,800				
Excavation and disposal								
Backfill								
Concrete supply, 30 MPa								
Formwork								
Extra over for curved formwork								
Rebar								
Placing of concrete								
Strip footing keyway 50 x 100								
Blinding course concrete supply								
Placing of blinding course: pump								
Raft Footing F1 - 500 dp	3,444	m ²	322.10	1,109,300				
Excavation and disposal								
Backfill								
Concrete supply, 30 MPa								
KIM admixture								
Formwork								
Rebar								
Placing of concrete								
Bonded waterproof membrane								

CLASS 'C' SCHEMATIC DESIGN ESTIMATE - July 3, 2018

ELEMENTAL COST ANALYSIS					Gross Floor Area:	8,119	m ²
					\$	\$/m ²	
Blinding course concrete supply							
Placing of blinding course: pump							
Raft Footing F2 - 400 dp	1,187	m ²	282.84	335,700			
Excavation and disposal							
Backfill							
Concrete supply, 30 MPa							
KIM admixture							
Formwork							
Rebar							
Placing of concrete							
Bonded waterproof membrane							
Blinding course concrete supply							
Placing of blinding course: pump							
Extra over epoxy rebar allowance	1	sum	74,964.00	75,000			
Cost premium for stepping footing formwork	1	sum	5,000.00	5,000			
Allow for integrated robust water-stop detailing at joints	1	sum	50,000.00	50,000			
Allow for rigid insulation for perimeter footings	1	sum	60,000.00	60,000			
Basement Excavation					5,399,900	665	
Basement Excavation and disposal	18,546	m ³	68.50	1,270,400			
Allow for rock blasting and disposal	14,850	m ³	227.25	3,374,700			
Backfill	10,561	m ³	65.00	686,500			
Allow for shoring adjacent to retained trees	273	m ²	250.00	68,300			
STRUCTURE					6,036,700	744	13%
Lowest Floor Construction					825,700	102	
Concrete slab on grade 150mm thick including 6 mil poly, 100mm rigid insulation and 300mm granular base (Basement Mechanical Rooms)			Separate Price				
Concrete slab on grade; assume 150mm thick including 6 mil poly, 100mm rigid insulation and 300mm granular base (Basement - Concrete Surge Tank)	93	m ²	303.37	28,200			
300mm granular base							
Concrete supply - 32 Mpa							
Extra over ditto for KIM Admixture							
Edge formwork							
Rebar							
Extra over epoxy rebar							
Placing							

CLASS 'C' SCHEMATIC DESIGN ESTIMATE - July 3, 2018

ELEMENTAL COST ANALYSIS				Gross Floor Area: 8,119 m ²	
				\$	\$/m ²
6 mil poly					
Expansion joint/Control joint					
Screed and Trowel finish					
Cure & protect					
100mm rigid insulation					
Anti-fracture and Waterproofing membrane					
Concrete slab on grade 125mm thick including 6 mil poly, 100mm rigid insulation and 150mm granular base (Level 1 Lobby)	573	m ²	125.67	72,000	
150mm granular base					
Concrete supply - 30 Mpa					
Edge formwork					
Rebar					
Placing					
6 mil poly					
Expansion joint/Control joint					
Screed and Trowel finish					
Cure & protect					
100mm rigid insulation					
Concrete slab on grade; 200mm thick including 6 mil poly, 100mm rigid insulation and 300mm granular base (Level 1 - Pools and hot tub)	1,858	m ²	247.32	459,500	
300mm granular base					
Concrete supply - 32 Mpa					
Extra over ditto for KIM Admixture					
Edge formwork					
Rebar					
Extra over epoxy rebar					
Placing					
6 mil poly					
Expansion joint/Control joint					
Screed and Trowel finish					
Cure & protect					
100mm rigid insulation					
Anti-fracture and Waterproofing membrane					
Extra over slab on grade for pool ramps (Level 1 - Pools and hot tub)	1,858	m ²	20.00	37,200	
Allow for trenches and gutter around pools	298	m	600.00	178,800	
Allow for equipment bases	1	sum	50,000.00	50,000	

CLASS 'C' SCHEMATIC DESIGN ESTIMATE - July 3, 2018

ELEMENTAL COST ANALYSIS

Gross Floor Area: 8,119 m²
\$ /m²

Upper Floor Construction				1,534,200	189
275mm thick concrete suspended slab (All Level 2)	1,728	m ²	293.97	508,000	
Concrete supply - 35 MPa					
Suspended slab formwork					
Edge formwork					
Rebar					
Placing					
Expansion joint/Control joint					
Screed and Trowel finish					
Cure & protect					
275mm thick concrete suspended slab (Level 1 change rooms above basement mechanical rooms)	1,400	m ²	329.14	460,800	
Concrete supply - 35 MPa					
Suspended slab formwork					
Edge formwork					
Rebar					
Extra over epoxy rebar					
Placing					
Expansion joint/Control joint					
Screed and Trowel finish					
Cure & protect					
200mm thick concrete suspended slab (Level 1 Pool deck above crawl space)	1,108	m ²	355.42	393,800	
Concrete supply - 35 Mpa					
Extra over ditto for KIM Admixture					
Suspended slab formwork					
Edge formwork					
Rebar					
Extra over epoxy rebar					
Placing					
Expansion joint/Control joint					
Screed and Trowel finish					
Cure & protect					
Anti-fracture and Waterproofing membrane					
Extra over for ramp					
Concrete pedestals Assume 450x450	7	m	332.29	2,300	
Concrete supply - 35 MPa					
Column formwork					
Rebar					
Placing					

CLASS 'C' SCHEMATIC DESIGN ESTIMATE - July 3, 2018

ELEMENTAL COST ANALYSIS					Gross Floor Area:	8,119	m ²
					\$	\$/m ²	
Concrete columns C3 - 450 x 450	178	m	348.41	62,000			
Concrete supply - 35 MPa							
Column formwork							
Rebar							
Placing							
Concrete columns C4 - 508mm diameter	184	m	279.43	51,400			
Concrete supply - 35 MPa							
508mm Sonotube							
Support lumber: round column							
Rebar							
Placing							
Steel columns C1 - HSS 219mm dia. X 6.4	999	kg	6.90	6,900			
Steel columns C2 - HSS 219mm dia. X 13	1,615	kg	6.90	11,100			
Miscellaneous steel	262	kg	9.00	2,400			
Base plates	11	no.	500.00	5,500			
Structural allowance for water slide	1	sum	30,000.00	30,000			
Stair Construction					165,100	20	
Concrete suspended stairs:							
1.2m wide	70	riser	400.00	28,000			
1.6m wide	28	riser	500.00	14,000			
2.2m wide	42	riser	650.00	27,300			
1.2m wide spiral	28	riser	600.00	16,800			
				-			
Allowance for stairs to pools:				-			
0.6m wide	6	riser	300.00	1,800			
1.0m wide	12	riser	375.00	4,500			
1.4m wide av.	7	riser	450.00	3,200			
3.7m wide	7	riser	1,387.50	9,700			
4.9m wide av.	6	riser	1,837.50	11,000			
15.0m wide av.	6	riser	5,625.00	33,800			
Allow for concrete seating to Hot tub	1	sum	5,000.00	5,000			
Allow for concrete bench to steam room	1	sum	10,000.00	10,000			
Roof Construction					3,511,700	433	
275mm thick concrete suspended slab (Roof deck at Level 2)	522	m ²	307.71	160,600			
Concrete supply - 35 MPa							
Suspended slab formwork							
Edge formwork							
Rebar							
Placing							
Expansion joint/Control joint							

CLASS 'C' SCHEMATIC DESIGN ESTIMATE - July 3, 2018

ELEMENTAL COST ANALYSIS					Gross Floor Area:		8,119	m ²
					\$	\$/m ²		
Screed and Trowel finish								
Cure & protect								
38mm x 0.91mm roof metal deck including sides of truss box	4,669	m ²	58.46	273,000				
Steel deck angle	359	m	39.49	14,200				
Steel columns:								
C1 - HSS 219mm dia. X 6.4	4,163	kg	6.90	28,700				
C2 - HSS 219mm dia. X 13	16,150	kg	6.90	111,400				
C5 - Assume 2 x HSS 219mm dia. X 13	6,460	kg	6.90	44,600				
Miscellaneous steel	2,678	kg	9.00	24,100				
Base plates for C1 & C2	55	no.	500.00	27,500				
Base plates for C5	5	no.	1,500.00	7,500				
Truss:								
4000 wide x 1400 deep HSS box Truss made up of HSS 152x152; 1000kg/m	27,000	m	6.70	180,900				
4000 wide x 1400 deep HSS box Truss made up of HSS 152x152; 700kg/m	28,700	m	6.70	192,300				
Steel beams:								
B1 - W610x82	55,022	kg	6.70	368,600				
B2 - W530x74	7,992	kg	6.70	53,500				
B3 - W610x113	208,937	kg	6.70	1,399,900				
B5 - HSS 219mm dia. X 6.4	2,864	kg	6.70	19,200				
B1 - W610x82 Curved	1,722	kg	8.71	15,000				
B3 - W610x113 Curved	2,486	kg	8.71	21,700				
B5 - HSS 219mm dia. X 6.4 Curved	1,033	kg	8.97	9,300				
Bracings:								
BF1; HSS 219 dia. X 13	10,872	kg	6.90	75,000				
BF1 & BF2; HSS127x127x6.4	1,953	kg	6.90	13,500				
Allow for gusset plates with embeds, etc.	27	no.	2,000.00	54,000				
Miscellaneous steel								
	34,858	kg	9.00	313,700				
Allow for concrete pads 100mm thick for mechanical units								
	1	sum	30,000.00	30,000				
Temporary shoring for natatorium roof erection	2,941	m ²	25.00	73,500				
EXTERIOR ENCLOSURE					7,876,500	970	17%	
Walls Below Grade					1,517,400	187		
Concrete walls 250mm thick (W2)	189	m ²	437.64	82,700				

CLASS 'C' SCHEMATIC DESIGN ESTIMATE - July 3, 2018

ELEMENTAL COST ANALYSIS				Gross Floor Area: 8,119 m ²	
				\$	\$/m ²
Concrete supply - 35 MPa					
Extra over ditto for KIM Admixture					
Formwork					
Rebar					
Placing concrete					
100mm rigid insulation					
Waterproofing membrane					
Drain mat : 1/2" thick					
Concrete walls 250mm thick (W3)	1,464	m ²	475.19	695,700	
Concrete supply - 35 MPa					
Extra over ditto for KIM Admixture					
Formwork					
Extra over ditto for curved formwork					
Rebar					
Extra over epoxy rebar					
Placing concrete					
100mm rigid insulation					
Waterproofing membrane					
Drain mat : 1/2" thick					
Concrete walls 250mm thick (W2 - Hot tub)	85	m ²	672.44	57,200	
Concrete supply - 35 MPa					
Extra over ditto for KIM Admixture					
Formwork					
Extra over ditto for curved formwork					
Rebar					
Extra over epoxy rebar					
Placing concrete					
100mm rigid insulation					
Anti-fracture and Waterproofing membrane					
Drain mat : 1/2" thick					
Concrete walls 250mm thick (W3 - Pools)	1,432	m ²	476.14	681,800	
Concrete supply - 35 MPa					
Extra over ditto for KIM Admixture					
Formwork					
Extra over ditto for curved formwork					
Rebar					
Extra over epoxy rebar					
Placing concrete					
100mm rigid insulation					
Anti-fracture and Waterproofing membrane					
Drain mat : 1/2" thick					

CLASS 'C' SCHEMATIC DESIGN ESTIMATE - July 3, 2018

ELEMENTAL COST ANALYSIS					Gross Floor Area:	
					\$	8,119 m ² \$/m ²
Walls Above Grade					76,000	9
Exterior walls including metal/swiss pearl cladding panels, steel furring, 150mm semi-rigid insulation, membrane air/vapour barrier on concrete walls	103	m ²	737.78	76,000		
Metal/Swiss Pearl cladding panels including furring						
150mm semi-rigid insulation						
Membrane air/vapour barrier						
Structural Walls Above Grade					27,200	3
Concrete walls 250mm thick (W2)	85	m ²	320.49	27,200		
Concrete supply - 35 MPa						
formwork						
Rebar						
Placing concrete						
Windows & Entrances					3,455,900	426
Curtain wall: double glazed with fibreglass pressure plates	2,516	m ²	1,000.00	2,516,000		
Ditto sloping	289	m ²	1,200.00	346,800		
Extra over for curved curtain wall	636	m ²	200.00	127,200		
Extra over for spandrel with 100mm insulation	85	m ²	200.00	17,000		
Extra over ditto for glazing with translucent gradient film (25%)	701	m ²	150.00	105,200		
Extra over ditto for glazing with translucent film (15%)	421	m ²	150.00	63,200		
Allow for structural supports to curtain wall	2,805	m ²	100.00	280,500		
Exterior Doors					78,800	10
Aluminum glazed doors; single	3	lvs.	2,200.00	6,600		
Ditto; double	8	pr.	4,200.00	33,600		
Hollow metal doors; single	2	lvs.	1,700.00	3,400		
Ditto; double	4	pr.	3,200.00	12,800		
Automatic door openers; allow	4	no.	3,500.00	14,000		
Panic hardware; allow	14	no.	600.00	8,400		
Roof Covering					1,339,200	165
2-ply SBS roofing membrane including cover board, sloping insulation, 175mm rigid insulation, vapour barrier on concrete slab (level 2 deck)	522	m ²	274.42	143,200		
2-ply SBS roof membrane						
protection board						
200mm rigid insulation						
Air/vapour barrier membrane						
Concrete pavers						

CLASS 'C' SCHEMATIC DESIGN ESTIMATE - July 3, 2018

ELEMENTAL COST ANALYSIS					Gross Floor Area:	
					\$	8,119 m ² \$/m ²
2-ply SBS roofing membrane including cover board, 175mm rigid insulation, vapour barrier and 16mm roof board on steel deck	4,669	m ²	234.58	1,095,300		
2-ply SBS roof membrane protection board						
200mm rigid insulation						
Air/vapour barrier membrane						
16mm roof board						
Parapet details/junction details at roofs	789	m	70.00	55,200		
Integral gutter at roof perimeter	296	m	120.00	35,500		
Mechanical shaft entry 3.5m x 2.5m including insulated curb	1	no.	10,000.00	10,000		
Skylights					608,000	75
Aluminum framed skylights with fritted double glazing	331	m ²	1,700.00	562,700		
Insulated curbs 200mm high	453	m	100.00	45,300		
Projections					774,000	95
Acoustical screen enclosure at roof for M&E equipment including structural frame and footings (2m high av.)	135	m ²	500.00	67,500		
Suspended composite metal/Swiss Pearl panel soffit to underside of Level 2 including insulation	263	m ²	812.17	213,600		
152mm steel stud						
16mm type X drywall						
100mm rigid insulation						
Membrane air/vapour barrier						
Composite metal/Swiss Pearl panels soffit						
Allow for profiled metal fascia 500mm high	669	m	70.00	46,800		
Exterior deck with recessed concrete slab and floating paver system	98	m ²	175.00	17,200		
Retaining wall and screen around exterior deck including metal frame with wood and metal infill	37	m	500.00	18,500		
Glass guardrail to exterior deck at Level 2	40	m	1,500.00	60,000		
Ditto - curved	27	m	2,000.00	54,000		
300mm anodized aluminum sun shades at 610 o.c. on curtain wall	988	m	300.00	296,400		
PARTITIONS & DOORS					2,445,700	301 5%

CLASS 'C' SCHEMATIC DESIGN ESTIMATE - July 3, 2018

ELEMENTAL COST ANALYSIS					Gross Floor Area:		8,119	m ²
					\$	\$/m ²		
Fixed Partitions						1,798,600	222	
Concrete block walls 200mm thick	1,539	m ²	225.00	346,300				
Aluminum glazed partitions (Kawneer 1600)	1,003	m ²	850.00	852,600				
Interior GWB partitions including acoustic insulation and/or water and abuse resistance	2,236	m ²	200.00	447,200				
Furring to concrete wall	1,329	m ²	100.00	132,900				
Allowance for 19mm plywood backing	559	m ²	35.00	19,600				
Structural Partitions						395,500	49	
Concrete walls 250mm thick (W2)	1,069	m ²	320.49	342,600				
Concrete supply - 35 MPa								
formwork								
Rebar								
Placing concrete								
Concrete walls in pools; assume 250mm thick	147	m ²	360.18	52,900				
Concrete supply - 35 MPa								
Extra over ditto for KIM Admixture								
formwork								
Rebar								
Extra over epoxy rebar								
Placing concrete								
Movable Partitions						0	-	
None		Excluded		-				
Interior Doors						251,600	31	
Glazed aluminum doors including hardware - single	32	no.	2,000.00	64,000				
Glazed aluminum doors including hardware - double	3	pr.	4,000.00	12,000				
Hollow metal doors including hardware - single	12	lvs.	1,600.00	19,200				
Hollow metal doors including hardware - double	13	pr.	3,000.00	39,000				
Solid core wood doors including hardware - single	51	lvs.	1,600.00	81,600				
Solid core wood doors including hardware - double	5	pr.	3,000.00	15,000				
Automatic door openers; allow	4	no.	3,500.00	14,000				
Panic hardware; allow	9	no.	600.00	5,400				
Extra over for vision panels; allow	9	no.	150.00	1,400				
FINISHES						4,009,100	494	9%
Floor Finishes						1,906,500	235	
Concrete Sealer	2,237	m ²	11.00	24,600				
Slip resistant mosaic tiles to pool tank including floor and wall	2,841	m ²	375.00	1,065,400				
Ditto to pool deck	987	m ²	350.00	345,500				

CLASS 'C' SCHEMATIC DESIGN ESTIMATE - July 3, 2018

ELEMENTAL COST ANALYSIS					Gross Floor Area:	
					\$	8,119 m ² \$/m ²
Mosaic tiles to washrooms, showers and change rooms	876	m ²	250.00	219,000		
Resilient sheet flooring	764	m ²	75.00	57,300		
Carpet tiles	276	m ²	85.00	23,500		
Resilient sports flooring	652	m ²	135.00	88,000		
Sprung flooring with wood finish	366	m ²	200.00	73,200		
Pedigrid metal grid entrance mat	10	m ²	500.00	5,000		
Allow for floor finish to waterslide bridge	1	sum	5,000.00	5,000		
Ceiling Finishes					1,465,300	180
Suspended T-bar ceilings	455	m ²	65.00	29,600		
Suspended GWB ceilings	876	m ²	125.00	109,500		
Acoustic wood panels to Lobby	616	m ²	450.00	277,200		
Wood slats with acousical backing to Natatorium, Fitness and Level 2 MPRs	3,863	m ²	250.00	965,800		
Paint exposed concrete and structural steel structure	2,216	m ²	15.00	33,200		
Allow for bulkheads	1	sum	50,000.00	50,000		
Wall Finishes					637,300	78
Mosaic tiles to washrooms, changes rooms and showers; 2.2m high	939	m ²	250.00	234,800		
Mosaic tiles to pool walls (Included in Floor Finish)		Incl.				
Allow for acoustic panels	950	m ²	180.00	171,000		
Allowance for other wall finishes; including wall reveals	1,901	m ²	5.00	9,500		
Paint to walls	6,653	m ²	12.00	79,800		
Composite metal cladding column covers	228	m ²	625.00	142,200		
FITTINGS & EQUIPMENT					3,887,000	479 8%
Metals					534,100	66
Metal handrails to stairs	57	m	150.00	8,600		
Metal guardrails to stairs	35	m	400.00	14,000		
Glass guardrail	138	m	1,500.00	207,000		
Extra over ditto for curved guardrail	42	m	300.00	12,600		
Allowance for stainless steel guardrails to pools	1	sum	25,000.00	25,000		
Allowance for stainless ladders to pools	4	no.	1,500.00	6,000		
Access hatch 1.2m x 1.2m with flush tile finish at pool deck	3	no.	2,500.00	7,500		
Ship ladder to crawl space	14	m	700.00	9,800		
Allowance for misc. metals (by GFA)	8,119	m ²	30.00	243,600		

CLASS 'C' SCHEMATIC DESIGN ESTIMATE - July 3, 2018

ELEMENTAL COST ANALYSIS					Gross Floor Area:	8,119	m ²
					\$	\$/m ²	
Millwork					356,900	44	
Washroom vanity	25	m	2,000.00	50,000			
Kitchen countertop with base cabinets	12	m	950.00	11,400			
Kitchen overhead cupboards	12	m	650.00	7,800			
Workstation countertop	7	m	550.00	3,900			
Reception desks	18	m	2,200.00	39,600			
Bench seating	55	m	450.00	24,800			
Bench with brackets at change rooms	66	m	500.00	33,000			
Full height cubbies (Allowance)	6	m	1,500.00	9,000			
Allowance for millwork not shown on drawings	8,119	m ²	15.00	121,800			
Allowance for backing and blocking	1	sum	15,000.00	15,000			
Allowance for rough carpentry (by GFA)	8,119	m ²	5.00	40,600			
Specialties					906,000	112	
Washroom accessories to toilet partitions	28	set	300.00	8,400			
Ditto to isolated washrooms	11	no.	500.00	5,500			
Ditto to isolated showers	2	no.	500.00	1,000			
Ditto to shower partitions	13	no.	300.00	3,900			
Accessories to Universal Change, Men & Women Change Rooms	4	set	5,000.00	20,000			
Mirrors; assume 1.2m high	30	m ²	220.00	6,600			
phenolic lockers 2-tier	417	no.	1,000.00	417,000			
Phenolic toilet partitions	5	no.	1,500.00	7,500			
Ditto, handicapped	2	no.	1,800.00	3,600			
Dry change cubicles including bench	12	no.	2,000.00	24,000			
Wet change and shower cubicles including bench	13	no.	2,500.00	32,500			
Shower screens	22	no.	500.00	11,000			
Allowance for wall mounted mirrors to Fitness and Fitness Studio; assume 2.8m high	70	m ²	300.00	21,000			
Class 1 indoor bicycle parking	20	no.	150.00	3,000			
Allowance for interior signage	8,119	m ²	7.00	56,800			
Allowance for other specialty items (corner guards, tackboard, whiteboards, etc.)	8,119	m ²	35.00	284,200			
Equipment					1,915,000	236	
Water slide (E04)	1	no.	250,000.0	250,000			
Allowance for automated entry control gates (D10)	1	sum	50,000.00	50,000			
1m springboard (E06)	1	no.	15,000.00	15,000			
3m springboard (E07)	1	no.	20,000.00	20,000			
Allowance for 20 water features for Leisure pool (E02)	1	sum	200,000.00	200,000			
Roof safety anchors	1	sum	100,000.00	100,000			
Allowance for sauna and steam equipment	1	sum	100,000.00	100,000			

CLASS 'C' SCHEMATIC DESIGN ESTIMATE - July 3, 2018

ELEMENTAL COST ANALYSIS					Gross Floor Area:	8,119	m ²
					\$	\$/m ²	
Poolpod portable lifts (E08)	4	no.	30,000.00	120,000			
Movable floor and 2 bulkheads to main pool - KBE Scissor Jack Floor and KBE Floating SS Bulkhead (E01)	1	sum	1,060,000.00	1,060,000			
Fitness equipment (Excluded)			Excl. (FF&E)				
Loose Fixtures, Fittings & Equipment (Excluded)			Excl. (FF&E)				
Pool cleaning equipment (Excluded)			Excl. (FF&E)				
Elevators					175,000	22	
Gearless machine room-less traction elevator (3 stops)	1	no.	125,000.00	125,000			
Allowance for mechanical lift (2 stops) (D12)	1	no.	50,000.00	50,000			
MECHANICAL					7,220,700	889	16%
Plumbing & Drainage					2,851,600	351	
Equipment							
Metering Domestic, Pool make up and Irrigation	1	no.	5,000.00	5,000			
Heat recovery water heaters	3	no.	50,000.00	150,000			
Recirc. Pump	3	no.	500.00	1,500			
Backflow preventer	1	L/S	8,000.00	8,000			
Potable expansion tank	2	no.	800.00	1,600			
Mixing valve	3	no.	2,500.00	7,500			
Sumps and interceptors	1	L/S	30,000.00	30,000			
Grinder pump	1	no.	20,000.00	20,000			
Piping							
Domestic hot water piping	350	m	85.00	29,800			
Domestic hot water recirc. piping	220	m	55.00	12,100			
Domestic cold water piping	460	m	95.00	43,700			
Domestic water insulation	1,030	m	25.00	25,800			
Sanitary drains	500	m	100.00	50,000			
Vent piping	370	m	125.00	46,300			
Storm drains	1	L/S	50,000.00	50,000			
Weeping tile	1	L/S	20,000.00	20,000			
Storm water Insulation	1	L/S	15,000.00	15,000			
Valves and piping specialties	1	L/S	30,000.00	30,000			
Delete Rainwater harvesting and purification	1	L/S	(100,000.00)	(100,000)			
Fixtures							
Water closets	41	no	900.00	36,900			
Urinals	3	no	1,500.00	4,500			
Lavatories	45	no	1,600.00	72,000			
Sink	5	no	1,300.00	6,500			

CLASS 'C' SCHEMATIC DESIGN ESTIMATE - July 3, 2018

ELEMENTAL COST ANALYSIS					Gross Floor Area:	8,119	m ²
					\$	\$/m ²	
Janitor sink	2	no	2,500.00	5,000			
Showers	17	no	1,200.00	20,400			
Drinking fountains	3	no	4,000.00	12,000			
Eyewash	1	L/S	3,000.00	3,000			
Hose bibb, specialties and drains	1	L/S	25,000.00	25,000			
Special Piping and Fittings							
Hot pool system	1	sum	100,000.00	100,000			
Leisure pool system	1	sum	600,000.0	600,000			
Lap pool system	1	sum	1,000,000	1,000,000			
Pool filtration and backwash system	1	sum	300,000.0	300,000			
Pool sterilization system	1	sum	100,000.00	100,000			
Water features	1	sum	120,000.00	120,000			
Fire Protection					284,100	35	
Equipment							
Fire extinguishers	1	L/S	5,000.00	5,000			
Fire department connections	1	L/S	12,000.00	12,000			
Backflow prevention	1	L/S	7,500.00	7,500			
Sprinkler valve	1	no.	6,000.00	6,000			
Zone valves	4	no.	2,500.00	10,000			
Sprinklers							
Wet sprinkler system distribution to NFPA 13	8,119	m ²	30.00	243,600			
HVAC					3,630,000	447	
Equipment							
Water to water heat pump - Multistack 120 ton	1	no.	200,000.00	200,000			
Air to water 4 pipe heat pump - Airstack 200 tons	1	no.	300,000.00	300,000			
Air to water 2 pipe heat pump - Airstack 280 tons	1	no.	450,000.0	450,000			
AHU-1 Natatorium 33,000 lps	1	no.	395,000.00	395,000			
AHU-2 Natatorium 15,000 lps	1	no.	170,000.00	170,000			
AHU-3 Natatorium 1000 lps	1	no.	20,000.00	20,000			
AHU-4 Main Floor 2900 lps	1	no.	50,000.00	50,000			
AHU-5 Upper Fitness 4800 lps	1	no.	75,000.00	75,000			
AHU-6 Upper Lobby / Multipurpose 5000 lps	1	no.	65,000.00	65,000			
AHU-7 Pool Mechanical Room	1	no.	30,000.00	30,000			
AC-1 / 2 / 3 Elec Rm, Data Rm / Lifeguard Control Rm	3	no.	8,000.00	24,000			
EF-1 200 cfm	1	no.	500.00	500			
EF-2 200 cfm	1	no.	500.00	500			
Building exhaust	1	L/S	20,000.00	20,000			
Heating pumping and specialties	1	L/S	65,000.00	65,000			
Chilled water pumping and specialties	1	L/S	85,000.00	85,000			
Seismic restraint	1	L/S	10,000.00	10,000			
Ductwork							
Natatorium duct distribution - Aluminum	1	L/S	900,000.0	900,000			

CLASS 'C' SCHEMATIC DESIGN ESTIMATE - July 3, 2018

ELEMENTAL COST ANALYSIS					Gross Floor Area:	
					\$	8,119 m ² \$/m ²
Galvanized duct distribution	1	L/S	600,000.0	600,000		
Piping						
Heating piping	1	L/S	75,000.00	75,000		
Chilled water piping	1	L/S	30,000.00	30,000		
Insulation for chilled water piping	1	L/S	10,000.00	10,000		
Ductwork Terminal devices						
Included with duct						
Air balancing	1	L/S	25,000.00	25,000		
Piping terminal devices						
Fan coils	10	no.	1,500.00	15,000		
Water balance	1	L/S	15,000.00	15,000		
Controls					455,000	56
Controls						
Hardware	1	L/S	20,000.00	20,000		
System control	1	L/S	135,000.00	135,000		
Zone control	1	L/S	40,000.00	40,000		
Pool process control	1	L/S	140,000.00	140,000		
Valves and dampers	1	L/S	100,000.00	100,000		
Energy metering	1	L/S	20,000.00	20,000		
ELECTRICAL					2,973,800	366 6%
Service & Distribution					772,100	95
Digital Metering Allowance	1	no.	8,825.00	8,800		
1600 a 347/600 v Distribution Centre	1	no.	69,000.00	69,000		
800 a 120/208 v Distribution Centre	1	no.	17,640.00	17,600		
600 a 347/600 v Distribution Centre	1	no.	16,040.00	16,000		
Metering cabinet	1	no.	748.00	700		
400 a 347/600 v EM Distribution Panel	1	no.	6,037.50	6,000		
400 a 120/208 v Distribution Panel	2	no.	6,037.50	12,100		
84 cct. 120/208 v branch circuit panel	8	no.	6,519.00	52,200		
42 cct. 347/600 v branch circuit panel	2	no.	4,276.00	8,600		
Surge Suppressor	1	no.	2,995.00	3,000		
Backboards	10	m2	213.75	2,100		
250 kw 347/600 v diesel fired genset	1	no.	142,300.00	142,300		
100 a bypass transfer switch	1	no.	3,850.00	3,900		
225 a bypass transfer switch	1	no.	6,310.00	6,300		
45 kva 600/120/208 v transformer	2	no.	1,496.50	3,000		
75 kva 600/120/208 v transformer	1	no.	3,850.00	3,900		
150 kva 600/120/208 v transformer	1	no.	8,985.00	9,000		
225 kva 600/120/208 v transformer	1	no.	14,120.00	14,100		
200 a feeder	400	m	140.51	56,200		

CLASS 'C' SCHEMATIC DESIGN ESTIMATE - July 3, 2018

ELEMENTAL COST ANALYSIS					Gross Floor Area:	8,119	m ²
					\$	\$/m ²	
250 a feeder	100	m	224.24	22,400			
400 a feeder	50	m	369.71	18,500			
800 a feeder	50	m	730.00	36,500			
Grounding busses - Main	1	no.	672.60	700			
Grounding busses - EL Room	3	no.	459.10	1,400			
Ground rods	3	no.	122.80	400			
4 ground conductor	150	m	14.42	2,200			
3/0 ground conductor	200	m	26.98	5,400			
4/0 ground conductor	50	m	35.54	1,800			
Grounding terminations	100	no.	30.70	3,100			
Ground Testing Report Allowance	1	no.	2,675.00	2,700			
Roughin for Future PV Arrays - Allowance	Separate price (NIC)			-			
PV Equipment Allowance	Separate price (NIC)			-			
Mechanical Equipment Connections Allowance	1	no.	80,200.00	80,200			
800A Motor control Centre - 4 Section	1	no.	69,000	69,000			
Commissioning	1	sum	7,500.00	7,500			
Maintenance manuals	1	sum	1,602.50	1,600			
Record drawings	1	sum	2,000.00	2,000			
Spare parts allowance	1	sum	2,140.00	2,100			
Systems demonstrations	1	sum	7,500.00	7,500			
Utility Company Charges - BC Hydro - Allowance	1	sum	58,850.00	58,900			
Utility Company Charges - Telus - Allowance	1	sum	8,025.00	8,000			
Utility Company Charges - Shaw - Allowance	1	sum	5,350.00	5,400			
Lighting, Devices & Heating					1,364,100	168	
Type In Ground Pool Lighting	30	no.	2,086.00	62,600			
Type Pool Area Lighting Allowance	20	no.	2,835.00	56,700			
Type Misc Interior Lighting	500	no.	655.00	327,500			
Allowance for general interior general lighting, supply and install (no design)	8,119	m ²	55.00	446,500			
Type Misc Exterior Lighting	20	no.	802.00	16,000			
Emergency lighting unit	5	no.	401.00	2,000			
Emergency remote lighting unit	15	no.	93.50	1,400			
EXIT LED fixture	40	no.	296.75	11,900			
EXIT LED fixture c/w Remote Heads	10	no.	296.75	3,000			
Emergency connect to EXIT fixture	40	no.	117.45	4,700			
Outlet boxes	395	no.	30.70	12,100			
Occupancy sensors - Ceiling Mount	60	no.	240.50	14,400			
Daylight sensors & interface	15	no.	294.00	4,400			
1000 w slider dimmer switch	10	no.	187.00	1,900			
Lo voltage switch - Dimmer	30	no.	213.75	6,400			
Low voltage relay cabinet	2	no.	9,305.00	18,600			
15 a fourplex receptacle	10	no.	124.10	1,200			
15 a duplex receptacle	90	no.	101.40	9,100			
15/20 a GFI duplex receptacles - WP	25	no.	122.80	3,100			

CLASS 'C' SCHEMATIC DESIGN ESTIMATE - July 3, 2018

ELEMENTAL COST ANALYSIS					Gross Floor Area:	
					\$	8,119 m ² \$/m ²
15/20 a duplex receptacles	20	no.	106.75	2,100		
Baseboard heaters	50	no.	294.00	14,700		
Force Flow Heater	5	no.	534.50	2,700		
DHWH Connection	3	no.	481.00	1,400		
Range Outlet	1	no.	180.25	200		
Range Hood Connection	1	no.	66.75	100		
Dryer Outlet	1	no.	138.85	100		
Dishwasher Outlet Connection	2	no.	66.75	100		
Auto Flush/Washroom Outlets	40	no.	77.45	3,100		
Blue Strobe	5	no.	1,390.00	7,000		
Ceiling Fan	6	no.	641.00	3,800		
Ceiling Fan Controller	2	no.	240.50	500		
H/C Door Operator Connection	4	no.	908.00	3,600		
H/C Door PB	8	no.	320.50	2,600		
Sauna Room Connection	1	no.	5,830.00	5,800		
Steam Room Connection	1	no.	3,155.00	3,200		
Misc Outlets	100	no.	280.50	28,100		
Photocells and time clocks control	1	no.	1,175.00	1,200		
Branch circuit conduit/wire	5,328	m	39.59	210,900		
Branch circuit cable	1,920	m	17.82	34,200		
Dimming Allowance	1	no	23,800.00	23,800		
Seismic restraint of lighting fixtures	630	no.	18.14	11,400		
Systems & Ancillaries					837,600	103
Fire Alarm control panel	1	no.	13,900.00	13,900		
Entrance Annunciator	1	no.	1,604.00	1,600		
Manual alarm stations	10	no.	240.50	2,400		
Smoke detectors	10	no.	152.30	1,500		
Strobe light	10	no.	167.00	1,700		
Alarm bells c/w strobe	70	no.	232.50	16,300		
Sprinkler connections	10	no.	133.50	1,300		
EOL	4	no.	133.50	500		
Line Isolators	10	no.	240.50	2,400		
Control/Monitor Modules	10	no.	240.50	2,400		
Fire alarm branch wiring	1,292	m	16.82	21,700		
Fire alarm devices verification	136	items	61.45	8,400		
Allowance for fire alarm systems (no design)	8,119	m ²	6.00	48,700		
	-		-	-		
300 mm cable tray	100	m	104.25	10,400		
Cable tray Tee section	2	no	387.50	800		
Cable tray elbow	4	no.	294.00	1,200		
Cable tray supports	33	no.	56.05	1,900		
Cable tray grounding cable	115	no.	12.56	1,400		
Cable tray grounding cable lugs	11	no.	45.40	500		
Allowance for raceways (no design)	8,119	m ²	11.00	89,300		

CLASS 'C' SCHEMATIC DESIGN ESTIMATE - July 3, 2018

ELEMENTAL COST ANALYSIS				Gross Floor Area:	8,119	m ²
				\$	\$/m ²	
Telephone/data 100 mm conduits	20	m	99.69	2,000		
Backboards	10	m ²	213.75	2,100		
Data Outlet (3)	20	no.	117.50	2,400		
Phone/Data Outlet	50	no.	149.60	7,500		
Wireless Outlet (2)	20	no.	187.00	3,700		
Tel/Data cables install	200	no.	29.35	5,900		
BIX blocks, equipment racks	2	no.	2,885.00	5,800		
Telephone/data cable 4 pr. Category 6 FT6	18,000	m	1.98	35,600		
Testing, termination of data cables	200	no.	20.00	4,000		
Fiber Allowance	1	m	6,950.00	7,000		
25 mm conduit	450	m	30.52	13,700		
Allowance for voice and data systems (no design)	8,119	m ²	2.00	16,200		
AV Allowance	1	sum	57,000.00	57,000		
Paging speakers - wall mounted	60	no.	213.75	12,800		
Paging speakers - Pool Area	15	no.	695.00	10,400		
Public address equipment	1	no.	45,200.00	45,200		
AM/FM Tuner CD - Pool Area	1	no.	1,925.00	1,900		
Sound components rack	1	no.	588.00	600		
Sound system conduit/cable	1,170	m	14.42	16,900		
Allowance for timing system (rough-in only)	1	sum	35,000.00	35,000		
CCTV camera	12	no.	1,925.00	23,100		
CCTV camera Exterior	6	no.	1,925.00	11,600		
PIR motion detectors	10	no.	267.00	2,700		
Card readers - proximity type	15	no.	5,080.00	76,200		
DC - Door Contact Outlet	15	no.	240.50	3,600		
MAG - Mag Lock Outlet	15	no.	240.50	3,600		
ES - Electric Strike	15	no.	240.50	3,600		
REX - Request to Exit	10	no.	240.50	2,400		
Future security outlets	20	no.	280.50	5,600		
Allowance for systems, ancillaries with no design	8,119	m ²	20.00	162,400		
Intrusion alarm system conduit	944	m	30.52	28,800		
GENERAL REQUIREMENTS & CM FEE (BUILDING)				4,668,700	575	10%
General Requirements (Div.1)	8.0%			3,322,900		
CM Fee	3.0%			1,345,800		
NET BUILDING COST (Excluding Contingencies)				46,204,800	5,691	100%
SITWORK (ON SITE)				2,262,600	279	

CLASS 'C' SCHEMATIC DESIGN ESTIMATE - July 3, 2018

ELEMENTAL COST ANALYSIS					Gross Floor Area:	8,119	m ²
					\$	\$/m ²	
Site Preparation & Civils					410,700	51	
Clear and grub	17,922	m ²	1.94	34,700			
Strip topsoil	1,506	m ³	35.00	52,700			
Allow for backfill existing pools with imported material	8,082	m ³	40.00	323,300			
Hard Surfaces					696,700	86	
Concrete paving (multi-use paths)	415	m ²	115.00	47,700			
Asphalt paving to parking, pull out and loading zone	2,839	m ²	60.00	170,300			
Outdoor M&E concrete pads	10	m ²	250.00	2,500			
Concrete curbs	422	m	50.00	21,100			
New curb cut	1	loc.	1,000.00	1,000			
Allowance for hard paving, CIP concrete raised planters, CIP seat walls, CIP wall surrounds, heavy duty pavers, all sub-base	2,659	m ²	150.00	398,900			
Allow for rough grading	12,983	m ²	4.25	55,200			
Improvements					218,300	27	
New basketball court (NIC)			Excl.	-			
New tennis courts (NIC)			Excl.	-			
Reinstated park (NIC)			Excl.	-			
Outdoor space with existing play equipment (NIC)			Excl.	-			
Daycare (Deleted)			Excl.	-			
Child minding outdoor area (Deleted)			Excl.	-			
Acoustic screen for outdoor M&E equipment	15	m	500.00	7,500			
Exhaust grille 10'x10' (Allowance)	1	no.	5,000.00	5,000			
Fresh air intake grille 10'x10' (Allowance)	1	no.	5,000.00	5,000			
Paint parking lines	97	stall	75.00	7,300			
Allow for exterior signage	1	sum	30,000.00	30,000			
Class 1 outdoor bicycle parking	10	no.	150.00	1,500			
Class 2 bicycle parking	80	no.	150.00	12,000			
Allow for miscellaneous (IPE and picnic table, bollards, etc.)	1	sum	150,000.00	150,000			
Existing baseball courts (No work)			Excl.	-			
Landscaping					535,300	66	
Allowance for soft landscape	7,060	m ²	60.00	423,600			
Topsoil	1,218	m ³	40.00	48,700			
Irrigation to sodded lawn	7,060	m ²	7.00	49,400			
Retain and protect existing trees	7	no.	300.00	2,100			
Remove existing trees	23	no.	500.00	11,500			
Mechanical Site Services (On Site)					280,000	34	
Water / Fire Service	1	sum	90,000.00	90,000			

CLASS 'C' SCHEMATIC DESIGN ESTIMATE - July 3, 2018

ELEMENTAL COST ANALYSIS					Gross Floor Area:	
					\$	8,119 m ² \$/m ²
Water service						
Storm	1	sum	160,000.00	160,000		
Storm drainage						
Sanitary	1	sum	30,000.00	30,000		
Sanitary drainage						
Natural Gas	None		-			
Electrical Site Services (On Site)					121,600	15
Type LED Pole Mounted Fixture	10	no.	5,775.00	57,800		
EV Car Charging Outlet	6	no.	1,123.00	6,700		
Branch circuit wiring c/w excavation, backfill	500	m	45.40	22,700		
100 mm PVC ducts (Primary)	100	m	45.45	4,500		
100 mm PVC ducts (Secondary)	150	m	45.45	6,800		
100 mm PVC ducts (Phone/Cable)	300	m	40.10	12,000		
TAG: Main & Tel. Service Ducts	2	m	907.50	1,800		
Transformer pad	1	no.	2,780.00	2,800		
Ground rods	5	no.	81.40	400		
4/0 ground conductor	35	m	27.26	1,000		
Grounding terminations	5	no.	30.70	200		
Precast concrete pull box	2	no.	2,460.00	4,900		
ANCILLARY WORK					1,579,500	195
Demolition					1,079,500	133
Remove basketball court	448	m ²	50.00	22,400		
Remove and reinstate basketball court equipment	1	sum	2,000.00	2,000		
Remove existing tennis courts	1,269	m ²	50.00	63,500		
Remove and reinstate tennis court equipment	1	sum	2,000.00	2,000		
Remove fencing for basketball and tennis courts	232	m	30.00	7,000		
Remove and reinstate existing outdoor gym equipment	1	sum	5,000.00	5,000		
Remove and reinstate existing playground equipment	1	sum	5,000.00	5,000		
Remove ground materials for existing playground and outdoor gym	787	m ²	25.00	19,700		
Remove existing path and benches	620	m ²	50.00	31,000		
Demolish existing pool building (excluding HazMat)	4,758	m ²	193.75	921,900		
Hazardous Materials Abatement					500,000	62
Removal of hazardous materials (Allowance only - no Hazmat Report)	1	sum	500,000	500,000		

CLASS 'C' SCHEMATIC DESIGN ESTIMATE - July 3, 2018

ELEMENTAL COST ANALYSIS

Gross Floor Area: 8,119 m²
\$ /m²

GENERAL REQUIREMENTS AND CM FEE (SITE)		431,900	53
General Requirements (Div.1)	8.0%	307,400	
CM Fee	3.0%	124,500	
CONTINGENCIES		9,096,200	1,120
Design Pricing Contingency	5.0%	2,523,900	
Construction Contingency (Excluded)	0.0%	0	
Escalation Contingency (2 years @ 6% p.a.)	12.4%	6,572,300	
CONSTRUCTION TOTAL (Excluding GST)		59,575,000	7,338

CLASS 'C' SCHEMATIC DESIGN ESTIMATE - July 3, 2018

SEPARATE PRICES

\$

#1 Raised Roof and Clearstory Over Large Multi-Purpose Room				
<u>Add</u>				
Column C2 - HSS 219mm dia. X 13	1,292	kg	6.90	8,900
Beam B2	4,736	kg	6.70	31,700
Exterior walls including metal/swiss pearl cladding panels, steel furring, 150mm semi-rigid insulation, membrane air/vapour barrier	109	m ²	869.72	94,800
Clearstory	48	m ²	1,000.00	48,000
Total Net Cost Increase				\$183,400
#3 Enhanced Building Envelope Performance				
a. Replace 100mm insulation with 150mm insulation to Solid Sections of Exterior Envelope - Back Pan System				
<u>Delete</u>				
Extra over for spandrel with 100mm insulation	(85)	m ²	200.00	(17,000)
<u>Add</u>				
Extra over for spandrel with 150mm insulation	85	m ²	250.00	21,300
Total Net Cost Increase				\$4,300
b. Replace Double Glazed Curtain Wall with Triple Glazed Curtain Wall				
<u>Delete</u>				
Double glazed curtain wall	(2,516)	m ²	1,000.00	(2,516,000)
Ditto, sloping	(289)	m ²	1,200.00	(346,800)
Extra over for curved curtain wall	(636)	m ²	200.00	(127,200)
Extra over ditto for glazing with translucent gradient film (25%)	(701)	m ²	150.00	(105,200)
Extra over ditto for glazing with translucent film (15%)	(421)	m ²	150.00	(63,200)
<u>Add</u>				
Triple glazed curtain wall	2,516	m ²	1,800.00	4,528,800
Ditto, sloping	289	m ²	2,000.00	578,000
Extra over for curved curtain wall	636	m ²	300.00	190,800
Extra over ditto for glazing with translucent gradient film (25%)	701	m ²	200.00	140,200
Extra over ditto for glazing with translucent film (15%)	421	m ²	200.00	84,200

CLASS 'C' SCHEMATIC DESIGN ESTIMATE - July 3, 2018

SEPARATE PRICES

\$

Total Net Cost Addition

\$2,363,600

c. Replace 100mm rigid insulation with 200mm rigid insulation to Wall Below Grade

Delete

100mm rigid insulation (3,170) m² 49.95 (158,300)

Add

200mm rigid insulation 3,170 m² 99.90 316,700

Total Net Cost Increase

\$158,400

d. Replace 100mm rigid insulation with 200mm rigid insulation to Slab on Grade

Delete

100mm rigid insulation (2,524) m² 49.95 (126,100)

Add

200mm rigid insulation 2,524 m² 99.90 252,100

Total Net Cost Increase

\$126,000

e. Replace 200mm rigid insulation with 300mm rigid insulation to Roof

Delete

200mm rigid insulation (5,191) m² 99.90 (518,600)

Add

300mm rigid insulation 5,191 m² 149.85 777,900

Total Net Cost Increase

\$259,300

f. Replace 100mm rigid insulation with 150mm rigid insulation to Exterior Soffits

Delete

100mm rigid insulation (263) m² 49.95 (13,100)

Add

150mm rigid insulation 263 m² 78.04 20,500

Total Net Cost Increase

\$7,400

CLASS 'C' SCHEMATIC DESIGN ESTIMATE - July 3, 2018

SEPARATE PRICES

\$

g. Replace Double Glazed skylight with Triple Glazed skylight

Delete

Aluminum framed skylights with fritted double glazing	(331)	m ²	1,700.00	(562,700)
---	-------	----------------	----------	-----------

Add

Aluminum framed skylights with fritted triple glazing	331	m ²	2,700.00	893,700
---	-----	----------------	----------	---------

Total Net Cost Increase

\$331,000

#7 Basement Floor To Be Slab on Grade Instead of Bonded Membrane to Raft Slab (Raft slab datum is changed from -5.15 to -5.6)

Delete

Bonded waterproof membrane	(1,359)	m ²	103.79	(141,100)
----------------------------	---------	----------------	--------	-----------

Add

150mm slab on grade	1,359	m ²	150.00	203,900
---------------------	-------	----------------	--------	---------

Rock excavation	654	m ³	227.25	148,600
-----------------	-----	----------------	--------	---------

Backfill	50	m ³	65.00	3,300
----------	----	----------------	-------	-------

Columns	11	m	313.92	3,400
---------	----	---	--------	-------

Wall Below Grade	71	m ²	475.19	33,600
------------------	----	----------------	--------	--------

Total Net Cost Increase

\$251,700

#8 Acoustically Isolated Floor at Fitness Area

Delete

Resilient sports flooring	(764)	m ²	75.00	(57,300)
---------------------------	-------	----------------	-------	----------

Suspended T-bar ceilings	(764)	m ²	65.00	(49,700)
--------------------------	-------	----------------	-------	----------

Add

Floated concrete floor system (100mm thick concrete installed on spring isolators)	764	m ²	250.00	191,000
--	-----	----------------	--------	---------

Suspended GWB ceilings with batt insulation and 16mm Type X GWB	764	m ²	150.00	114,600
---	-----	----------------	--------	---------

Total Net Cost Increase

\$198,600

#9 Reinstate park Over the Footprint of the Existing Building

Add

Clear and grub	3,682	m ²	3.87	14,200
----------------	-------	----------------	------	--------

Strip topsoil	635	m ³	35.00	22,200
---------------	-----	----------------	-------	--------

CLASS 'C' SCHEMATIC DESIGN ESTIMATE - July 3, 2018

SEPARATE PRICES

					\$
New basketball court					89,600
	448	m ²	200.00		
New tennis courts					253,800
	1,269	m ²	200.00		
Reinstated park					255,200
	2,552	m ²	100.00		
Outdoor space with existing play equipment					18,000
	120	m ²	150.00		
Total Net Cost Increase					\$653,000
<hr/>					
Mech 2 Separate Price #2					
Add Condensing boilers 500 kW					120,000
	2	no.	60,000.00		
Delete Air to water 2 pipe heat pump - Airstack 280 tons					(450,000)
	1	no.	(450,000.00)		
Natural gas piping					25,000
	1	L/S	25,000.00		
Gas service					10,000
	1	L/S	10,000.00		
Total Net Cost Increase					(\$295,000)
<hr/>					
Mech 3 Separate Price #3					
Delete Air to water 4 pipe heat pump - Airstack 200 tons					(300,000)
	1	no.	(300,000.00)		
Add Air to Water 4 pipe heat pump - Airstack 150 tons					235,000
	1	no.	235,000.00		
Change AHU-1 to 15,000 LPS					(225,000)
	1	no.	(225,000.00)		
Total Net Cost Increase					(\$290,000)
<hr/>					
Mech 5&6 Separate Price #5 & #6					
Add Rainwater harvesting and purification & heat recovery					100,000
	1	no.	100,000.00		
Total Net Cost Increase					\$100,000
<hr/>					
Elec 1 Separate Price #1 - PV arrays (NIC estimate)					
Roughin for Future PV Arrays - Allowance					84,200
	1	no.	84,200.00		
PV Equipment Allowance					1,016,500
	1	no.	1,016,500.00		
Total Net Cost Increase					\$1,100,700

SCHEMATIC DESIGN (UPDATE) ESTIMATE

CRYSTAL POOL & WELLNESS CENTRE

VICTORIA, BC

July 18, 2018

**Prepared by
Advicas Group Consultants Inc.**

#100-31 Bastion Square
Victoria, BC V8W 1J1 Canada

Office: 250.383.1008
Toll Free: 888.383.1008
Fax: 250.383.1005

admin@advicas.com
www.advicas.com

TABLE OF CONTENTS

SECTION	PAGE
INTRODUCTION	1
Project Description	1
Gross Floor Area.....	1
ESTIMATE COSTS	1
Separate and Alternate Prices.....	1
Escalation	2
Other Budget Items.....	2
Sustainability Initiatives	2
BASIS OF THE ESTIMATE	2
Contingency Reserves.....	3
Documentation.....	3
Taxes.....	4
Exclusions.....	4
APPENDICES	
A ELEMENTAL COST ANALYSIS	
B ESTIMATE BACKUP SHEETS	
C SEPARATE PRICES	

per: Advicas Group Consultants Inc.

Prepared by Ofelia Dizon, PQS, MRICS, PMP
Intermediate Quantity Surveyor

Reviewed by Francis Yong, BSc, PQS
Professional Quantity Surveyor

INTRODUCTION

This report sets out the estimate of capital construction cost at schematic design stage for the proposed Crystal Pool replacement in Victoria, BC. A performance Tier 2 has been included as a baseline cost estimate.

Project Description

The project comprises a non-combustible replacement of the existing Crystal Pool and Fitness Centre on an adjacent site to the existing site at 2275 Quadra St, Victoria, BC.

Gross Floor Area

The gross floor area¹ is:

Level 0	1,353 m ²
Level 1	4,947 m ²
Level 2	1,725 m ²
TOTAL	<u>8,025 m²</u>

¹ measured to the outside face of exterior walls

ESTIMATE COSTS

The estimate costs have been developed in current (June, 2018) dollars. The estimated capital construction cost is as follows:

Building	\$43,930,420	\$5,474/m ²
Site Development	\$4,594,3234	
Design Contingency	<u>\$4,852,474</u>	
TOTAL	<u>\$53,377,218</u>	
Escalation to Aug 2020 midpoint of construction	<u>\$11,565,064</u>	
TOTAL including escalation	<u>\$64,942,282</u>	

A breakdown of the estimate, in an elemental format, is included in Appendix A.

Estimate backup sheets are included in Appendix B.

Separate and Alternate Prices

The following capital construction cost items are not included in the above estimate costs:

• Premium for additional height within large MPR	\$400,000
• Cost saving for using boiler system in lieu of heat pump system	\$1,100,000
• Premium for enhanced building envelope	\$1,030,000
• Photovoltaic array on roof	\$970,000
• Stormwater harvesting system	\$320,000
• Heat recovery system	\$197,000
• Premium for alternative waterproofing to raft slab	\$210,000
• Acoustically isolated floor at Fitness Area	\$360,000
• Site development beyond limit of work	\$1,500,000

Escalation

Escalation has been included in the estimate up to the mid-point of construction (August 2020) for a proposed construction start date of July 2019 (First Package) and an expected 28 month construction period. A total of 26 months @0.83% per month amounting to \$11,565,064 has been included for escalation.

The following are yearly increases that have been accounted for in the above estimated costs:

- 2018 – 10.0%
- 2019 – 10.0%
- 2020 – 10.0%

Other Budget Items

The following requested items, excluded from the above estimate costs are recommended prices, to be utilized at the discretion of the Owner/Client:

• Client Project Manager (@2.5% of Construction Cost)	\$1,334,430
• Offsite costs	\$400,000
• Material testing	\$50,000
• Survey fees	\$10,000
• Consultants' fees and expenses (@15% of Construction Cost)	\$8,006,600
• Construction contingency (@10% of Construction Cost)	\$5,338,000
• Project contingency (@0% of Construction Cost)	\$0

Sustainability Initiatives

It is our understanding that this project is intended to have a level of sustainability to coincide with the City of Victoria's environmental principles (e.g., energy efficiency, water consumption, site strategies). While the sustainable blueprint of the project is still to be outlined, our estimate includes allowances to cover systems and design elements which are associated with LEED® Silver targeted buildings.

The estimate does not include costs for registering and certifying the project with the Canadian Green Building Council as a LEED Silver Rated project (e.g., LEED registration/certification costs, LEED consultant fees, LEED submission documentation).

BASIS OF THE ESTIMATE

We have assumed that the work will be tendered competitively in the open market using work packages under a Construction Management procurement method.

In all cases the estimates are based upon our assessment of fair value for the work to be carried out. We define fair value as the amount a prudent contractor/sub-contractor/supplier, taking into account all aspects of the project, would quote for the work. We expect our estimate to be in the middle of the bid range to ensure that funding for the work remains adequate for the duration of the project.

It should be noted that Advicas Group Consultants Inc. does not have control over the cost of labour, materials, or equipment, over the Contractor's methods of determining bid prices, or over competitive market conditions. Accordingly, Advicas Group Consultants Inc. cannot and does not warrant or represent that bids will not vary from the estimate.

Contingency Reserves

Contingency is an allowance specifically identified within our elemental cost analysis to meet unforeseen circumstances, and represents an assessment of the financial risk relating to this project. As detailed design information becomes available, this risk will diminish and the contingency allowances will accordingly reduce.

Design contingency is introduced into the estimated cost at the earliest estimate stage and is a measurement of the amount and detail of the design information available. As the design develops and systems and material selections are fixed, the amount of the contingency allowance is reduced and is absorbed into the measured elements. On completion of contract documents, at tender stage, the allowance is normally reduced to zero.

Our determination of this risk level and the amount of the contingency allowance is the result of many years of cost planning, on over 4,000 construction projects, and of monitoring the increasing design information that occurs during the design phase. The design contingency is not a discretionary cost element.

A design contingency allowance has been included, calculated at 10% of the construction costs, to provide for unforeseen items arising during the design phase.

No allowance has been made for construction contingency. This typically provides for unforeseen items arising during the construction period – such as field conditions, coordination discrepancies – which will result in change orders and extra costs to the contract, other than changes in scope.

No allowance has been made for project contingency. This is a contingency, held by the Client, to be used at his discretion to fund specific Client driven changes to the project scope, conditions, etc.

Documentation

The estimate is based on the following:

- HCMA Architecture + Design
 - Drawings A000, 100, 101, 200 to 203, 301, 310, 311 Received May 29, 2018
 - Revised Drawings A100, 101, 201 Received June 12, 2018
 - Landscape drawings L1.00, L2.00, L2.01 Received May 29, 2018
 - Summary of Revisions to SD set Received June 14, 2018
- Fast + Epp
 - Drawings S100 to 104
 - Structural Schematic Design Report Received May 29, 2018
 - Revised Drawings S100 to 104 Received June 12, 2018
- Morrison Hershfield
 - Envelope Memo dated May 25, 2018 Received May 29, 2018
- RWDI
 - Acoustical Report dated May 29, 2018 Received May 29, 2018
- AES Engineering Ltd.
 - Electrical SD Report dated May 25, 2018 Received May 29, 2018
- AME Group
 - Mechanical SD Report dated May 25, 2018 Received May 29, 2018

- Herold Engineering
 - Civil Drawings
- Received May 29, 2018
- Meeting at HCMA Architecture + Design offices on June 5, 2018
 - Emails and telephone discussions with the design team during the preparation of the estimate
 - Comments on the estimate received from Turnbull Const. Project Management

Taxes

GST is excluded from the estimate.

PST at 7% is included in the estimate.

Exclusions

The following items are excluded from the capital construction cost:

- Loose furniture, fittings and equipment including:
 - Office furniture and equipment
 - Kitchen furniture, appliances and equipment
 - Pool furniture and equipment
 - Artwork, artifacts or murals
 - Audio visual and media equipment, projection screens
 - Fitness and gymnasium equipment
 - Refuse containers, waste bins etc.
 - Window furnishings
 - Cable TV equipment
 - Televisions
 - Telephone equipment
 - Computer hubs, computers, server
- Separate prices
- Client Administration costs
- Clerk of Works
- Client Project Manager
- Land acquisition costs
- Offsite costs
- Material testing
- Premium costs associated with environmental contaminants
- Traffic study costs
- Survey fees
- Financing costs
- Legal fees
- Client Insurances costs
- Development cost charges and development permit fees
- Phasing of the work
- Out of hours working
- Consultants' fees and expenses
- Construction contingency
- Project contingency
- Escalation
- GST

DRAFT

APPENDIX A
ELEMENTAL COST ANALYSIS

PROJECT: Crystal Pool and Wellness Centre Victoria, BC	DATE: 18-Jul-18
TYPE OF ESTIMATE: Schematic Design	

ELEMENT	COST ESTIMATE - JUNE 17, 2018	COST ESTIMATE UPDATE - JULY 18, 2018	VARIANCE
---------	-------------------------------	---	----------

BUILDING

SUBSTRUCTURE	4,253,500	4,253,500	
STRUCTURE	5,496,400	5,486,900	(9,500)
EXTERIOR ENCLOSURE	6,584,200	6,584,200	
PARTITIONS & DOORS	2,086,700	2,086,700	
INTERIOR FINISHES	3,344,300	3,344,300	
FITTINGS & EQUIPMENT	1,508,500	1,508,500	
MECHANICAL SYSTEMS	12,001,700	11,457,200	(544,500)
ELECTRICAL SYSTEMS	3,732,800	3,732,800	
General Requirements	4,680,972	4,614,492	(66,480)
Construction Management Fee	874,245	861,828	(12,416)

BUILDING COSTS:	44,563,317	43,930,420	(632,896)
BUILDING COSTS (\$/m ²):	5,553	5,474	
BUILDING COSTS (\$/ft ²):	516	509	

SITE

SITE DEVELOPMENT	1,793,400	1,793,400	
ANCILLARY WORK	2,228,200	2,228,200	
OVERHEADS & PROFIT			
General Requirements	482,592	482,592	
Construction Management Fee	90,132	90,132	

SITE DEVELOPMENT COST:	4,594,324	4,594,324	-
-------------------------------	------------------	------------------	----------

DESIGN CONTINGENCY	4,915,764	4,852,474	(63,290)
ESCALATION	11,715,904	11,565,064	(150,840)
CONSTRUCTION CONTINGENCY	EXCLUDED		

TOTAL CONSTRUCTION COSTS	65,789,308	64,942,282	(847,026)
---------------------------------	-------------------	-------------------	------------------

PROJECT: Crystal Pool and Wellness Centre
Victoria, BC

DATE: 18-Jul-18

TYPE OF ESTIMATE: Schematic Design

ELEMENT	COST ESTIMATE - JUNE 17, 2018	COST ESTIMATE UPDATE - JULY 18, 2018	VARIANCE
---------	-------------------------------	---	----------

BUILDING

SUBSTRUCTURE

Standard Foundations	1,744,100	1,744,100	
Basement Excavation	2,509,400	2,509,400	

STRUCTURE

Lowest Floor Construction	777,100	777,100	
Upper Floor Construction	1,492,900	1,492,900	
Stair Construction	130,500	121,000	(9,500)
Roof Construction	3,095,900	3,095,900	

EXTERIOR ENCLOSURE

Walls Below Grade	690,100	690,100	
Walls Above Grade	3,530,300	3,530,300	
Structural Walls Above Grade	34,000	34,000	
Windows & Entrances			
Exterior Doors	41,800	41,800	
Doors & Glazing			
Roof Covering	1,559,600	1,559,600	
Skylights/Roof Glazing	406,300	406,300	
Projections	322,100	322,100	

PARTITIONS & DOORS

Fixed Partitions	1,143,900	1,143,900	
Structural Partitions	741,200	741,200	
Movable Partitions			
Internal Doors	201,600	201,600	

INTERIOR FINISHES

Floor Finishes	1,972,600	1,972,600	
Ceiling Finishes	1,061,900	1,061,900	
Wall Finishes	309,800	309,800	

FITTINGS & EQUIPMENT

Metals	274,800	274,800	
Millwork	106,200	106,200	
Specialties	977,500	977,500	
Equipment	15,000	15,000	
Conveying Systems	135,000	135,000	

MECHANICAL SYSTEMS

Plumbing and Drainage	4,069,300	4,069,300	
Fire Protection	481,500	481,500	
HVAC	6,247,100	5,702,600	(544,500)
Controls	1,203,800	1,203,800	

ELECTRICAL SYSTEMS

Service & Distribution	789,000	789,000	
Lighting, Devices & Heat Systems	1,374,000	1,374,000	
	1,569,800	1,569,800	

General Requirements	4,680,972	4,614,492	(66,480)
Construction Management Fee	874,245	861,828	(12,416)

BUILDING COSTS:	44,563,317	43,930,420	(632,896)
BUILDING COSTS (\$/m²):	5,553	5,474	
BUILDING COSTS (\$/ft²):	516	509	

PROJECT: Crystal Pool and Wellness Centre Victoria, BC	DATE: 18-Jul-18
TYPE OF ESTIMATE: Schematic Design	

ELEMENT	COST ESTIMATE - JUNE 17, 2018	COST ESTIMATE UPDATE - JULY 18, 2018	VARIANCE
---------	-------------------------------	---	----------

SITE

SITE DEVELOPMENT			
Site Preparation	16,200	16,200	
Hard Surfaces	307,400	307,400	
Improvements	288,400	288,400	
Landscaping	134,300	134,300	
Mechanical Site Services	63,200	63,200	
Electrical Site Services	983,900	983,900	
ANCILLARY WORK			
Demolitions	1,099,000	1,099,000	
Hazardous Material Abatement	1,129,200	1,129,200	
OVERHEADS & PROFIT			
General Requirements	482,592	482,592	
Construction Management Fee	90,132	90,132	
SITE DEVELOPMENT COST:	4,594,324	4,594,324	-
DESIGN CONTINGENCY	4,915,764	4,852,474	(63,290)
ESCALATION	11,715,904	11,565,064	(150,840)
CONSTRUCTION CONTINGENCY	EXCLUDED		
TOTAL CONSTRUCTION COSTS	65,789,308	64,942,282	(847,026)

DRAFT

APPENDIX B
ESTIMATE BACKUP SHEETS

SUBSTRUCTURE	QUANTITY	UNIT	RATE	COST
Standard Foundations	4,947	m²	\$352.56	\$1,744,100
Strip footings				
Concrete	32	m ³	\$315.00	\$10,080
Formwork	36	m ²	\$75.00	\$2,700
Rebar	1,767	kg	\$2.50	\$4,418
Raft footings				
Concrete	2,185	m ³	\$365.00	\$797,525
Formwork	160	m ²	\$120.00	\$19,200
Rebar	120,167	kg	\$2.50	\$300,418
Pad footings				
Concrete	22	m ³	\$315.00	\$6,930
Formwork	29	m ²	\$75.00	\$2,175
Rebar	972	kg	\$2.50	\$2,430
Foundation wall				
Concrete	4	m ³	\$315.00	\$1,260
Formwork	36	m ²	\$150.00	\$5,400
Rebar	536	kg	\$2.50	\$1,340
Pedestals				
Concrete	1	m ³	\$350.00	\$350
Formwork	7	m ²	\$120.00	\$840
Rebar	152	kg	\$2.50	\$380
Excavate strip footings and remove	43	m ³	\$45.00	\$1,935
Excavate pad footings and remove	68	m ³	\$45.00	\$3,060
Excavate raft foundation and set aside	2,186	m ³	\$45.00	\$98,370
Backfill excavation with imported fill	43	m ³	\$65.00	\$2,795
Strip topsoil and set aside for re-use	742	m ³	\$15.00	\$11,130
Excavate to reduce levels and remove	742	m ³	\$40.00	\$29,680
100 mm rigid insulation to perimeter	3,926	m ²	\$35.00	\$137,410
Blind form membrane below the raft footing	4,607	m ²	\$40.00	\$184,278
Pool surge tank in concrete - allowance	1	no.	\$120,000.00	\$120,000
Special Foundations				
Nil				
Basement Excavation	22,197	m³	\$113.05	\$2,509,400
Mass excavation and remove from site	22,197	m ³	\$35.00	\$776,895
Imported backfill around foundations	4,315	m ³	\$65.00	\$280,475
Dewatering - Allowance	1	item	\$50,000.00	\$50,000
Shoring, shotcrete with anchors (excavations to west and south sides)	651	m ²	\$2,000.00	\$1,302,000
Rock blasting and remove from site - Allowance	2,000	m ³	\$50.00	\$100,000
STRUCTURE				
Lowest Floor Construction	4,947	m²	\$157.09	\$777,100
125mm thick concrete slab on grade, placement and finish, screed and cure, 10M @400 o/c e.w., 100mm rigid insulation, moisture barrier, expansion and contraction joints	611	m ²	\$107.00	\$65,377
150mm compacted structural fill under slab on grade	92	m ³	\$65.00	\$5,980
200mm thick concrete slab on grade, placement and finish, screed and cure, 10M @400 o/c e.w., 100mm rigid insulation, moisture barrier, expansion and contraction joints	2,171	m ²	\$130.00	\$282,230
Interstitial layer of gravel/fill between pool bottom and raft slab below	5,098	m ³	\$65.00	\$331,370

Place and finish, screed and cure raft foundation slab	4,607	m ²	\$20.00	\$92,140
Upper Floor Construction	3,078	m²	\$485.02	\$1,492,900
Concrete in suspended floor slab	1,236	m ³	\$320.00	\$395,520
Place and finish, screed and cure concrete	4,572	m ²	\$20.00	\$91,440
Formwork to soffit of slab	4,790	m ²	\$120.00	\$574,800
Formwork to edge of slab	336	m ²	\$120.00	\$40,320
Reinforcement in slab	123,562	kg	\$2.50	\$308,905
HSS219x6.4 steel column - C1	315	kg	\$8.00	\$2,520
HSS219x13 steel column - C2	305	kg	\$8.00	\$2,440
Concrete in columns	36	m ³	\$350.00	\$12,600
Formwork to columns	318	m ²	\$120.00	\$38,160
450mm Ø sonotube	164	m	\$55.00	\$9,020
Reinforcement in columns	6,887	kg	\$2.50	\$17,218
Stair Construction	25	m	\$4,840.00	\$121,000
1.1m wide concrete stairs and half landing including railings and finish - total rise	10	m	\$3,800.00	\$38,000
2.1m wide concrete stairs and half landing including railings and finish - total rise	5	m	\$5,400.00	\$27,000
2.3m wide concrete stairs and half landing including railings and finish - total rise	5	m	\$5,700.00	\$28,500
1.50m wide concrete straight flight stairs and intermediate landings including railings and finish - total rise	5	m	\$5,500.00	\$27,500
Roof Construction	4,783	m²	\$647.27	\$3,095,900
HSS219x6.4 steel column - C1	2,997	kg	\$8.00	\$23,976
HSS219x13 steel column - C2	18,088	kg	\$8.00	\$144,704
Base plate and grout	53	no.	\$500.00	\$26,500
Concrete in columns	10	m ³	\$350.00	\$3,500
Formwork to columns	80	m ²	\$120.00	\$9,600
Reinforcement in columns	1,520	kg	\$2.50	\$3,800
W610x82 steel beam - B1	82,920	kg	\$8.00	\$663,360
W610x113 steel beam - B3	162,005	kg	\$8.00	\$1,296,040
HSS152x152 HSS box truss	54,393	kg	\$8.00	\$435,144
219x219x13 HSS X-bracing - BF1	330	m	\$656.00	\$216,480
127x127x6.4 HSS X-bracing - BF2 & BF3	89	m	\$185.60	\$16,518
38mmx0.91mm metal roof deck	4,886	m ²	\$50.00	\$244,300
100mm thick concrete housekeeping pads	8	no.	\$1,500.00	\$12,000
EXTERIOR ENCLOSURE	QUANTITY	UNIT	RATE	COST
Walls Below Grade	1,312	m²	\$525.99	\$690,100
250mm thick concrete wall including formwork and reinforcement - W3	1,312	m ²	\$400.00	\$524,800
Premium for curved concrete walls	120	m ²	\$150.00	\$18,000
Allow for waterstops at below grade cold joints	296	m	\$10.00	\$2,960
2-ply fully adhered waterproofing membrane and protection board	1,312	m ²	\$75.00	\$98,400
100mm rigid insulation	1,312	m ²	\$35.00	\$45,920
Walls Above Grade	2,973	m²	\$1,187.45	\$3,530,300
Composite metal/Swiss Pearl panels finish, Z-girts vertical and horizontal, 100mm rigid insulation, air barrier membrane	79	m ²	\$635.00	\$50,165

Aluminum structural glazed window wall system with thermally broken low E double glazing and fiberglass pressure plates	2,557	m ²	\$1,100.00	\$2,812,700
Back pan system (opaque spandrel glass) c/w 100mm insulation	77	m ²	\$1,300.00	\$100,100
Solid insulated exterior fascia with metal/Swiss Pearl cladding	293	m	\$343.00	\$100,499
Premium for curved and sloped glazing	280	m ²	\$550.00	\$154,000
310mm x 3m (max) anodized aluminum sunshades at 610 o.c.	199	m	\$900.00	\$179,100
Scaffolding allowance	2,973	m ²	\$45.00	\$133,785

Structural Walls Above Main Floor	80	m²	\$425.00	\$34,000
--	-----------	----------------------	-----------------	-----------------

250mm thick concrete wall including formwork and reinforcement - W2	80	m ²	\$425.00	\$34,000
---	----	----------------	----------	----------

Windows

NIL

Doors & Glazed Screens	26	lvs	\$1,607.69	\$41,800
-----------------------------------	-----------	------------	-------------------	-----------------

Premium over structural glazed window wall for aluminum glazed entry doors - Pair	12	prs.	\$2,900.00	\$34,800
Premium over structural glazed window wall for aluminum glazed entry door - Single	2	lvs.	\$1,500.00	\$3,000
Premium over entry doors for automatic opener	1	no.	\$4,000.00	\$4,000

Roof Covering	4,783	m²	\$326.07	\$1,559,600
----------------------	--------------	----------------------	-----------------	--------------------

2-ply SBS membrane waterproofing, polyiso insulation and vapour barrier	4,716	m ²	\$210.00	\$990,360
HSS box truss cladding including insulation	477	m ²	\$495.00	\$236,115
Solid insulated exterior fascia with metal/Swiss Pearl cladding	356	m	\$460.00	\$163,760
Integral edge gutter	356	m	\$100.00	\$35,600
Roof/wall intersection	13	m	\$100.00	\$1,300
Mechanical shaft entry on insulated curb	1	m	\$1,500.00	\$1,500
2.5m high acoustical screen for mechanical equipment	74	m	\$1,500.00	\$111,000
Fall arrest system - allowance	1	item	\$20,000.00	\$20,000

Roof Glazing	325	m²	\$1,250.15	\$406,300
---------------------	------------	----------------------	-------------------	------------------

Aluminum framed skylight with thermally broken low E double glazing on insulated curb	325	m ²	\$1,250.00	\$406,250
---	-----	----------------	------------	-----------

Projections				\$322,100
--------------------	--	--	--	------------------

Suspended composite metal/Swiss Pearl panels finish with 100mm insulation to exterior exposed soffits	256	m ²	\$590.00	\$151,040
Exterior deck with recessed slab and floating paver system	355	m ²	\$200.00	\$71,000
Composite metal cladding to 500mm Ø concrete column	10	m	\$1,300.00	\$13,000
Metal frame wood screen wall around exterior deck	37	m	\$1,300.00	\$48,100
Glass guardrail to exterior deck	65	m	\$600.00	\$39,000

PARTITIONS & DOORS	QUANTITY	UNIT	RATE	COST
-------------------------------	-----------------	-------------	-------------	-------------

Fixed Partitions	5,059	m²	\$226.11	\$1,143,900
-------------------------	--------------	----------------------	-----------------	--------------------

200mm thick reinforced concrete block partitions	1,018	m ²	\$190.00	\$193,420
Steel angle clips @1200 o/c to top of concrete block partitions	180	m	\$90.00	\$16,200

Steel studs @ 400mm o/c, acoustic batt, gypsum wallboard both sides	2,681	m ²	\$120.00	\$321,720
Steel studs @ 400mm o/c, acoustic batt, gypsum wallboard both sides and 1.5m aluminum framed clerestory glazing - high acoustical performance	458	m ²	\$234.00	\$107,172
Steel studs furring, gypsum wallboard one side - assumed NIL				
Poly vapour in steel studs partitions - Natatorium	180	m ²	\$1.50	\$270
Glazed wall partitions	531	m ²	\$500.00	\$265,500
Doubled glazed wall partitions	191	m ²	\$650.00	\$124,150
Composite metal panels to exposed free standing columns	151	m ²	\$765.00	\$115,515
Enclosure for electrical equipment with acoustic screening	44	m ²		

Structural Partitions	1,744	m²	\$425.00	\$741,200
------------------------------	--------------	----------------------	-----------------	------------------

250mm thick concrete wall including formwork and reinforcement - W2 & W3	1,744	m ²	\$425.00	\$741,200
--	-------	----------------	----------	-----------

Internal Doors	133	lvs	\$1,515.79	\$201,600
-----------------------	------------	------------	-------------------	------------------

Metal door and frame including hardware and finish - Single	20	lvs.	\$1,600.00	\$32,000
Solid core wood door and metal frame including hardware and finish - Single	45	lvs.	\$1,300.00	\$58,500
Aluminum glazed door and frame including hardware - Single	26	lvs.	\$2,000.00	\$52,000
Aluminum glazed doors and frame including hardware - Pair	3	prs.	\$4,200.00	\$12,600
Premium over vestibule doors for automatic opener	1	no.	\$4,000.00	\$4,000
Metal doors and frame including hardware and finish - Pair	13	prs.	\$2,500.00	\$32,500
Solid core wood doors and metal frame including hardware and finish - Pair	5	prs.	\$2,000.00	\$10,000

INTERIOR FINISHES	QUANTITY	UNIT	RATE	COST
--------------------------	-----------------	-------------	-------------	-------------

Floor Finishes	6,941	m²	\$284.18	\$1,972,600
-----------------------	--------------	----------------------	-----------------	--------------------

Concrete sealer	1,435	m ²	\$10.00	\$14,350
Concrete sealer with recessed walk-off mat	32	m ²	\$250.00	\$8,000
Resilient flooring	1,163	m ²	\$70.00	\$81,410
Resilient sports flooring	650	m ²	\$90.00	\$58,500
Mosaic tile pool deck	2,259	m ²	\$260.00	\$587,340
Mosaic tiling	782	m ²	\$180.00	\$140,760
Carpet tile	199	m ²	\$60.00	\$11,940
Sprung wood floor	366	m ²	\$165.00	\$60,390
Tile and waterproof membrane to pools, including markings	1,704	m ²	\$470.00	\$800,880
Premium over pool tiling for:				
Ramp in leisure pool	1	no.	\$2,500.00	\$2,500
Steps in leisure pool	3	no.	\$2,000.00	\$6,000
Ramp in hot tub	1	no.	\$4,000.00	\$4,000
Steps in hot tub	1	no.	\$1,000.00	\$1,000
Stepped seating in hot tub	1	item	\$5,000.00	\$5,000
Transfer edge with gutter at lowered pool deck	66	m	\$250.00	\$16,500
Rim drain	338	m	\$400.00	\$135,200
Rubber base	1,086	m	\$5.00	\$5,430
Tile base	1,060	m	\$30.00	\$31,800
Vented base	108	m	\$15.00	\$1,620

Ceiling Finishes	6,941	m²	\$152.98	\$1,061,900
-------------------------	--------------	----------------------	-----------------	--------------------

Paint exposed concrete structure	1,452	m ²	\$20.00	\$29,040
Suspended acoustic wood panels	787	m ²	\$315.00	\$247,905
Wood slats with acoustical backing	3,245	m ²	\$205.00	\$665,225
Acoustic T-bar	389	m ²	\$45.00	\$17,505
Suspended gypsum board, painted	884	m ²	\$85.00	\$75,140
Exposed wood with clear finish - sauna	73	m ²	\$165.00	\$12,045
Gypsum bulkheads - Allowance	1	item	\$15,000.00	\$15,000

Wall Finishes	15,545	m²	\$19.93	\$309,800
Paint finish	15,191	m ²	\$15.00	\$227,865
Mosaic wall tiling	354	m ²	\$175.00	\$61,950
Special wall finishes - Allowance	1	item	\$20,000.00	\$20,000
FITTINGS & EQUIPMENT				
	QUANTITY	UNIT	RATE	COST
Metals	8,025	m²	\$34.24	\$274,800
Glass guardrail	108	m	\$600.00	\$64,800
Class 1 Indoor Bicycle Parking for 20 bicycles	20	no.	\$500.00	\$10,000
25m long stainless steel swimming pool bulkhead	2	no.	\$100,000.00	\$200,000
Millwork	8,025	m²	\$13.23	\$106,200
Vanity	23	m	\$400.00	\$9,200
Counter with storage below and upper cabinets	12	m	\$750.00	\$9,000
Reception/enquiry desk	18	m	\$1,500.00	\$27,000
Millwork cubbies - Allowance	1	item	\$10,000.00	\$10,000
Built-in wood bench seating - 40m x 1m on plan	1	no.	\$50,000.00	\$50,000
Built-in wood bench seating - 1.7m x .4m on plan	2	no.	\$510.00	\$1,020
Specialties	8,025	m²	\$121.81	\$977,500
Washroom accessories in individual washroom	7	loc.	\$1,000.00	\$7,000
Washroom accessories in individual accessible washroom	3	loc.	\$1,400.00	\$4,200
Washroom accessories in Male Change	1	loc.	\$6,500.00	\$6,500
Washroom accessories in Female Change	1	loc.	\$7,200.00	\$7,200
Washroom accessories in Universal Change	1	loc.	\$7,600.00	\$7,600
Washroom accessories in Level 2 washrooms	1	loc.	\$9,000.00	\$9,000
Toilet cubicles	5	no.	\$600.00	\$3,000
Toilet cubicles, accessible	2	no.	\$800.00	\$1,600
Shower accessories in accessible washroom	2	loc.	\$2,350.00	\$4,700
Wet change cubicles with bench	13	no.	\$1,600.00	\$20,800
Dry change cubicles with bench	9	no.	\$1,000.00	\$9,000
Dry change cubicles with bench, accessible	2	no.	\$1,500.00	\$3,000
Lockers	339	no.	\$200.00	\$67,800
Automated entry control gates	1	no.	\$7,500.00	\$7,500
Water features to leisure pool and rough-in for additional features	1	item	\$75,000.00	\$75,000
Water slide, access stairs and slow down pool	1	item	\$80,000.00	\$80,000
1m springboard	1	no.	\$5,000.00	\$5,000
3m springboard	1	no.	\$10,000.00	\$10,000
Poolpod portable lift	4	no.	\$8,000.00	\$32,000
Movable floor system for main lap pool - allowance	1	item	\$500,000.00	\$500,000
Access hatch w/ flush tile finish and ladder to crawlspace	3	no.	\$3,500.00	\$10,500
Miscellaneous pool fittings - drain covers, outlets, etc.	1	item	\$50,000.00	\$50,000
Manual solar control roller shades	561	m ²	\$100.00	\$56,100
Equipment	8,025	m²	\$1.87	\$15,000
Steam room equipment	1	item	\$10,000.00	\$10,000
Sauna room equipment	1	item	\$5,000.00	\$5,000
Elevators	5	stops	\$27,000.00	\$135,000
Mechanical lift	2	stops	\$15,000.00	\$30,000
Hydraulic elevator	3	stops	\$35,000.00	\$105,000

MECHANICAL SYSTEMS	QUANTITY	UNIT	RATE	COST
Plumbing and Drainage	8,025	m²	\$507.08	\$4,069,300
Perimeter drainage	305	m	\$42.00	\$12,810
Roof drains	1	sum	\$39,600.00	\$39,600
Sanitary fixtures	116	no.	\$4,200.00	\$487,200
Floor drains	1	sum	\$18,750.00	\$18,750
Hose bibbs	1	sum	\$15,000.00	\$15,000
150mm service isolation valve	1	sum	\$1,000.00	\$1,000
75mm water meter for pool fill	3	sum	\$1,500.00	\$4,500
100mm water meter				
25mm water meter for HW and cw system				
Reduce pressure Backflow Preventor for the pool systems	1	sum	\$2,000.00	\$2,000
50mm irrigation line c/w RP-BFP and water meter at the water entry room.				
Cap line outside c/w frost box	1	sum	\$1,000.00	\$1,000
DHWT-001 to 003 Domestic hot water pre-heat storage tank of stainless steel or nickel shield construction for the capture of waste heat from the low temperature heating water loop (PVI 2900 L 250A-QWD)	3	no.	\$99,800.00	\$299,400
Silicon carbide microfilters	2	sum	\$10,000.00	\$20,000
Area drains	1	sum	\$40,000.00	\$40,000
Subsurface drainage tank complete with duplex pumps connected to emergency power. System will be pumped up into the storm water system complete with backwater valve	1	sum	\$15,000.00	\$15,000
Backwash tank to collect dirty water from filter backwashing, to allow a quick drain of the hot pool and as an indirect connection for draining the pools. The filter backwash tank will also have a perlite grate to collect and the used perlite prior to discharging into the sewer	1	sum	\$50,000.00	\$50,000
Exterior cap for removal of the perlite without discharging into the sewer system.	1	sum		
Pool System	1	sum	\$3,000,000.00	\$3,000,000
Sump pumps for storm SP-1 & 2 (5 HP, Zoeller)	2	no.	\$15,000.00	\$30,000
Backwash sump pump - solids handling (SP - 003 to 004) for pool filter backwash tank (5 HP, zoeller)	2	no.	\$15,000.00	\$30,000
DHW mixing valves TMV - 001 to 003 (Bradley, Frac 120/1/60)	3	no.	\$1,000.00	\$3,000
Fire Protection	8,025	m²	\$60.00	\$481,500
Fire sprinklers	1	sum	\$481,500.00	\$481,500
HVAC	8,025	m²	\$710.60	\$5,702,600
AHU 001 - 003	1	sum	\$744,000.00	\$744,000
AHU 004 - 005	1	sum	\$524,500.00	\$524,500
AHU 006 - 007	1	sum	\$190,000.00	\$190,000
Exhaust fans	2	no.	\$750.00	\$1,500
Ventilation to crawlspace	1	sum	\$38,080.00	\$38,080
Four pipe fan coils FC-001 to 010	10	no.	\$5,000.00	\$50,000
Water to water heat pump	1	sum	\$314,290.00	\$314,290
Air cooled heat pump, 4 pipe	1	sum	\$689,860.00	\$689,860
Air cooled heat pump, 2 pipe	1	sum	\$1,020,880.00	\$1,020,880
Ductwork and accessories	8,025	m ²	\$95.00	\$762,375
HWS/R piping	1	sum	\$450,000.00	\$450,000
CHWS/R piping	1	sum	\$225,000.00	\$225,000
Circulation pumps P-001 to 004 for heating and cooling system (30 HP each)				
Grundfos 600/3/60 c/w VFD	4	no.	\$15,130.00	\$60,520
Circulation pumps P-005 to 014 for for evaporators and condensers (10 HP each) Grundfos 600/3/60 c/w VFD	10	no.	\$9,500.00	\$95,000
Circulation pumps P-015 & 021 for water pre-heat and water circulation (2 HP each) Frundfos 600/3/60 c/w VFD	3	no.	\$4,060.00	\$12,180

Circulation pumps P-022 for water re-circulation (5 HP each) Grundfos
600/3/60 c/w VFD

1 no. \$6,000.00 \$6,000

Mechanical contractor's general conditions

1 sum \$518,418.50 \$518,419

Controls 8,025 m² \$150.01 \$1,203,800

Mechanical controls 8,025 m² \$150.00 \$1,203,750

ELECTRICAL SYSTEMS QUANTITY UNIT RATE COST

Service & Distribution 8,025 m² \$98.32 \$789,000

Service and Distribution:

1600A 32 A.I.C 3p, 4w - 800A SDC - MCC - EP - Metering
installation for above equipment 1 sum \$195,000.00 \$195,000
1 sum \$146,250.00 \$146,250

Panels:

panels - 600V - 120/208V 15 no. \$2,500.00 \$37,500
installation for above panels 15 no. \$3,800.00 \$57,000

Transformers:

75kVA - 600/347V - 208/120V 2 no. \$4,825.00 \$9,650
installation for above transformer 2 no. \$2,171.42 \$4,343
150kVA 600/347V - 208/120V 2 no. \$8,300.00 \$16,600
installation for above transformer 2 no. \$2,235.26 \$4,471

Feeders:

feeders for distribution and panels throughout facility 1 sum \$100,000.00 \$100,000

Mechanical Connections:

Building:

AHU-001, 002, 003, 004, 005, 006, 007, EF-001, 002, FC-001-010, DHWT-
001, 002, 003, HP-001, 002, 003, P-001-015, 021, 022, SP-001, 002, 003,
004
connections 49 no. \$190.00 \$9,310
disconnect/starter 36 no. \$595.00 \$21,420

Feeder/Conduit:

3#12 inc gnd 21mm 260 m \$28.16 \$7,320
3#6 inc gnd 27mm 300 m \$42.28 \$12,683
4#3 inc gnd 35mm 420 m \$56.24 \$23,619
allowance for terminations, splicing etc. 1 sum \$4,362.20 \$4,362
allowance for corners, couplings etc. 1 sum \$4,362.20 \$4,362
additional connections 1 sum \$8,307.60 \$8,308

Pools:

PP-001-015, 020-023, 030-040, 050, 051, 052, UV-001, 002, 003, 004,
LVC-001, 001V, 002, 002V, 003, 003V, 004, 004V, CC-001-004, PAG-1, FM-
1a, 1b, 1c, 1d, PF-001-008, Comp-001
connections 62 no. \$190.00 \$11,780
disconnect/starter 27 no. \$595.00 \$16,065

Feeder/Conduit:

3#12 inc gnd 21mm 500 m \$28.16 \$14,078
4#10 inc gnd 27mm 200 m \$35.93 \$7,187
3#6 inc gnd 27mm 540 m \$42.28 \$22,829
3#3 inc gnd 35mm 540 m \$53.24 \$28,747
allowance for terminations, splicing etc. 1 sum \$7,284.10 \$7,284

allowance for corners, couplings etc. additional connections	1 1	sum sum	\$7,284.10 \$11,525.40	\$7,284 \$11,525
Lighting, Devices & Heat	8,025	m²	\$171.21	\$1,374,000
Lighting:				
fixtures, installation, conduit and wire	1	sum	\$601,875.00	\$601,875
additional pool/speciality lighting	1	sum	\$280,875.00	\$280,875
fixtures, installation, conduit and wire (to crawlspace)	1	sum	\$38,080.00	\$38,080
Exterior Lighting:				
fixtures	20	no.	\$650.00	\$13,000
installation	20	no.	\$190.00	\$3,800
conduit and wire	20	no.	\$150.00	\$3,000
Emergency Lighting:				
emergency lighting including exist lights - ensure all egress routes are illuminated in the event of an emergency condition	1	sum	\$64,200.00	\$64,200
Lighting Control:				
low voltage lighting control system - manual or automatic via programable - some switches, OCC and vacancy sensors - photo electric and timers	8,025	m ²	\$15.00	\$120,375
Receptacles:				
fixtures, installation, conduit and wire	8,025	m ²	\$15.00	\$120,375
Minor Electrical & Mechanical Connections:				
fixtures, installation, conduit and wire	1	sum	\$128,400.00	\$128,400
Systems	8,025	m²	\$195.61	\$1,569,800
Fire Alarm system:				
2 staged addressable, fully supervised microprocessor-based system, utilizing digital techniques for data control. Will include remote monitoring. Main central control unit and remote annunciator.	1	sum	\$128,400.00	\$128,400
Cable Tray:				
cable tray, installation	1	sum	\$50,000.00	\$50,000
Data/Voice:				
data/voice drops, wiring, management, backbone etc..	1	sum	\$225,000.00	\$225,000
Public Address and Sound System:				
speaker system, microphones, amplifiers, music docking station	1	sum	\$120,375.00	\$120,375
CCTV:				
monitoring station	2	sum	\$15,000.00	\$30,000
camera - 3.0 - IR	15	no.	\$2,500.00	\$37,500
brackets for cameras	15	no.	\$500.00	\$7,500
installation for above devices	15	no.	\$475.00	\$7,125
camera licences	15	no.	\$350.00	\$5,250
CAT6 A in 21mm C	750	m	\$25.00	\$18,750
Management:				
rack	1	no.	\$1,500.00	\$1,500
cable management	4	no.	\$250.00	\$1,000
port patch panel	2	no.	\$2,500.00	\$5,000
2TB NVR	1	sum	\$10,000.00	\$10,000
power supply	2	no.	\$350.00	\$700
installation for above devices	1	sum	\$18,648.75	\$18,649
Access Control:				
a card and fob reader security access system	1	sum	\$80,250.00	\$80,250
Audio Visual:				
av systems to multi-purpose and administration boardroom	1	sum	\$60,187.50	\$60,188
Lifeguard Alert System:				
blue strobe system - activated by remote push buttons. Remote push buttons will be tied to emergency shut off to mechanical equipment	1	sum	\$40,125.00	\$40,125
General Conditions:				
testing and commissioning of above systems	1	sum	\$361,232.28	\$361,232

general conditions for Electrical Contractor - demobilization - permits/working drawings - early design	1	sum	\$361,232.28	\$361,232
---	---	-----	--------------	-----------

SITE DEVELOPMENT	QUANTITY	UNIT	RATE	COST
------------------	----------	------	------	------

Site Preparation				\$16,200
-------------------------	--	--	--	-----------------

Clear site and remove remaining vegetation	10,802	m ²	\$1.50	\$16,203
--	--------	----------------	--------	----------

Hard Surfaces				\$307,400
----------------------	--	--	--	------------------

Asphalt parking including lines	3,170	m ²	\$43.00	\$136,310
Wheel stops for center aisle stalls	42	no.	\$100.00	\$4,200
Heavy duty vehicle rated concrete unit pavers on sand base	330	m ²	\$100.00	\$33,000
Concrete unit pavers on sand base	573	m ²	\$60.00	\$34,380
Concrete sidewalk - by City of Victoria		NIC		
Permeable unit paver	259	m ²	\$60.00	\$15,540
CIP concrete sidewalk	286	m ²	\$25.00	\$7,150
Concrete curb and gutter	250	m	\$65.00	\$16,250
Concrete sidewalk by new building - Allowance	1	item	\$20,000.00	\$20,000
Multi-use paths	248	m	\$75.00	\$18,600
New road entry	1	no.	\$7,500.00	\$7,500
Loading zone entry and paving	1	no.	\$10,000.00	\$10,000
Concrete pads	1	item	\$4,500.00	\$4,500

Improvements				\$288,400
---------------------	--	--	--	------------------

Reinstate basketball courts	1	item	\$20,000.00	\$20,000
Reinstate tennis courts	1	item	\$42,000.00	\$42,000
Reinstate outdoor gym	1	item	\$35,000.00	\$35,000
Reinstate playground using salvaged equipment	1	item	\$40,000.00	\$40,000
CIP concrete seatwall	48	m	\$800.00	\$38,400
Site signage allowance	1	item	\$5,000.00	\$5,000
IPE and metal picnic table	6	no.	\$6,500.00	\$39,000
Allowance for patio furniture	1	item	\$10,000.00	\$10,000
Class 2 bicycle parking for 80 bicycles	16	set	\$1,500.00	\$24,000
Class 1 outdoor bicycle parking for 10 bicycles - including enclosure	10	no.	\$2,000.00	\$20,000
Site furniture	1	item	\$15,000.00	\$15,000

Landscaping				\$134,300
--------------------	--	--	--	------------------

Stratavault soil cells to parking center aisle	259	m ²	\$150.00	\$38,850
CIP concrete raised planter	47	m ²	\$200.00	\$9,400
Grass areas	5,800	m ²	\$10.00	\$58,000
Flush tree grate with CIP concrete wall surround	14	no.	\$2,000.00	\$28,000
Reinstated park area - Excluded		NIC		

Mechanical Site Services				\$63,200
---------------------------------	--	--	--	-----------------

150mm domestic water	21	m	\$160.00	\$3,360
150mm fire service	21	m	\$160.00	\$3,360
200m storm service (2 no.)	28	m	\$150.00	\$4,200
200mm sanitary service	15	m	\$150.00	\$2,250
City connection fees	1	sum	\$50,000.00	\$50,000

Electrical Site Services				\$983,900
---------------------------------	--	--	--	------------------

Pad Mounted Transformer:

allowance for Pad Mounted Transformer - 25kV - 347/600V	1	sum	\$200,000.00	\$200,000
installation of PMT - grounding etc.	1	sum	\$60,000.00	\$60,000
pad for above	1	sum	\$4,500.00	\$4,500
Generator:				
250kW 347/600V diesel - extra quiet wp enclosure	1	sum	\$250,000.00	\$250,000
installation of generator	1	sum	\$8,260.92	\$8,261
pad and grounding for above	1	sum	\$3,500.00	\$3,500
Trench:				
excavation	62	m3	\$200.00	\$12,420
concrete surround	11	m3	\$250.00	\$2,719
compact clean excavated fill	51	m3	\$150.00	\$7,650
Conduit:				
4-103mm conduit RVPC	28	m	\$570.15	\$15,679
3 -103mm conduit RVPC	28	m	\$570.15	\$15,679
elbows, bell ends, caps adapters	1	sum	\$3,135.80	\$3,136
grounding wire to all duct bank	25	m	\$25.00	\$625
Feeders:				
25pr CAT5e/12 strand SMF/4 twisted pair	28	m	\$90.71	\$2,494
2 x (3x250MCM CU HV)	28	m	\$310.67	\$8,543
allowance for terminations, splicing etc.	1	sum	\$1,103.70	\$1,104
Light standards:				
pedestrian path	8	no.	\$1,200.00	\$9,600
base	8	no.	\$250.00	\$2,000
installation	8	sum	\$327.61	\$2,621
parking	10	no.	\$2,500.00	\$25,000
base	10	no.	\$500.00	\$5,000
installation	10	sum	\$982.82	\$9,828
trenching, sand surround, backfill	360	m	\$100.00	\$36,000
conduit/wire	360	m	\$75.00	\$27,000
Cash Allowances by Engineer:				
BC HYDRO	1	sum	\$55,000.00	\$55,000
TELUS	1	sum	\$7,500.00	\$7,500
SHAW Cable	1	sum	\$5,000.00	\$5,000
General conditions:				
testing and commissioning of above systems	1	sum	\$101,511.67	\$101,512
general conditions for Electrical Contractor - demobilization - permits/working drawings	1	sum	\$101,511.67	\$101,512

ANCILLARY WORK	QUANTITY	UNIT	RATE	COST
Demolitions				\$1,099,000
Demolish existing crystal pool and level site	5,646	m ²	\$175.00	\$988,050
Remove existing asphalt pathways including removing benches	693	m ²	\$13.00	\$9,009
Remove existing basketball courts	435	m ²	\$15.00	\$6,525
Remove existing tennis courts	1,254	m ²	\$12.00	\$15,048
Remove existing outdoor gym	270	m ²	\$12.00	\$3,240
Remove existing playground	458	m ²	\$9.00	\$4,122
Remove existing trees	25	no.	\$200.00	\$5,000
Protect existing trees	34	no.	\$2,000.00	\$68,000
Hazardous Material Abatement				\$1,129,200
Premium over demolishing existing crystal pool for asbestos abatement	5,646	m ²	\$200.00	\$1,129,200

APPENDIX C

SEPARATE PRICES

DRAFT

SEPARATE AND ALTERNATE PRICES	QUANTITY	UNIT	RATE	COST
Alternate Pricing - Additional Height Large MPR				\$386,000
<u>Add:</u>				
HSS219x6.4 steel column - C1	83	kg	\$8.00	\$664
HSS219x13 steel column - C2	1,131	kg	\$8.00	\$9,048
W530x74 steel beam - B2	11,360	kg	\$8.00	\$90,880
38mmx0.91mm metal roof deck	257	m ²	\$50.00	\$12,850
Aluminum structural glazed window wall system with thermally broken low E double glazing and fibergalss pressure plates	158	m ²	\$1,100.00	\$173,800
Solid insulated exterior fascia with metal/Swiss Pearl cladding	63	m	\$343.00	\$21,609
Scaffolding allowance	83	m ²	\$45.00	\$3,735
Roof/wall intersection	63	m	\$100.00	\$6,300
Wood slats with acoustical backing	234	m ²	\$205.00	\$47,970
<u>Deduct:</u>				
38mmx0.91mm metal roof deck	-234	m ²	\$50.00	(\$11,700)
Wood slats with acoustical backing	-234	m ²	\$205.00	(\$47,970)
General Requirements		12%		\$36,862
Construction Management Fee		2%		\$6,885
Design Contingency		10%		\$35,093
GST				Excluded
Alternate Pricing - Boiler System for DHW and Pool Heating				(\$1,080,200)
<u>Add:</u>				
Add gas fired boilers Veissman 3HP 850 MBH	1	sum	\$161,280.00	\$161,280
<u>Deduct:</u>				
Multistack rooftop heat pump	-1	sum	\$1,020,880.00	(\$1,020,880)
General Requirements		12%		(\$103,152)
Construction Management Fee		2%		(\$19,265)
Design Contingency		10%		(\$98,202)
GST				Excluded
Alternate Pricing - Enhanced Building Envelope				\$1,024,500
<u>Add:</u>				
200 mm rigid insulation to perimeter	3,926	m ²	\$70.00	\$274,820
200 mm rigid insulation under slab on grade	2,782	m ²	\$70.00	\$194,740
300mm thick rigid insulation in roof covering system	4,716	m ²	\$120.00	\$565,920
Aluminum structural glazed window wall system with thermally broken low E triple glazing and fibergalss pressure plates	2,557	m ²	\$1,500.00	\$3,835,500
Back pan system (opaque spandrel glass) c/w 150mm insulation	77	m ²	\$1,360.00	\$104,720
Aluminum framed skylight with thermally broken low E triple glazing on insulated curb	325	m ²	\$1,700.00	\$552,500
Suspended composite metal/Swiss Pearl panels finish with 100mm insulation to exterior exposed soffits	256	m ²	\$596.00	\$152,576
Haakon Rooftop 40HP (SF) / 30 HP (RF) 600/3/60, 1650 MBH, 50 ton, 30,000 cfm	1	sum	\$522,940.00	\$522,940
Multistack 150 ton	1	sum	\$534,900.00	\$534,900
<u>Deduct:</u>				
100 mm rigid insulation to perimeter	-3,926	m ²	\$35.00	(\$137,410)
100 mm rigid insulation under slab on grade	-2,782	m ²	\$35.00	(\$97,370)
poly iso insulation in roof covering system	-4,716	m ²	\$65.00	(\$306,540)

SEPARATE AND ALTERNATE PRICES	QUANTITY	UNIT	RATE	COST
Aluminum structural glazed window wall system with thermally broken low E double glazing and fibergalss pressure plates	-2,557	m ²	\$1,100.00	(\$2,812,700)
Back pan system (opaque spandrel glass) c/w 100mm insulation	-77	m ²	\$1,300.00	(\$100,100)
Aluminum framed skylight with thermally broken low E double glazing on insulated curb	-325	m ²	\$1,250.00	(\$406,250)
Suspended composite metal/Swiss Pearl panels finish with 100mm insulation to exterior exposed soffits	-256	m ²	\$590.00	(\$151,040)
Delete AHU-001 as per schedule	-1	sum	\$1,011,970.00	(\$1,011,970)
Delete HP-002	-1	sum	\$900,000.00	(\$900,000)
General Requirements		12%		\$97,828
Construction Management Fee		2%		\$18,271
Design Contingency		10%		\$93,134
GST				Excluded
Separate Price - Photovoltaic Array on Roof				\$969,800
Photovoltaic Power:				
Proposed 216kW flush mounted system	1	sum	\$700,000.00	\$700,000
General conditions:				
testing and commissioning of above systems	1	sum	\$35,000.00	\$35,000
general conditions for Electrical Contractor - demobilization - permits/working drawings	1	sum	\$36,750.00	\$36,750
General Requirements		12%		\$92,610
Construction Management Fee		2%		\$17,296
Design Contingency		10%		\$88,166
GST				Excluded
Separate Price - Storm water harvesting system				\$315,400
Rain Water Capturing System:	1	sum	\$250,950.00	\$250,950
Self cleaning pre-filters				
10,000 gallon storage tank				
Brae skid mounted ranitwater harvesting system				
Mechanical contractor's general conditions				
General Requirements		12%		\$30,114
Construction Management Fee		2%		\$5,624
Design Contingency		10%		\$28,669
GST				Excluded
Separate Price - Heat recovery system				\$196,500
Transfer pump	2	no.	\$4,200.00	\$8,400
Piranha waste water heat pump and heat exchanger	1	sum	\$98,000.00	\$98,000
75mm motorized butterfly valve and drain piping	1	sum	\$50,000.00	\$50,000
General Requirements		12%		\$18,768
Construction Management Fee		2%		\$3,505
Design Contingency		10%		\$17,867
GST				Excluded

SEPARATE AND ALTERNATE PRICES	QUANTITY	UNIT	RATE	COST
Alternate Pricing - Waterproofing at Raft Slab				\$210,500
<u>Add:</u>				
Mass excavation and remove from site	609	m ³	\$35.00	\$21,306
Shoring, shotcrete with anchors (excavations to west and south sides)	36	m ²	\$2,000.00	\$72,000
150mm thick concrete slab on grade, placement and finish, screed and cure, 10M @400 o/c e.w., moisture barrier, expansion and contraction joints	1,353	m ²	\$79.50	\$107,544
300mm compacted structural fill under slab on grade	183	m ³	\$65.00	\$11,895
250mm thick concrete wall including formwork and reinforcement - W3	67	m ²	\$400.00	\$26,800
Premium for curved concrete walls	2	m ²	\$150.00	\$300
Allow for waterstops at below grade cold joints	148	m	\$10.00	\$1,480
2-ply fully adhered waterproofing membrane and protection board	67	m ²	\$75.00	\$5,025
100mm rigid insulation	67	m ²	\$35.00	\$2,345
<u>Deduct:</u>				
Blind form membrane below the raft footing	-1,353	m ²	\$40.00	(\$54,110)
Place and finish, screed and cure raft foundation slab	-1,353	m ²	\$20.00	(\$27,055)
General Requirements		12%		\$20,104
Construction Management Fee		2%		\$3,755
Design Contingency		10%		\$19,139
GST				Excluded
Alternate Pricing - Acoustically Isolated Floor at Fitness Area				\$359,400
<u>Add:</u>				
Floated floor system consisting of 100mm thick concrete installed	650	m ²	\$430.00	\$279,500
Acoustical isolation clips and fibreglass batt insulation	650	m ²	\$35.00	\$22,750
16mm type X Gypsum board, taped and fill	650	m ²	\$20.00	\$13,000
<u>Deduct:</u>				
Acoustic T-bar	-650	m ²	\$45.00	(\$29,250)
General Requirements		12%		\$34,320
Construction Management Fee		2%		\$6,409.80
Design Contingency		10%		\$32,672.98
GST				Excluded
Separate Price - Site Development Beyond Limit of Work				\$1,445,200
Skate Park	1	C/A	\$500,000.00	\$500,000
Water Park	1	C/A	\$500,000.00	\$500,000
Paving	1	C/A	\$30,000.00	\$30,000
Landscaping	1	C/A	\$100,000.00	\$100,000
Furniture	1	C/A	\$20,000.00	\$20,000
General Requirements		12%		\$138,000
Construction Management Fee		2%		\$25,774
Design Contingency		10%		\$131,377
GST				Excluded