

## **APPENDIX**

**8.1**

**Costs**



# Armory - Design Option "A"

Brian C Jackson, Architect LLC

## Full Program

DATE: 08/24/2010

Lake Oswego - Tennis Center Feasibility Study  
Armory Site

	area	cost per sf	Total
<b>TENNIS CENTER</b>			<b>\$3,491,015</b>
General Conditions - 10%			\$349,101
Contractors Overhead and Profit - 5%			\$192,006
<b>TOTAL Tennis Center:</b>	<b>68,100 GSF</b>	<b>\$59</b>	<b>\$4,032,122</b>
<b>1) Foundations</b>			<b>\$473,900</b>
Excavation - cut/fill and shoring tie backs	1 LS	\$150,000	\$150,000
Foundation retaining walls - south east & west	6,500 sf	\$15.00	\$97,500
Retaining wall drainage system	1 LS	\$20,000	\$20,000
Typ. Footings/gross floor area - 1st flr.	62,400 sf	\$3.00	\$187,200
Interior foundation stem wall at grade trasition	1,600 sf	\$12.00	\$19,200
Estimating Contingency (15%)			\$71,085
Inflation (0%)			\$0
<b>Total</b>			<b>\$544,985</b>
<b>2) Vertical Structure</b>			<b>\$1,366,000</b>
Tennis Courts - All inclusive steel butler structure	1 LS	\$1,350,000	\$1,350,000
Allow @ Support area wood framed	4,000 sf	\$4.00	\$16,000
Estimating Contingency (15%)			\$204,900
Inflation (0%)			\$0
<b>Total</b>			<b>\$1,570,900</b>
<b>3) Floor and Roof Structure</b>			<b>\$355,130</b>
Slab on Grade - Support area	9,020 sf	\$7.00	\$63,140
Asphalt floor at tennis courts	53,380 sf	\$3.00	\$160,140
Plexi-pave court surfacing	53,380 sf	\$1.00	\$53,380
Subslab Drainage & Membrane	sf		\$0
Suspended floor - wood framing gyp topping	5,700 sf	\$5.00	\$28,500
Tennis Court roof framing - incl. in stl. Struct.	sf		\$0
Tennis Court roof decking - incl. in stl. struct.	sf		\$0
Support program roof structure - framing & Deck	9,020 sf	\$3.50	\$31,570
Exterior Decks and terraces	LS		\$0
Misc. metals @ support	14,720 sf	\$1.25	\$18,400
Estimating Contingency (15%)			\$53,270
Inflation (0%)			\$0
<b>Total</b>			<b>\$408,400</b>
<b>4) Exterior Cladding</b>			<b>\$161,375</b>
Exterior wall - Tennis court incl. in stl. structure			\$0
Exterior wall - architectural upgrade	1,000	\$15	\$15,000
Exterior wall - architectural at support area	500 sf	\$25.00	\$12,500
Exterior Glazing	750 sf	\$45.00	\$33,750
Entry/Egress Doors, frames and hardware	1 LS	\$15,000.00	\$15,000
Fascia, bands and screens	68,100 sf	\$0.50	\$34,050
Soffits - trim & paint	68,100 sf	\$0.75	\$51,075
Estimating Contingency (15%)			\$24,206
Inflation (0%)			\$0
<b>Total</b>			<b>\$185,581</b>
<b>5) Roofing, Waterproofing &amp; Skylights</b>			<b>\$105,195</b>
Mtl. roof & insul. @ tennis-included in stl. Struct.			\$0
Membrane Roofing & Insulation at support space	9,020 sf	\$6.00	\$54,120
Caulking, sealants and firestopping	68,100 sf	\$0.75	\$51,075
Estimating Contingency (15%)			\$15,779
Inflation (0%)			\$0
<b>Total</b>			<b>\$120,974</b>

<b>6) Interior Partitions, Doors &amp; Glazing</b>				<b>\$31,360</b>	
Allowance for Interior Glazing at Viewing	1,200 sf	\$20		\$24,000	
Allowance per Gross SF @ support	14,720 sf	\$0.50		\$7,360	
Estimating Contingency (15%)				\$4,704	
Inflation (0%)				\$0	
<b>Total</b>					<b>\$36,064</b>
<b>7) Floor, Wall &amp; Ceiling Finishes</b>				<b>\$11,040</b>	
Allowance per Gross SF @ support	14,720 sf	\$0.75		\$11,040	
Estimating Contingency (15%)				\$1,656	
Inflation (0%)				\$0	
<b>Total</b>					<b>\$12,696</b>
<b>8) Function Equipment &amp; Specialties</b>				<b>\$106,760</b>	
Wall Pads, curtains, nets, and dividers	53,380 sf	\$2.00		\$106,760	
Estimating Contingency (15%)				\$16,014	
Inflation (0%)				\$0	
<b>Total</b>					<b>\$122,774</b>
<b>9) Stairs &amp; Vertical Transportation</b>				<b>\$95,000</b>	
Exit & Convenience Stairs	2 LS	\$15,000.00		\$30,000	
Elevator - 2 stops	1 LS	\$65,000.00		\$65,000	
Estimating Contingency (15%)				\$14,250	
Inflation (0%)				\$0	
<b>Total</b>					<b>\$109,250</b>
<b>10) Plumbing Systems</b>				<b>\$11,040</b>	
Allowance per Gross SF @ Support	14,720 sf	\$0.75		\$11,040	
Estimating Contingency (15%)				\$1,656	
Inflation (0%)				\$0	
<b>Total</b>					<b>\$12,696</b>
<b>11) Heating, Ventilation &amp; Air Conditioning</b>				<b>\$82,820</b>	
Allowance per Gross SF @ Support	14,720 sf	\$2		\$29,440	
Allowance per Gross SF @ Tennis	53,380 sf	\$1.00		\$53,380	
Estimating Contingency (15%)				\$12,423	
Inflation (0%)				\$0	
<b>Total</b>					<b>\$95,243</b>
<b>12) Electrical - Lighting, Power &amp; Communications</b>				<b>\$150,920</b>	
Allowance per Gross SF @ Support	14,720 sf	\$3		\$44,160	
Allowance per Gross SF @ Tennis	53,380 sf	\$2.00		\$106,760	
Estimating Contingency (15%)				\$22,638	
Inflation (0%)				\$0	
<b>Total</b>					<b>\$173,558</b>
<b>13) Fire Protection Systems</b>				<b>\$85,125</b>	
Allowance per Gross SF	68,100 sf	\$1.25		\$85,125	
Estimating Contingency (15%)				\$12,769	
Inflation (0%)				\$0	
<b>Total</b>					<b>\$97,894</b>

**SITE DEVELOPMENT**

General Conditions - 10%  
 Contractors Overhead and Profit - 5%  
**TOTAL Site Development:**

**137,750 GSF**      **\$3**

**\$474,019**

\$47,402

\$26,071

**\$547,491****A) Site Preparation & Site Demolition****\$49,690**

Demolition of Existing Armory Bldg.	1 LS	\$250,000	\$250,000	**
Demolition of Metal Storage Bldg.	1 LS	\$50,000	\$50,000	**
Strip & Remove hardscape/parking	33,600 sf	\$0.40	\$13,440	
Strip & remove softscape/top soil	40,000 sf	\$0.25	\$10,000	
Cut/fill grading & Shoring - see foundations			\$0	
Erosion control during construction	75,000 sf	\$0.35	\$26,250	
			\$0	
Estimating Contingency (15%)			\$7,454	
Inflation (0%)			\$0	

**Total****\$57,144****B) Site Paving, Structures & Landscaping****\$262,500**

Vehicular Paving & Curbs (Parking and Drives)	40,500 sf	\$ 5.00	\$202,500	
Pedestrian Paving - sidewalks & featured	3,000 sf	\$ 7.50	\$22,500	
Structures and retaining walls	LS		\$0	
Drainage @ hardscaping	3,000 sf	\$ 1.00	\$3,000	
Lighting @ hardscape and softscape	3,000 sf	\$ 2.00	\$6,000	
Landscape ground cover	2,000 sf	\$ 5.00	\$10,000	
Lawn	0 sf	\$ 2.50	\$0	
Trees	10 ea	\$ 750.00	\$7,500	
Irrigation	2,000 sf	\$ 1.75	\$3,500	
Bollards, trash and other site furnishings	1 ls	\$ 7,500	\$7,500	
Estimating Contingency (15%)			\$39,375	
Inflation (0%)			\$0	

**Total****\$301,875****C) Site Utilities****\$90,000**

Electrical/Telecom, vaults, manholes & trenching	1 ls	\$ 15,000	\$15,000	
New Transformer	1 ls	\$ 15,000	\$15,000	
Gas Service			\$0	
Sewer Service	1 ls	\$ 20,000	\$20,000	
Storm Water	1 ls	\$ 15,000	\$20,000	
Domestic Water, fire, hydrants, FDC, etc.	1 ls	\$ 20,000	\$20,000	
Estimating Contingency (15%)			\$13,500	
Inflation (0%)			\$0	

**Total****\$103,500****D) Special Construction****\$10,000**

Fire Access Road - Gravel	sf		\$0	
Exterior Stand Pipe	1 LS	\$10,000.00	\$10,000	
Estimating Contingency (15%)			\$1,500	
Inflation (0%)			\$0	

**Total****\$11,500****TOTAL DIRECT CONSTRUCTION COST****68,100 GSF****\$67**

Including all site costs

**\$4,579,613**

**PROFESSIONAL SERVICES**

A- Basic A/E Fees (arch., struct, mech., elect.)	\$274,777	
B- On-site Civil Engineering	\$35,000	
C- Landscape Architect	\$40,000	
D- Aquatics Consultant	\$0	
E- Lighting Consultant	\$7,500	
F- Food Service Consultant	\$0	
G- Signage & Graphics	\$0	
H- Geotechnical	\$30,000	
I- Material Testing	\$20,000	
J- Technology / Computers / CATV	\$0	
K- Acoustical	\$0	
L- Abatement Consultant	\$0	
M- Surveys (Site Only)	\$4,000	
N- Resource Delineation	\$5,000	
O- Traffic Impact Study	\$10,000	
P- LEED Certification - Not Included	\$0	
Q- Conditional Use Application & Package	\$20,000	
R- Energy Modeling	\$0	
Estimating Contingency (10%)	\$44,628	
<b>Total</b>		<b>\$490,904</b>

**FURNISHINGS & EQUIPMENT**

A- Equipment & Equipment - Tennis incl. in construction cost	\$7,500	
B- Signage & Graphics/Wayfinding (interior & exterior)	\$2,000	
C- Technology / Computers / CATV/Data	\$0	
C- Phones & Public Address	\$3,000	
E- Food Service	\$2,500	
F- Security System	\$2,500	
Estimating Contingency (10%)	\$1,750	
<b>Total</b>		<b>\$19,250</b>

**OWNER'S COSTS**

A- Plan Check Fee & Buildig Permit (1%)		estimate	\$26,000	
B- Conditional Use Application & Fees	TBD	estimate	\$5,000	
C- Design Review Application/Review Fee			\$5,000	
D- Owner Construction Contingency (3%)			\$137,388	
E- Insurance ( Property / Vand'l / Fire)			\$0	
F- Move-in Costs			\$0	
G- SDC (Systems Development Charges - City)				
Water Meter Connection			\$16,515	
Sanitary Sewer - based on 2" water			\$15,056	
Surface Water Management			\$4,823	
Transportation			\$16,000	
Parks and Recreation			\$4,809	
G- Misc. Grading, Utility, Erosion Control, etc.			\$5,000	
Delineation of RP or RC Zone Permit Fee			\$1,000	
H- Legal Fees			\$0	
I- Legal Advertisements			\$0	
J- Reimbursable Expenses (5.0% of Line 5)			\$0	
K- Miscellaneous (Renderings, Final Models, etc.)		allowance	\$5,000	
Estimating Contingency (10%)			\$24,159	
<b>Total</b>				<b>\$265,751</b>

<b>TOTAL SOFT COSTS:</b>	<b>\$775,905</b>
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<b>Cost of Land Purchase:</b>	<b>\$500,000</b>
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<b>TOTAL ESTIMATED PROJECT COSTS</b>	<b>\$5,855,518</b>
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<b>Soft Cost Percent of Direct Construction:</b>	<b>16.9%</b>
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ESTIMATED BID DATE: Fall 2011

INFLATION FROM: estimated in today's dollars

# Rassekh - Design Option "A"

Brian C Jackson, Architect LLC

## Full Program / Preferred Design

DATE: 08/24/2010

Lake Oswego - Tennis Center Feasibility Study  
Rassekh Site

	area	cost per sf	Total
<b>TENNIS CENTER</b>			<b>\$3,409,434</b>
General Conditions - 10%			\$340,943
Contractors Overhead and Profit - 5%			\$187,519
<b>TOTAL Tennis Center:</b>	<b>72,500 GSF</b>	<b>\$54</b>	<b>\$3,937,896</b>
<b>1) Foundations</b>			<b>\$235,100</b>
Excavation - cut/fill	1 LS	\$20,000	\$20,000
Retaining wall drainage system	LS		\$0
Typ. Footings/gross floor area - 1st flr.	63,700 sf	\$3.00	\$191,100
Stem wall at lower grade	2,000 sf	\$12.00	\$24,000
Estimating Contingency (15%)			\$35,265
Inflation (0%)			\$0
<b>Total</b>			<b>\$270,365</b>
<b>2) Vertical Structure</b>			<b>\$1,396,400</b>
Tennis Courts - All inclusive steel butler structure	1 LS	\$1,350,000	\$1,350,000
Allow @ Support area wood framed	11,600 sf	\$4.00	\$46,400
Estimating Contingency (15%)			\$209,460
Inflation (0%)			\$0
<b>Total</b>			<b>\$1,605,860</b>
<b>3) Floor and Roof Structure</b>			<b>\$399,325</b>
Slab on Grade - Support area	10,900 sf	\$6.50	\$70,850
Asphalt floor at tennis courts	52,800 sf	\$3.00	\$158,400
Plexi-pave court surfacing	52,800 sf	\$1.00	\$52,800
Subslab Drainage & Membrane	sf		\$0
Suspended floor - wood framing gyp topping	10,900 sf	\$5.00	\$54,500
Tennis Court roof framing - incl. in stl. Struct.			\$0
Tennis Court roof decking - incl. in stl. struct.			\$0
Support program roof structure - framing & Deck	10,900 sf	\$3.50	\$38,150
Exterior Decks and terraces	LS		\$0
Misc. metals @ support	19,700 sf	\$1.25	\$24,625
Estimating Contingency (15%)			\$59,899
Inflation (0%)			\$0
<b>Total</b>			<b>\$459,224</b>
<b>4) Exterior Cladding</b>			<b>\$257,125</b>
Exterior wall - Tennis court incl. in stl. structure			\$0
Exterior wall - architectural upgrade	4,000	\$15	\$60,000
Exterior wall - architectural at support area	3,500 sf	\$25.00	\$87,500
Exterior Glazing	1,800 sf	\$45.00	\$81,000
Entry/Egress Doors, frames and hardware	1 LS	\$15,000.00	\$15,000
Fascia, bands and screens	10,900 sf	\$0.50	\$5,450
Soffits - trim & paint	10,900 sf	\$0.75	\$8,175
Estimating Contingency (15%)			\$38,569
Inflation (0%)			\$0
<b>Total</b>			<b>\$295,694</b>
<b>5) Roofing, Waterproofing &amp; Skylights</b>			<b>\$73,575</b>
Mtl. roof & insul. @ tennis-included in stl. Struct.			\$0
Membrane Roofing & Insulation at support space	10,900 sf	\$6.00	\$65,400
Caulking, sealants and firestopping	10,900 sf	\$0.75	\$8,175
Estimating Contingency (15%)			\$11,036
Inflation (0%)			\$0
<b>Total</b>			<b>\$84,611</b>

<b>6) Interior Partitions, Doors &amp; Glazing</b>				<b>\$41,850</b>	
Allowance for Interior Glazing at Viewing	1,600 sf	\$20		\$32,000	
Allowance per Gross SF @ support	19,700 sf	\$0.50		\$9,850	
Estimating Contingency (15%)				\$6,278	
Inflation (0%)				\$0	
<b>Total</b>					<b>\$48,128</b>
<b>7) Floor, Wall &amp; Ceiling Finishes</b>				<b>\$14,775</b>	
Allowance per Gross SF @ support	19,700 sf	\$0.75		\$14,775	
Estimating Contingency (15%)				\$2,216	
Inflation (0%)				\$0	
<b>Total</b>					<b>\$16,991</b>
<b>8) Function Equipment &amp; Specialties</b>				<b>\$105,600</b>	
Wall Pads, curtains, nets, and dividers	52,800 sf	\$2.00		\$105,600	
Estimating Contingency (15%)				\$15,840	
Inflation (0%)				\$0	
<b>Total</b>					<b>\$121,440</b>
<b>9) Stairs &amp; Vertical Transportation</b>				<b>\$95,000</b>	
Exit & Convenience Stairs	2 LS	\$15,000.00		\$30,000	
Elevator - 2 stops	1 LS	\$65,000.00		\$65,000	
Estimating Contingency (15%)				\$14,250	
Inflation (0%)				\$0	
<b>Total</b>					<b>\$109,250</b>
<b>10) Plumbing Systems</b>				<b>\$14,775</b>	
Allowance per Gross SF @ Support	19,700 sf	\$0.75		\$14,775	
Estimating Contingency (15%)				\$2,216	
Inflation (0%)				\$0	
<b>Total</b>					<b>\$16,991</b>
<b>11) Heating, Ventilation &amp; Air Conditioning</b>				<b>\$92,200</b>	
Allowance per Gross SF @ Support	19,700 sf	\$2.00		\$39,400	
Allowance per Gross SF @ Tennis	52,800 sf	\$1.00		\$52,800	
Estimating Contingency (15%)				\$13,830	
Inflation (0%)				\$0	
<b>Total</b>					<b>\$106,030</b>
<b>12) Electrical - Lighting, Power &amp; Communications</b>				<b>\$151,500</b>	
Allowance per Gross SF @ Support	19,700 sf	\$3.00		\$59,100	
Allowance per Gross SF @ Tennis	52,800 sf	\$1.75		\$92,400	
Estimating Contingency (15%)				\$22,725	
Inflation (0%)				\$0	
<b>Total</b>					<b>\$174,225</b>
<b>13) Fire Protection Systems</b>				<b>\$87,500</b>	
Allowance per Gross SF	70,000 sf	\$1.25		\$87,500	
Estimating Contingency (15%)				\$13,125	
Inflation (0%)				\$0	
<b>Total</b>					<b>\$100,625</b>

**SITE DEVELOPMENT**

General Conditions - 10%  
 Contractors Overhead and Profit - 5%  
**TOTAL Site Development:**

**210,000 GSF**      **\$5**

**\$961,975**

\$96,198

\$52,909

**\$1,111,081**

**A) Site Preparation & Site Demolition****\$154,000**

Strip & Remove hardscape/parking			\$0
Strip & remove softscape/top soil	140,000 sf	\$0.25	\$35,000
Cut/fill grading & Shoring - see foundations	70,000 sf	\$1.00	\$70,000
Erosion control during construction	140,000 sf	\$0.35	\$49,000
			\$0
Estimating Contingency (15%)			\$23,100
Inflation (0%)			\$0

**Total****\$177,100****B) Site Paving, Structures & Landscaping****\$377,500**

Vehicular Paving & Curbs (Parking and Drives)	42,000 sf	\$ 5.00	\$210,000
Pedestrian Paving - sidewalks & featured	5,000 sf	\$ 7.50	\$37,500
Structures and retaining walls	1 LS	\$ 10,000.00	\$10,000
Drainage @ hardscaping	5,000 sf	\$ 1.00	\$5,000
Lighting @ hardscape and softscape	5,000 sf	\$ 5.00	\$25,000
Landscape ground cover	10,000 sf	\$ 5.00	\$50,000
Lawn	0 sf	\$ 2.50	\$0
Trees	20 ea	\$ 750.00	\$15,000
Irrigation	10,000 sf	\$ 1.75	\$17,500
Bollards, trash and other site furnishings	1 ls	\$ 7,500	\$7,500
Estimating Contingency (15%)			\$56,625
Inflation (0%)			\$0

**Total****\$434,125****C) Site Utilities****\$245,000**

Electrical/Telecom, vaults, manholes & trenching	1 ls	\$ 25,000	\$25,000
New Transformer	1 ls	\$ 15,000	\$15,000
Gas Service			\$0
Construction of Sewer to Lift Station	1 ls	\$ 100,000	\$100,000 **
Sewer Connection Fee (see owner costs)	1 ls		\$0 **
Storm Water	1 ls	\$ 60,000	\$60,000
Domestic Water, fire, hydrants, FDC, etc.	1 ls	\$ 45,000	\$45,000
Estimating Contingency (15%)			\$36,750
Inflation (0%)			\$0

**Total****\$281,750****D) Special Construction****\$60,000**

Atherton Frontage Improvements	1 ls	\$50,000	\$50,000
Fire Access Road - Gravel	4,000 sf	\$5.00	\$20,000
Fire Access - Grasscrete	4,000 sf	\$10.00	\$40,000
Estimating Contingency (15%)			\$9,000
Inflation (0%)			\$0

**Total****\$69,000**

<b>TOTAL DIRECT CONSTRUCTION COST</b>	<b>72,500 GSF</b>	<b>\$69</b>	<b>Including all site costs</b>	<b>\$5,048,977</b>
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**PROFESSIONAL SERVICES**

A- Basic A/E Fees (arch., struct, mech., elect.)		\$302,939
B- On-site Civil Engineering		\$35,000
C- Landscape Architect		\$40,000
D- Aquatics Consultant		\$0
E- Lighting Consultant		\$7,500
F- Food Service Consultant		\$0
G- Signage & Graphics		\$0
H- Geotechnical		\$30,000
I- Material Testing		\$20,000
J- Technology / Computers / CATV		\$0
K- Acoustical		\$0
L- Abatement Consultant		\$0
M- Surveys (Site Only)		\$4,000
N- Resource Delineation & Report	estimated	\$5,000
O- Traffic Impact Study	estimated	\$10,000
P- LEED Certification - Not Included		\$0
Q- Conditional Use Application & Package		\$20,000
R- Energy Modeling		\$0
Estimating Contingency (10%)		\$47,444
<b>Total</b>		<b>\$521,882</b>

**FURNISHINGS & EQUIPMENT**

A- Equipment & Equipment - Tennis incl. in construction cost		\$7,500
B- Signage & Graphics/Wayfinding (interior & exterior)		\$2,000
C- Technology / Computers / CATV/Data		\$0
C- Phones & Public Address		\$3,000
E- Food Service		\$2,500
F- Security System		\$2,500
Estimating Contingency (10%)		\$1,750
<b>Total</b>		<b>\$19,250</b>

**OWNER'S COSTS**

A- Plan Check Fee & Buildig Permit		estimate	\$26,000
B- Conditional Use Application/Review Fee	TBD	estimate	\$5,000
C- Design review Application/Review Fee			\$5,000
D- Owner Construction Contingency (3%)			\$151,469
E- Insurance ( Property / Vand'l / Fire)			\$0
F- Move-in Costs			\$0
G- SDC (Systems Development Charges - City)			
Water Meter Connection	2-inch		\$16,515
Sanitary Sewer - based on 2-inch water service			\$15,056
Surface Water Management (storm)			\$4,823
Transportation (\$2,000 X 8 courts estimated)			\$16,000
Parks and Recreation	7	\$687	\$4,809
H- Sewer Connection to Lift Station - developer charge			\$82,840
I- Misc. Grading, Utility, Erosion Control, etc. - Permit Fees			\$5,000
J- Delineation of RP or RC Zone Permit Review Fee			\$1,000
K- Legal Fees			\$0
L- Legal Advertisements			\$0
M- Reimbursable Expenses (5.0% of Line 5)			\$0
N- Miscellaneous (Renderings, Final Models, etc.)		allowance	\$5,000
Estimating Contingency (10%)			\$33,851
<b>Total</b>			<b>\$372,364</b>

<b>TOTAL SOFT COSTS:</b>	<b>\$913,496</b>
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<b>TOTAL ESTIMATED PROJECT COSTS</b>	<b>\$5,962,473</b>
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<b>Soft Cost Percent of Direct Construction:</b>	<b>18.1%</b>
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ESTIMATED BID DATE: Fall 2011

INFLATION FROM: estimated in today's dollars

# Rassekh - Design Option "C"

Brian C Jackson, Architect LLC

## Base Program & Design

DATE: 08/24/2010

Lake Oswego - Tennis Center Feasibility Study  
Rassekh Site

	area	cost per sf	Total	
<b>TENNIS CENTER</b>				<b>\$2,584,481</b>
General Conditions - 10%				\$258,448
Contractors Overhead and Profit - 5%				\$142,146
<b>TOTAL Tennis Center:</b>	<b>73,290 GSF</b>	<b>\$40</b>		<b>\$2,985,076</b>
<b>1) Foundations</b>				<b>\$166,580</b>
Excavation - cut/fill & Fine Grading	1 LS	\$20,000	\$20,000	
Retaining wall drainage system	LS		\$0	
Typ. Footings/gross floor area - 1st flr.	73,290 sf	\$2.00	\$146,580	
Stem wall at lower grade			\$0	
Estimating Contingency (15%)			\$24,987	
Inflation (0%)			\$0	
<b>Total</b>				<b>\$191,567</b>
<b>2) Vertical Structure</b>				<b>\$930,964</b>
Tennis Courts - All inclusive steel butler structure	1 LS	\$900,000	\$900,000	
Allow @ Support area wood framed	7,741 sf	\$4.00	\$30,964	
Estimating Contingency (15%)			\$139,645	
Inflation (0%)			\$0	
<b>Total</b>				<b>\$1,070,609</b>
<b>3) Floor and Roof Structure</b>				<b>\$387,900</b>
Slab on Grade - Support area	15,790 sf	\$6.50	\$102,635	
Asphalt floor at tennis courts	57,500 sf	\$3.00	\$172,500	
Plexi-pave court surfacing	57,500 sf	\$1.00	\$57,500	
Subslab Drainage & Membrane	sf		\$0	
Suspended floor - wood framing gyp topping	sf		\$0	
Tennis Court roof framing - incl. in stl. Struct.			\$0	
Tennis Court roof decking - incl. in stl. struct.			\$0	
Support program roof structure - framing & Deck	15,790 sf	\$3.50	\$55,265	
Exterior Decks and terraces	LS		\$0	
Misc. metals @ support	sf		\$0	
Estimating Contingency (15%)			\$58,185	
Inflation (0%)			\$0	
<b>Total</b>				<b>\$446,085</b>
<b>4) Exterior Cladding</b>				<b>\$260,750</b>
Exterior wall - Tennis court incl. in stl. structure			\$0	
Exterior wall - architectural upgrade	4,000	\$10	\$40,000	
Exterior wall - architectural at support area	3,400 sf	\$25.00	\$85,000	
Exterior Glazing	1,600 sf	\$45.00	\$72,000	
Exterior roll-up doors	8 ea	\$5,000.00	\$40,000	
Entry/Egress Doors, frames and hardware	1 LS	\$15,000.00	\$15,000	
Fascia, bands and screens	7,000 sf	\$0.50	\$3,500	
Soffits - trim & paint	7,000 sf	\$0.75	\$5,250	
Estimating Contingency (15%)			\$39,113	
Inflation (0%)			\$0	
<b>Total</b>				<b>\$299,863</b>
<b>5) Roofing, Waterproofing &amp; Skylights</b>				<b>\$99,990</b>
Mtl. roof & insul. @ tennis-included in stl. Struct.			\$0	
Membrane Roofing & Insulation at support space	15,790 sf	\$6.00	\$94,740	
Caulking, sealants and firestopping	7,000 sf	\$0.75	\$5,250	
Estimating Contingency (15%)			\$14,999	
Inflation (0%)			\$0	
<b>Total</b>				<b>\$114,989</b>
<b>6) Interior Partitions, Doors &amp; Glazing</b>				<b>\$3,208</b>

Allowance for Interior Glazing at Viewing	sf		\$0	
Allowance per Gross SF @ support	6,415 sf	\$0.50	\$3,208	
Estimating Contingency (15%)			\$481	
Inflation (0%)			\$0	
<b>Total</b>				<b>\$3,689</b>
<b>7) Floor, Wall &amp; Ceiling Finishes</b>			<b>\$4,811</b>	
Allowance per Gross SF @ support	6,415 sf	\$0.75	\$4,811	
Estimating Contingency (15%)			\$722	
Inflation (0%)			\$0	
<b>Total</b>				<b>\$5,533</b>
<b>8) Function Equipment &amp; Specialties</b>			<b>\$100,798</b>	
Wall Pads, curtains, nets, and dividers	57,599 sf	\$1.75	\$100,798	
Estimating Contingency (15%)			\$15,120	
Inflation (0%)			\$0	
<b>Total</b>				<b>\$115,918</b>
<b>9) Stairs &amp; Vertical Transportation</b>			<b>\$0</b>	
Exit & Convenience Stairs	LS		\$0	
Elevator - 2 stops	LS		\$0	
Estimating Contingency (15%)			\$0	
Inflation (0%)			\$0	
<b>Total</b>				<b>\$0</b>
<b>10) Plumbing Systems</b>			<b>\$4,811</b>	
Allowance per Gross SF @ Support	6,415 sf	\$0.75	\$4,811	
Estimating Contingency (15%)			\$722	
Inflation (0%)			\$0	
<b>Total</b>				<b>\$5,533</b>
<b>11) Heating, Ventilation &amp; Air Conditioning</b>			<b>\$61,993</b>	
Allowance per Gross SF @ Support	6,415 sf	\$2.00	\$12,830	
Allowance per Gross SF @ Tennis	65,550 sf	\$0.75	\$49,163	
Estimating Contingency (15%)			\$9,299	
Inflation (0%)			\$0	
<b>Total</b>				<b>\$71,291</b>
<b>12) Electrical - Lighting, Power &amp; Communications</b>			<b>\$133,958</b>	
Allowance per Gross SF @ Support	6,415 sf	\$3.00	\$19,245	
Allowance per Gross SF @ Viewing	8,050 sf	\$1.75	\$14,088	
Allowance per Gross SF @ Tennis	57,500 sf	\$1.75	\$100,625	
Estimating Contingency (15%)			\$20,094	
Inflation (0%)			\$0	
<b>Total</b>				<b>\$154,051</b>
<b>13) Fire Protection Systems</b>			<b>\$91,613</b>	
Allowance per Gross SF	73,290 sf	\$1.25	\$91,613	
Estimating Contingency (15%)			\$13,742	
Inflation (0%)			\$0	
<b>Total</b>				<b>\$105,354</b>

**SITE DEVELOPMENT**

General Conditions - 10%  
 Contractors Overhead and Profit - 5%  
**TOTAL Site Development:**

**210,000 GSF**      **\$5**

<b>\$920,575</b>
\$92,058
\$50,632
<b>\$1,063,264</b>

**A) Site Preparation & Site Demolition****\$148,000**

Strip & Remove hardscape/parking			\$0
Strip & remove softscape/top soil	130,000 sf	\$0.25	\$32,500
Cut/fill grading & Shoring - see foundations	70,000 sf	\$1.00	\$70,000
Erosion control during construction	130,000 sf	\$0.35	\$45,500
Estimating Contingency (15%)			\$22,200
Inflation (0%)			\$0

**Total****\$170,200****B) Site Paving, Structures & Landscaping****\$367,500**

Vehicular Paving & Curbs (Parking and Drives)	42,000 sf	\$ 5.00	\$210,000
Pedestrian Paving - sidewalks & featured	5,000 sf	\$ 7.50	\$37,500
Structures and retaining walls	1 LS	\$ 10,000	\$10,000
Drainage @ hardscaping	5,000 sf	\$ 1.00	\$5,000
Lighting @ hardscape and softscape	5,000 sf	\$ 5.00	\$25,000
Landscape ground cover	10,000 sf	\$ 4.00	\$40,000
Lawn	0 sf	\$ 2.50	\$0
Trees	20 ea	\$ 750.00	\$15,000
Irrigation	10,000 sf	\$ 1.75	\$17,500
Bollards, trash and other site furnishings	1 ls	\$ 7,500	\$7,500
Estimating Contingency (15%)			\$55,125
Inflation (0%)			\$0

**Total****\$422,625****C) Site Utilities****\$245,000**

Electrical/Telecom, vaults, manholes & trenching	1 ls	\$ 25,000	\$25,000
New Transformer	1 ls	\$ 15,000	\$15,000
Gas Service			\$0
Construction of Sewer to Lift Station	1 ls	\$ 100,000	\$100,000 **
Sewer Connection Fee (see owner costs)	1 ls		\$0 **
Storm Water	1 ls	\$ 60,000	\$60,000
Domestic Water, fire, hydrants, FDC, etc.	1 ls	\$ 45,000	\$45,000
Estimating Contingency (15%)			\$36,750
Inflation (0%)			\$0

**Total****\$281,750****D) Special Construction****\$40,000**

Atherton Frontage Improvements	1 ls	\$50,000	\$50,000
Fire Access Road - Gravel to back of site	4,000 sf	\$5.00	\$20,000
Fire Access - at parking to access point	4,000 sf	\$5.00	\$20,000
Estimating Contingency (15%)			\$6,000
Inflation (0%)			\$0

**Total****\$46,000**

<b>TOTAL DIRECT CONSTRUCTION COST</b>	<b>72,500 GSF</b>	<b>\$55</b>	<b>Including all site costs</b>	<b>\$4,048,340</b>
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**PROFESSIONAL SERVICES**

A- Basic A/E Fees (arch., struct, mech., elect.)		\$242,900
B- On-site Civil Engineering		\$35,000
C- Landscape Architect		\$40,000
D- Aquatics Consultant		\$0
E- Lighting Consultant		\$7,500
F- Food Service Consultant		\$0
G- Signage & Graphics		\$0
H- Geotechnical		\$30,000
I- Material Testing		\$20,000
J- Technology / Computers / CATV		\$0
K- Acoustical		\$0
L- Abatement Consultant		\$0
M- Surveys (Site Only)		\$4,000
N- Resource Delineation & Report	estimated	\$5,000
O- Traffic Impact Study	estimated	\$10,000
P- LEED Certification - Not Included		\$0
Q- Conditional Use Application & Package		\$20,000
R- Energy Modeling		\$0
Estimating Contingency (10%)		\$41,440
<b>Total</b>		<b>\$455,840</b>

**FURNISHINGS & EQUIPMENT**

A- Equipment & Equipment - Tennis incl. in construction cost		\$7,500
B- Signage & Graphics/Wayfinding (interior & exterior)		\$2,000
C- Technology / Computers / CATV/Data		\$0
C- Phones & Public Address		\$3,000
E- Food Service		\$2,500
F- Security System		\$2,500
Estimating Contingency (10%)		\$1,750
<b>Total</b>		<b>\$19,250</b>

**OWNER'S COSTS**

A- Plan Check Fee & Buildig Permit		estimate	\$22,000
B- Conditional Use Application/Review Fee	TBD	estimate	\$5,000
C- Design review Application/Review Fee			\$5,000
D- Owner Construction Contingency (3%)			\$121,450
E- Insurance ( Property / Vand'l / Fire)			\$0
F- Move-in Costs			\$0
G- SDC (Systems Development Charges - City)			
Water Meter Connection	2-inch		\$16,515
Sanitary Sewer - based on 2-inch water service			\$15,056
Surface Water Management (storm)			\$4,823
Transportation (\$2,000 X 8 courts estimated)			\$16,000
Parks and Recreation	7	\$687	\$4,809
H- Sewer Connection to Lift Station - developer charge			\$82,840
I- Misc. Grading, Utility, Erosion Control, etc. - Permit Fees			\$5,000
J- Delineation of RP or RC Zone Permit Review Fee			\$1,000
K- Legal Fees			\$0
L- Legal Advertisements			\$0
M- Reimbursable Expenses (5.0% of Line 5)			\$0
N- Miscellaneous (Renderings, Final Models, etc.)		allowance	\$5,000
Estimating Contingency (10%)			\$30,449
<b>Total</b>			<b>\$334,943</b>

<b>TOTAL SOFT COSTS:</b>	<b>\$810,033</b>
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<b>TOTAL ESTIMATED PROJECT COSTS</b>	<b>\$4,858,373</b>
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<b>Soft Cost Percent of Direct Construction:</b>	<b>20.0%</b>
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ESTIMATED BID DATE: Fall 2011

INFLATION FROM: estimated in today's dollars

# WEB - Design Option "B"

Brian C Jackson, Architect LLC

## Full Program

DATE: 08/24/2010

Lake Oswego - Tennis Center Feasibility Study  
WEB Site

	area	cost per sf	Total
<b>TENNIS CENTER (on-grade)</b>			<b>\$4,112,774</b>
General Conditions - 10%			\$411,277
Contractors Overhead and Profit - 5%			\$226,203
<b>TOTAL Tennis Center:</b>	<b>69,700 GSF</b>	<b>\$68</b>	<b>\$4,750,254</b>
<b>1) Foundations</b>			<b>\$591,740</b>
Excavation - cut/fill & Shoring w/tie-backs	1 LS	\$300,000	\$300,000
Retaining wall drainage system	1 LS	\$20,000	\$20,000
Typ. Footings/gross floor area - 1st flr.	63,700 sf	\$3.00	\$191,100
Foundation at back wall - 340 lf x 6 ft. high	2,040 sf	\$12.00	\$24,480
Foundation at lower court - 140 lf x 12 ft. high	1,680 sf	\$12.00	\$20,160
Internal walls at lower court - 250 lf x 12 ft. high	3,000 sf	\$12.00	\$36,000
Estimating Contingency (15%)			\$88,761
Inflation (0%)			\$0
<b>Total</b>			<b>\$680,501</b>
<b>2) Vertical Structure</b>			<b>\$1,503,300</b>
Tennis Courts - All inclusive steel butler structure	1 LS	\$1,450,000	\$1,450,000
Allow @ Support area wood framed	13,325 sf	\$4.00	\$53,300
Estimating Contingency (15%)			\$225,495
Inflation (0%)			\$0
<b>Total</b>			<b>\$1,728,795</b>
<b>3) Floor and Roof Structure</b>			<b>\$473,104</b>
Slab on Grade - Support area	9,525 sf	\$7.00	\$66,675
Asphalt floor at tennis courts	53,815 sf	\$3.00	\$161,445
Plexi-pave court surfacing	53,815 sf	\$1.00	\$53,815
Subslab Drainage & Membrane	63,700 sf	\$1.50	\$95,550
Suspended floor - wood framing gyp topping	8,025 sf	\$5.00	\$40,125
Tennis Court roof framing - incl. in stl. Struct.			\$0
Tennis Court roof decking - incl. in stl. struct.			\$0
Support program roof structure - framing & Deck	7,325 sf	\$3.50	\$25,638
Exterior Decks and terraces	1 LS	\$10,000.00	\$10,000
Misc. metals	15,885 sf	\$1.25	\$19,856
Estimating Contingency (15%)			\$70,966
Inflation (0%)			\$0
<b>Total</b>			<b>\$544,069</b>
<b>4) Exterior Cladding</b>			<b>\$294,625</b>
Exterior wall - Tennis court incl. in stl. structure			\$0
Exterior Wall - architectural upgrade	2,000 sf	\$12	\$24,000
Exterior wall - architectural at support area	3,500 sf	\$25.00	\$87,500
Exterior Glazing	1,800 sf	\$45.00	\$81,000
Entry/Egress Doors, frames and hardware	1 LS	\$15,000.00	\$15,000
Fascia, bands and screens	69,700 sf	\$0.50	\$34,850
Soffits - trim & paint	69,700 sf	\$0.75	\$52,275
Estimating Contingency (15%)			\$44,194
Inflation (0%)			\$0
<b>Total</b>			<b>\$338,819</b>
<b>5) Roofing, Waterproofing &amp; Skylights</b>			<b>\$96,225</b>
Mtl. roof & insul. @ tennis-included in stl. Struct.			\$0
Membrane Roofing & Insulation at support space	7,325 sf	\$6.00	\$43,950
Caulking, sealants and firestopping	69,700 sf	\$0.75	\$52,275
Estimating Contingency (15%)			\$14,434
Inflation (0%)			\$0
<b>Total</b>			<b>\$110,659</b>

<b>6) Interior Partitions, Doors &amp; Glazing</b>				<b>\$39,943</b>	
Allowance for Interior Glazing at Viewing	1,600 sf	\$20		\$32,000	
Allowance per Gross SF @ Support	15,885 sf	\$0.50		\$7,943	
Estimating Contingency (15%)				\$5,991	
Inflation (0%)				\$0	
<b>Total</b>					<b>\$45,934</b>
<b>7) Floor, Wall &amp; Ceiling Finishes</b>				<b>\$11,914</b>	
Allowance per Gross SF @ Support	15,885 sf	\$0.75		\$11,914	
Estimating Contingency (15%)				\$1,787	
Inflation (0%)				\$0	
<b>Total</b>					<b>\$13,701</b>
<b>8) Function Equipment &amp; Specialties</b>				<b>\$107,630</b>	
Wall Pads, curtains, nets, and dividers	53,815 sf	\$2.00		\$107,630	
Estimating Contingency (15%)				\$16,145	
Inflation (0%)				\$0	
<b>Total</b>					<b>\$123,775</b>
<b>9) Stairs &amp; Vertical Transportation</b>				<b>\$95,000</b>	
Exit & Convenience Stairs	2 LS	\$15,000.00		\$30,000	
Elevator - 2 stops	1 LS	\$65,000.00		\$65,000	
Estimating Contingency (15%)				\$14,250	
Inflation (0%)				\$0	
<b>Total</b>					<b>\$109,250</b>
<b>10) Plumbing Systems</b>				<b>\$34,850</b>	
Allowance per Gross SF @ Support	69,700 sf	\$0.50		\$34,850	
Estimating Contingency (15%)				\$5,228	
Inflation (0%)				\$0	
<b>Total</b>					<b>\$40,078</b>
<b>11) Heating, Ventilation &amp; Air Conditioning</b>				<b>\$85,585</b>	
Allowance per Gross SF @ Support	15,885 sf	\$2.00		\$31,770	
Allowance per Gross SF @ Tennis	53,815 sf	\$1.00		\$53,815	
Estimating Contingency (15%)				\$12,838	
Inflation (0%)				\$0	
<b>Total</b>					<b>\$98,423</b>
<b>12) Electrical - Lighting, Power &amp; Communications</b>				<b>\$155,285</b>	
Allowance per Gross SF @ Support	15,885 sf	\$3.00		\$47,655	
Allowance per Gross SF @ Tennis	53,815 sf	\$2.00		\$107,630	
Estimating Contingency (15%)				\$23,293	
Inflation (0%)				\$0	
<b>Total</b>					<b>\$178,578</b>
<b>13) Fire Protection Systems</b>				<b>\$87,125</b>	
Allowance per Gross SF	69,700 sf	\$1.25		\$87,125	
Estimating Contingency (15%)				\$13,069	
Inflation (0%)				\$0	
<b>Total</b>					<b>\$100,194</b>

**SITE DEVELOPMENT**

General Conditions - 10%  
 Contractors Overhead and Profit - 5%  
**TOTAL Site Development:**

**277,000 GSF**      **\$4**

**\$988,684**

\$98,868

\$54,378

**\$1,141,930****A) Site Preparation & Site Demolition****\$117,225**

Strip & Remove hardscape/parking	114,000 sf	\$0.40	\$45,600
Strip & remove softscape	48,500 sf	\$0.25	\$12,125
Cut/fill grading & Shoring - see foundations			\$0
Erosion control during construction	170,000 sf	\$0.35	\$59,500
Estimating Contingency (15%)			\$17,584
Inflation (0%)			\$0

**Total****\$134,809****B) Site Paving, Structures & Landscaping****\$587,500**

Vehicular Paving & Curbs (Parking and Drives)	97,000 sf	\$ 5.00	\$485,000
Pedestrian Paving - sidewalks & featured	3,000 sf	\$ 7.50	\$22,500
Structures and retaining walls	1 LS	\$ 5,000.00	\$5,000
Drainage @ hardscaping	3,000 sf	\$ 1.00	\$3,000
Lighting @ hardscape and softscape	3,000 sf	\$ 2.00	\$6,000
Landscape ground cover	7,000 sf	\$ 5.00	\$35,000
Lawn	0 sf	\$ 2.50	\$0
Trees	15 ea	\$ 750.00	\$11,250
Irrigation	7,000 sf	\$ 1.75	\$12,250
Bollards, trash and other site furnishings	1 ls	\$ 7,500	\$7,500
Estimating Contingency (15%)			\$88,125
Inflation (0%)			\$0

**Total****\$675,625****C) Site Utilities****\$100,000**

Electrical/Telecom, vaults, manholes & trenching	1 ls	\$ 25,000	\$25,000
New Transformer	1 ls	\$ 15,000	\$15,000
Gas Service			\$0
Sewer	1 ls	\$ 15,000	\$15,000
Storm Water	1 ls	\$ 15,000	\$15,000
Domestic Water, fire, hydrants, FDC, etc.	1 ls	\$ 30,000	\$30,000
Estimating Contingency (15%)			\$15,000
Inflation (0%)			\$0

**Total****\$115,000****D) Special Construction****\$55,000**

Fire Access Road	4,000 sf	\$5.00	\$20,000
Detention pond restoration	1 ls	\$35,000.00	\$35,000
Estimating Contingency (15%)			\$8,250
Inflation (0%)			\$0

**Total****\$63,250****TOTAL DIRECT CONSTRUCTION COST****69,700 GSF****\$84**

Including all site costs

**\$5,892,183**

**PROFESSIONAL SERVICES**

A- Basic A/E Fees (arch., struct, mech., elect.)	\$353,531
B- On-site Civil Engineering	\$35,000
C- Landscape Architect	\$40,000
D- Aquatics Consultant	\$0
E- Lighting Consultant	\$7,500
F- Food Service Consultant	\$0
G- Signage & Graphics	\$0
H- Geotechnical	\$30,000
I- Material Testing	\$20,000
J- Technology / Computers / CATV	\$0
K- Acoustical	\$0
L- Abatement Consultant	\$0
M- Surveys (Site Only)	\$4,000
N- Resource Delineation	\$0
O- Traffic Impact Study	\$10,000
P- LEED Certification - Not Included	\$0
Q- Conditional Use Application & Package	\$20,000
R- Energy Modeling	\$0
Estimating Contingency (10%)	\$52,003

**Total****\$572,034****FURNISHINGS & EQUIPMENT**

A- Equipment & Equipment - Tennis incl. in construction cost	\$7,500
B- Signage & Graphics/Wayfinding (interior & exterior)	\$2,000
C- Technology / Computers / CATV/Data	\$0
C- Phones & Public Address	\$3,000
E- Food Service	\$2,500
F- Security System	\$2,500
Estimating Contingency (10%)	\$1,750

**Total****\$19,250****OWNER'S COSTS**

A- Plan Check Fee & Buildig Permit (1%)		estimate	\$26,000
B- Conditional Use Application & Fees	TBD	estimate	\$5,000
C- Design Review Application/Review Fee			\$5,000
D- Owner Construction Contingency (3%)			\$176,766
E- Insurance ( Property / Vand'l / Fire)			\$0
F- Move-in Costs			\$0
G- SDC (Systems Development Charges - City)			
Water Meter Connection			\$16,515
Sanitary Sewer - based on 2" water			\$15,056
Surface Water Management			\$4,823
Transportation			\$16,000
Parks and recreation			\$4,809
H- Misc. Grading, Utility, Erosion Control			\$5,000
I- Delineation of RP or RC Zone permit fee			\$1,000
J- Legal Fees			\$0
K- Legal Advertisements			\$0
L- Reimbursable Expenses (5.0% of Line 5)			\$0
M- Miscellaneous (Renderings, Final Models, etc.)		allowance	\$5,000
Estimating Contingency (10%)			\$28,097

**Total****\$309,065****TOTAL SOFT COSTS:****\$900,349****TOTAL ESTIMATED PROJECT COSTS****\$6,792,533****Soft Cost Percent of Direct Construction:****15.3%**

ESTIMATED BID DATE: Fall 2011

INFLATION FROM: estimated in today's dollars