

opsis

# CITY OF KIRKLAND RECREATION & AQUATICS CENTERS FEASIBILITY STUDY

APPENDIX | MARCH 31, 2023







**CONCEPT DESIGN GRAPHIC MATERIALS** FEASIBILITY STUDY COST PLAN (COST ESTIMATE) **MARKET ASSESSMENT OPERATIONAL PLAN HOUGHTON PARK & RIDE OPERATIONAL PLAN NORTH KIRKLAND COMMUNITY CENTER PARK CIVIL SITE ASSESSMENT PRELIMINARY GEOTECHNICAL FINDINGS** PRELIMINARY ENVIRONMENTAL REVIEW **TRAFFIC & PARKING REPORT** 



- 1. Entry Lobby
- 10. Lap Pool (8 la
- 2. Multicultural Center
- 3. Administrative Offices
- 4. Elevator
- 5. Reception
- 6. Lounge/Social Space
- 7. Child Watch
- 8. Party Room
- 9. Courtyard

- 10. Lap Pool (8 lane 25 meter)
- 11. Recreation Pool
- 12. Spa (12-person)
  - 13. Pool Storage
  - 14. Pool Operations
  - 15. Locker & Universal Changing Rooms
  - 16. Pool Mechanical
- 17. Fitness Room
- 18. Maintenance







- 1. Open to Below
- 2. Arts / Crafts Studio
- 3. Makerspace
- 4. Elevator
- 5. Multi-purpose Exercise / Activity Room
- 6. Lounge / Social Space
- 7. Multi-purpose Gym







- 1. Open to Below
- 2. Stage / Classroom
- 3. Community / Event Room(s)
- 4. Elevator
- 5. Commercial / Catering Kitchen
- 6. Lounge / Social Space
- 7. Storage
- 8. Roof Terrace
- 9. Mechanical
- 10. Walk / Jog Track



BUILDING SUPPORT

COMMUNITY SPACES

RECREATION SPACES

0 5 10 20





**Recreation & Aquatic Feasibility Study** City of Kirkland



### **HOUGHTON RECREATION & AQUATICS CENTER**

**OPTION A** 



**Recreation & Aquatic Feasibility Study** City of Kirkland



### HOUGHTON RECREATION & AQUATICS CENTER OPTION A



**Recreation & Aquatic Feasibility Study** City of Kirkland





1. Entry Lobby

- 2. Multicultural Center
- 3. Administrative Offices
- 4. Elevator
- 5. Reception
- 6. Lounge/Social Space
- 7. Child Watch
- 8. Party Room
- 9. Courtyard

- 10. Lap Pool (8 lane 25 meter)
- 11. Recreation Pool
- 12. Spa (12-person)
- 13. Pool Storage
- 14. Pool Operations
- 15. Locker & Universal Changing Rooms
- 16. Pool Mechanical
- 17. Fitness Room
- 18. Maintenance







- 1. Open to Below
- 2. Arts / Crafts Studio
- 3. Makerspace
- 4. Elevator
- 5. Multi-purpose Exercise / Activity Room
- 6. Lounge / Social Space
- 7. Multi-purpose Gym





BUILDING SUPPORT



RECREATION SPACES

0 5 10 20



**Recreation & Aquatic Feasibility Study** City of Kirkland



### HOUGHTON PARK & RIDE RECREATION & AQUATICS CENTER OPTION B



**Recreation & Aquatic Feasibility Study** City of Kirkland





BUILDING SUPPORT

- 1. Entry Lobby
- 2. Reception
- 3. Administrative Offices
- 4. Elevator
- 5. Child Watch
- 6. Mechanical
- 7. Lounge / Social Space
- 8. Open to Below
- 9. Arts / Crafts Studio
- 10. Multicultural Center
- 11. Roof Terrace
- 12. Multi-purpose Classroom

- 13. Teen Lounge
- 14. Game Room
- 15. Music Room
- 16. Commercial / Catering Kitchen
- 17. Storage
- 18. Community / Event Room(s)
- 19. Stage / Classroom
- 20. Senior Lounge
- 21. Walk / Jog Track



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6

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21

### Recreation & Aquatic Feasibility Study

City of Kirkland



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AQUATIC SPACES

COMMUNITY SPACES

FACILITY ADMINISTRATION

- 1. Multi-puporse Gym
- 2. Pool Mechanical
- 3. Locker & Universal Changing Rooms
- 4. Elevator
- 5. Aquatics Operation
- 6. Recreation Pool
- 7. Party / Meeting Room
- 8. Multi-purpose Exercise Activity Room
- 9. Lounge / Social Space
- 10. Fitness Room



### **Recreation & Aquatic Feasibility Study**



### NORTH KIRKLAND COMMUNITY CENTER & PARK OPTION A



**Recreation & Aquatic Feasibility Study** City of Kirkland



# NORTH KIRKLAND COMMUNITY CENTER & PARK

OPTION A



**Recreation & Aquatic Feasibility Study** City of Kirkland





0 5.5 11 22

### **Recreation & Aquatic Feasibility Study**





### RECREATION SPACES

COMMUNITY SPACES

BUILDING SUPPORT

- 1. Multi-purpose Gym
- 2. Lounge / Social Space
- 3. Fitness Room
- 4. Locker & Universal Changing Rooms
- 5. Multi-purpose Exercise Activity Room
- 6. Child Watch
- 7. Elevator
- 8. Mechanical



### **Recreation & Aquatic Feasibility Study**



### NORTH KIRKLAND COMMUNITY CENTER & PARK OPTION B1



**Recreation & Aquatic Feasibility Study** City of Kirkland



### NORTH KIRKLAND COMMUNITY CENTER & PARK

**OPTION B1** 



**Recreation & Aquatic Feasibility Study** City of Kirkland





- 13. Community / Event Room(s)
- 14. Stage / Classroom

0 5.5 11 22

### **Recreation & Aquatic Feasibility Study**





RECREATION SPACES

AQUATIC SPACES

COMMUNITY SPACES

FACILITY ADMINISTRATION

- 1. Recreation Pool
- 2. Lounge / Social Space
- 3. Aquatic Operation
- 4. Fitness Room
- 5. Multi-puropose Exercise / Activity Room
- 6. Child Watch
- 7. Mechanical
- 8. Pool Mechanical
- 9. Elevator
- 10. Locker & Universal Changing Rooms



### **Recreation & Aquatic Feasibility Study**







Feasibility Study Cost Plan



Chris Roberts Opsis Architecture 920 NW 17th Ave Portland, OR 97209

Prepared by:



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### Contents

Overall Summary	4
Scope of Work	5
Basis of Estimate	6
Houghton Park & Ride	
Houghton (Building) - Option 1	7
Houghton (Sitework) - Option 1	17
Houghton (Building) - Option 2	21
Houghton (Sitework) - Option 2	31
North Kirkland Community Center & Park	
North Kirkland (Building) - Option 1	35
North Kirkland (Sitework) - Option 1	45
North Kirkland (Building) - Option 2	49
North Kirkland (Sitework) - Option 2	59
Alternates	63

SF     \$/SF     TOTAL       Houghton Park & Ride	Overall Summary			
Houghton Park & Ride       Houghton (Building) - Option 1     109,705     798.55     87,605,079       Houghton (Sitework) - Option 1     226,601     62.71     14,209,651       TOTAL OPTION 1 CONSTRUCTION COST     101,814,731     101,814,731       Houghton (Building) - Option 2     91,463     824.51     75,412,207       Houghton (Sitework) - Option 2     226,601     33.85     7,670,000       TOTAL OPTION 2 CONSTRUCTION COST     83,082,207		SF	\$/SF	TOTAL
Houghton Park & Ride       Houghton (Building) - Option 1     109,705     798.55     87,605,079       Houghton (Sitework) - Option 1     226,601     62.71     14,209,651       TOTAL OPTION 1 CONSTRUCTION COST     101,814,731       Houghton (Building) - Option 2     91,463     824.51     75,412,207       Houghton (Sitework) - Option 2     226,601     33.85     7,670,000       TOTAL OPTION 2 CONSTRUCTION COST     83,082,207       North Kirkland Community Center & Park     824.51     75,412,207       North Kirkland (Building) - Option 1     78,700     772.41     60,788,391       North Kirkland (Sitework) - Option 1     187,854     119.80     22,504,592       TOTAL OPTION 1 CONSTRUCTION COST     83,292,983     33,292,983       North Kirkland (Building) - Option 2     51,712     793.57     41,037,315       North Kirkland (Building) - Option 2     51,712     793.57     41,037,315       North Kirkland (Sitework) - Option 2     187,854     120.65     22,664,355       TOTAL OPTION 2 CONSTRUCTION COST     63,701,669     43,701,669				
Houghton (Building) - Option 1   109,705   798.55   87,605,079     Houghton (Sitework) - Option 1   226,601   62.71   14,209,651     TOTAL OPTION 1 CONSTRUCTION COST   101,814,731     Houghton (Building) - Option 2   91,463   824.51   75,412,207     Houghton (Sitework) - Option 2   226,601   33.85   7,670,000     TOTAL OPTION 2 CONSTRUCTION COST   83,082,207     North Kirkland Community Center & Park   83,082,207     North Kirkland (Building) - Option 1   78,700   772.41   60,788,391     North Kirkland (Sitework) - Option 1   187,854   119.80   22,504,592     TOTAL OPTION 1 CONSTRUCTION COST   83,292,983     North Kirkland (Building) - Option 1   187,854   119.80   22,504,592     TOTAL OPTION 1 CONSTRUCTION COST   83,292,983     North Kirkland (Building) - Option 2   51,712   793.57   41,037,315     North Kirkland (Sitework) - Option 2   187,854   120.65   22,664,355     TOTAL OPTION 2 CONSTRUCTION COST   63,701,669	Houghton Park & Ride			
Houghton (Sitework) - Option 1   226,601   62.71   14,209,651     TOTAL OPTION 1 CONSTRUCTION COST   101,814,731     Houghton (Building) - Option 2   91,463   824.51   75,412,207     Houghton (Sitework) - Option 2   226,601   33.85   7,670,000     TOTAL OPTION 2 CONSTRUCTION COST   83,082,207     North Kirkland Community Center & Park   83,082,207     North Kirkland (Building) - Option 1   78,700   772.41   60,788,391     North Kirkland (Sitework) - Option 1   187,854   119.80   22,504,592     TOTAL OPTION 1 CONSTRUCTION COST   83,292,983     North Kirkland (Building) - Option 2   51,712   793.57   41,037,315     North Kirkland (Sitework) - Option 2   187,854   120.65   22,664,355     TOTAL OPTION 2 CONSTRUCTION COST   63,701,669	Houghton (Building) - Option 1	109,705	798.55	87,605,079
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North Kirkland (Sitework) - Option 2     187,854     120.65     22,664,355       TOTAL OPTION 2 CONSTRUCTION COST     63,701,669	North Kirkland (Building) - Option 2	51,712	793.57	41,037,315
TOTAL OPTION 2 CONSTRUCTION COST63,701,669	North Kirkland (Sitework) - Option 2	187,854	120.65	22,664,355
	TOTAL OPTION 2 CONSTRUCTION COST			63,701,669

# ALTERNATESAlt 1: Houghton Option 1 - Steel Structure in lieu of Mass Timber2,625,553Alt 2: Houghton Option 2 - Steel Structure in lieu of Mass Timber2,173,875Alt 3: North Kirkland Option 1 - Steel Structure in lieu of Mass Timber1,841,728Alt 4: North Kirkland Option 2 - Steel Structure in lieu of Mass Timber1,242,559Alt 5: North Kirkland Option 2 - Pool in lieu of Basketball Court3,330,114

### Scope of Work

### Project Scope Description

The project comprises cost planning for the Kirkland Recreation & Aquatics feasibility study. The scope of work consists of two possible designs each at two locations for a total of four options under review. The first location is Houghton Park & Ride located southeast of the intersection of NE 70th Pl and 116th Ave NE, immediately adjacent to I-405. The second location is North Kirkland Community Center & Park located north of NE 124th St at 103rd Ave NE.

The nominal program size ranges from 45,000 to 110,000 SF. All concepts include a gymnasium, cardio/weights and multi-purpose fitness & community/cultural spaces with associated support/admin spaces. A variety of aquatics spaces are represented across all options. Refer to the facility program spaces slides for additional specificity.

Site improvements consist primarily of revised/new parking, drive aisles and landscaping (TBD). Existing mature trees will be preserved when possible if outside of the building footprint. Electrical, telecom, water, sewer and storm services are assumed to be available at the nearest right-of-way.

### Project Design Documents

The cost report is based on the following documents including supplemental information:

- Kirkland Narrative, dated 12.9.22
- Cost Estimate Package\_r, dated 12.9.22

#### Procurement

It is anticipated that the project will be delivered by traditional low bid procurement with a minimum of 4 qualified General Contractors for competitive market pricing. The start date is anticipated for: Q1 2024.

### Basis of Estimate

### Assumptions and Clarifications

This estimate is based on the following assumptions and clarifications:

- 1 Hazardous materials abatement is NOT included.
- 2 The majority of work will be performed during typical daytime hours.
- 3 Project locations will be made unoccupied during construction.
- 4 Excludes jurisdiction fees and Owner's contingency.
- 5 Corporate Tax is included.
- 6 Excludes any ROW work. TBD.

Hou	ghton (Building) - Option 1 Summary				
				\$/SF	TOTAL
			Gross Area:	109,705 SF	
A10	Foundations		2%	14.33	1,572,608
А	Substructure		2%	14.33	1,572,608
B10	Superstructure		11%	83.96	9,211,342
B20	Exterior Enclosure		7%	54.33	5,959,829
B30	Roofing		3%	26.04	2,857,214
В	Shell		21%	164.34	18,028,384
C10	Interior Construction		3%	26.37	2,892,494
C20	Stairways		1%	4.78	524,000
C30	Interior Finishes		3%	23.60	2,589,457
С	Interiors		7%	54.75	6,005,951
D10	Conveying Systems		0%	3.09	339,000
D20	Plumbing Systems		2%	18.01	1,975,402
D30	Heating, Ventilation & Air Conditioning		11%	86.29	9,466,692
D40	Fire Protection		1%	6.12	671,296
D50	Electrical Lighting, Power & Communications		8%	60.99	6,691,042
D	Services		22%	174.50	19,143,432
E10	Equipment		1%	4.37	479,419
E20	Furnishings		0%	1.88	206,189
Е	Equipment & Furnishings		1%	6.25	685,608
F10	Special Construction		5%	43.14	4,732,520
F20	Selective Demolition		0%	0.00	0
F	Special Construction & Demolition		5%	43.14	4,732,520
BUIL	DING ELEMENTAL COST BEFORE CONTINGENCIES		57%	457.30	50,168,504
	Design Contingency	15.00%	9%	68.60	7,525,276
	Construction Contingency	5.00%	3%	26.29	2,884,689
BUIL	DING ELEMENTAL COST INCLUDING CONTINGENCIES		69%	552.19	60,578,469
	General Conditions	7.00%	5%	38.65	4,240,493
	General Requirements	7.50%	6%	44.31	4,861,422
	Corporate Tax	0.57%	0%	3.62	397,178
	SDI	1.75%	1%	11.18	1,226,357
	Office Overhead & Profit	4.50%	4%	29.25	3,208,676
	Bonds and Insurance	1.50%	1%	10.19	1,117,689
	Permit				By Owner
BUIL	DING CONSTRUCTION COST BEFORE ESCALATION		86%	689.40	75,630,284
_	Escalation to Start Date (May 2025)	15.83%	14%	109.15	11,974,795
REC	OMMENDED BUDGET		100%	798.55	87,605,079

Total Building Area	109,705	SF
Sottit	2,980	SF
Roof, typ	51,670	SF
Glazing	16,187	LF
Cladding	30,061	LF
Exterior Enclosure Total	46,248	LF
Building ht. Total, Average	44	LF
Roof Terrace - Unconditioned Space	1,270	SF
Level 3	24,650	SF
Level 2	32,115	SF
Level 1	51,670	SF
Building Footprint	51,670	SF
trols		
	Quantity	Unit
hton (Building) - Option 1		

A10 Foundations	109,705	SF	14.33	1,572,608
A1010 Standard Foundations	109,705	SF	5.61	615,198
Building excavation	5,856	CY	18.00	105,401
Haul and dispose	5,856	CY	20.00	117,112
Reinforced footings				
Continuous footing - 2' x 2'	163	CY	690.00	112,470
Spread footing - 4' x 4'	36	CY	690.00	24,856
Perimeter insulation	2,188	SF	4.00	8,752
Perimeter drainage and bedding	1,144	LF	32.00	36,608
Elevator pit - complete	2	EA	22,500.00	45,000
Anchors and connections, allow	1	LS	15,000.00	15,000
Temp shoring, allow	1	LS	150,000.00	150,000
A1030 Slab On Grade	109,705	SF	8.73	957,410
Slab on grade - 4" thk., reinforced	51,670	SF	13.10	676,877
Vapor barrier	51,670	SF	3.00	155,010
Miscellaneous concrete specialties	51,670	SF	1.15	59,421
Waterproofing	2,188	SF	12.50	27,350
Allowance for blockouts	51,670	SF	0.75	38,753
A20 Basement Construction	109,705	SF		
A2010 Basement Excavation	109,705	SF		

A2010 Basement Excavation No work anticipated

Houghton (Building) - Option 1				
	Quantity	Unit	Rate	Total
B10 Superstructure	109,705	SF	83.96	9,211,342
B1010 Floor Construction	109,705	SF	82.49	9,049,171
Transfer beams	162	CY	1,040.00	168,557
Stem wall - 1' ht.	41	CY	910.00	36,872
Mass timber construction - columns and beams				
Wood timber package				
CLT panels, spline ends and side joints	109,705	SF	28.00	3,071,740
Glu-lam beams	4,313	LF	130.00	560,625
Glu-lam blocking	61	EA	554.00	33,677
Glu-lam columns	2,675	LF	124.00	331,661
Layout/installation	109,705	SF	18.50	2,029,543
Lifting system	1	LS	50,000.00	50,000
Hardware	1	LS	200,000.00	200,000
Shop drawings	1	LS	75,000.00	75,000
Transport	1	LS	185,000.00	185,000
Decking				
Mass plywood panels - see "Wood timber package"				incl. above
Acoustic mat	56,765	SF	6.21	352,511
2" gypcrete	56,765	SF	5.00	283,825
Firestopping	56,765	SF	0.75	42,574
Sealants	56,765	SF	0.55	31,221
Shear wall	10,511	SF	85.00	893,435
Shear wall - interior	7,635	SF	85.00	648,933
Channels and angels	1	LS	30,000.00	30,000
Structural steel				
Elevator hoist beams	1.00	TNs	16,500.00	16,500
Misc. steel angles and connections	1	LS	7,500.00	7,500
B1020 Roof Construction	109,705	SF	1.48	162,170
Mass timber construction - beams and decking				Incl. above
Beams - glu-lam				incl.
CLT decking				incl
Hardware				incl
PV support system - not required				NIC.
Soffit	2.980	SF	35.00	104.300
Strapping, blocking and connections, add	51.670	SF	1.12	57.870
	5.,510	2.	=	5.,0.0

Quantity     Unit     Rate     Total       B20 Exterior Enclosure     109,705     SF     54.33     5,959,829       B2010 Exterior Walls     109,705     SF     37.29     4,090,588       Wood stud framing     46,248     SF     19.10     883,344       Sheathing     30,061     SF     6.50     195,399       Batt insulation R-21     30,061     SF     6.20     186,381       Weather barrier     30,061     SF     65.00     976,997       Stained wood system     15,031     SF     75.00     676,933       Terracotta system     6,012     SF     88.00     529,022       Facias, bands and screens     3.282     SF     35.00     114,870       Caps, tashing and sealants, allow     109,705     SF     18,77     18,17,980       Lauvers, allow     109,705     SF     10,25,895     102.00     1,025,895       Cutrainwall     4,662     SF     140.00     652,701     33,965       B2030 Exterior Windows     109,705     SF	Houghton (Building) - Option 1				
B20 Exterior Enclosure     109,705     SF     54.33     5,959,829       B2010 Exterior Walls     109,705     SF     37.29     4,000,588       Wood stud framing     46,248     SF     19.10     883,344       Sheathing     30.061     SF     6.50     195,399       Batt insulation R-21     30.061     SF     6.20     196,381       Weather barrier     30.061     SF     65.00     976,997       Stained wood system     10,018     SF     75.00     676,997       Stained wood system     6,012     SF     88.00     529,082       Facias, bands and scenens     3,282     SF     33.00     114,870       Caps, flashing and sealants, allow     109,705     SF     18.77     18.17,960       Louvers, allow     109,705     SF     14.67     1,817,960       Curtainwall     4,662     SF     140.00     652,701       Storefront     10,058     SF     0.200     1,025,895       Clearestory     1,467     SF     0.200     1,025,		Quantity	Unit	Rate	Total
B2010 Exterior Walls     109,705     SF     37.29     4,090,888       Wood stud framing     46,248     SF     19.10     883,344       Sheathing     30,061     SF     6.50     195,399       Batt insulation R-21     30,061     SF     6.50     195,399       Batt insulation R-21     30,061     SF     7.20     216,443       Cladding     7     7.21     216,443     SF     7500     676,383       Terracotta system     9,018     SF     7.500     676,383     Terracotta system     6,012     SF     88.00     529,082       Facias, bands and screens     3,282     SF     2.75     301,689     Louvers, allow     109,705     SF     114,870       Caps, flashing and sealants, allow     109,705     SF     16,67     1,817,960     10,000     10,000       Curainwall     4,662     SF     140.00     652,701     10,22,895     120,201     1,225,895     012,21,895     012,000     139,365       B2030 Exterior Doors     Storefront, double     4 <td>B20 Exterior Enclosure</td> <td>109,705</td> <td>SF</td> <td>54.33</td> <td>5,959,829</td>	B20 Exterior Enclosure	109,705	SF	54.33	5,959,829
Wood stud faming     46,248     SF       Framing     46,248     SF     19.10     883,344       Sheathing     30,061     SF     6.50     195,399       Batt insulation R-21     30,061     SF     6.20     186,381       Weather barrier     30,061     SF     7.20     216,443       Cladding	B2010 Exterior Walls	109,705	SF	37.29	4,090,588
Framing   46.248   SF   19.10   883,344     Sheathing   30,061   SF   6.50   195,399     Batt insulation R-21   30,061   SF   6.20   186,381     Weather barrier   30,061   SF   6.20   186,381     Cladding   15,031   SF   65.00   976,987     Stained wood system   9.018   SF   75.00   676,383     Terracotta system   6.12   SF   88.00   529,082     Facias, bands and screens   3.282   SF   35.00   114,870     Caps, flashing and sealants, allow   109,705   SF   16.57   1.817,960     Louvers, allow   1   LS   10,000.00   10,000     B2020 Exterior Windows   109,705   SF   10.27   1.817,960     Curtainwall   4,662   SF   140.00   652,701     Storefront   10,058   SF   0.47   51,260     Clerestory   1,467   SF   0.47   51,280     B2030 Exterior Doors   109,705   SF   0.47   51,280 <t< td=""><td>Wood stud framing</td><td>46,248</td><td>SF</td><td></td><td></td></t<>	Wood stud framing	46,248	SF		
Sheathing     30,061     SF     6.50     195,399       Batt Insulation R-21     30,061     SF     6.20     186,381       Weather barrier     30,061     SF     7.20     216,443       Cladding     9,018     SF     7.50     976,997       Stained wood system     9,018     SF     75.00     676,393       Terracotta system     6,012     SF     88.00     529,082       Facias, bands and screens     3,282     SF     35.00     114,870       Caps, flashing and sealants, allow     109,705     SF     16.57     1,817,960       Curtainwall     4,662     SF     140,00     652,701       Storefront     10,058     SF     102.00     10,026,895       B2030 Exterior Doors     109,705     SF     0.47     51,800       Storefront, double     4     EA     5,425.00     21,700       Storefront, single     109,705     SF     2.60.00     8,580       B3010 Roof Coverings     109,705     SF     2.60.00     8,580 <td>Framing</td> <td>46,248</td> <td>SF</td> <td>19.10</td> <td>883,344</td>	Framing	46,248	SF	19.10	883,344
Batt insulation R-21     30,061     SF     6.20     186,381       Weather barrier     30,061     SF     7.20     216,443       Cladding     15,031     SF     65.00     976,997       Stained wood system     9,018     SF     75.00     676,383       Terracotta system     6,012     SF     88.00     529,082       Facias, bands and screens     3,282     SF     35.00     114,870       Caps, flashing and sealants, allow     109,705     SF     16.57     1,817,960       Louvers, allow     1     LS     10,000.00     10,000       B2020 Exterior Windows     109,705     SF     16.57     1,817,960       Curtainwall     4,662     SF     140.00     652,701       Storefront     10,058     SF     0.47     51,280       Storefront, double     4     EA     5,425,00     21,700       Storefront, single     109,705     SF     20.22     2,218,01       B3010 Roof Coverings     109,705     SF     20.60     8,580	Sheathing	30,061	SF	6.50	195,399
Weather barrier     30,061     SF     7.20     216,443       Cladding     15,031     SF     65.00     976,997       Stained wood system     9,018     SF     75.00     676,333       Terracotta system     6,012     SF     88.00     529,082       Facias, bands and screens     3,282     SF     35.00     114,870       Caps, flashing and sealants, allow     109,705     SF     2.75     301,689       Louvers, allow     1     LS     10,000.00     100,000       B2020 Exterior Windows     109,705     SF     16.57     1,817,960       Curtainwall     4,662     SF     140.00     652,701       Storefront     10,058     SF     102.00     1.025,895       Clerestory     1,467     SF     95.00     139,365       B2030 Exterior Doors     109,705     SF     0.47     51,280       Storefront, double     4     EA     5,425.00     21,700       Storefront, single     109,705     SF     2.66.00     8,580	Batt insulation R-21	30,061	SF	6.20	186,381
Cladding     Metal panel system     15,031     SF     65.00     976,997       Stained wood system     9,018     SF     75.00     676,383       Terracotta system     6,012     SF     86.00     529,082       Facias, bands and screens     3,282     SF     35.00     114,870       Caps, flashing and sealants, allow     109,705     SF     2.75     301,689       Louvers, allow     1     LS     10,000.00     10000       B2020 Exterior Windows     109,705     SF     16.57     1.817,960       Curtainwall     4,662     SF     140.00     652,701       Storefront     10,058     SF     102.00     1,025,895       Clerestory     1,467     SF     0.47     51,280       Storefront, double     4     EA     5,425.00     21,700       Storefront, single     109,705     SF     0.47     51,280       Storefront, double     4     EA     5,425.00     21,700       Storefront, single     109,705     SF     26.04	Weather barrier	30,061	SF	7.20	216,443
Metal panel system     15,031     SF     65.00     976,997       Stained wood system     9,018     SF     75.00     676,333       Terracotta system     6,012     SF     88.00     529,082       Facias, bands and screens     3,282     SF     2.75     301,689       Louvers, allow     1     LS     10,000.00     10,000       B2020 Exterior Windows     109,705     SF     146.77     1,817,960       Curtainwall     4,662     SF     140.00     652,701       Storefront     10,058     SF     0.20     1,025,895       Clerestory     1,467     SF     95.00     139,365       B2030 Exterior Doors     109,705     SF     0.47     51,280       Storefront, double     4     EA     5,425.00     21,000       HM flush, single     109,705     SF     2.0.47     51,280       Storefront, double     4     EA     5,425.00     21,000       HM flush, single     109,705     SF     2.0.22     2.218,214	Cladding				
Stained wood system   9,018   SF   75.00   676,383     Terracotta system   6,012   SF   88.00   529,082     Facias, bands and screens   3,282   SF   35.00   114,870     Caps, flashing and sealants, allow   109,705   SF   2.75   301,689     Louvers, allow   1   LS   10,000.00   10,000     B2020 Exterior Windows   109,705   SF   14,870   652,701     Curtainwall   4,662   SF   140.00   652,701     Storefront   10,058   SF   102,00   1,025,895     Clerestory   1,467   SF   95.00   139,365     B2030 Exterior Doors   109,705   SF   0.47   51,280     Storefront, double   4   EA   5,425.00   21,700     Storefront, single   3   EA   2,860.00   8,580     B3010 Roof Coverings   109,705   SF   20.02   2,218,214     B3010 Roof Coverings   109,705   SF   20.02   2,218,214     B3010 Roof Coverings   109,705   SF   20.02	Metal panel system	15,031	SF	65.00	976,997
Terracotta system     6,012     SF     88.00     529,082       Facias, bands and screens     3,282     SF     35.00     114,870       Caps, flashing and sealants, allow     109,705     SF     2.75     301,689       Louvers, allow     1     LS     10,000.00     10,000       B2020 Exterior Windows     109,705     SF     1.657     1,817,960       Curtainwall     4,662     SF     140.00     652,701       Storefront     10,058     SF     102.00     1,025,895       Clerestory     1,467     SF     95.00     139,365       B2030 Exterior Doors     109,705     SF     0.47     51,280       Storefront, double     4     EA     5,425.00     21,700       Storefront, single     6     EA     3,500.00     21,000       HM flush, single     3     EA     2,860.00     8,580       B3010 Roof Coverings     109,705     SF     26.04     2,857,214       B3010 Roof Coverings     109,705     SF     20.02     2,218,214 <td>Stained wood system</td> <td>9,018</td> <td>SF</td> <td>75.00</td> <td>676,383</td>	Stained wood system	9,018	SF	75.00	676,383
Facias, bands and screens   3,282   SF   35.00   114,870     Caps, flashing and sealants, allow   109,705   SF   2.75   301,689     Louvers, allow   1   LS   10,000.00   10,000     B2020 Exterior Windows   109,705   SF   16.57   1,817,960     Curtainwall   4,662   SF   140.00   652,701     Storefront   10,058   SF   102.00   1,025,895     Clerestory   1,467   SF   95.00   139,365     B2030 Exterior Doors   109,705   SF   0.47   51,280     Storefront, double   4   EA   5,425.00   21,700     Storefront, single   109,705   SF   26.04   2,857,214     B3010 Roof Coverings   109,705   SF   20.22   2,218,214     TPO membrane system   51,670   SF   18.55   958,479     Coverboard - 7" thk.   51,670   SF   8.00   413,360     Insulation - R-30   51,670   SF   8.00   413,360     Vapor barrier   51,670   SF   8.00	Terracotta system	6,012	SF	88.00	529,082
Caps, flashing and sealants, allow   109,705   SF   2.75   301,689     Louvers, allow   1   LS   10,000.00   10,000     B2020 Exterior Windows   109,705   SF   1.6.57   1,817,960     Curtainwall   4,662   SF   140.00   652,701     Storefront   10,058   SF   102.00   1,025,895     Clerestory   1,467   SF   95.00   139,365     B2030 Exterior Doors   109,705   SF   0.47   51,280     Storefront, double   4   EA   5,425.00   21,700     Storefront, single   6   EA   3,500.00   21,000     HM flush, single   3   EA   2,860.00   8,580     B3010 Roof Coverings   109,705   SF   20.22   2,218,214     B3010 Roof Coverings   109,705   SF   20.02   2,857,214     B3010 Roof Coverings   109,705   SF   20.02   2,857,214     B3010 Roof Coverings   109,705   SF   20.02   2,857,214     Goverboard - 7" thk.   51,670   SF   8.80	Facias, bands and screens	3,282	SF	35.00	114,870
Louvers, allow     1     LS     10,000.00     10,000       B2020 Exterior Windows     109,705     SF     16.57     1,817,960       Curtainwall     4,662     SF     140.00     652,701       Storefront     10,058     SF     102.00     1,025,895       Clerestory     1,467     SF     95.00     139,365       B2030 Exterior Doors     109,705     SF     0.47     51,280       Storefront, double     4     EA     5,425.00     21,700       Storefront, single     6     EA     3,500.00     21,000       HM flush, single     109,705     SF     26.04     2,857,214       B3010 Roof Coverings     109,705     SF     20.02     2,218,214       TPO membrane system     51,670     SF     18.55     958,479       Coverboard - 7" thk.     51,670     SF     8.00     413,360       Vapor barrier     51,670     SF     8.00     413,360       Vapor barrier     51,670     SF     2.00     103,340	Caps, flashing and sealants, allow	109,705	SF	2.75	301,689
B2020 Exterior Windows     109,705     SF     16.57     1,817,960       Curtainwall     4,662     SF     140.00     652,701       Storefront     10,058     SF     102.00     1,025,895       Clerestory     1,467     SF     95.00     139,365       B2030 Exterior Doors     109,705     SF     0.47     51,280       Storefront, double     4     EA     5,425.00     21,700       Storefront, single     6     EA     3,500.00     21,000       HM flush, single     3     EA     2,860.00     8,580       B3010 Roof Coverings     109,705     SF     20.22     2,218,214       B3010 Roof Coverings     51,670     SF     18.55     958,479       Coverboard - 7" thk.     51,670     SF     8.00     413,360       Vapor barrier     51,670     SF     8.00     413,360       Vapor barrier     51,670     SF     3.50     180,485       Roof walking pads, allow     1     LS     50,000.00     50,000	Louvers, allow	1	LS	10,000.00	10,000
Curtainwall   4,662   SF   140.00   652,701     Storefront   10,058   SF   102.00   1,025,895     Clerestory   1,467   SF   95.00   139,365     B2030 Exterior Doors   109,705   SF   0.47   51,280     Storefront, double   4   EA   5,425.00   21,700     Storefront, single   6   EA   3,500.00   21,000     HM flush, single   3   EA   2,860.00   8,580     B3010 Roof Coverings   109,705   SF   20.22   2,218,214     TPO membrane system   51,670   SF   18.55   958,479     Coverboard - 7" thk.   51,670   SF   8.80   351,356     Insulation - R-30   51,670   SF   8.80   413,360     Vapor barrier   51,670   SF   2.00   103,340     Fall protection, allow   1   LS   50,000.00   50,000     Caps, flashing and sealants   51,670   SF   2.8.50   142,50     Roof walking pads, allow   1,500   SF   2.8.50   42,750 </td <td>B2020 Exterior Windows</td> <td>109,705</td> <td>SF</td> <td>16.57</td> <td>1,817,960</td>	B2020 Exterior Windows	109,705	SF	16.57	1,817,960
Storefront   10,058   SF   102.00   1,025,895     Clerestory   1,467   SF   95.00   139,365     B2030 Exterior Doors   109,705   SF   0.47   51,280     Storefront, double   4   EA   5,425.00   21,700     Storefront, single   6   EA   3,500.00   21,000     HM flush, single   3   EA   2,860.00   8,580     B3010 Roof Coverings   109,705   SF   20.22   2,218,214     B3010 Roof Coverings   109,705   SF   20.22   2,218,214     TPO membrane system   51,670   SF   18.55   958,479     Coverboard - 7" thk.   51,670   SF   8.00   413,360     Vapor barrier   51,670   SF   8.00   413,360     Vapor barrier   51,670   SF   2.00   103,340     Fall protection, allow   1   LS   50,000.00   50,000     Caps, flashing and sealants   51,670   SF   3.50   180,845     Roof walking pads, allow   1,500   SF   28.50   42,750	Curtainwall	4,662	SF	140.00	652,701
Clerestory     1,467     SF     95.00     139,365       B2030 Exterior Doors     109,705     SF     0.47     51,280       Storefront, double     4     EA     5,425.00     21,700       Storefront, single     6     EA     3,500.00     21,000       HM flush, single     3     EA     2,860.00     8,580       B30 Roofing     109,705     SF     26.04     2,857,214       B3010 Roof Coverings     109,705     SF     20.22     2,218,214       TPO membrane system     51,670     SF     18.55     958,479       Coverboard - 7" thk.     51,670     SF     8.00     413,360       Vapor barrier     51,670     SF     8.00     413,360       Vapor barrier     51,670     SF     2.00     103,340       Fall protection, allow     1     LS     50,000.00     50,000       Caps, flashing and sealants     51,670     SF     3.50     180,845       Roof walking pads, allow     1,500     SF     28.50     42,750	Storefront	10,058	SF	102.00	1,025,895
B2030 Exterior Doors     109,705     SF     0.47     51,280       Storefront, double     4     EA     5,425.00     21,700       Storefront, single     6     EA     3,500.00     21,000       HM flush, single     3     EA     2,860.00     8,580       B30 Roofing     109,705     SF     26.04     2,857,214       B3010 Roof Coverings     109,705     SF     20.22     2,218,214       TPO membrane system     51,670     SF     18.55     958,479       Coverboard - 7" thk.     51,670     SF     8.80     351,356       Insulation - R-30     51,670     SF     8.80     413,360       Vapor barrier     51,670     SF     2.00     103,340       Fall protection, allow     1     LS     50,000.00     50,000       Caps, flashing and sealants     51,670     SF     3.50     180,845       Roof terrace     1,270     SF     38.00     48,260       Parapet     1,641     LF     42,55     69,825	Clerestory	1,467	SF	95.00	139,365
Storefront, double   4   EA   5,425,00   21,700     Storefront, single   6   EA   3,500.00   21,000     HM flush, single   3   EA   2,860.00   8,580     B30 Roofing   109,705   SF   26.04   2,857,214     B3010 Roof Coverings   109,705   SF   20.22   2,218,214     TPO membrane system   51,670   SF   18.55   958,479     Coverboard - 7" thk.   51,670   SF   6.80   351,356     Insulation - R-30   51,670   SF   8.00   413,360     Vapor barrier   51,670   SF   2.00   103,340     Fall protection, allow   1   LS   50,000.00   50,000     Caps, flashing and sealants   51,670   SF   3.50   180,845     Roof walking pads, allow   1,500   SF   28.50   42,750     Roof terrace   1,270   SF   38.00   48,260     Parapet   1,641   LF   42.55   69,825	B2030 Exterior Doors	109,705	SF	0.47	51,280
Storefront, single   6   EA   3,500.00   21,000     HM flush, single   3   EA   2,860.00   8,580     B30 Roofing   109,705   SF   26.04   2,857,214     B3010 Roof Coverings   109,705   SF   20.22   2,218,214     TPO membrane system   51,670   SF   18.55   958,479     Coverboard - 7" thk.   51,670   SF   6.80   351,356     Insulation - R-30   51,670   SF   8.00   413,360     Vapor barrier   51,670   SF   2.00   103,340     Fall protection, allow   1   LS   50,000.00   50,000     Caps, flashing and sealants   51,670   SF   3.50   180,845     Roof walking pads, allow   1,500   SF   28.50   42,750     Roof terrace   1,270   SF   38.00   48,260     Parapet   1,641   LF   42.55   69,825	Storefront, double	4	EA	5,425.00	21,700
HM flush, single   3   EA   2,860.00   8,580     B30 Roofing   109,705   SF   26.04   2,857,214     B3010 Roof Coverings   109,705   SF   20.22   2,218,214     TPO membrane system   51,670   SF   18.55   958,479     Coverboard - 7" thk.   51,670   SF   6.80   351,356     Insulation - R-30   51,670   SF   8.00   413,360     Vapor barrier   51,670   SF   2.00   103,340     Fall protection, allow   1   LS   50,000.00   50,000     Caps, flashing and sealants   51,670   SF   28.50   42,750     Roof walking pads, allow   1,500   SF   28.50   42,750     Roof terrace   1,270   SF   38.00   48,260     Parapet   1,641   LF   42.55   69,825	Storefront, single	6	EA	3,500.00	21,000
B30 Roofing     109,705     SF     26.04     2,857,214       B3010 Roof Coverings     109,705     SF     20.22     2,218,214       TPO membrane system     51,670     SF     18.55     958,479       Coverboard - 7" thk.     51,670     SF     6.80     351,356       Insulation - R-30     51,670     SF     8.00     413,360       Vapor barrier     51,670     SF     2.00     103,340       Fall protection, allow     1     LS     50,000.00     50,000       Caps, flashing and sealants     51,670     SF     3.50     180,845       Roof walking pads, allow     1,500     SF     28.50     42,750       Roof terrace     1,270     SF     38.00     48,260       Parapet     1,641     LF     42.55     69,825	HM flush, single	3	EA	2,860.00	8,580
B3010 Roof Coverings     109,705     SF     20.22     2,218,214       TPO membrane system     51,670     SF     18.55     958,479       Coverboard - 7" thk.     51,670     SF     6.80     351,356       Insulation - R-30     51,670     SF     8.00     413,360       Vapor barrier     51,670     SF     2.00     103,340       Fall protection, allow     1     LS     50,000.00     50,000       Caps, flashing and sealants     51,670     SF     3.50     180,845       Roof walking pads, allow     1,500     SF     28.50     42,750       Roof terrace     1,270     SF     38.00     48,260       Parapet     1,641     LF     42.55     69,825	B30 Roofing	109,705	SF	26.04	2,857,214
TPO membrane system   51,670   SF   18.55   958,479     Coverboard - 7" thk.   51,670   SF   6.80   351,356     Insulation - R-30   51,670   SF   8.00   413,360     Vapor barrier   51,670   SF   2.00   103,340     Fall protection, allow   1   LS   50,000.00   50,000     Caps, flashing and sealants   51,670   SF   28.50   42,750     Roof walking pads, allow   1,500   SF   28.50   42,750     Parapet   1,641   LF   42.55   69,825	B3010 Roof Coverings	109,705	SF	20.22	2,218,214
Coverboard - 7" thk.   51,670   SF   6.80   351,356     Insulation - R-30   51,670   SF   8.00   413,360     Vapor barrier   51,670   SF   2.00   103,340     Fall protection, allow   1   LS   50,000.00   50,000     Caps, flashing and sealants   51,670   SF   3.50   180,845     Roof walking pads, allow   1,500   SF   28.50   42,750     Roof terrace   1,270   SF   38.00   48,260     Parapet   1,641   LF   42.55   69,825	TPO membrane system	51.670	SF	18.55	958.479
Insulation - R-30   51,670   SF   8.00   413,360     Vapor barrier   51,670   SF   2.00   103,340     Fall protection, allow   1   LS   50,000.00   50,000     Caps, flashing and sealants   51,670   SF   3.50   180,845     Roof walking pads, allow   1,500   SF   28.50   42,750     Roof terrace   1,270   SF   38.00   48,260     Parapet   1,641   LF   42.55   69,825	Coverboard - 7" thk.	51,670	SF	6.80	351,356
Vapor barrier   51,670   SF   2.00   103,340     Fall protection, allow   1   LS   50,000.00   50,000     Caps, flashing and sealants   51,670   SF   3.50   180,845     Roof walking pads, allow   1,500   SF   28.50   42,750     Roof terrace   1,270   SF   38.00   48,260     Parapet   1,641   LF   42.55   69,825	Insulation - R-30	51.670	SF	8.00	413.360
Fall protection, allow   1   LS   50,000.00   50,000     Caps, flashing and sealants   51,670   SF   3.50   180,845     Roof walking pads, allow   1,500   SF   28.50   42,750     Roof terrace   1,270   SF   38.00   48,260     Parapet   1,641   LF   42.55   69,825	Vapor barrier	51.670	SF	2.00	103.340
Caps, flashing and sealants   51,670   SF   3.50   180,845     Roof walking pads, allow   1,500   SF   28.50   42,750     Roof terrace   1,270   SF   38.00   48,260     Parapet   1,641   LF   42.55   69,825	Fall protection, allow	1	LS	50,000.00	50.000
Roof walking pads, allow     1,500     SF     28.50     42,750       Roof terrace     1,270     SF     38.00     48,260       Parapet     1,641     LF     42.55     69,825	Caps, flashing and sealants	51.670	SF	3.50	180,845
Roof terrace     1,270     SF     38.00     48,260       Parapet     1,641     LF     42.55     69,825	Roof walking pads, allow	1,500	SF	28.50	42,750
Parapet 1,641 LF 42.55 69,825	Roof terrace	1,270	SF	38.00	48,260
	Parapet	1,641	LF	42.55	69,825

Houghton (Building) - Option 1	Quantity	Unit	Rate	Total
B3020 Roof Openings	109,705	SF	5.82	639,000
Roof monitor, incl. skylight	2.880	SF	210.00	604.800
Skylights	200	SF	171.00	34,200
C10 Interior Construction	109,705	SF	26.37	2,892,494
C1010 Partitions	109,705	SF	26.37	2,892,494
Solid and glazed walls				
Wood stud framing - 2x4				
Framing	60,123	SF	13.50	811,659
Acoustical batt insulation	60,123	SF	4.50	270,553
GWB, 2x	120,246	SF	4.85	583,192
Shaft wall, metal stud - 4"	1,892	SF		
Framing, 2x	3,784	SF	20.40	77,194
Acoustical batt insulation	1,892	SF	4.50	8,514
GWB, 2x	3,784	SF	4.85	18,352
Operable partition	80	LF	1,000.00	80,000
Folding glass wall	50	LF	1,500.00	75,000
Interior of exterior walls	30,061	SF	8.50	255,522
Storefront, allow	1,500	SF	98.00	147,000
Doors and frames				
Storefront, double	4	EA	4,750.00	19,000
HM, glass panel - single	15	EA	2,885.00	43,275
HM, flush - single	24	EA	2,385.00	57,240
Fittings				
Window treatment - roller shades	8,093	SF	11.50	93,075
Wayfinding and signage	109,705	SF	0.66	71,966
Whiteboards and writable surfaces, allow	400	SF	36.50	14,600
Corner guards and kick plates	1	LS	10,000.00	10,000
Mirrors - restroom	6	EA	280.00	1,680
Restroom fitout	6	EA	1,500.00	9,000
Lockers, allow	50	EA	375.00	18,750
Benches, allow	10	EA	750.00	7,500
Guardrail, glazed	954	LF	230.00	219,420
C20 Stairways	109,705	SF	4.78	524,000
C2010 Stair Construction	109,705	SF	4.78	524,000
Feature stair	6	FLT	75,000.00	450.000
Egress stairs	4	FLT	18,500.00	74.000

Houghton (Building) - Option 1	Quantity	Unit	Rate	Total
C30 Interior Finishes	109 705	QE	23.60	2 580 457
	109,700	OF	23.00	2,009,401
C3010 Wall Finishes	109,705	SF	5.81	636,872
Paint	154,091	SF	2.10	323,592
Tile to 7' ht.	3,164	SF	20.00	63,280
Acoustic paneling, allow	1	LS	150,000.00	150,000
Misc. graphics and special finishes, allow	1	LS	100,000.00	100,000
C3020 Floor Finishes	109,705	SF	12.60	1,382,317
Walk-off mat	200	SF	15.00	3.000
Carpet tile	8,755	SF	6.50	56,908
Linoleum	6,857	SF	9.50	65,142
Polished concrete	17,583	SF	8.50	149,456
Sealed concrete	10,687	SF	3.90	41,679
Epoxy resinous flooring	5,205	SF	22.00	114,510
Tile	1,810	SF	20.00	36,200
Rubber sport flooring	16,025	SF	18.30	293,258
Sprung hardwood flooring	2,887	SF	31.60	91,229
Hardwood sport flooring	18,962	SF	28.00	530,936
C3030 Ceiling Finishes	109,705	SF	5.20	570,269
ACT	15.612	SF	8.50	132.702
ACT, washable	1.092	SF	13.50	14,742
Acoustic treatment, allow	1	LS	100.000.00	100.000
Open to structure, painted	74,029	SF	1.85	136,954
GWB, painted	17,702	SF	10.50	185,871
D10 Conveying Systems	109,705	SF	3.09	339,000
D1010 Elevators & Lifts	109,705	SF	3.09	339,000
4500 LB - elevator w/ SS finish system	6	ST	56,500.00	339,000
D20 Plumbing Systems	109,705	SF	18.01	1,975,402
D2010 Plumbing Fixtures	109 705	٩F	3 50	383 068
	109,700		0.50	000,000
	109,705	SF	3.50	383,968
vidier closels				incl.
Lavaluries				incl.
iviop siriks				inci.
Hose bib				inci.
				INCI.

incl.

incl.

incl.

incl.

### City of Kirkland, Washington Recreation & Aquatics Centers

Houghton (Building) - Option 1				
	Quantil	y Unit	Rate	Total
Deck-mounted eye wash				incl.
Drinking fountain				incl.
Connections				incl.
D2020 Domestic Water Distribution	109,705	5 SF	7.20	789,876
Domestic water, allow	109,705	5 SF	7.20	789,876
Piping and drainage				incl.
Domestic water, 2" HW/CW				incl.
Insulation				incl.
Seismic bracing				incl.
Shut off valves and specialties				incl.
Hot water heaters				incl.

Expansion tanks HW circulation pump Mixing valves

Reduced pressure backflow preventer, allow

D2030 Sanitary Waste	109,705	SF	6.92	759,159
Sanitary waste, allow	109,705	SF	6.92	759,159
Sanitary and vent piping				incl.
Floor drains				incl.
Sanitary filtration				incl.
Ancillaries				incl.
D2040 Rain Water Drainage	109,705	SF	0.39	42,400

Gutters and downspouts	1,408	LF	25.00	35,200
Roof drains	6	EA	1,200.00	7,200

D30 Heating, Ventilation & Air Conditioning	109,705	SF	86.29 44.26 36.50 15,000.00 7.20 20,000.00 24.44	9,466,692
D3020 Heat Generating Systems	109,705	SF	44.26	4,855,471
VRF system w/ heat recovery, complete	109,965	SF	36.50	4,013,723
Energy recovery unit-integrated	2	EA	15,000.00	30,000
Piping and insulation, incl. VRF refrigerant piping	109,965	SF	7.20	791,748
Ancillaries	1	LS	20,000.00	20,000
D3040 Distribution Systems	109,705	SF	24.44	2,680,825
Ductwork including flex	120,676	LBs	13.50	1,629,119
Electric duct heaters	241	EA	1,350.00	325,824

Houghton (Building) - Option 1	Quantity	l Init	Rate	Total
	Qualitity	Offic	Nate	TOLAT
Diffusers and grilles	731	FA	190.00	138,960
Exhaust - general	109,705	SF	5.35	586,922
D3090 Other HVAC Systems & Equipment	109,705	SF	17.60	1,930,397
DDC controls	109,705	SF	14.50	1,590,723
Dehumidification system.	109,705	SF	1.10	120,676
Seismic bracing	109,705	SF	1.70	186,499
Testing and balancing	160	HR	130.00	20,800
Commissioning assist	90	HR	130.00	11,700
D40 Fire Protection	109,705	SF	6.12	671,296
D4010 Sprinklers	109,705	SF	6.09	668,296
Fire sprinkler system, complete	109,705	SF	5.85	641,774
Dry system - soffit	2,980	SF	8.90	26,522
D4030 Fire Protection Specialties	109,705	SF	0.03	3,000
Fire extinguisher boxes	8	EA	375.00	3,000
CO2 alarm system - not required				NIC
D50 Electrical Lighting, Power & Communications	109,705	SF	60.99	6,691,042
D5010 Electrical Service & Distribution	109,705	SF	11.66	1,279,412
Main distribution board	1	LS	250,000.00	250,000
Distribution panels	1	LS	60,000.00	60,000
Transformers	1	LF	50,000.00	50,000
Secondary conduit and feeder - allow	109,705	SF	4.50	493,673
Grounding	1	LS	20,000.00	20,000
Metering	109,705	SF	0.55	60,338
Receptacles, typ.	549	EA	575.00	315,402
PV system - not required				NIC
Ancillaries and equipment	1	LS	30,000.00	30,000
D5020 Lighting & Branch Wiring	109,705	SF	24.23	2,657,920
Lighting controls	109 705	SF	4 50	493 673
Branch wiring and conduit	109.705	SF	5.00	548.525
LED lighting	109 705	SE	14.50	1 590 723
0 0	100,100	01	14.00	1,000,120
Exterior lighting on building	1	LS	25,000.00	25,000
Houghton (Building) - Option 1				
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	Quantity	Unit	Rate	Total
D5030 Communications & Security	109,705	SF	22.03	2,416,448
Phone and data including wiring and conduit	109,705	SF	4.30	471,732
Wireless access points	6	EA	1,650.00	9,900
Fire alarm system	109,705	SF	3.00	329,115
DAS	1	LS	50,000.00	50,000
PA system	109,705	SF	1.21	132,743
A/V and sound system - infrastructure only	109,705	SF	3.85	422,364
Projection screen, recessed	4	EA	4,850.00	19,400
Speakers	8	EA	2,600.00	20,800
Additional equipment, allow	1	LS	500,000.00	500,000
CCTV - infrastructure only	109,705	SF	3.75	411,394
Access control	6	EA	5,500.00	33,000
ADA button	4	EA	4,000.00	16,000
D5040 Electrical Specialty	109,705	SF	3.07	337,263
Electrical to mechanical systems - equipment connections	109,705	SF	2.50	274,263
PV systems, allow	15	KW	4,200.00	63,000
E10 Equipment	109,705	SF	4.37	479,419
E1010 Commercial Equipment	109,705	SF	1.10	121,000
Type 1 hood - cultural kitchen	1	EA	121,000.00	121,000
Refrigerator/freezer				by Owner
Microwave				by Owner
Coffer maker				by Owner
E1090 Other Equipment	109,705	SF	3.27	358,419
Basketball backboards - retractable	6	EA	8,500.00	51,000
Court divider curtain	2	EA	17,300.00	34,600
Wall padding	4,165	SF	8.60	35,819
Scoreboard	2	EA	18,500.00	37,000
Food service equipment, allow	1	LS	200,000.00	200,000
E20 Furnishings	109,705	SF	1.88	206,189

E2010 Fixed Furnishings	109,705	SF	1.88	206,189
Mirror wall - 8' ht.	1,228	SF	36.15	44,392
Ballet barre	154	LF	69.20	10,622
Reception desk, allow	1	LS	12,500.00	12,500
Chair rail, allow	200	LF	85.00	17,000
Uppers, PLAM (allow)	100	LF	380.00	38,000

Houghton (Building) - Option 1				
	Quantity	Unit	Rate	Total
Counters incl. cabinets, PLAM (allow)	125	LF	425.00	53,125
Counters incl. cabinets, solid surface (allow)	50	LF	475.00	23,750
Cubbies, allow	20	LF	340.00	6,800
E2020 Movable Furnishings	109,705	SF		
FF&E - by Owner				FF&E
F10 Special Construction	109,705	SF	43.14	4,732,520
F1010 Special Structures	109,705	SF	43.14	4,732,520
New pool construction, allow	11,512	SF	390.00	4,489,680
Pool equipment, allow	1	LS	75,000.00	75,000
Pool mech/plumbing				incl. above
Natatorium decking	9,222	SF	18.20	167,840

Houghton (Sitework) - Option 1 Summary				
			\$/SF	TOTAL
		Gross Area:	226,601 SF	
G10 Site Preparation		8%	5.28	1,197,394
G20 Site Improvements		38%	23.83	5,399,837
G30 Site Mechanical Utilities		9%	5.47	1,239,562
G40 Site Electrical Utilities		2%	1.33	300,600
G Building Sitework		57%	35.91	8,137,393
SITE ELEMENTAL COST BEFORE CONTINGENCIES		57%	35.91	8,137,393
Design Contingency	15.00%	9%	0.00	1,220,609
Construction Contingency	5.00%	0%	2.06	467,900
SITE ELEMENTAL COST INCLUDING CONTINGENCIES		69%	43.36	9,825,902
General Conditions	7.00%	5%	3.04	687,813
General Requirements	7.50%	6%	3.48	788,529
Corporate Tax (OR)	0.57%	0%	0.28	64,423
Subcontractor Default Insurance (OR)	1.75%	0%	0.88	198,917
Office Overhead & Profit	4.50%	4%	2.30	520,451
Bonds and Insurance	1.50%	1%	0.80	181,291
Permit				By Owner
SITE CONSTRUCTION COST BEFORE ESCALATION		86%	54.14	12,267,325
Escalation to Start Date (May 2025)	15.83%	14%	8.57	1,942,326
RECOMMENDED BUDGET		100%	62.71	14,209,651

Houghton (Sitework) - Option 1				
	Quantity	Unit	Rate	Total
			1	
Control Quantities	000.004	05		
Program Areas	226,601	SF		
Building footprint	51,670	SF		
Parking Lot	82,875	SF		
Asphalt	82,875	SF		
Pedestrian Paving	22,740	SF		
Concrete - sidewalk	18,090	SF		
Concrete w/ integral color - courtyard	4,650	SF		
Site Development	19,540	SF		
Raised parking structure	19,540	SF		
Landscape	49,776	SF		
Planting area	49,776	SF		
G10 Site Preparation	226,601	SF	5.28	1,197,394
G1010 Site Clearing	226,601	SF	0.79	178,615
Construction entrance	1	EA	5,000.00	5,000
Construction fence	2,170	LF	13.50	29,295
Erosion control w/ catch basin filters and monitoring	226,601	SF	0.20	45,320
Tree protection, allow	. 1	LS	15.000.00	15.000
Utility protection, allow	1	LS	10.000.00	10.000
Temp facilities	16	MO	1.500.00	24,000
Dewatering	1	IS	15,000,00	15,000
Construction survey, incl. layout	1	LS	35,000.00	35,000
G1020 Site Demolition and Relocations	226,601	SF	2.07	468,867
Clear and grub - existing vegetation	33 000	<b>SE</b>	0.75	25 /03
Demo - bardecano	102 611	SE	2.25	133 371
Demo - misc. site obstructions, allow	1	LS	10,000.00	10,000
G1030 Site Earthwork	226,601	SF_	2.43	549,912
Mass excavation - building, see 'Building"				incl
Mass excavation - building, see building	G 170	$C^{\vee}$	18 00	116 601
Haul and diapasa	0,479	CV	20.00	120 570
Crading inclusion	0,479	СТ СГ	20.00	112 201
	220,601	35	0.50	113,301
Dase aggregates	4 0 4 4	$\mathbf{O}^{\prime}$	15 00	00 447
	1,914	CY	45.00	86,117
venicular paving - 6" depth	1,897	CY	45.00	85,346
Pedestrian paving - 6" depth	421	CY	45.00	18,950

#### Feasibility Study Cost Plan January 24, 2023 19

Houghton (Sitework) - Option 1				
	Quantity	Unit	Rate	Total
G1040 Hazardous Waste Remediation	226.601	SF		
No work anticipated				NIC
G20 Site Improvements	226,601	SF	23.83	5,399,837
G2010 Roadways	226,601	SF		
No work anticipated				NIC
G2020 Parking Lots	226,601	SF	2.60	590,025
Asphalt	82,875	SF	4.75	393,656
Striping	82,875	SF	0.25	20,719
Concrete curb - 6"	4,670	LF	35.00	163,450
ADA curb ramp	4	EA	1,550.00	6,200
ADA sign	8	EA	750.00	6,000
G2030 Pedestrian Paving	18,090	SF	15.74	284,760
Concrete - sidewalk	18,090	SF	11.50	208,035
Concrete w/ integral color - courtyard	4,650	SF	16.50	76,725
G2040 Site Development	226,601	SF	17.10	3,875,100
Site structures				
Raised parking structure incl. SOG, allow	19,540	SF	190.00	3,712,600
Site walls, stairs & railings				
Seat wall - CIP conc w/ wood top	100	LF	275.00	27,500
Ramps and stairs, allow	1	LS	85,000.00	85,000
Site furnishing				
Café tables, bike racks, trash receptacles (etc.)	1	ALW	50,000.00	50,000
Park improvements - no work anticipated				NIC
G2050 Landscaping	226,601	SF	2.87	649,952
Trees - 3" Cal., deciduous	50	EA	650.00	32,500
Tree grates - not required				NIC
Planting area	49,776	SF		
Top soil - 24" depth	3,687	CY	45.00	165,920
Mulch - 3" depth	461	CY	40.00	18,436
Planting - 2 gallon, 24" O.C.	12,444	EA	25.00	311,100
Irrigation				
Planting area	49,776	SF	2.25	111,996
Devices and controls	1	LS	10,000.00	10,000

Houghton (Sitework) - Option 1				
	Quantity	Unit	Rate	Total
G30 Site Mechanical Utilities	226,601	SF	5.47	1,239,562
G3010 Water Supply	226,601	SF	0.41	92,000
Water line	200	LF	55.00	11,000
Fire service line	200	LF	95.00	19,000
FD connection	1	EA	10,000.00	10,000
Vault structure	1	EA	30,000.00	30,000
Fire hydrants	2	EA	7,500.00	15,000
Connection to existing service	2	EA	3,500.00	7,000
G3020 Sanitary Sewer	226,601	SF	0.15	33,500
SS - 8" pipe, incl. trenching and backfill	250	LF	105.00	26,250
SS - cleanout	5	EA	750.00	3,750
Connection to existing service	1	EA	3,500.00	3,500
G3030 Storm Sewer	226,601	SF	4.92	1,114,062
SW - 8" pipe, incl. trenching and backfill	650	LF	85.00	55,250
Devices and controls - allow	1	EA	50,000.00	50,000
Detention vault, allow	837,760	GAL	1.20	1,005,312
Connection to existing service	1	EA	3,500.00	3,500
Stormwater vault - not required				NIC
G3060 Fuel Distribution	226,601	SF		
No work anticipated				NIC
G40 Site Electrical Utilities	226,601	SF	1.33	300,600
G4010 Electrical Distribution	226,601	SF	0.20	45,000
Transformer - by franchise utility				NIC
Power distribution - to building	1	LS	45,000.00	45,000
G4020 Site Lighting	226,601	SF	1.13	255,600
Pedestrian - light poles		EA	6,000.00	90.000
Parking - light poles	18	EA	9,200.00	165,600
G4090 Other Site Electrical Utilities	226.601	SF_		
No work anticipated				NIC
				1110

Hou	ghton (Building) - Option 2 Summary				
				\$/SF	TOTAL
			Gross Area:	91,463 SF	
A10	Foundations		2%	18.31	1,674,825
А	Substructure		2%	18.31	1,674,825
B10	Superstructure		10%	80.75	7,385,647
B20	Exterior Enclosure		6%	51.97	4,752,907
B30	Roofing		5%	41.84	3,827,116
В	Shell		21%	174.56	15,965,669
C10	Interior Construction		3%	25.44	2,327,091
C20	Stairways		0%	3.68	337,000
C30	Interior Finishes		3%	24.94	2,280,642
С	Interiors		7%	54.06	4,944,733
D10	Conveying Systems		0%	2.47	226,000
D20	Plumbing Systems		2%	18.08	1,653,253
D30	Heating, Ventilation & Air Conditioning		10%	86.46	7,908,156
D40	Fire Protection		1%	6.29	575,376
D50	Electrical Lighting, Power & Communications		8%	62.24	5,692,683
D	Services		21%	175.54	16,055,468
E10	Equipment		1%	4.78	437,534
E20	Furnishings		0%	2.26	206,548
Е	Equipment & Furnishings		1%	7.04	644,082
F10	Special Construction		5%	42.65	3,901,277
F20	Selective Demolition		0%	0.00	0
F	Special Construction & Demolition		5%	42.65	3,901,277
BUILI	DING ELEMENTAL COST BEFORE CONTINGENCIES		57%	472.17	43,186,053
	Design Contingency	15.00%	9%	70.83	6,477,908
	Construction Contingency	5.00%	3%	27.15	2,483,198
BUILI	DING ELEMENTAL COST INCLUDING CONTINGENCIES		69%	570.14	52,147,159
	General Conditions	7.00%	5%	39.91	3,650,301
	General Requirements	7.50%	6%	45.75	4,184,810
	Corporate Tax	0.57%	0%	3.74	341,899
	SDI	1.75%	1%	11.54	1,055,673
	Office Overhead & Profit	4.50%	4%	30.20	2,762,093
	Bonds and Insurance	1.50%	1%	10.52	962,129
	Permit				By Owner
BUILI	DING CONSTRUCTION COST BEFORE ESCALATION		86%	711.81	65,104,064
	Escalation to Start Date (May 2025)	15.83%	14%	112.70	10,308,143
RECO	DMMENDED BUDGET		100%	824.51	75,412,207

Houghton (Building) - Option 2				
	Quantity	Unit	Rate	Total
			_	
Controls				
Building Footprint	57,100	SF		
Level 1	57,100	SF		
Level 2	33,128	SF		
Roof Terrace - Unconditioned Space	1,235	SF		
Building ht. Total, Average	28	LF		
Exterior Enclosure Total	36,498	LF		
Cladding	23,724	LF		
Glazing	12,774	LF		
Roof, typ	57,100	SF		
Soffit	4,193	SF		
Total Building Area	91,463	SF	-	
A10 Foundations	91,463	SF	18.31	1,674,825
		05	0.70	040.000
A1010 Standard Foundations	91,463	SF	6.76	618,000
Building excavation	5,627	CY	18.00	101,279
Haul and dispose	5,627	CY	20.00	112,533

	5,027	CI	20.00	112,000
Reinforced footings				
Continuous footing - 2' x 2'	172	CY	690.00	118,680
Spread footing - 4' x 4'	40	CY	690.00	27,468
Perimeter insulation	2,322	SF	4.00	9,288
Perimeter drainage and bedding	1,211	LF	32.00	38,752
Elevator pit - complete	2	EA	22,500.00	45,000
Anchors and connections, allow	1	LS	15,000.00	15,000
Temp shoring, allow	1	LS	150,000.00	150,000
A1030 Slab On Grade	91,463	SF	11.55	1,056,825
Slab on grade - 4" thk., reinforced	57,100	SF	13.10	748,010
Vapor barrier	57,100	SF	3.00	171,300

1	•			
Miscellaneous concrete specialties	57,100	SF	1.15	65,665
Waterproofing	2,322	SF	12.50	29,025
Allowance for blockouts	57,100	SF	0.75	42,825
A20 Basement Construction	91,463	SF		
A2010 Basement Excavation	91,463	SF		
No work anticipated				NIC

Houghton (Building) - Option 2				
	Quantity	Unit	Rate	Total
B10 Superstructure	91,463	SF	80.75	7,385,647
B1010 Floor Construction	91,463	SF	78.45	7,174,940
Transfer beams	172	CY	1.040.00	178.880
Stem wall - 1' ht.	43	CY	910.00	39.130
Mass timber construction - columns and beams				,
Wood timber package				
CLT panels, spline ends and side joints	91,463	SF	28.00	2,560,964
Glu-lam beams	3,555	LF	130.00	462,150
Glu-lam blocking	67	EA	554.00	37,216
Glu-lam columns	1,881	LF	124.00	233,237
Layout/installation	91,463	SF	18.50	1,692,066
Lifting system	1	LS	42,000.00	42,000
Hardware	1	LS	167,000.00	167,000
Shop drawings	1	LS	63,000.00	63,000
Transport	1	LS	155,000.00	155,000
Decking				
Mass plywood panels - see "Wood timber package"				incl. above
Acoustic mat	33,128	SF	6.21	205,725
2" gypcrete	33,128	SF	5.00	165,640
Firestopping	33,128	SF	0.75	24,846
Sealants	33,128	SF	0.55	18,220
Shear wall	8,295	SF	85.00	705,075
Shear wall - interior	4,362	SF	85.00	370,791
Channels and angels	1	LS	30,000.00	30,000
Structural steel				
Elevator hoist beams	1.00	TNs	16,500.00	16,500
Misc. steel angles and connections	1	LS	7,500.00	7,500
B1020 Roof Construction	91,463	SF	2.30	210,707
Mass timber construction - beams and decking				incl. above
Beams - glu-lam				incl.
CLT decking				incl.
Hardware				incl.
PV support system - not required				NIC
Soffit	4,193	SF	35.00	146,755
Strapping, blocking and connections, add	57,100	SF	1.12	63,952

Houghton (Building) - Option 2		L Lucit	Data	Tatal
	Quantity	Unit	Kale	Total
B20 Exterior Enclosure	91,463	SF	51.97	4,752,907
B2010 Exterior Walls	91,463	SF	35.81	3,274,982
Wood stud framing	36,498	SF		
Framing	36,498	SF	19.10	697,112
Sheathing	23,724	SF	6.50	154,204
Batt insulation R-21	23,724	SF	6.20	147,087
Weather barrier	23,724	SF	7.20	170,811
Cladding				
Metal panel system	11,862	SF	65.00	771,020
Stained wood system	7,117	SF	75.00	533,783
Terracotta system	4,745	SF	88.00	417,537
Facias, bands and screens	3,483	SF	35.00	121,905
Caps, flashing and sealants, allow	91,463	SF	2.75	251,523
Louvers, allow	1	LS	10,000.00	10,000
B2020 Exterior Windows	91,463	SF	15.60	1,426,644
Curtainwall	3,525	SF	140.00	493,444
Storefront	7,783	SF	102.00	793,835
Clerestory	1,467	SF	95.00	139,365
B2030 Exterior Doors	91,463	SF	0.56	51,280
Storefront, double	4	EA	5.425.00	21.700
Storefront, single	6	EA	3,500.00	21,000
HM flush, single	3	EA	2,860.00	8,580
B30 Roofing	91,463	SF	41.84	3,827,116
B3010 Roof Coverings	91.463	SF	26.59	2.432.116
TPO membrane system	57,100	OF OF	19.55	1 050 205
Coverboard - 7" thk	57,100	OF OF	6 90	200 200
Insulation - R-30	57,100	OF QE	8.00	300,200 456 800
Vapor barrier	57,100	SI SE	2.00	430,000
Fall protection, allow	1	19	50,000,00	50,000
Cans flashing and sealants	57 100	SF	30,000.00 3 50	199 250
Roof walking pads, allow	1 500	SF	28 50	42 750
Roof terrace	1,000	SF	38.00	46 930
Parapet	1 742	l F	42 55	74 101
i di apor	1,142		12.00	7 1,101

Houghton (Building) - Option 2				
	Quantity	Unit	Rate	Total
B3020 Roof Openings	91.463	SF	15.25	1.395.000
Roof monitor incl. skylight	6,490	OF OF	210.00	1 260 900
Skylights	0,400	OF OF	210.00	1,300,000
S.y.g.	200	51	171.00	54,200
C10 Interior Construction	91,463	SF	25.44	2,327,091
C1010 Partitions	91,463	SF	25.44	2,327,091
Solid and glazed walls				
Wood stud framing - 2x4				
Framing	47,447	SF	13.50	640,540
Acoustical batt insulation	47,447	SF	4.50	213,513
GWB, 2x	94,895	SF	4.85	460,240
Shaft wall, metal stud - 4"	1,204	SF		
Framing, 2x	2,408	SF	20.40	49,123
Acoustical batt insulation	1,204	SF	4.50	5,418
GWB, 2x	2,408	SF	4.85	11,679
Operable partition	80	LF	1,000.00	80,000
Folding glass wall	50	LF	1,500.00	75,000
Interior of exterior walls	23,724	SF	8.50	201,651
Storefront, allow	1,000	SF	98.00	98,000
Doors and frames				
Storefront, double	4	EA	4,750.00	19,000
HM, glass panel - single	15	EA	2,885.00	43,275
HM, flush - single	24	EA	2,385.00	57,240
Fittings				
Window treatment - roller shades	6,387	SF	11.50	73,452
Wayfinding and signage	91,463	SF	0.66	60,000
Whiteboards and writable surfaces, allow	400	SF	36.50	14,600
Corner guards and kick plates	1	LS	10,000.00	10,000
Mirrors - restroom	7	EA	280.00	1,960
Restroom fitout	7	EA	1,500.00	10,500
Lockers, allow	40	EA	375.00	15,000
Benches, allow	10	EA	750.00	7,500
Guardrail, glazed	780	LF	230.00	179,400
C20 Stairways	91.463	SF_	3.68	337,000

C2010 Stair Construction	91,463	SF	3.68	337,000
Feature stair	4	FLT	75,000.00	300,000
Egress stairs	2	FLT	18,500.00	37,000

Houghton (Building) - Option 2	Quantity	Unit	Rate	Total
C30 Interior Finishes	91,463	SF	24.94	2,280,642
		~		
C3010 Wall Finishes	91,463	SF	6.62	605,096
Paint	121,027	SF	2.10	254,156
Tile to 7' ht.	5,047	SF	20.00	100,940
Acoustic paneling, allow	1	LS	150,000.00	150,000
Misc. graphics and special finishes, allow	1	LS	100,000.00	100,000
C3020 Floor Finishes	91,463	SF	12.96	1,185,385
Walk-off mat	200	SF	15.00	3,000
Carpet tile	4,280	SF	6.50	27,820
Linoleum	8,496	SF	9.50	80,712
Polished concrete	16,285	SF	8.50	138,423
Sealed concrete	10,526	SF	3.90	41,051
Epoxy resinous flooring	2,368	SF	22.00	52,096
Tile	2,028	SF	20.00	40,560
Rubber sport flooring	8,225	SF	18.30	150,518
Sprung hardwood flooring	8,566	SF	31.60	270,686
Hardwood sport flooring	13,590	SF	28.00	380,520
C3030 Ceiling Finishes	91,463	SF	5.36	490,161
ACT	12,776	SF	8.50	108.596
ACT, washable	790	SF	13.50	10,665
Acoustic treatment, allow	1	LS	100 000 00	100.000
Open to structure, painted	61 740	SE	1 85	114 219
GWB, painted	14,922	SF	10.50	156,681
D10 Conveying Systems	01 /63	QE	2 /7	226.000
	91, <del>4</del> 03	01	2.41	220,000
D1010 Elevators & Lifts	91,463	SF	2.47	226,000
4500 LB - elevator w/ SS finish system	4	ST	56,500.00	226,000
D20 Plumbing Systems	91,463	SF	18.08	1,653,253
D2010 Plumbing Fixtures	91,463	SF	3.50	320,121
Sanitary fixtures, allow	91,463	SF	3.50	320,121
Water closets				incl.
Lavatories				incl.
Mop sink				incl.
Lab sink				incl.
Kitchen sink, two compartment				incl.

Houghton (Building) - Option 2			
	Quantity Unit	Rate	Total
Hose bib			incl.
Deck-mounted eye wash			incl.
Drinking fountain			incl.
Connections			incl.

D2020 Domestic Water Distribution	91,463	SF	7.20	658,534
Domestic water, allow	91,463	SF	7.20	658,534
Piping and drainage				incl.
Domestic water, 2" HW/CW				incl.
Insulation				incl.
Seismic bracing				incl.
Shut off valves and specialties				incl.
Hot water heaters				incl.
Expansion tanks				incl.
HW circulation pump				incl.
Mixing valves				incl.
Reduced pressure backflow preventer, allow				incl.

D2030 Sanitary Waste	91,463	SF	6.92	632,924
Sanitary waste, allow	91,463	SF	6.92	632,924
Sanitary and vent piping				incl.
Floor drains				incl.
Sanitary filtration				incl.
Ancillaries				incl.

D2040 Rain Water Drainage	91,463	SF	0.46	41,675
Gutters and downspouts	1,379	LF	25.00	34,475
Roof drains	6	EA	1,200.00	7,200

D30 Heating, Ventilation & Air Conditioning	91,463	SF	86.46	7,908,156
D3020 Heat Generating Systems	91,463	SF	44.37	4,058,295
VRF system w/ heat recovery, complete	91,723	SF	36.50	3,347,890
Energy recovery unit-integrated	2	EA	15,000.00	30,000
Piping and insulation, incl. VRF refrigerant piping	91,723	SF	7.20	660,406
Ancillaries	1	LS	20,000.00	20,000
D3040 Distribution Systems	91,463	SF	24.44	2,235,051
Ductwork including flex	100,609	LBs	13.50	1,358,226
Electric duct heaters	201	EA	1,350.00	271,645

Houghton (Building) - Option 2	Quantity	Unit	Rate	Total
	Quantity	Orme	rato	rotar
Diffusers and grilles	610	EA	190.00	115,853
Exhaust - general	91,463	SF	5.35	489,327
D3090 Other HVAC Systems & Equipment	91,463	SF	17.66	1,614,810
DDC controls	91,463	SF	14.50	1,326,214
Dehumidification system.	91,463	SF	1.10	100,609
Seismic bracing	91,463	SF	1.70	155,487
Testing and balancing	160	HR	130.00	20,800
Commissioning assist	90	HR	130.00	11,700
D40 Fire Protection	91,463	SF	6.29	575,376
	04 400	05	0.00	F70 070
	91,463	SF	6.20	572,376
Fire sprinkler system, complete	91,463	SF	5.85	535,059
Dry system - soffit	4,193	SF	8.90	37,318
D4030 Fire Protection Specialties	91,463	SF	0.03	3,000
Fire extinguisher boxes	8	ΕA	375.00	3,000
CO2 alarm system - not required				NIC
CO2 alarm system - not required D50 Electrical Lighting, Power & Communications	91,463	SF	62.24	NIC 5,692,683
CO2 alarm system - not required D50 Electrical Lighting, Power & Communications D5010 Electrical Service & Distribution	91,463 91,463	SF	62.24 11.64	NIC 5,692,683 1,064,844
CO2 alarm system - not required D50 Electrical Lighting, Power & Communications D5010 Electrical Service & Distribution Main distribution board	91,463 91,463 1	SF SF LS	62.24 11.64 210,000.00	N/C 5,692,683 1,064,844 210,000
CO2 alarm system - not required D50 Electrical Lighting, Power & Communications D5010 Electrical Service & Distribution Main distribution board Distribution panels	91,463 91,463 1 1	SF SF LS LS	62.24 11.64 210,000.00 50,000.00	N/C 5,692,683 1,064,844 210,000 50,000
CO2 alarm system - not required D50 Electrical Lighting, Power & Communications D5010 Electrical Service & Distribution Main distribution board Distribution panels Transformers	91,463 91,463 1 1 1	SF SF LS LS LF	62.24 11.64 210,000.00 50,000.00 40,000.00	N/C 5,692,683 1,064,844 210,000 50,000 40,000
CO2 alarm system - not required D50 Electrical Lighting, Power & Communications D5010 Electrical Service & Distribution Main distribution board Distribution panels Transformers Secondary conduit and feeder - allow	91,463 91,463 1 1 1 91,463	SF SF LS LS LS LF SF	62.24 11.64 210,000.00 50,000.00 40,000.00 4.50	N/C 5,692,683 1,064,844 210,000 50,000 40,000 411,584
CO2 alarm system - not required D50 Electrical Lighting, Power & Communications D5010 Electrical Service & Distribution Main distribution board Distribution panels Transformers Secondary conduit and feeder - allow Grounding	91,463 91,463 1 1 1 91,463 1	SF SF LS LS LF SF LS	62.24 11.64 210,000.00 50,000.00 40,000.00 4.50 20,000.00	N/C 5,692,683 1,064,844 210,000 50,000 40,000 411,584 20,000
CO2 alarm system - not required D50 Electrical Lighting, Power & Communications D5010 Electrical Service & Distribution Main distribution board Distribution panels Transformers Secondary conduit and feeder - allow Grounding Metering	91,463 91,463 1 1 1 91,463 1 91,463	SF LS LS LF SF LS SF	62.24 11.64 210,000.00 50,000.00 40,000.00 4.50 20,000.00 0.55	N/C 5,692,683 1,064,844 210,000 50,000 40,000 411,584 20,000 50,305
CO2 alarm system - not required D50 Electrical Lighting, Power & Communications D5010 Electrical Service & Distribution Main distribution board Distribution panels Transformers Secondary conduit and feeder - allow Grounding Metering Receptacles, typ.	91,463 91,463 1 1 1 91,463 1 91,463 457	SF LS LS LF SF LS SF EA	62.24 11.64 210,000.00 50,000.00 40,000.00 4.50 20,000.00 0.55 575.00	N/C 5,692,683 1,064,844 210,000 50,000 40,000 411,584 20,000 50,305 262,956
CO2 alarm system - not required D50 Electrical Lighting, Power & Communications D5010 Electrical Service & Distribution Main distribution board Distribution panels Transformers Secondary conduit and feeder - allow Grounding Metering Receptacles, typ. PV system - not required	91,463 91,463 1 1 1 91,463 1 91,463 457	SF LS LS LF SF LS SF EA	62.24 11.64 210,000.00 50,000.00 40,000.00 4.50 20,000.00 0.55 575.00	N/C 5,692,683 1,064,844 210,000 50,000 40,000 411,584 20,000 50,305 262,956 <i>N/C</i>
CO2 alarm system - not required D50 Electrical Lighting, Power & Communications D5010 Electrical Service & Distribution Main distribution board Distribution panels Transformers Secondary conduit and feeder - allow Grounding Metering Receptacles, typ. PV system - not required Ancillaries and equipment	91,463 91,463 1 1 91,463 1 91,463 457 1	SF LS LS LF LS SF EA LS	62.24 11.64 210,000.00 50,000.00 40,000.00 4.50 20,000.00 0.55 575.00 20,000.00	N/C 5,692,683 1,064,844 210,000 50,000 40,000 411,584 20,000 50,305 262,956 <i>N/C</i> 20,000
CO2 alarm system - not required D50 Electrical Lighting, Power & Communications D5010 Electrical Service & Distribution Main distribution board Distribution panels Transformers Secondary conduit and feeder - allow Grounding Metering Receptacles, typ. PV system - not required Ancillaries and equipment D5020 Lighting & Branch Wiring	91,463 91,463 1 1 91,463 1 91,463 457 1 91,463	SF LS LS LF LS SF EA LS SF	62.24 11.64 210,000.00 50,000.00 40,000.00 4.50 20,000.00 0.55 575.00 20,000.00	N/C 5,692,683 1,064,844 210,000 50,000 40,000 411,584 20,000 50,305 262,956 <i>N/C</i> 20,000 2,213,612
CO2 alarm system - not required D50 Electrical Lighting, Power & Communications D5010 Electrical Service & Distribution Main distribution board Distribution panels Transformers Secondary conduit and feeder - allow Grounding Metering Receptacles, typ. PV system - not required Ancillaries and equipment D5020 Lighting & Branch Wiring Lighting controls	91,463 91,463 1 1 91,463 1 91,463 457 1 91,463 91,463 91,463	SF LS LS LF SF LS SF EA LS SF SF	62.24 11.64 210,000.00 50,000.00 40,000.00 4.50 20,000.00 0.55 575.00 20,000.00 20,000.00 20,000.00 4.50	N/C 5,692,683 1,064,844 210,000 50,000 40,000 411,584 20,000 50,305 262,956 <i>N/C</i> 20,000 <b>2,213,612</b> 411,584
CO2 alarm system - not required D50 Electrical Lighting, Power & Communications D5010 Electrical Service & Distribution Main distribution board Distribution panels Transformers Secondary conduit and feeder - allow Grounding Metering Receptacles, typ. PV system - not required Ancillaries and equipment D5020 Lighting & Branch Wiring Lighting controls Branch wiring and conduit	91,463 91,463 1 1 1 91,463 1 91,463 457 1 1 <b>91,463</b> 91,463 91,463	SF LS LS LS SF EA LS SF LS SF SF	62.24 11.64 210,000.00 50,000.00 40,000.00 4.50 20,000.00 20,000.00 20,000.00 20,000.00 20,000.00	N/C 5,692,683 1,064,844 210,000 50,000 40,000 411,584 20,000 50,305 262,956 <i>N/C</i> 20,000 <b>2,213,612</b> 411,584 457,315
CO2 alarm system - not required D50 Electrical Lighting, Power & Communications D5010 Electrical Service & Distribution Main distribution board Distribution panels Transformers Secondary conduit and feeder - allow Grounding Metering Receptacles, typ. PV system - not required Ancillaries and equipment D5020 Lighting & Branch Wiring Lighting controls Branch wiring and conduit LED lighting	91,463 91,463 1 1 1 91,463 457 1 91,463 457 1 <b>91,463</b> 91,463 91,463 91,463	SF LS LS LF SF LS SF LS LS SF SF SF SF	62.24 11.64 210,000.00 50,000.00 40,000.00 20,000.00 0.55 575.00 20,000.00 20,000.00 20,000.00 20,000.00 14.50 5.00 14.50	N/C 5,692,683 1,064,844 210,000 50,000 40,000 411,584 20,000 50,305 262,956 <i>N/C</i> 20,000 <b>2,213,612</b> 411,584 457,315 1,326,214

Quantity         Unit         Rate         Total           D5030 Communications & Security         91,463         SF         23.21         2,122,569           Phone and data including wring and conduit         91,463         SF         4.30         333,291           Wireless access points         6         EA         1,650,00         9,900           Prie alarm system         91,463         SF         3.00         274,389           DAS         1         LS         50,000,00         50,000           PA system         91,463         SF         3.21         110,670           AV and sound system - infrastructure only         91,463         SF         3.25,133           Projection screen, recessed         4         EA         4,850,000         20,000           Speakors         8         EA         2,600,00         20,000           CCTV - infrastructure only         91,463         SF         3.12         21,650           Access control         6         EA         5,500,000         30,000         Access control         6         EA         5,500,000         30,000           ADA button         91,463         SF         1.20         226,668         PV systems, allow         1	Houghton (Building) - Option 2				
D5030 Communications & Security         91,463         SF         23.21         2,122,569           Phone and data including wiring and conduit         91,463         SF         4.30         393,291           Wireless access points         6         EA         1,650,00         9,900           Fire alarm system         91,463         SF         3.00         274,389           DAS         1         LS         50,000,00         50,000           PA system         91,463         SF         3.26         110,670           AV and sound system - infirastructure only         91,463         SF         3.85         325,213           Projection screen, recessed         4         EA         4,850,00         19,400           Speakers         8         EA         2,600,00         20,800           Access control         1         LS         500,000,00         500,000           CCTV - infrastructure only         91,463         SF         3.19         291,663           Access control         6         EA         5,500,000         33,000           AD button         91,463         SF         1.32         121,000           D5040 Electrical Specialty         91,463         SF         1.32		Quantity	Unit	Rate	Total
D5030 Communications & Security         91,463         SF         23,21         2,122,69           Phone and data including wiring and conduit         91,463         SF         4,30         393,291           Wireless access points         6         EA         1,650,00         9,900           Fire alarm system         91,463         SF         3,00         274,389           DAS         1         LS         50,000,00         50,000           PA and sound system - infrastructure only         91,463         SF         1,21         110,670           AV and sound system - infrastructure only         91,463         SF         1,26         20,800         19,400           Speakers         8         EA         2,600,00         20,800         20,800         20,800         20,800         20,800         20,800         20,800         30,000         Additional equipment, allow         1         LS         500,000,00         500,000,00         20,800         33,000         Access control         6         EA         5,500,00         33,000         Additional equipment, allow         1         LS         50,000,00         63,000         30,000         Access control         4         EA         4,000,00         16,000         16,000         121,000					
Phone and data including wiring and conduit       91,463       SF       4.30       393,291         Wireless access points       6       EA       1,650.00       9,900         Fire alarm system       91,463       SF       3.00       274,389         DAS       1       LS       50,000.00       50,000         PA system       91,463       SF       3.85       382,133         Projection screen, recessed       4       EA       4,860.00       19,400         Speakers       8       EA       2,600.00       20,800         Additional equipment, allow       1       LS       500,000.00       500,000         CCTV - infrastructure only       91,463       SF       3.19       291,663         Access control       6       EA       5,500.00       33,000         ADA button       4       EA       4,000.00       16,000         D5040 Electrical Specialty       91,463       SF       1.32       228,658         PV systems, allow       91,463       SF       1.32       121,000         15       KW       4,200.00       63,000       121,000       121,000         17,92       1 hood - cultural kitchen       1       EA <td< td=""><td>D5030 Communications &amp; Security</td><td>91,463</td><td>SF</td><td>23.21</td><td>2,122,569</td></td<>	D5030 Communications & Security	91,463	SF	23.21	2,122,569
Wireless access points         6         EA         1,650,00         9,900           Fire alam system         91,463         SF         3.00         274,339           DAS         1         LS         50,000.00         50,000.00           PA system         91,463         SF         1.21         110,670           AV and sound system - infrastructure only         91,463         SF         3.85         352,133           Projection screen, recessed         4         EA         4,850.00         19,400           Speakers         8         EA         2,600.00         20,800           Additional equipment, allow         1         LS         500,000.00         500,000           CCTV - infrastructure only         91,463         SF         3.75         342,986           Access control         6         EA         5,500.00         33,000           ADA button         4         EA         4,000.00         16,000           D5040 Electrical Specialty         91,463         SF         3.19         291,659           Electrical to mechanical systems - equipment connections         91,463         SF         4.78         437,534           E1010 Commercial Equipment         91,463         SF	Phone and data including wiring and conduit	91,463	SF	4.30	393,291
Fire alarm system       91,463       SF       3.00       274,389         DAS       1       LS       50,000.00       50,000         PA system       91,463       SF       1.21       110,670         AV and soud system - infrastructure only       91,463       SF       3.86       352,133         Projection screen, recessed       4       EA       4,850.00       19,400         Speakers       8       EA       2,600.00       20,800         Additional equipment, allow       1       LS       500,000.00       500,000         CCTV - infrastructure only       91,463       SF       3.19       291,658         Access control       6       EA       5,500.00       33,000         ADA button       4       EA       4,000.00       16,000         DS040 Electrical Specialty       91,463       SF       2.50       228,658         PV systems, allow       91,463       SF       1.32       121,000.00       63,000         E101 Commercial Equipment       91,463       SF       1.32       121,000.00       121,000.00         Type 1 hood - cultural kitchen       1       EA       121,000.00       121,000.00       121,000.00       121,000.00       1	Wireless access points	6	EA	1,650.00	9,900
DAS       1       LS       50,000.00       50,000         PA system       91,463       SF       1.21       110,670         AV and sound system - infrastructure only       91,463       SF       3.85       352,133         Projection screen, recessed       4       EA       4,850.00       19,400         Speakers       8       EA       2,600.00       20,800         Additional equipment, allow       1       LS       500,000.00       500,000         CCTV - infrastructure only       91,463       SF       3.75       342,986         Access control       6       EA       5,500.00       30,000         D5040 Electrical Specialty       91,463       SF       3.19       291,658         PV systems, allow       91,463       SF       4.20       0       63,000         Elotical to mechanical systems - equipment connections       91,463       SF       4.78       437,534         Eloterical to mechanical systems - equipment       91,463       SF       4.22       121,000         Type 1 hood - cultural kitchen       1       EA       121,000.00       121,000         Refrigerator/freezer       91,463       SF       3.46       316,534         Basket	Fire alarm system	91,463	SF	3.00	274,389
PA system       91,463       SF       1.21       110,670         AV and sound system - infrastructure only       91,463       SF       3.85       332,133         Projection screen, recessed       4       EA       4,850.00       19,400         Speakers       8       EA       2,600.00       20,800         Additional equipment, allow       1       LS       500,000.00       500,000         CCTV - infrastructure only       91,463       SF       3.75       342,986         Access control       6       EA       5,500.00       30,000         ADA button       4       EA       4,000.00       16,000         D5040 Electrical Specialty       91,463       SF       3.19       291,658         PV systems, allow       11       EK       5.00       30,000       63,000         E1010 Commercial Equipment       91,463       SF       1.32       121,000       121,000         Type 1 hood - cultural kitchen       91,463       SF       1.32       121,000       121,000         Refrigerator/freezer       by Owner       by Owner       by Owner       by Owner       by Owner         E1090 Other Equipment       91,463       SF       3.46       316,534 <td>DAS</td> <td>1</td> <td>LS</td> <td>50,000.00</td> <td>50,000</td>	DAS	1	LS	50,000.00	50,000
AV and sound system - infrastructure only       91,463       SF       3,85       352,133         Projection screen, recessed       4       EA       4,850.00       19,400         Speakers       8       EA       2,600.00       20,800         Additional equipment, allow       1       LS       500,000.00       60,000         CCTV - infrastructure only       91,463       SF       3,75       342,986         Access control       6       EA       5,500.00       33,000         ADA button       4       EA       4,000.00       16,000         D5040 Electrical Specialty       91,463       SF       3,19       291,658         Electrical Specialty       91,463       SF       2,50       228,658         PV systems, allow       91,463       SF       4,37,634         E1010 Commercial Equipment       91,463       SF       1,32       121,000         Type 1 hood - cultural kitchen       1       EA       121,000       by Owner         Microwave       Coffer maker       91,463       SF       3,46       316,534         E1090 Other Equipment       EA       17,300.00       17,300       by Owner         Microwave       2       SF	PA system	91,463	SF	1.21	110,670
Projection screen, recessed       4       EA       4,850.00       19,400         Speakers       8       EA       2,600.00       20,800         Additional equipment, allow       1       LS       500,000.00       500,000         CCTV - infrastructure only       91,463       SF       3,75       342,986         Access control       6       EA       5,500.00       16,000         D5040 Electrical Specialty       91,463       SF       2,250       228,658         PV systems, allow       91,463       SF       2,50       228,658         PV systems, allow       91,463       SF       4,78       437,534         E1010 Commercial Equipment       91,463       SF       1.32       121,000         Type 1 hood - cultural kitchen       1       EA       121,000.00       121,000         Refrigerator/freezer       91,463       SF       3.46       316,534         Microwave       Coffer maker       91,463       SF       3.46       316,534         Basketball backboards - retractable       4       EA       8,500.00       34,000         Coffer maker       2       EA       18,500.00       37,000         Woldipadding       3,283 <t< td=""><td>A/V and sound system - infrastructure only</td><td>91,463</td><td>SF</td><td>3.85</td><td>352,133</td></t<>	A/V and sound system - infrastructure only	91,463	SF	3.85	352,133
Speakers         8         EA         2,600.00         20,800           Additional equipment, allow         1         LS         500,000.00         500,000           CCTV - infrastructure only         91,463         SF         3.75         342,986           Access control         6         EA         5,500.00         33,000           ADA button         4         EA         4,000.00         16,000           D5040 Electrical Specialty         91,463         SF         2.50         228,658           PV systems, allow         91,463         SF         2.50         228,658           PV systems, allow         91,463         SF         4.78         437,534           E10 Equipment         91,463         SF         1.32         121,000           Type 1 hood - cultural kitchen         1         EA         121,000.00         121,000           Refrigerator/freezer         Microwave         by Owner         by Owner         by Owner           Coffer maker         91,463         SF         3.46         316,534           Basketball backboards - retractable         4         EA         8,500.00         34,000           Coffer maker         2         EA         18,500.00	Projection screen, recessed	4	EA	4,850.00	19,400
Additional equipment, allow       1       LS       500,000       500,000         CCTV - infrastructure only       91,463       SF       3.75       342,986         Access control       6       EA       5,500,00       33,000         ADA button       4       EA       4,000.00       16,000         D5040 Electrical Specialty       91,463       SF       3.19       291,658         Electrical to mechanical systems - equipment connections       91,463       SF       2.50       228,658         PV systems, allow       91,463       SF       4.78       437,534         E1010 Commercial Equipment       91,463       SF       4.78       437,534         E1010 Commercial Equipment       91,463       SF       1.32       121,000         Refrigerator/freezer       Microwave       by Owner       by Owner         Microwave       Coffer maker       91,463       SF       3.46       316,534         Basketball backboards - retractable       4       EA       8,500.00       34,000         Court divider curtain       3,283       SF       8.60       28,234         Scoreboard       2       EA       18,500.00       37,000         Wall padding       3,283	Speakers	8	EA	2,600.00	20,800
CCTV - infrastructure only       91,463       SF       3.75       342,986         Access control       6       EA       5,500.00       33,000         ADA button       4       EA       4,000.00       16,000         D5040 Electrical Specialty       91,463       SF       3.19       291,658         Electrical to mechanical systems - equipment connections       91,463       SF       2.50       228,658         PV systems, allow       91,463       SF       4.200.00       63,000         E10 Equipment       91,463       SF       4.200.00       63,000         E10 IO Commercial Equipment       91,463       SF       4.78       437,534         E1010 Commercial Equipment       91,463       SF       1.32       121,000         Refrigerator/freezer       Microwave       by Owner       by Owner         Microwave       Coffer maker       91,463       SF       3.46       316,534         Basketball backboards - retractable       4       EA       8,500.00       34,000         Court divider curtain       3.283       SF       8.60       28,234         Scoreboard       2       EA       18,500.00       37,000         Fod service equipment, allow	Additional equipment, allow	1	LS	500,000.00	500,000
Access control       6       EA       5,500.00       33,000         ADA button       4       EA       4,000.00       16,000         D5040 Electrical Specialty       91,463       SF       3.19       291,658         PV systems, allow       91,463       SF       2.50       228,658         PV systems, allow       91,463       SF       4.200.00       63,000         E10 Equipment       91,463       SF       4.78       437,534         E1010 Commercial Equipment       91,463       SF       1.32       121,000         Type 1 hood - cultural kitchen       1       EA       121,000.00       121,000         Refrigerator/freezer       Microwave       by Owner       by Owner       by Owner         Coffer maker       91,463       SF       3.46       316,534         Basketball backboards - retractable       4       EA       8,500.00       34,000         Court divider curtain       1       EA       17,300.00       17,300         Wall padding       3,283       SF       8.60       28,234         Scoreboard       2       EA       18,500.00       37,000         Food service equipment, allow       1       LS       200,000.00 </td <td>CCTV - infrastructure only</td> <td>91,463</td> <td>SF</td> <td>3.75</td> <td>342,986</td>	CCTV - infrastructure only	91,463	SF	3.75	342,986
ADA button       4       EA       4,000.00       16,000         D5040 Electrical Specialty       91,463       SF       3.19       291,658         Electrical to mechanical systems - equipment connections       91,463       SF       2.50       228,658         PV systems, allow       91,463       SF       2.50       228,658         E10 Equipment       91,463       SF       4.78       437,534         E1010 Commercial Equipment       91,463       SF       1.32       121,000         Type 1 hood - cultural kitchen       1       EA       121,000.00       121,000         Refrigerator/freezer       Microwave       by Owner       by Owner       by Owner         Coffer maker       91,463       SF       3.46       316,534         E1090 Other Equipment       91,463       SF       3.46       316,534         Basketball backboards - retractable       4       EA       8,500.00       34,000         Court divider curtain       3,283       SF       8.60       28,234         Scoreboard       2       EA       18,500.00       37,000         Wall padding       3,283       SF       2.26       206,548	Access control	6	EA	5,500.00	33,000
D5040 Electrical Specialty       91,463       SF       3.19       291,658         Electrical to mechanical systems - equipment connections       91,463       SF       2.50       228,658         PV systems, allow       91,463       SF       4.200.00       63,000         E10 Equipment       91,463       SF       4.78       437,534         E1010 Commercial Equipment       91,463       SF       1.32       121,000         Type 1 hood - cultural kitchen       1       EA       121,000.00       121,000.00         Refrigerator/freezer       Microwave       by Owner       by Owner         Coffer maker       91,463       SF       3.46       316,534         Basketball backboards - retractable       4       EA       8,500.00       34,000         Court divider curtain       1       EA       17,300.00       17,300         Wall padding       3,283       SF       8.60       28,234         Scoreboard       2       EA       18,500.00       37,000         Food service equipment, allow       1       LS       200,000.00       200,000	ADA button	4	EA	4,000.00	16,000
D5040 Electrical Specialty       91,463       SF       3.19       291,658         Electrical to mechanical systems - equipment connections       91,463       SF       2.50       228,658         PV systems, allow       15       KW       4,200.00       63,000         E10 Equipment       91,463       SF       4.78       437,534         E1010 Commercial Equipment       91,463       SF       1.32       121,000         Type 1 hood - cultural kitchen       1       EA       121,000.00       121,000         Refrigerator/freezer       by Owner       by Owner       by Owner         Microwave       291,463       SF       3.46       316,534         Basketball backboards - retractable       4       EA       8,500.00       34,000         Court divider curtain       1       EA       17,300.00       17,300         Wall padding       3,283       SF       8.60       28,234         Scoreboard       2       EA       18,500.00       37,000         Food service equipment, allow       1       LS       200,000.00       200,000					
Electrical to mechanical systems - equipment connections       91,463       SF       2.50       228,658         PV systems, allow       15       KW       4,200.00       63,000         E10 Equipment       91,463       SF       4.78       437,534         E1010 Commercial Equipment       91,463       SF       1.32       121,000         Type 1 hood - cultural kitchen       1       EA       121,000.00       121,000         Refrigerator/freezer       by Owner       by Owner       by Owner         Coffer maker       91,463       SF       3.46       316,534         Basketball backboards - retractable       4       EA       8,500.00       34,000         Court divider curtain       1       EA       17,300.00       17,300         Wall padding       3,283       SF       8.60       28,234         Scoreboard       2       EA       18,500.00       37,000         Food service equipment, allow       1       LS       200,000.00       200,000	D5040 Electrical Specialty	91,463	SF	3.19	291,658
PV systems, allow       15       KW       4,200.00       63,000         E10 Equipment       91,463       SF       4.78       437,534         E1010 Commercial Equipment       91,463       SF       1.32       121,000         Type 1 hood - cultural kitchen       1       EA       121,000.00       121,000         Refrigerator/freezer       by Owner       by Owner       by Owner         Coffer maker       91,463       SF       3.46       316,534         Basketball backboards - retractable       4       EA       8,500.00       34,000         Court divider curtain       3.283       SF       8.60       28,234         Scoreboard       2       EA       18,500.00       37,000         Food service equipment, allow       91,463       SF       2.26       206,548	Electrical to mechanical systems - equipment connections	91,463	SF	2.50	228,658
E10 Equipment         91,463         SF         4.78         437,534           E1010 Commercial Equipment Type 1 hood - cultural kitchen Refrigerator/freezer Microwave Coffer maker         91,463         SF         1.32         121,000           Nicrowave Coffer maker         1         EA         121,000.00         121,000           E1090 Other Equipment Basketball backboards - retractable Court divider curtain Wall padding Scoreboard Food service equipment, allow         91,463         SF         3.46         316,534           E20 Furnishings         91,463         SF         8.500.00         34,000         17,300           E20 Furnishings         91,463         SF         2.26         206,548	PV systems, allow	15	KW	4,200.00	63,000
E10 Equipment       91,463       SF       4.78       437,534         E1010 Commercial Equipment       Type 1 hood - cultural kitchen       1       EA       121,000       121,000         Refrigerator/freezer       by Owner       by Owner       by Owner       by Owner         Microwave       Coffer maker       91,463       SF       3.46       316,534         E1090 Other Equipment       91,463       SF       3.46       316,534         Basketball backboards - retractable       4       EA       8,500.00       34,000         Court divider curtain       1       EA       17,300.00       17,300         Wall padding       3,283       SF       8.60       28,234         Scoreboard       2       EA       18,500.00       37,000         Food service equipment, allow       1       LS       200,000.00       200,000		04 400	05	4.70	107 50 1
E1010 Commercial Equipment       91,463       SF       1.32       121,000         Type 1 hood - cultural kitchen       1       EA       121,000.00       121,000         Refrigerator/freezer       by Owner       by Owner         Microwave       Coffer maker       by Owner         E1090 Other Equipment       91,463       SF       3.46       316,534         Basketball backboards - retractable       4       EA       8,500.00       34,000         Court divider curtain       1       EA       17,300.00       17,300         Wall padding       3,283       SF       8.60       28,234         Scoreboard       2       EA       18,500.00       37,000         Food service equipment, allow       91,463       SF       2.26       200,000	E10 Equipment	91,463	SF	4.78	437,534
E1010 Commenced Equipment       101,000       01       102       121,000         Type 1 hood - cultural kitchen       1       EA       121,000.00       121,000         Refrigerator/freezer       by Owner       by Owner       by Owner         Microwave       Coffer maker       91,463       SF       3.46       316,534         Basketball backboards - retractable       4       EA       8,500.00       34,000         Court divider curtain       1       EA       17,300.00       17,300         Wall padding       3,283       SF       8.60       28,234         Scoreboard       2       EA       18,500.00       37,000         Food service equipment, allow       1       LS       200,000.00       200,000		91 463	SF	1 32	121 000
Refrigerator/freezer       by Owner         Microwave       by Owner         Coffer maker       91,463       SF       3.46       316,534         Basketball backboards - retractable       4       EA       8,500.00       34,000         Court divider curtain       1       EA       17,300.00       17,300         Wall padding       3,283       SF       8.60       28,234         Scoreboard       2       EA       18,500.00       37,000         Food service equipment, allow       1       LS       200,000.00       200,000	Type 1 hood - cultural kitchen	1	FA	121 000 00	121,000
Microwave       by Owner         Coffer maker       by Owner         E1090 Other Equipment       91,463       SF       3.46       316,534         Basketball backboards - retractable       4       EA       8,500.00       34,000         Court divider curtain       1       EA       17,300.00       17,300         Wall padding       3,283       SF       8.60       28,234         Scoreboard       2       EA       18,500.00       37,000         Food service equipment, allow       1       LS       200,000.00       200,000	Refrigerator/freezer		273	121,000.00	hv Owner
Coffer maker       91,463       SF       3.46       316,534         E1090 Other Equipment       Basketball backboards - retractable       4       EA       8,500.00       34,000         Court divider curtain       1       EA       17,300.00       17,300         Wall padding       3,283       SF       8.60       28,234         Scoreboard       2       EA       18,500.00       37,000         Food service equipment, allow       1       LS       200,000.00       200,000	Microwave				by Owner
E1090 Other Equipment       91,463       SF       3.46       316,534         Basketball backboards - retractable       4       EA       8,500.00       34,000         Court divider curtain       1       EA       17,300.00       17,300         Wall padding       3,283       SF       8.60       28,234         Scoreboard       2       EA       18,500.00       37,000         Food service equipment, allow       1       LS       200,000.00       200,000	Coffer maker				by Owner
E1090 Other Equipment       91,463       SF       3.46       316,534         Basketball backboards - retractable       4       EA       8,500.00       34,000         Court divider curtain       1       EA       17,300.00       17,300         Wall padding       3,283       SF       8.60       28,234         Scoreboard       2       EA       18,500.00       37,000         Food service equipment, allow       1       LS       200,000.00       200,000					
Basketball backboards - retractable       4       EA       8,500.00       34,000         Court divider curtain       1       EA       17,300.00       17,300         Wall padding       3,283       SF       8.60       28,234         Scoreboard       2       EA       18,500.00       37,000         Food service equipment, allow       1       LS       200,000.00       200,000	E1090 Other Equipment	91,463	SF	3.46	316,534
Court divider curtain       1       EA       17,300.00       17,300         Wall padding       3,283       SF       8.60       28,234         Scoreboard       2       EA       18,500.00       37,000         Food service equipment, allow       1       LS       200,000.00       200,000	Basketball backboards - retractable	4	EA	8,500.00	34,000
Wall padding       3,283       SF       8.60       28,234         Scoreboard       2       EA       18,500.00       37,000         Food service equipment, allow       1       LS       200,000.00       200,000	Court divider curtain	1	EA	17,300.00	17,300
Scoreboard         2         EA         18,500.00         37,000           Food service equipment, allow         1         LS         200,000.00         200,000           E20 Furnishings         91,463         SF         2.26         206,548	Wall padding	3,283	SF	8.60	28,234
Food service equipment, allow         1         LS         200,000.00         200,000           E20 Furnishings         91,463         SF         2.26         206,548	Scoreboard	2	EA	18,500.00	37,000
E20 Furnishings 91,463 SF 2.26 206,548	Food service equipment, allow	1	LS	200,000.00	200,000
E20 Furnishings 91,463 SF 2.26 206,548					
	E20 Furnishings	91,463	SF	2.26	206,548

E2010 Fixed Furnishings	91,463	SF	2.26	206,548
Mirror wall - 8' ht.	1,236	SF	36.15	44,681
Ballet barre	155	LF	69.20	10,691
Reception desk, allow	1	LS	12,500.00	12,500
Chair rail, allow	200	LF	85.00	17,000
Uppers, PLAM (allow)	100	LF	380.00	38,000

Houghton (Building) - Option 2				
	Quantity	Unit	Rate	Total
Counters incl. cabinets, PLAM (allow)	125	LF	425.00	53,125
Counters incl. cabinets, solid surface (allow)	50	LF	475.00	23,750
Cubbies, allow	20	LF	340.00	6,800
E2020 Movable Furnishings	91,463	SF		
FF&E - by Owner				FF&E
F10 Special Construction	91,463	SF	42.65	3,901,277
F1010 Special Structures	91,463	SF	42.65	3,901,277
New pool construction, allow	9,464	SF	390.00	3,690,960
Pool equipment, allow	1	LS	75,000.00	75,000
Pool mech/plumbing				incl. above
Natatorium decking	7,435	SF	18.20	135,317

Houghton (Sitework) - Option 2 Summary				
			\$/SF	TOTAL
		Gross Area:	226,601 SF	
G10 Site Preparation		14%	4.85	1,099,359
G20 Site Improvements		23%	7.74	1,752,832
G30 Site Mechanical Utilities		16%	5.47	1,239,562
G40 Site Electrical Utilities		4%	1.33	300,600
G Building Sitework		57%	19.38	4,392,353
SITE ELEMENTAL COST BEFORE CONTINGENCIES		57%	19.38	4,392,353
Design Contingency	15.00%	9%	0.00	658,853
Construction Contingency	5.00%	0%	1.11	252,560
SITE ELEMENTAL COST INCLUDING CONTINGENCIES		69%	23.41	5,303,766
General Conditions	7.00%	5%	1.64	371,264
General Requirements	7.50%	6%	1.88	425,627
Corporate Tax (OR)	0.57%	0%	0.15	34,774
Subcontractor Default Insurance (OR)	1.75%	0%	0.47	107,370
Office Overhead & Profit	4.50%	4%	1.24	280,926
Bonds and Insurance	1.50%	1%	0.43	97,856
Permit				By Owner
SITE CONSTRUCTION COST BEFORE ESCALATION		86%	29.22	6,621,582
Escalation to Start Date (May 2025)	15.83%	14%	4.63	1,048,417
RECOMMENDED BUDGET		100%	33.85	7,670,000

Control Quantities         Program Areas         226,601         SF           Building botymint         S7,100         SF           Readwork         99,565         SF           Aphatit         99,565         SF           Pedestrian Paving         20,458         SF           Concrete - sidewalk         15,853         SF           Construction entrance         49,478         SF           Construction entrance         1         EA         5,000,00         5,000           Construction entrance         2,170         LF         13,50         28,285           Erosion control wid catch basin filters and monitoring         226,601         SF         0.20         45,320           Tree protection, allow         1         LS         15,000.00         15,000           Utility protection, allow         1         LS         15,000.00         15,000           Censtruction survey, incl. layout         1         LS         15,000.00         15,000	Houghton (Sitework) - Option 2				
Control Quantities           Program Areas         226,601         SF           Building footprint         57,100         SF           Readwork         57,100         SF           No work articipated         99,665         SF           Parking Lot         99,665         SF           Asphalt         99,665         SF           Concrete w/ Integral color - countyard         4,605         SF           Cancrete w/ Integral color - countyard         4,605         SF           Landscape         49,478         SF           G10 Site Preparation         226,601         SF         0.79         178,615           Construction entrance         1         EA         500,000         5,000         0.5,000         1.5,000,000         15,000         10,000         10,000         10,000         10,000         10,000         10,000         10,000         10,000         10,000 <th></th> <th>Quantity</th> <th>Unit</th> <th>Rate</th> <th>Total</th>		Quantity	Unit	Rate	Total
Control cuantities         226,601         SF           Program Areas         226,601         SF           Building footprint         57,100         SF           Readwork         99,565         SF           Parking Lot         99,565         SF           Apphalt         99,565         SF           Pedestrian Paving         20,488         SF           Concrete - sidewalk         15,853         SF           Concrete w/ integral color - courtyard         4,805         SF           Landscape         49,478         SF           Planting area         49,478         SF           G10 Site Preparation         226,601         SF         0.79           G1010 Site Clearing         226,601         SF         0.79         178,615           Construction entrance         1         EA         5,000.00         5,000           Construction entrance         1         LS         1,009,359           G1010 Site Clearing         226,601         SF         0.20         45,320           Construction entrance         1         LS         1,000,00         10,000           Utility protection, allow         1         LS         15,000,00         16,000	Control Quantition				
110gen Release       220,001       SF         Building footprint       57,100       SF         Readwork       99,565       SF         Parking Lot       99,565       SF         Asphalt       99,565       SF         Pedestrian Paving       20,458       SF         Concrete - sidewalk       15,853       SF         Concrete wintegral color - courtyard       4,615       SF         Landscape       49,478       SF         Planting area       49,478       SF         G1010 Site Clearing       226,601       SF       0.79         Construction entrance       1       EA       5,000.00       5,000         Construction entrance       1       EA       5,000.00       5,000         Construction entrance       1       EA       5,000.00       16,000         Construction fance       2,170       LF       13.50       29,295         Erosion control w/ catch basin filters and monitoring       226,601       SF       0.20       45,320         Utility protection, allow       1       LS       10,000.00       10,000       10,000         Cerra and grub – existing vegetation       33,990       SF       0.75       25,433<	Program Areas	226 601	SE		
Bandwork         Or, No         City           No work anticipated         99,565         SF           Parking L0         99,565         SF           Asphalt         99,565         SF           Pedestrian Paving         20,458         SF           Concrete - sidewalk         15,853         SF           Concrete - w/ integral color - courtyard         4,605         SF           Landscape         49,478         SF           Planting area         49,478         SF           G1010 Site Proparation         226,601         SF         4.85         1,099,359           G1010 Site Clearing         226,601         SF         0.79         178,615           Construction entrance         1         EA         5,000.00         5,000           Construction fence         2,170         LF         13.50         29,295           Erosion control w/ catch basin filters and monitoring         226,601         SF         0.20         45,320           Tee protection, allow         1         LS         10,000.00         10,000           Utility protection, allow         1         LS         15,000.00         15,000           Construction survey, incl. layout         1         LS	Building footprint	57 100	SE		
No work articipated           Parking Lot         99,565         SF           Asphalt         99,565         SF           Pedestrian Paving         20,458         SF           Concrete - sidewalk         15,853         SF           Concrete wi integral color - courtyard         4,005         SF           Landscape         49,478         SF           Planting area         49,478         SF           G10 Site Preparation         226,601         SF         0.79         178,615           Construction entrance         1         EA         5,000.00         5,000         Construction fence         2,170         LF         13.50         29,295           Erosion control w/ catch basin filters and monitoring         226,601         SF         0.20         45,320           Tree protection, allow         1         LS         15,000.00         16,000           Utility protection, allow         1         LS         15,000.00         16,000           Dewatering         1         LS         15,000.00         15,000           Construction survey, incl. layout         1         LS         15,000.00         16,000           G1020 Site Demolition and Relocations         226,601         SF	Roadwork	07,100	01		
Parking Lot         99,565         SF           Asphalt         99,565         SF           Pedestrian Paving         20,458         SF           Concrete - sidewalk         15,853         SF           Concrete wintegral color - courtyard         4,005         SF           Landscape         49,478         SF           Planting area         49,478         SF           G100 Site Preparation         226,601         SF         0.79           Concrete vintegral color - courtyard         4,4005         SF           Construction entrance         1         EA         5,000.00           Construction fence         2,170         LF         13.50         29,295           Erosion control w/ catch basin filters and monitoring         226,601         SF         0.20         45,320           Tree protection, allow         1         LS         15,000.00         15,000           Utility protection, allow         1         LS         15,000.00         15,000           Dewatering         1         LS         15,000.00         35,000         35,000           G1020 Site Demolition and Relocations         226,601         SF         2.07         468,867           Clear and grub - existing	No work anticipated				
Asphalt       99,665       SF         Pedestrian Paving       20,458       SF         Concrete - sidewalk       15,853       SF         Concrete withregral color - courtyard       4,605       SF         Landscape       49,478       SF         Planting area       49,478       SF         G10 Site Preparation       226,601       SF       0.79       178,615         Construction entrance       1       EA       5,000,00       5,000         Construction entrance       2,170       LF       13.50       29,295         Erosion control wid catch basin filters and monitoring       226,601       SF       0.20       445,320         Tree protection, allow       1       LS       15,000,00       15,000         Utility protection, allow       1       LS       15,000,00       16,000         Dewatering       1       LS       15,000,00       35,000         G1020 Site Demolition and Relocations       226,601       SF       2.25       433,374         Demo - misc. site obstructions, allow       1       LS       10,000,00       10,000         G1020 Site Demolition and Relocations       226,601       SF       1.99       451,877         Mass	Parking Lot	99 565	SF		
Concrete         Solution         SF           Pedestrian Paving         20,458         SF           Concrete - sidewalk         15,853         SF           Concrete withtegral color - courtyard         4,605         SF           Landscape         49,478         SF           Planting area         49,478         SF           G10 Site Preparation         226,601         SF         4.85         1,099,359           G1010 Site Clearing         226,601         SF         0.79         178,815           Construction entrance         1         EA         5,000.00         5,000           Construction entrance         2,170         LF         13.50         29,295           Erosion control will catch basin filters and monitoring         226,601         SF         0.20         45,320           Tree protection, allow         1         LS         15,000.00         15,000         15,000           Utility protection, allow         1         LS         15,000.00         15,000         15,000           Construction survey, incl. layout         1         LS         15,000.00         15,000         15,000           G1020 Site Demolition and Relocations         226,601         SF         2.07         48	Asphalt	99,565	SE		
Concrete - sidewalk       15,853       SF         Concrete w/ integral color - courtyard       4,605       SF         Landscape       49,478       SF         Planting area       49,478       SF         G100 Site Preparation       226,601       SF       4.85         G100 Site Preparation       226,601       SF       0.79       178,815         Construction entrance       1       EA       5,000.00       5,000         Construction entrance       2,170       LF       13.50       29,995         Tree protection, allow       1       LS       15,000.00       15,000         Utility protection, allow       1       LS       15,000.00       10,000         Dewatering       1       LS       35,000.00       15,000         Construction survey, incl. layout       1       LS       33,000.00       35,000         G1020 Site Demolition and Relocations       226,601       SF       2.07       468,867         Clear and grub - existing vegetation       33,990       SF       0.75       25,493         Demo - misc, site obstructions, allow       1       LS       10,000.00       10,000         G1030 Site Earthwork       226,601       SF       1.99 <td>Pedestrian Paving</td> <td>20 458</td> <td>SF</td> <td></td> <td></td>	Pedestrian Paving	20 458	SF		
Concrete w/ integral color - courtyard         4,605         SF           Landscape         49,478         SF           Planting area         49,478         SF           G10 Site Preparation         226,601         SF         4.85         1,099,359           G1010 Site Clearing         226,601         SF         0.79         178,615           Construction entrance         1         EA         5,000.00         5,000           Construction entrance         2,170         LF         13.50         29,295           Tree protection, allow         1         LS         15,000.00         15,000           Utility protection, allow         1         LS         15,000.00         10,000           Dewatering         1         LS         15,000.00         15,000           Construction survey, incl. layout         1         LS         35,000.00         35,000           G1020 Site Demolition and Relocations         226,601         SF         2.07         468,867           Clear and grub - existing vegetation         33,990         SF         0.75         25,493           Demo - misc. site obstructions, allow         1         LS         10,000.00         10,000           G1030 Site Earthwork <td< td=""><td>Concrete - sidewalk</td><td>15 853</td><td>SE</td><td></td><td></td></td<>	Concrete - sidewalk	15 853	SE		
Construction         Construction<	Concrete w/ integral color - courtvard	4 605	SE		
Planting area         49,478         SF           G10 Site Preparation         226,601         SF         4.85         1,099,359           G1010 Site Clearing         226,601         SF         0.79         176,615           Construction entrance         1         EA         5,000.00         5,000           Construction fence         2,170         LF         13,50         29,295           Erosion control w/ catch basin filters and monitoring         226,601         SF         0.20         45,320           Tree protection, allow         1         LS         15,000.00         15,000           Utility protection, allow         1         LS         10,000.00         10,000           Tem protection, allow         1         LS         15,000.00         16,000           Dewatering         1         LS         15,000.00         35,000           Clara and grub - existing vegetation         33,990         SF         0.75         25,493           Demo - misc. site obstructions, allow         1         LS         10,000.00         10,000           G1020 Site Earthwork         226,601         SF         1.99         451,877           Mass excavation         6,278         CY         18.00         <	Landscape	49 478	SF		
G10 Site Preparation         226,601         SF         4.85         1,099,359           G1010 Site Clearing Construction entrance         1         EA         5,000.00         5,000           Construction entrance         1         EA         5,000.00         5,000           Construction entrance         2,170         LF         13.50         29,295           Erosion control w/ catch basin filters and monitoring         226,601         SF         0.20         45,320           Tree protection, allow         1         LS         15,000.00         15,000           Utility protection, allow         1         LS         15,000.00         16,000           Dewatering         1         LS         15,000.00         16,000           Construction survey, incl. layout         1         LS         35,000.00         35,000           G1020 Site Demolition and Relocations         226,601         SF         2.07         468,867           Clear and grub - existing vegetation         33,990         SF         0.75         25,493           Demo - hardscape         192,611         SF         2.07         468,867           Mass excavation - building, see 'Building''         incl.         incl.           Mass excavation - building, see '	Planting area	49.478	SE		
G10 Site Preparation         226,601         SF         4.85         1,099,359           G1010 Site Clearing         226,601         SF         0.79         178,615           Construction entrance         1         EA         5,000.00         5,000           Construction fence         2,170         LF         13.50         29,295           Erosion control w catch basin filters and monitoring         226,601         SF         0.20         45,320           Tree protection, allow         1         LS         15,000.00         15,000         10,000           Utility protection, allow         1         LS         15,000.00         10,000         24,000           Dewatering         1         LS         15,000.00         15,000         24,000         15,000         24,000         15,000         24,000         15,000         24,000         35,000         35,000         35,000         35,000         35,000         35,000         35,000         35,000         35,000         35,000         1         LS         10,000,00         10,000         10,000         10,000         10,000         10,000         10,000         10,000         10,000         10,000         10,000         10,000         10,000         10,000		10,110	01		
G1010 Site Clearing         226,601         SF         0.79         178,615           Construction entrance         1         EA         5,000.00         5,000           Construction fence         2,170         LF         13.50         29,295           Erosion control w/ catch basin filters and monitoring         226,601         SF         0.20         45,320           Tree protection, allow         1         LS         15,000.00         15,000           Utility protection, allow         1         LS         10,000.00         10,000           Tem pracilities         16         MO         1,500.00         15,000           Dewatering         1         LS         15,000.00         15,000           Construction survey, incl. layout         1         LS         35,000.00         35,000           G1020 Site Demolition and Relocations         226,601         SF         2.07         468,867           Clear and grub - existing vegetation         33,990         SF         0.75         25,493           Demo - hardscape         192,611         SF         2.07         468,867           G1030 Site Earthwork         226,601         SF         1.99         451,877           Mass excavation - building, see "Buildin	G10 Site Preparation	226,601	SF	4.85	1,099,359
G1010 Site Clearing       220,001       SI       0.75       110,010         Construction entrance       1       EA       5,000.00       5,000         Construction fence       2,170       LF       13.50       29,295         Erosion control w/ catch basin filters and monitoring       226,601       SF       0.20       45,320         Tree protection, allow       1       LS       15,000.00       15,000         Utility protection, allow       1       LS       15,000.00       10,000         Temp facilities       16       MO       1,500.00       24,000         Dewatering       1       LS       15,000.00       15,000         Construction survey, incl. layout       1       LS       35,000.00       35,000         G1020 Site Demolition and Relocations       226,601       SF       2.07       468,867         Clear and grub - existing vegetation       33,990       SF       0.75       25,493         Demo - hardscape       192,611       SF       2.25       433,374         Demo - misc. site obstructions, allow       1       LS       10,000.00       10,000         G1030 Site Earthwork       226,601       SF       1.99       451,877         Mass exc	G1010 Site Clearing	226 601	QE	0.70	179 615
Construction entrance       1       EA       5,000.00       5,000         Construction fence       2,170       LF       13.50       29,295         Erosion control w/ catch basin filters and monitoring       226,601       SF       0.20       45,320         Tree protection, allow       1       LS       15,000.00       15,000         Utility protection, allow       1       LS       15,000.00       10,000         Dewatering       16       MO       1,500.00       24,000         Dewatering       1       LS       15,000.00       15,000         Construction survey, incl. layout       1       LS       35,000.00       35,000         G1020 Site Demolition and Relocations       226,601       SF       2.75       25,493         Demo - hardscape       192,611       SF       2.25       433,374         Demo - misc. site obstructions, allow       1       LS       10,000.00       10,000         G1030 Site Earthwork       226,601       SF       1.99       451,877         Mass excavation - building, see 'Building"       incl.       incl.         Mass excavation - building, see 'Building"       incl.       13,001         Haul and dispose       6,278       CY		220,001	5	5.000.00	5 000
Construction fence       2,170       LF       13.50       29,295         Erosion control w/ catch basin filters and monitoring       226,601       SF       0.20       45,320         Tree protection, allow       1       LS       15,000.00       15,000         Utility protection, allow       1       LS       15,000.00       10,000         Temp facilities       16       MO       1,500.00       24,000         Dewatering       1       LS       15,000.00       16,000         Construction survey, incl. layout       1       LS       35,000.00       36,000         G1020 Site Demolition and Relocations       226,601       SF       2.07       468,867         Clear and grub - existing vegetation       33,990       SF       0.75       25,493         Demo - hardscape       192,611       SF       2.25       433,374         Demo - misc. site obstructions, allow       1       LS       10,000.00       10,000         G1030 Site Earthwork       226,601       SF       1.99       451,877         Mass excavation       building, see "Building"       incl.       incl.         Mass excavation       6,278       CY       18.00       113,001         Haul and dispose<	Construction entrance	1	EA	5,000.00	5,000
Erosion control w/ catch basin filters and monitoring       226,601       SF       0.20       45,320         Tree protection, allow       1       LS       15,000.00       15,000         Utility protection, allow       1       LS       10,000.00       10,000         Temp facilities       16       MO       1,500.00       24,000         Dewatering       1       LS       15,000.00       15,000         Construction survey, incl. layout       1       LS       35,000.00       35,000         G1020 Site Demolition and Relocations       226,601       SF       2.07       468,867         Clear and grub - existing vegetation       33,990       SF       0.75       25,493         Demo - hardscape       192,611       SF       2.25       433,374         Demo - misc. site obstructions, allow       1       LS       10,000.00       10,000         G1030 Site Earthwork       226,601       SF       1.99       451,877         Mass excavation - building, see 'Building''       incl.       113,001       14ul and dispose       6,278       CY       18.00       113,001         Haul and dispose       6,278       CY       18.00       113,301       226,601       SF       0.50       113,		2,170		13.50	29,295
Tree protection, allow       1       LS       15,000.00       15,000         Utility protection, allow       1       LS       10,000.00       10,000         Temp facilities       16       MO       1,500.00       24,000         Dewatering       1       LS       15,000.00       15,000         Construction survey, incl. layout       1       LS       15,000.00       35,000         G1020 Site Demolition and Relocations       226,601       SF       2.07       468,867         Clear and grub - existing vegetation       33,990       SF       0.75       25,493         Demo - hardscape       192,611       SF       2.25       433,374         Demo - misc. site obstructions, allow       1       LS       10,000.00       10,000         G1030 Site Earthwork       226,601       SF       1.99       451,877         Mass excavation - building, see 'Building'       incl.       incl.       incl.         Mass excavation - building, see 'Building'       incl.       incl.       incl.         Mass excavation       6,278       CY       18.00       113,001         Haul and dispose       6,278       CY       20.00       125,556         Grading - incl. compaction <td< td=""><td>Erosion control w/ catch basin filters and monitoring</td><td>226,601</td><td>SF</td><td>0.20</td><td>45,320</td></td<>	Erosion control w/ catch basin filters and monitoring	226,601	SF	0.20	45,320
Utility protection, allow       1       LS       10,000       10,000         Temp facilities       16       MO       1,500.00       24,000         Dewatering       1       LS       15,000.00       15,000         Construction survey, incl. layout       1       LS       35,000.00       35,000         G1020 Site Demolition and Relocations       226,601       SF       2.07       468,867         Clear and grub - existing vegetation       33,990       SF       0.75       25,493         Demo - hardscape       192,611       SF       2.25       433,374         Demo - misc. site obstructions, allow       1       LS       10,000.00       10,000         G1030 Site Earthwork       226,601       SF       1.99       451,877         Mass excavation - building, see 'Building''       incl.       incl.       incl.         Mass excavation - building, see 'Building''       incl.       incl.       incl.         Mass excavation - building, see 'Building''       incl.       incl.       incl.         Mass excavation - building foetprint - 12'' depth       226,601       SF       0.50       113,301         Base aggregates       8       2,115       CY       45.00       incl.	I ree protection, allow	1	LS	15,000.00	15,000
Temp facilities       16       MO       1,500.00       24,000         Dewatering       1       LS       15,000.00       15,000         Construction survey, incl. layout       1       LS       35,000.00       35,000         G1020 Site Demolition and Relocations       226,601       SF       2.07       468,867         Clear and grub - existing vegetation       33,990       SF       0.75       25,493         Demo - hardscape       192,611       SF       2.25       433,374         Demo - misc. site obstructions, allow       1       LS       10,000.00       10,000         G1030 Site Earthwork       226,601       SF       1.99       451,877         Mass excavation - building, see 'Building''       incl.       incl.       incl.         Mass excavation - building, see 'Building''       incl.       incl.       113,001         Haul and dispose       6,278       CY       20.00       125,556         Grading - incl. compaction       226,601       SF       0.50       113,301         Base aggregates       5       0.50       113,301       incl.       Vehicular paving - 6'' depth       1,844       CY       45.00       82,971         Pedestrian paving - 6'' depth       379<	Utility protection, allow	1	LS	10,000.00	10,000
Dewatering       1       LS       15,000       15,000         Construction survey, incl. layout       1       LS       35,000       35,000         G1020 Site Demolition and Relocations       226,601       SF       2.07       468,867         Clear and grub - existing vegetation       33,990       SF       0.75       25,493         Demo - hardscape       192,611       SF       2.25       433,374         Demo - misc. site obstructions, allow       1       LS       10,000.00       10,000         G1030 Site Earthwork       226,601       SF       1.99       451,877         Mass excavation - building, see 'Building''       incl.       incl.       incl.         Mass excavation       6,278       CY       18.00       113,001         Haul and dispose       6,278       CY       20.00       125,556         Grading - incl. compaction       226,601       SF       0.50       113,301         Base aggregates       2       2       45.00       incl.         Building footprint - 12'' depth       2,115       CY       45.00       82,971         Pedestrian paving - 6'' depth       379       CY       45.00       17.048	l emp facilities	16	MO	1,500.00	24,000
Construction survey, incl. layout       1       LS       35,000.00       35,000         G1020 Site Demolition and Relocations       226,601       SF       2.07       468,867         Clear and grub - existing vegetation       33,990       SF       0.75       25,493         Demo - hardscape       1       LS       10,000.00       10,000         G1030 Site Earthwork       226,601       SF       1.99       451,877         Mass excavation - building, see 'Building''       incl.       incl.         Mass excavation - building, see 'Building''       incl.       6,278       CY       18.00       113,001         Haul and dispose       6,278       CY       20.00       125,556       Grading - incl. compaction       226,601       SF       0.50       113,301         Base aggregates       Building footprint - 12'' depth       2,115       CY       45.00       incl.         Vehicular paving - 6'' depth       1,844       CY       45.00       82,971         Pedestrian paving - 6'' depth       379       CY       45.00       17.048	Dewatering	1	LS	15,000.00	15,000
G1020 Site Demolition and Relocations       226,601       SF       2.07       468,867         Clear and grub - existing vegetation       33,990       SF       0.75       25,493         Demo - hardscape       192,611       SF       2.25       433,374         Demo - misc. site obstructions, allow       1       LS       10,000.00       10,000         G1030 Site Earthwork       226,601       SF       1.99       451,877         Mass excavation - building, see 'Building''	Construction survey, Incl. layout	1	LS	35,000.00	35,000
Clear and grub - existing vegetation       33,990       SF       0.75       25,493         Demo - hardscape       192,611       SF       2.25       433,374         Demo - misc. site obstructions, allow       1       LS       10,000.00       10,000         G1030 Site Earthwork       226,601       SF       1.99       451,877         Mass excavation - building, see 'Building"       incl.       incl.         Mass excavation       6,278       CY       18.00       113,001         Haul and dispose       6,278       CY       20.00       125,556         Grading - incl. compaction       226,601       SF       0.50       113,301         Base aggregates       2,115       CY       45.00       incl.         Vehicular paving - 6" depth       1,844       CY       45.00       82,971         Pedestrian paving - 6" depth       379       CY       45.00       17.048	G1020 Site Demolition and Relocations	226,601	SF	2.07	468,867
Demo - hardscape       192,611       SF       2.25       433,374         Demo - misc. site obstructions, allow       1       LS       10,000.00       10,000         G1030 Site Earthwork       226,601       SF       1.99       451,877         Mass excavation - building, see 'Building"       incl.         Mass excavation       6,278       CY       18.00       113,001         Haul and dispose       6,278       CY       20.00       125,556         Grading - incl. compaction       226,601       SF       0.50       113,301         Base aggregates       311       2,115       CY       45.00       incl.         Vehicular paving - 6" depth       1,844       CY       45.00       82,971         Pedestrian paving - 6" depth       379       CY       45.00       17.048	Clear and grub - existing vegetation	33,990	SF	0.75	25,493
Demo - misc. site obstructions, allow       1       LS       10,000.00       10,000         G1030 Site Earthwork       226,601       SF       1.99       451,877         Mass excavation - building, see 'Building"       incl.         Mass excavation       6,278       CY       18.00       113,001         Haul and dispose       6,278       CY       20.00       125,556         Grading - incl. compaction       226,601       SF       0.50       113,301         Base aggregates       2115       CY       45.00       incl.         Vehicular paving - 6" depth       1,844       CY       45.00       82,971         Pedestrian paving - 6" depth       379       CY       45.00       17.048	Demo - hardscape	192,611	SF	2.25	433,374
G1030 Site Earthwork       226,601       SF       1.99       451,877         Mass excavation - building, see 'Building''       incl.         Mass excavation       6,278       CY       18.00       113,001         Haul and dispose       6,278       CY       20.00       125,556         Grading - incl. compaction       226,601       SF       0.50       113,301         Base aggregates       8       8       8       113,001         Vehicular paving - 6'' depth       2,115       CY       45.00       incl.         Pedestrian paving - 6'' depth       379       CY       45.00       17.048	Demo - misc. site obstructions, allow	1	LS	10,000.00	10,000
Mass excavation - building, see 'Building"       incl.         Mass excavation       6,278       CY       18.00       113,001         Haul and dispose       6,278       CY       20.00       125,556         Grading - incl. compaction       226,601       SF       0.50       113,301         Base aggregates       2,115       CY       45.00       incl.         Vehicular paving - 6" depth       1,844       CY       45.00       82,971         Pedestrian paving - 6" depth       379       CY       45.00       17.048	G1030 Site Earthwork	226.601	SF	1.99	451.877
Mass excavation       6,278       CY       18.00       113,001         Haul and dispose       6,278       CY       20.00       125,556         Grading - incl. compaction       226,601       SF       0.50       113,301         Base aggregates       2,115       CY       45.00       incl.         Vehicular paving - 6" depth       1,844       CY       45.00       82,971         Pedestrian paving - 6" depth       379       CY       45.00       17.048	Mass excavation - building, see 'Building"				incl.
Haul and dispose       6,278       CY       20.00       125,556         Grading - incl. compaction       226,601       SF       0.50       113,301         Base aggregates       2,115       CY       45.00       incl.         Vehicular paving - 6" depth       1,844       CY       45.00       82,971         Pedestrian paving - 6" depth       379       CY       45.00       17.048	Mass excavation	6.278	CY	18.00	113.001
Grading - incl. compaction       226,601       SF       0.50       113,301         Base aggregates       2,115       CY       45.00       incl.         Vehicular paving - 6" depth       1,844       CY       45.00       82,971         Pedestrian paving - 6" depth       379       CY       45.00       17.048	Haul and dispose	6.278	CY	20.00	125.556
Base aggregates2,115CY45.00incl.Building footprint - 12" depth2,115CY45.00incl.Vehicular paving - 6" depth1,844CY45.0082,971Pedestrian paving - 6" depth379CY45.0017.048	Grading - incl. compaction	226.601	SF	0.50	113.301
Building footprint - 12" depth       2,115       CY       45.00       incl.         Vehicular paving - 6" depth       1,844       CY       45.00       82,971         Pedestrian paving - 6" depth       379       CY       45.00       17.048	Base aggregates	,	-		- ,
Vehicular paving - 6" depth         1,844         CY         45.00         82,971           Pedestrian paving - 6" depth         379         CY         45.00         17.048	Building footprint - 12" depth	2,115	CY	45.00	incl.
Pedestrian paving - 6" depth 379 CY 45.00 17.048	Vehicular paving - 6" depth	1,844	CY	45.00	82,971
	Pedestrian paving - 6" depth	379	CY	45.00	17,048

Houghton (Sitework) - Option 2				
	Quantity	Unit	Rate	Total
	000.004	05		
G1040 Hazardous Waste Remediation	226,601	SF		
No work anticipated				NIC
G20 Site Improvements	226,601	SF	7.74	1,752,832
G2010 Roadways	226,601	SF		
No work anticipated				NIC
G2020 Parking Lots	226,601	SF	3.03	685,725
Asphalt	99,565	SF	4.75	472,934
Striping	99,565	SF	0.25	24,891
Concrete curb - 6"	5,020	LF	35.00	175,700
ADA curb ramp	4	EA	1,550.00	6,200
ADA sign	8	EA	750.00	6,000
G2030 Pedestrian Paving	15,853	SF	16.29	258,292
Concrete - sidewalk	15,853	SF	11.50	182,310
Concrete w/ integral color - courtyard	4,605	SF	16.50	75,983
G2040 Site Development	226,601	SF	0.72	162,500
Site walls, stairs & railings				
Seat wall - CIP conc w/ wood top	100	LF	275.00	27,500
Ramps and stairs, allow	1	LS	85,000.00	85,000
Site furnishing				
Café tables, bike racks, trash receptacles (etc.)	1	ALW	50,000.00	50,000
Park improvements - no work anticipated				NIC
G2050 Landscaping	226,601	SF	2.85	646,315
Trace Official desiduous	EO		050.00	22 500

Trees - 3" Cal., deciduous	50	EA	650.00	32,500
Tree grates - not required				NIC
Planting area	49,478	SF		
Top soil - 24" depth	3,665	CY	45.00	164,927
Mulch - 3" depth	458	CY	40.00	18,325
Planting - 2 gallon, 24" O.C.	12,370	EA	25.00	309,238
Irrigation				
Planting area	49,478	SF	2.25	111,326
Devices and controls	1	LS	10,000.00	10,000

Houghton (Sitework) - Option 2				
	Quantity	Unit	Rate	Total
G30 Site Mechanical Utilities	226,601	SF	5.47	1,239,562
G3010 Water Supply	226,601	SF	0.41	92,000
Water line	200	LF	55.00	11,000
Fire service line	200	LF	95.00	19,000
FD connection	1	EA	10,000.00	10,000
Vault structure	1	EA	30,000.00	30,000
Fire hydrants	2	EA	7,500.00	15,000
Connection to existing service	2	EA	3,500.00	7,000
G3020 Sanitary Sewer	226,601	SF	0.15	33,500
SS - 8" pipe, incl. trenching and backfill	250	LF	105.00	26,250
SS - cleanout	5	EA	750.00	3,750
Connection to existing service	1	EA	3,500.00	3,500
G3030 Storm Sewer	226,601	SF	4.92	1,114,062
SW - 8" pipe, incl. trenching and backfill	650	LF	85.00	55,250
Devices and controls - allow	1	EA	50,000.00	50,000
Detention vault, allow	837,760	GAL	1.20	1,005,312
Connection to existing service	1	EA	3,500.00	3,500
Stormwater vault - not required				NIC
G3060 Fuel Distribution	226,601	SF		
No work anticipated				NIC
G40 Site Electrical Utilities	226,601	SF	1.33	300,600
G4010 Electrical Distribution	226,601	SF	0.20	45,000
Transformer - by franchise utility				NIC
Power distribution - to building	1	LS	45,000.00	45,000
G4020 Site Lighting	226,601	SF	1.13	255,600
Pedestrian light poles		EA	6,000.00	90.000
Parking - light poles	18	EA	9,200.00	165,600
G4090 Other Site Electrical Utilities	226,601	SF_		
No work anticipated				NIC
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## North Kirkland (Building) - Option 1 Summary

INOIC	r randana (Balang) Option i Sannary				
			%	\$/SF	TOTAL
			Gross Area:	78,700 SF	
A10	Foundations		2%	17.59	1,384,008
А	Substructure		2%	17.59	1,384,008
B10	Superstructure		11%	85.04	6,692,972
B20	Exterior Enclosure		6%	48.70	3,832,633
B30	Roofing		4%	30.09	2,368,180
В	Shell		21%	163.83	12,893,785
C10	Interior Construction		3%	23.74	1,868,380
C20	Stairways		0%	2.86	225,000
C30	Interior Finishes		3%	26.03	2,048,169
С	Interiors		7%	52.62	4,141,549
D10	Conveying Systems		0%	2.87	226,000
D20	Plumbing Systems		2%	18.06	1,421,119
D30	Heating, Ventilation & Air Conditioning		11%	86.63	6,817,728
D40	Fire Protection		1%	7.58	596,308
D50	Electrical Lighting, Power & Communications		8%	65.11	5,124,205
D	Services		23%	180.25	14,185,359
E10	Equipment		1%	5.54	436,390
E20	Furnishings		0%	2.19	172,679
Е	Equipment & Furnishings		1%	7.74	609,069
F10	Special Construction		3%	20.30	1,597,712
F20	Selective Demolition		0%	0.00	0
F	Special Construction & Demolition		3%	20.30	1,597,712
BUILI	DING ELEMENTAL COST BEFORE CONTINGENCIES		57%	442.33	34,811,482
	Design Contingency	15.00%	9%	66.35	5,221,722
	Construction Contingency	5.00%	3%	25.43	2,001,660
BUILI	DING ELEMENTAL COST INCLUDING CONTINGENCIES		69%	534.12	42,034,865
	General Conditions	7.00%	5%	37.39	2,942,441
	General Requirements	7.50%	6%	42.86	3,373,298
	Corporate Tax	0.57%	0%	3.50	275,598
	SDI	1.75%	1%	10.81	850,959
	Office Overhead & Profit	4.50%	4%	28.29	2,226,472
	Bonds and Insurance	1.50%	1%	9.85	775,554
	Permit				By Owner
BUILI	DING CONSTRUCTION COST BEFORE ESCALATION		86%	666.83	52,479,187
	Escalation to Start Date (May 2025)	15.83%	14%	105.58	8,309,205
RECO	DMMENDED BUDGET		100%	772.41	60,788,391

North Kirkland (Building) - Option 1				
	Quantity	Unit	Rate	Total
Controls				
Building Footprint	39,610	SF		
Level 1	39,610	SF		
Level 2	37,985	SF		
Roof Terrace - Unconditioned Space	1,105	SF		
Building ht. Total, Average	28	LF		
Exterior Enclosure Total	29,337	LF		
Cladding	19,069	LF		
Glazing	10,268	LF		
Roof, typ	39,610	SF		
Soffit	14,934	SF		
Total Building Area	78,700	SF		
A10 Foundations	78,700	SF	17.59	1,384,008
A1010 Standard Foundations	78,700	SF	8.25	649,253
Building exception	2 902	CY	18.00	52 235
Haul and dispose	2,002	CY	20.00	58 039
Reinforced footings	2,002	01	20.00	00,000
Continuous footing - 2' x 2'	130	CY	690.00	89 700
Spread footing - 4' x 4'	28	CY	690.00	19.054
Perimeter insulation	1 742	SF	4 00	6 968
Perimeter drainage and bedding	.,,12	I F	32.00	29 472
Elevator pit - complete	2	FA	22 500 00	45,000
Anchors and connections, allow	- 1	IS	15.000.00	15,000
Rammed aggregate piers	2 641	VIF	98.00	258 785
Temp shoring, allow	1	LS	75,000.00	75,000
A1030 Slab On Grade	78,700	SF	9.34	734,755
Slab on grade - 4" thk reinforced	30 610	SF	13 10	518 891
Vapor barrier	39,010	SF	3 00	118 830
Miscellaneous concrete specialties	30,010	SE	1 15	∆5 550
Waterproofing	1 7/0	SE	12 50	
Allowance for blockouts	39,610	SF	0.75	29,708
	00,010	<u> </u>	0.10	_0,.00

A20 Basement Construction	78,700 SF
A2010 Basement Excavation	78,700 SF
No work anticipated	NIC

Quantity         Unit         Pate         Tatal           B10 Superstructure         78,700         SF         95.04         6,692,972           B1010 Floor Construction         78,700         SF         77.44         6,125,918           Transfer beams         22         CY         1,040.00         134,199           Stem wall - 11h.         32         CY         910.00         22,356           Mass timber construction - columns and beams         2,858         LF         130.00         371,475           Glu-lam blocking         47         EA         554.00         2,203,600           Glu-lam blocking         1,055         LF         130.00         371,475           Layout/installation         78,700         SF         18.50         1,455,950           Lifting system         1         LS         36,000.00         36,000           Hardware         1         LS         14,0000         144,000           Shop drawings         1         LS         133,000.00         130,000           Transport         1         LS         133,000.00         130,000           Dacking         37,985         SF         0.05         2,08,92           Sciant <t< th=""><th>North Kirkland (Building) - Option 1</th><th></th><th></th><th></th><th></th></t<>	North Kirkland (Building) - Option 1				
B10 Superstructure         78,700         SF         85.04         6,892.972           B1010 Floor Construction         Transfer beams         129         CY         1,040.00         134,199           Stem wal - 1'h t.         32         CY         910.00         29,356           Wood timber package         78,700         SF         28.00         2,203,600           CLT panels, spline ends and side joints         78,700         SF         28.00         2,203,600           Glu-lam blocking         2,858         LF         130.00         371,475           Glu-lam columns         1,305         LF         124.00         161,795           Layout/installation         78,700         SF         23,000.00         36,000           Hardware         1         LS         36,000.00         56,000.00         56,000.00         56,000.00           Transport         1         LS         144,000.00         144,000         144,000         144,000         133,000.00         130,000         130,000         130,000         130,000         130,000         130,000         130,000         130,000         130,000         130,000         130,000         130,000         130,000         130,000         130,000         130,000 <t< th=""><th></th><th>Quantity</th><th>Unit</th><th>Rate</th><th>Total</th></t<>		Quantity	Unit	Rate	Total
B10 Superstructure         78,700         SF         85.04         6,692,972           B1010 Floor Construction         Transfer beams         129         CY         1,040.00         134,199           Stem wall -11 ht.         32         CY         910.00         22,356           Mass timber construction - columns and beams         2,858         LF         130.00         2,203,600           Glu-lam booking         47         EA         554.00         22,816         Glu-lam booking         371,475           Glu-lam booking         47         EA         554.00         22,816         Glu-lam booking         1,455,950           Lifting system         1         LS         36,000.00         36,000         144,000.00         144,000.00         144,000           Hardware         1         LS         44,000.00         144,000         144,000.00         144,000           Decking         72 synoprete         37,985         SF         6.21         23,868           Mass plywood panels - see "Wood timber package"         incl. above         incl. above         incl. above           Acoustic mat         37,985         SF         6.21         23,887         2,8489           Sealants         37,985         SF					
B1010 Floor Construction         78,700         SF         77,84         6,125,918           Transfer beams         129         CY         1,04,0.00         134,199           Stem wall - 1' ht.         32         CY         910.00         29,356           Mass timber construction - columns and beams         32         CY         910.00         29,356           Mass timber construction - columns and beams         2,858         LF         130.00         371,475           Glu-lam blocking         47         FA         554.00         25,816           Glu-lam blocking         13.05         LF         124.00         161,755           Layout/installation         78,700         SF         1,850         1,455,950           Lifting system         1         LS         36,000.00         36,000           Markare         1         LS         144,000.00         144,000           Shop drawings         1         LS         144,000.00         144,000           Transport         1         LS         133,000.01         133,000           Decking         37,985         SF         6.21         235,887           2' gyporetie         37,985         SF         0.50         189,925	B10 Superstructure	78,700	SF	85.04	6,692,972
Transfer beams       129       CY       1,040,00       134,199         Stem wall -1'ht.       32       CY       910,00       29,356         Mass timber construction - columns and beams       Vood timber package       2,203,600       Glu-lam beams       2,858       LF       130,00       371,475         Glu-lam blocking       47       EA       554,00       25,816       Glu-lam blocking       145,5950       145,5950       145,5950         Glu-lam blocking       13,05       LF       124,000       141,795       144,000,00       146,095         Glu-lam columns       1,05       144,000,00       146,000       54,000       36,000       36,000         Hardware       1       LS       346,000,00       54,000       144,0	B1010 Floor Construction	78,700	SF	77.84	6,125,918
Stem wall - 1'ht.         32         CY         910.00         29,356           Mass timber construction - columns and beams	Transfer beams	129	CY	1,040.00	134,199
Mass timber construction - columns and beams         Viood timber package         78,700         SF         28.00         2,203,600           Glu-lam beams         2,658         LF         130.00         371,475           Glu-lam blocking         47         EA         554.00         25,816           Glu-lam blocking         1,305         LF         124.00         161,795           Layout/installation         78,700         SF         18.50         1.455,950           Lifting system         1         LS         36,000.0         364,000           Shop drawings         1         LS         144,000.00         144,000.00           Shop drawings         1         LS         54,000.00         133,000.00           Transport         LS         133,000.00         133,000.00         133,000.00           Decking           125         142,000.00         54,000           Ass plywood panels - see "Wood timber package"          incl. above         238,87         6.621         235,867           Acoustic mat         37,985         SF         6.621         235,867         20,982         58         50.00         566,738           Shear wall - interior         3,304         SF	Stem wall - 1' ht.	32	CY	910.00	29,356
Wood timber package         CLT panels, spline ends and side joints         78,700         SF         28.00         2,203,600           Glu-lam beams         2,858         LF         130,00         371,475           Glu-lam bocking         47         EA         554,00         25,816           Glu-lam columns         1,305         LF         124,00         161,795           Layout/installation         78,700         SF         18,50         1,455,950           Lifting system         1         LS         36,000,00         36,000           Hardware         1         LS         54,000,00         54,000           Shop drawings         1         LS         54,000,00         54,000           Transport         1         LS         56,000,00         36,000           Decking         -         LS         56,000,00         54,000           Mass plywood panels - see "Wood timber package"         -         IS         36,000,00         133,000           Decking         -         SF         5.00         189,925         Firestopping         37,985         SF         0.75         28,489           Sealants         37,985         SF         0.55         20,078         20,078	Mass timber construction - columns and beams				
CLT panels, spline ends and side joints         78,700         SF         28.00         2,203,600           Glu-lam beams         2,858         LF         130.00         371,475           Glu-lam blocking         47         EA         554.00         25,816           Glu-lam columns         1,305         LF         124.00         161,795           Layout/installation         78,700         SF         18.50         1,455,950           Lifting system         1         LS         36,000.00         36,000           Hardware         1         LS         144,000.00         144,000           Shop drawings         1         LS         143,000.00         54,000.00           Transport         1         LS         133,000.00         133,000           Decking	Wood timber package				
Glu-lam beams       2,858       LF       130.00       371,475         Glu-lam blocking       47       EA       554.00       25,816         Glu-lam columns       1,305       LF       124.00       161,795         Layout/installation       78,700       SF       18.50       1,455,950         Lifting system       1       LS       36,000.00       36,000         Hardware       1       LS       36,000.00       36,000         Transport       1       LS       54,000.00       54,000         Decking       1       LS       54,000.00       54,000         Decking       1       LS       54,000.00       144,000         Decking       1       LS       54,000.00       144,000         Mass plywood panels - see "Wood timber package"       incl. above       incl. above         Acoustic mat       37,985       SF       6.21       235,887         2" gypcrete       37,985       SF       0.55       20,892         Sealants       37,985       SF       0.55       20,892         Shear wall - interior       3,304       SF       85.00       280,798         Channels and angels       1       LS	CLT panels, spline ends and side joints	78,700	SF	28.00	2,203,600
Glu-lam blocking         47         EA         554.00         25.816           Glu-lam columns         1.305         LF         124.00         161.785           Layout/installation         78.700         SF         18.50         1.455.950           Lifting system         1         LS         36,000.00         36,000           Hardware         1         LS         14.000         14.000           Shop drawings         1         LS         54,000.00         54,000           Transport         1         LS         54,000.00         54,000           Decking         1         LS         54,000.00         54,000           Acoustic mat         37,985         SF         6.21         235,887           2" gypcrete         37,985         SF         0.50         189,925           Firestopping         37,985         SF         0.50         20,892           Shear wall         interior         37,985         SF         0.50         20,892           Shear wall         6,668         SF         85.00         266,738         Shear wall         56,070         30,000           Stratutural steel         1         LS         30,000.00         30,000 <td>Glu-lam beams</td> <td>2,858</td> <td>LF</td> <td>130.00</td> <td>371,475</td>	Glu-lam beams	2,858	LF	130.00	371,475
Glu-lam columns       1,305       LF       124.00       161,795         Layout/installation       78,700       SF       18.50       1,455,950         Lifting system       1       LS       36,000.00       36,000         Hardware       1       LS       36,000.00       36,000         Shop drawings       1       LS       54,000.00       144,000         Shop drawings       1       LS       54,000.00       54,000         Transport       1       LS       133,000.00       133,000         Decking	Glu-lam blocking	47	EA	554.00	25,816
Layout/installation         78,700         SF         18.50         1,455,950           Lifting system         1         LS         36,000.00         36,000           Hardware         1         LS         144,000.00         144,000           Shop drawings         1         LS         54,000.00         54,000           Transport         1         LS         54,000.00         133,000           Decking         incl. above         Acoustic mat         37,985         SF         6.21         235,887           2' gypcrete         37,985         SF         5.00         189,925         Firestopping         37,985         SF         0.75         28,489           Sealants         37,985         SF         0.55         20,892         Shear wall         56,738           Shear wall         6,668         SF         85.00         280,798           Channels and angels         1         LS         30,000.00         30,000           Structural steel         Itevator hoist beams         1.00         TNs         16,500.00         16,500           B1020 Roof Construction         beams and decking         incl. above         incl. above         incl. above           Beams - glu-lam	Glu-lam columns	1,305	LF	124.00	161,795
Lifting system       1       LS       36,000,00       36,000         Hardware       1       LS       144,000,00       54,000         Shop drawings       1       LS       54,000,00       54,000         Transport       1       LS       54,000,00       133,000         Decking	Layout/installation	78,700	SF	18.50	1,455,950
Hardware       1       LS       144,000.00       144,000         Shop drawings       1       LS       54,000.00       54,000         Transport       1       LS       133,000.00       133,000         Decking	Lifting system	1	LS	36,000.00	36,000
Shop drawings       1       LS       54,000.00       54,000         Transport       1       LS       133,000.00       133,000         Decking       incl. above       incl. above         Acoustic mat       37,985       SF       6.21       235,887         2" gypcrete       37,985       SF       5.00       189,925         Firestopping       37,985       SF       0.75       28,489         Sealants       37,985       SF       0.55       20,892         Shear wall       shear wall       6,668       SF       85.00       280,798         Channels and angels       1       LS       30,000.00       30,000       30,000         Structural steel       ILS       30,000.00       30,000       30,000       30,000         B1020 Roof Construction       beams and decking       Incl. above       incl. above       incl. above         Beams - glu-lam       ILS       7,500.00       7,500       7,500       7,500         CLT decking       Incl.       Incl.       incl.       incl. above       incl. above         Beams - glu-lam       Incl.       Incl.       SE       35,600       522,690         Strapping. blocking and conne	Hardware	1	LS	144,000.00	144,000
Transport       1       LS       133,000.00       133,000         Decking       Mass plywood panels - see "Wood timber package"       incl. above         Acoustic mat       37,985       SF       6.21       235,887         2" gypcrete       37,985       SF       5.00       189,925         Firestopping       37,985       SF       0.75       28,489         Sealants       37,985       SF       0.75       28,489         Shear wall       interior       3,304       SF       85.00       266,738         Shear wall - interior       3,304       SF       85.00       280,798         Channels and angels       1       LS       30,000.00       30,000         Structural steel       Elevator hoist beams       1.00       TNs       16,500.00       16,500         Mass timber construction - beams and decking       incl.       incl. above       incl.       incl.         Bass timber construction - beams and decking       incl.       incl.       incl.         Hardware       incl.       incl.       incl.       incl.         V support system - not required       NIC       NIC       SF       35.00       522,690         Strapping, blocking and connections, a	Shop drawings	1	LS	54,000.00	54,000
Decking         incl. above           Mass plywood panels - see "Wood timber package"         incl. above           Acoustic mat         37,985         SF         6.21         235,887           2" gypcrete         37,985         SF         5.00         189,925           Firestopping         37,985         SF         0.75         28,489           Sealants         37,985         SF         0.55         20,892           Shear wall         6,668         SF         85.00         266,738           Shear wall - interior         3,304         SF         85.00         280,798           Channels and angels         1         LS         30,000.00         30,000           Structural steel         1         LS         30,000.00         30,000           B1020 Roof Construction         beams and decking         incl. above         incl. above           Barms - glu-lam         incl.         incl. above         incl. above           Beams - glu-lam         incl.         incl.         incl.           CLT decking         incl.         incl.         incl.           Hardware         incl.         S5.00         522,690           Soffit         14,934         SF	Transport	1	LS	133,000.00	133,000
Mass plywood panels - see "Wood timber package"         incl. above           Acoustic mat         37,985         SF         6.21         235,887           2" gypcrete         37,985         SF         5.00         189,925           Firestopping         37,985         SF         0.75         28,489           Sealants         37,985         SF         0.55         20,892           Shear wall         6,668         SF         85.00         566,738           Shear wall - interior         3,304         SF         85.00         280,798           Channels and angels         1         LS         30,000.00         30,000           Structural steel         1         LS         30,000.00         30,000           Miss. steel angles and connections         1         LS         7,500.00         7,500           B1020 Roof Construction         beams and decking         incl. above         incl. above         incl. above           Beams - glu-lam         i.cl.         i.cl. above         i.cl. above         i.cl. above           Beams - glu-lam         i.cl.         i.cl. above         i.cl. above         i.cl. above           Soffit         Y support system - not required         i.cl. above         i.cl. above <td>Decking</td> <td></td> <td></td> <td></td> <td></td>	Decking				
Acoustic mat       37,985       SF       6.21       235,887         2" gypcrete       37,985       SF       5.00       189,925         Firestopping       37,985       SF       0.75       28,489         Sealants       37,985       SF       0.55       20,892         Shear wall       6,668       SF       85.00       566,738         Shear wall - interior       3,304       SF       85.00       280,798         Channels and angels       1       LS       30,000.00       30,000         Structural steel       1.00       TNs       16,500.00       16,500         Misc. steel angles and connections       1       LS       7,500.00       7,500         B1020 Roof Construction       beams and decking       incl. above       incl. above         Beams - glu-lam       incl.       incl. above       incl. above         Beams - glu-lam       incl.       incl.       incl. above         Soffit       14,934       SF       35.00       522,690         Strappino, blocking and connections, add       39,610       SF       112       44,363	Mass plywood panels - see "Wood timber package"				incl. above
2" gypcrete       37,985       SF       5.00       189,925         Firestopping       37,985       SF       0.75       28,489         Sealants       37,985       SF       0.55       20,892         Shear wall       6,668       SF       85.00       566,738         Shear wall - interior       3,304       SF       85.00       280,798         Channels and angels       1       LS       30,000.00       30,000         Structural steel       1.00       TNs       16,500.00       16,500         B1020 Roof Construction       beams and decking       1       LS       7,500.00       7,500         B1020 Roof Construction - beams and decking       1       LS       7,21       567,053         Mass timber construction - beams and decking       incl.       incl. above       incl. above         Beams - glu-lam       incl.       incl.       incl.       incl.         CLT decking       incl.       incl.       incl.       incl.         Hardware       NIC       Seffit       14,934       SF       35.00       522,690         Straoping, blocking and connections, add       39,610       SF       1.12       44.363       39,610	Acoustic mat	37,985	SF	6.21	235,887
Firestopping       37,985       SF       0.75       28,489         Sealants       37,985       SF       0.55       20,892         Shear wall       6,668       SF       85.00       566,738         Shear wall - interior       3,304       SF       85.00       280,798         Channels and angels       1       LS       30,000.00       30,000         Structural steel       1       LS       30,000.00       30,000         Structural steel       1       LS       7,500.00       16,500         Misc. steel angles and connections       1       LS       7,500.00       7,500         B1020 Roof Construction       78,700       SF       7.21       567,053         Mass timber construction - beams and decking       incl.       incl. above       incl. above         Beams - glu-lam       incl.       incl.       incl.       incl.         CLT decking       incl.       incl.       incl.       incl.         Hardware       NIC       Soffit       14,934       SF       35.00       522,690         Strapping. blocking and connections, add       39,610       SF       1.12       44.363	2" gypcrete	37,985	SF	5.00	189,925
Sealants       37,985       SF       0.55       20,892         Shear wall       6,668       SF       85.00       566,738         Shear wall - interior       3,304       SF       85.00       280,798         Channels and angels       1       LS       30,000.00       30,000         Structural steel	Firestopping	37,985	SF	0.75	28,489
Shear wall       6,668       SF       85.00       566,738         Shear wall - interior       3,304       SF       85.00       280,798         Channels and angels       1       LS       30,000.00       30,000         Structural steel       1       LS       30,000.00       16,500         Elevator hoist beams       1.00       TNs       16,500.00       16,500         Misc. steel angles and connections       1       LS       7,500.00       7,500         B1020 Roof Construction       78,700       SF       7.21       567,053         Mass timber construction - beams and decking       incl.       incl. above         Bearns - glu-lam       incl.       incl.       incl.         CLT decking       incl.       incl.       incl.         Hardware       V       V       spport system - not required       NIC         Soffit       14,934       SF       35.00       522,690         Strapping, blocking and connections, add       39,610       SF       1.12       44.363	Sealants	37,985	SF	0.55	20,892
Shear wall - interior3,304SF85.00280,798Channels and angels1LS30,000.0030,000Structural steel1.00TNs16,500.0016,500Elevator hoist beams1.00TNs16,500.007,500Misc. steel angles and connections1LS7,500.007,500B1020 Roof Construction78,700SF7.21567,053Mass timber construction - beams and deckingincl.incl.incl.Beams - glu-lamincl.incl.incl.CLT deckingincl.incl.incl.Hardwareincl.NICPV support system - not required14,934SF35.00522,690Strapping, blocking and connections, add39,610SF1.1244.363	Shear wall	6,668	SF	85.00	566,738
Channels and angels1LS30,000.0030,000Structural steel1.00TNs16,500.0016,500Elevator hoist beams1.00TNs16,500.0016,500Misc. steel angles and connections1LS7,500.007,500B1020 Roof Construction78,700SF7.21567,053Mass timber construction - beams and deckingincl.incl.incl.Beams - glu-lamincl.incl.incl.CLT deckingincl.incl.incl.Hardwareincl.incl.incl.PV support system - not required14,934SF35.00522,690Strapping, blocking and connections, add39,610SF1.1244,363	Shear wall - interior	3,304	SF	85.00	280,798
Structural steel1.00TNs16,500.0016,500Misc. steel angles and connections1LS7,500.007,500B1020 Roof Construction78,700SF7.21567,053Mass timber construction - beams and deckingincl.incl.incl.Beams - glu-lamLT deckingincl.incl.CLT deckingincl.incl.incl.PV support system - not required14,934SF35.00522,690Strapping, blocking and connections, add39,610SF1.1244,363	Channels and angels	1	LS	30,000.00	30,000
Elevator hoist beams1.00TNs16,500.0016,500Misc. steel angles and connections1LS7,500.007,500B1020 Roof Construction78,700SF7.21567,053Mass timber construction - beams and deckingincl.incl.incl.Beams - glu-lamCLT deckingincl.incl.CLT deckingincl.incl.incl.Hardwareincl.NICSoffit14,934SF35.00Strapping, blocking and connections, add39,610SF1.1244.363	Structural steel				
Misc. steel angles and connections1LS7,500.007,500B1020 Roof Construction78,700SF7.21567,053Mass timber construction - beams and deckingincl.incl.aboveBeams - glu-lamCLT deckingincl.incl.CLT deckingincl.incl.incl.Hardwareincl.incl.incl.PV support system - not required14,934SF35.00522,690Strapping, blocking and connections, add39,610SF1.1244.363	Elevator hoist beams	1.00	TNs	16,500.00	16,500
B1020 Roof Construction78,700SF7.21567,053Mass timber construction - beams and deckingincl. aboveBeams - glu-lamincl.CLT deckingincl.Hardwareincl.PV support system - not requiredNICSoffit14,934Strapping, blocking and connections, add39,610SF1.1244.363	Misc. steel angles and connections	1	LS	7,500.00	7,500
Mass timber construction - beams and deckingincl. aboveBeams - glu-lamincl.CLT deckingincl.Hardwareincl.PV support system - not requiredNICSoffit14,934Strapping, blocking and connections, add39,610SF1.1244.363	B1020 Roof Construction	78,700	SF	7.21	567,053
Beams - glu-lamincl.CLT deckingincl.Hardwareincl.PV support system - not requiredNICSoffit14,934Strapping, blocking and connections, add39,610SF1.1244.363	Mass timber construction - beams and decking				incl. above
CLT decking       incl.         Hardware       incl.         PV support system - not required       NIC         Soffit       14,934       SF       35.00       522,690         Strapping, blocking and connections, add       39,610       SF       1.12       44.363	Beams - glu-lam				incl.
Hardware incl. PV support system - not required NIC Soffit 14,934 SF 35.00 522,690 Strapping, blocking and connections, add 39,610 SF 1.12 44.363	CLT decking				incl.
PV support system - not requiredNICSoffit14,934SF35.00522,690Strapping, blocking and connections, add39,610SF1.1244.363	Hardware				incl
Soffit         14,934         SF         35.00         522,690           Strapping, blocking and connections, add         39,610         SF         1.12         44.363	PV support system - not required				NIC
Strapping, blocking and connections, add 39.610 SF 1.12 44.363	Soffit	14.934	SF	35.00	522.690
	Strapping, blocking and connections, add	39.610	SF	1.12	44.363

Quantity         Unit         Rate         Total           B20 Exterior Enclosure         78,700         SF         48.70         3.832.633           B2010 Exterior Walls         78,700         SF         33.57         2,642,104           Wood stud framing         29,337         SF         19.10         560,337           Sheathing         19.069         SF         6.50         122,349           Batt insulation R-21         19.069         SF         6.20         1132,289           Weather barrier         19.069         SF         7.20         137,297           Cladding	North Kirkland (Building) - Option 1				
B20 Exterior Enclosure         78,700         SF         48,70         3,832,633           B2010 Exterior Walls         78,700         SF         33,57         2,842,104           Wood stud framing         29,337         SF         19,10         560,337           Sheathing         19,069         SF         6,50         123,494           Batt insulation R-21         19,069         SF         6,50         123,494           Wather barrier         19,069         SF         7,20         137,297           Cladding         9,535         SF         65.00         619,744           Stained wood system         5,721         SF         75.00         429,054           Terracotta system         3,814         SF         88.00         335,615           Facias, bands and soreens         2,151         SF         35.00         91,455           Case, bands and soreens         2,151         SF         14.48         1,199,260           Curtainwall         2,689         SF         14.00         376,481           Storefront         6,112         SF         102,00         62,404           Clerestory         1,467         SF         9,600         21,700 <td< th=""><th></th><th>Quantity</th><th>Unit</th><th>Rate</th><th>Total</th></td<>		Quantity	Unit	Rate	Total
B2010 Exterior Walls         78,700         SF         33.57         2,642,104           Wood stud framing         29,337         SF         19.10         560.337           Sheathing         19,069         SF         6.50         123,494           Batt insulation R-21         19,069         SF         6.20         118,228           Weather barrier         19,069         SF         7.20         137,297           Cladding         9,535         SF         65.00         619,744           Stained wood system         5,721         SF         75.00         422,054           Terracotta system         3,814         SF         88.00         335,615           Facias, bands and screens         2,613         SF         2.75         216,425           Louvers, allow         1         LS         10,000.00         10,000           Curtainwall         2,689         SF         14.48         1,199,250           Quartainwall         2,612         SF         0.65         51,280           Storefront         6         EA         3,500.00         21,000           Storefront, double         4         EA         5,425.00         21,700           Storefront, single	B20 Exterior Enclosure	78,700	SF	48.70	3,832,633
Wood stud framing         29,337         SF           Framing         29,337         SF         19,10         560,337           Sheathing         19,069         SF         6.50         123,949           Batt insulation R-21         19,069         SF         6.20         116,228           Weather barrier         19,069         SF         7.20         137,297           Cladding         9,535         SF         65,00         619,744           Stained wood system         5,721         SF         75,00         429,064           Terracotta system         3,814         SF         86,00         335,615           Facias, bands and screens         2,613         SF         35,00         91,455           Caps, flashing and sealants, allow         78,700         SF         1,458         1,199,250           Curtainwall         2,689         SF         14,00         36,641           Storefront         6,112         SF         100,00         139,365           B2030 Exterior Doors         78,700         SF         3,50,00         21,700           Storefront, double         4         EA         5,425,00         21,700           Storefront, single         6	B2010 Exterior Walls	78,700	SF	33.57	2,642,104
Framing         29,337         SF         19,10         560,337           Sheathing         19,069         SF         6.20         112,349           Batti isulation R-21         19,069         SF         6.20         118,228           Weather barrier         19,069         SF         7.20         118,228           Weather barrier         19,069         SF         7.20         113,2297           Cladding	Wood stud framing	29,337	SF		
Sheathing         19,069         SF         6.50         123,949           Batt insulation R-21         19,069         SF         6.20         118,228           Weather barrier         19,069         SF         7.20         137,297           Cladding         9,535         SF         66,00         619,744           Stained wood system         5,721         SF         75,00         429,054           Terracotta system         3,814         SF         88,00         335,615           Facias, bands and screens         2,613         SF         36,00         91,455           Caps, flashing and sealants, allow         78,700         SF         14.48         1,199,250           Curtainwall         2,689         SF         140,00         376,481           Storefront         6,112         SF         102.00         623,404           Clerestory         1,467         SF         95.00         139,365           B2030 Exterior Doors         78,700         SF         0.65         51,280           Storefront, double         4         EA         5,425.00         21,700           Storefront, single         6         EA         3,60.00         21,000 <td< td=""><td>Framing</td><td>29,337</td><td>SF</td><td>19.10</td><td>560,337</td></td<>	Framing	29,337	SF	19.10	560,337
Batt insulation R-21         19,069         SF         6.20         118,228           Weather barrier         19,069         SF         7.20         137,297           Cladding	Sheathing	19,069	SF	6.50	123,949
Weather barrier         19,069         SF         7.20         137,297           Cladding         Metal panel system         9,535         SF         65.00         619,744           Stained wood system         5,721         SF         75.00         429,054           Terracotta system         3,814         SF         88.00         335,615           Facias, bands and screens         2,613         SF         35.00         91,455           Caps, flashing and sealants, allow         78,700         SF         14.28         10,000.00         10,000           B2020 Exterior Windows <b>78,700</b> SF         144.48         1,139,260         Curtainwall         2,689         SF         140.00         376,481           Storefront         6,112         SF         102.00         623,404         Clerestory         139,365           B2030 Exterior Doors <b>78,700</b> SF         0.65         51,260         21,700           Storefront, double         4         EA         5,425,00         21,700         SF         2,860.00         8,580           B3010 Roof Coverings <b>78,700</b> SF         2,860.00         3,580         2,860.00         8,580         2,860.00         316,880	Batt insulation R-21	19,069	SF	6.20	118,228
Cladding         Metal panel system         9,535         SF         65.00         619,744           Stained wood system         5,721         SF         75.00         429,054           Terracotta system         3,814         SF         88.00         335,615           Facias, bands and screens         2,613         SF         35.00         91,455           Caps, flashing and sealants, allow         78,700         SF         2.75         216,425           Louvers, allow         1         LS         10,000.00         10,000           B2020 Exterior Windows <b>78,700</b> SF <b>14.48 1,139,250</b> Curtainwall         2,669         SF         140.00         376,481           Storefront         6,112         SF         102.00         623,404           Clerestory         1,467         SF         95.00         139,365           B2030 Exterior Doors <b>78,700</b> SF         0.65         51,280           Storefront, single         4         EA         5,425,00         21,700           HM flush, single         3         EA         2,860.00         8,580           B3010 Roof Coverings <b>78,700</b> SF         21,020 <td>Weather barrier</td> <td>19,069</td> <td>SF</td> <td>7.20</td> <td>137,297</td>	Weather barrier	19,069	SF	7.20	137,297
Metal panel system         9,535         SF         65.00         619,744           Stained wood system         5,721         SF         75.00         429,054           Terracotta system         3,814         SF         88.00         335,615           Facias, bands and screens         2,613         SF         35.00         91,455           Caps, flashing and sealants, allow         1         LS         10,000.00         10,000           B2020 Exterior Windows <b>78,700</b> SF <b>14.48 1,139,250</b> Curtainwall         2,689         SF         140.00         376,481           Storefront         6,112         SF         140.00         376,481           Clerestory         1,467         SF         95.00         139,365           B2030 Exterior Doors <b>78,700</b> SF <b>0,65 51,280</b> Storefront, double         4         EA         5,425.00         21,700           Storefront, single         6         EA         3,500.00         21,000           HM flush, single         3         EA         2,860.00         8,580           B3010 Roof Coverings <b>78,700</b> SF         21.97         1,729,1	Cladding				
Stained wood system         5,721         SF         75.00         429,054           Terracotta system         3.814         SF         88.00         335,615           Facias, bands and screens         2,613         SF         35.00         91,455           Caps, flashing and sealants, allow         78,700         SF         1.15         10,000.00         10,000           B2020 Exterior Windows <b>78,700</b> SF         14.48         1,139,250           Curtainwall         2.689         SF         140.00         376,481           Storefront         6,112         SF         102.00         623,404           Clerestory         1,467         SF         95.00         139,365           B2030 Exterior Doors <b>78,700</b> SF         0.65         51,280           Storefront, double         4         EA         5,425.00         21,000           HM flush, single         3         EA         2,860.00         8,580           B3010 Roof Coverings <b>78,700</b> SF         21.97         1,729,180           TPO membrane system         39,610         SF         8.80         269,348           Insulation - R-30         39,610         SF         8.80 </td <td>Metal panel system</td> <td>9,535</td> <td>SF</td> <td>65.00</td> <td>619,744</td>	Metal panel system	9,535	SF	65.00	619,744
Terracotta system         3,814         SF         88.00         335,615           Facias, bands and screens         2,613         SF         35.00         91,455           Caps, flashing and sealants, allow         78,700         SF         2.75         216,425           Louvers, allow         1         LS         10,000.00         10,000           B2020 Exterior Windows         78,700         SF         14.48         1,139,250           Curtainwall         2,689         SF         140.00         376,481           Storefront         6,112         SF         102.00         623,404           Clerestory         1,467         SF         95.00         139,365           B2030 Exterior Doors         78,700         SF         0.65         51,280           Storefront, double         4         EA         5,425.00         21,700           Storefront, single         6         EA         3,500.00         21,000           HM flush, single         3         EA         2,860.00         8,580           B3010 Roof Coverings         78,700         SF         21.97         1,729,180           TPO membrane system         39,610         SF         8.00         316,880	Stained wood system	5,721	SF	75.00	429,054
Facias, bands and screens       2,613       SF       35.00       91,455         Caps, flashing and sealants, allow       78,700       SF       2.75       216,425         Louvers, allow       1       LS       10,000.00       10,000         B2020 Exterior Windows       78,700       SF       14.48       1,139,260         Curtainwall       2,689       SF       140.00       376,481         Storefront       6,112       SF       102.00       623,404         Clerestory       1,467       SF       95.00       139,365         B2030 Exterior Doors       78,700       SF       0.65       51,280         Storefront, double       4       EA       5,425.00       21,700         Storefront, single       3       EA       2,860.00       8,580         B3010 Roof Coverings       78,700       SF       21.97       1,729,180         TPO membrane system       39,610       SF       8.80       269,348         Insulation - R-30       39,610       SF       8.00       316,880         Vapor barrier       39,610       SF       8.00       316,835         Roof walking pads, allow       1,500       SF       2.00       79,220	Terracotta system	3,814	SF	88.00	335,615
Caps, flashing and sealants, allow         78,700         SF         2.75         216,425           Louvers, allow         1         LS         10,000.00         10,000           B2020 Exterior Windows         78,700         SF         14.48         1,139,250           Curtainwall         2,689         SF         140.00         376,481           Storefront         6,112         SF         102.00         623,404           Clerestory         1,467         SF         95.00         139,365           B2030 Exterior Doors         78,700         SF         0.65         51,280           Storefront, double         4         EA         5,425.00         21,700           Storefront, single         6         EA         3,500.00         21,000           HM flush, single         3         EA         2,860.00         8,580           B3010 Roof Coverings         78,700         SF         21,97         1,729,180           TPO membrane system         39,610         SF         18.55         734,766           Coverboard - 7" thk.         39,610         SF         8.00         316,880           Vapor barrier         39,610         SF         8.00         316,880 <tr< td=""><td>Facias, bands and screens</td><td>2,613</td><td>SF</td><td>35.00</td><td>91,455</td></tr<>	Facias, bands and screens	2,613	SF	35.00	91,455
Louvers, allow         1         LS         10,000.00         10,000           B2020 Exterior Windows         78,700         SF         14.48         1,139,250           Curtainwall         2,689         SF         140.00         376,481           Storefront         6,112         SF         102.00         623,404           Clerestory         1,467         SF         95.00         139,365           B2030 Exterior Doors         78,700         SF         0.65         51,280           Storefront, double         4         EA         5,425.00         21,000           Storefront, single         6         EA         3,500.00         21,000           HM flush, single         3         EA         2,860.00         8,580           B3010 Roof Coverings         78,700         SF         21.97         1,729,180           TPO membrane system         39,610         SF         18.55         734,766           Coverboard - 7* thk.         39,610         SF         8.00         316,880           Vapor barrier         39,610         SF         2.00         79,220           Fail protection, allow         1         LS         50,000.00         50,000	Caps, flashing and sealants, allow	78,700	SF	2.75	216,425
B2020 Exterior Windows         78,700         SF         14.48         1,139,250           Curtainwall         2,689         SF         140.00         376,481           Storefront         6,112         SF         102.00         623,404           Clerestory         1,467         SF         95.00         139,365           B2030 Exterior Doors         78,700         SF         0.65         51,280           Storefront, double         4         EA         5,425.00         21,700           Storefront, single         6         EA         3,500.00         21,000           HM flush, single         3         EA         2,860.00         8,580           B3010 Roof Coverings         78,700         SF         21.97         1,729,180           TPO membrane system         39,610         SF         18.55         734,766           Coverboard - 7" thk.         39,610         SF         8.00         316,880           Vapor barrier         39,610         SF         2.00         79,220           Fall protection, allow         1         LS         50,000.00         50,000           Caps, flashing and sealants         39,610         SF         3.50         138,635 <tr< td=""><td>Louvers, allow</td><td>1</td><td>LS</td><td>10,000.00</td><td>10,000</td></tr<>	Louvers, allow	1	LS	10,000.00	10,000
Curtainwall         2,689         SF         140.00         376,481           Storefront         6,112         SF         102.00         623,404           Clerestory         1,467         SF         95.00         139,365           B2030 Exterior Doors <b>78,700</b> SF         0.65 <b>51,290</b> Storefront, double         4         EA         5,425.00         21,700           Storefront, single         6         EA         3,500.00         21,000           HM flush, single         3         EA         2,860.00         8,580           B3010 Roof Coverings <b>78,700</b> SF <b>21.97 1,729,180</b> TPO membrane system         39,610         SF         18.55         734,766           Coverboard - 7" thk.         39,610         SF         8.80         269,348           Insulation - R-30         39,610         SF         8.80         316,880           Vapor barrier         39,610         SF         3.000         50,000.00           Fall protection, allow         1         LS         50,000.00         50,000.00           Caps, flashing and sealants         39,610         SF         3.50         138,635 <td>B2020 Exterior Windows</td> <td>78,700</td> <td>SF</td> <td>14.48</td> <td>1,139,250</td>	B2020 Exterior Windows	78,700	SF	14.48	1,139,250
Storefront         6,112         SF         102.00         623,404           Clerestory         1,467         SF         95.00         139,365           B2030 Exterior Doors         78,700         SF         0.65         51,280           Storefront, double         4         EA         5,425.00         21,700           Storefront, single         6         EA         3,500.00         21,000           HM flush, single         3         EA         2,860.00         8,580           B30 Roofing         78,700         SF         21.97         1,729,180           B3010 Roof Coverings         78,700         SF         21.97         1,729,180           TPO membrane system         39,610         SF         18.55         734,766           Coverboard - 7" thk.         39,610         SF         8.80         269,348           Insulation - R-30         39,610         SF         8.00         316,880           Vapor barrier         39,610         SF         2.00         79,220           Fall protection, allow         1         LS         50,000.00         50,000           Coyen barrier         39,610         SF         3.50         138,635           Rof wa	Curtainwall	2,689	SF	140.00	376,481
Clerestory         1,467         SF         95.00         139,365           B2030 Exterior Doors         78,700         SF         0.65         51,280           Storefront, double         4         EA         5,425.00         21,700           Storefront, single         6         EA         3,500.00         21,000           HM flush, single         3         EA         2,860.00         8,580           B30 Roofing         78,700         SF         30.09         2,368,180           B3010 Roof Coverings         78,700         SF         21.97         1,729,180           TPO membrane system         39,610         SF         18.55         734,766           Coverboard - 7" thk.         39,610         SF         6.80         269,348           Insulation - R-30         39,610         SF         8.00         316,880           Vapor barrier         39,610         SF         2.00         79,220           Fall protection, allow         1         LS         50,000.00         50,000           Caps, flashing and sealants         39,610         SF         3.50         138,635           Roof terrace         1,105         SF         38,00         41,990	Storefront	6,112	SF	102.00	623,404
B2030 Exterior Doors       78,700       SF       0.65       51,280         Storefront, double       4       EA       5,425.00       21,700         Storefront, single       6       EA       3,500.00       21,000         HM flush, single       3       EA       2,860.00       8,580         B30 Roofing       78,700       SF       21.97       1,729,180         B3010 Roof Coverings       78,700       SF       21.97       1,729,180         TPO membrane system       39,610       SF       18.55       734,766         Coverboard - 7" thk.       39,610       SF       6.80       269,348         Insulation - R-30       39,610       SF       8.00       316,880         Vapor barrier       39,610       SF       2.00       79,220         Fall protection, allow       1       LS       50,000.00       50,000         Caps, flashing and sealants       39,610       SF       3.50       138,635         Roof walking pads, allow       1,500       SF       28.50       42,750         Roof terrace       1,105       SF       38.00       41,990         Parapet       1,307       LF       42,55       55.592 <td>Clerestory</td> <td>1,467</td> <td>SF</td> <td>95.00</td> <td>139,365</td>	Clerestory	1,467	SF	95.00	139,365
Storefront, double       4       EA       5,425,00       21,700         Storefront, single       6       EA       3,500,00       21,000         HM flush, single       3       EA       2,860,00       8,580         B30 Roofing       78,700       SF       21.97       1,729,180         B3010 Roof Coverings       78,700       SF       21.97       1,729,180         TPO membrane system       39,610       SF       18.55       734,766         Coverboard - 7" thk.       39,610       SF       8.80       269,348         Insulation - R-30       39,610       SF       8.00       316,880         Vapor barrier       39,610       SF       2.00       79,220         Fall protection, allow       1       LS       50,000.00       50,000         Caps, flashing and sealants       39,610       SF       3.50       138,635         Roof walking pads, allow       1,500       SF       28,50       42,750         Roof terrace       1,105       SF       38,00       41,990         Parapet       1.307       LF       42,55       55.592	B2030 Exterior Doors	78,700	SF	0.65	51,280
Storefront, single       6       EA       3,500.00       21,000         HM flush, single       3       EA       2,860.00       8,580         B30 Roofing       78,700       SF       30.09       2,368,180         B3010 Roof Coverings       78,700       SF       21.97       1,729,180         TPO membrane system       39,610       SF       18.55       734,766         Coverboard - 7" thk.       39,610       SF       6.80       269,348         Insulation - R-30       39,610       SF       8.00       316,880         Vapor barrier       39,610       SF       2.00       79,220         Fall protection, allow       1       LS       50,000.00       50,000         Caps, flashing and sealants       39,610       SF       3.50       138,635         Roof walking pads, allow       1,500       SF       28,50       42,750         Roof terrace       1,105       SF       38,00       41,990         Parapet       1,307       LF       42,55       55.592	Storefront, double	4	EA	5,425.00	21,700
HM flush, single       3       EA       2,860.00       8,580         B30 Roofing       78,700       SF       30.09       2,368,180         B3010 Roof Coverings       78,700       SF       21.97       1,729,180         TPO membrane system       39,610       SF       18.55       734,766         Coverboard - 7" thk.       39,610       SF       6.80       269,348         Insulation - R-30       39,610       SF       8.00       316,880         Vapor barrier       39,610       SF       2.00       79,220         Fall protection, allow       1       LS       50,000.00       50,000         Caps, flashing and sealants       39,610       SF       2.850       42,750         Roof terrace       1,105       SF       38.00       41,990         Parapet       1,307       LF       42,55       55.592	Storefront, single	6	EA	3,500.00	21,000
B30 Roofing         78,700         SF         30.09         2,368,180           B3010 Roof Coverings         78,700         SF         21.97         1,729,180           TPO membrane system         39,610         SF         18.55         734,766           Coverboard - 7" thk.         39,610         SF         6.80         269,348           Insulation - R-30         39,610         SF         8.00         316,880           Vapor barrier         39,610         SF         2.00         79,220           Fall protection, allow         1         LS         50,000.00         50,000           Caps, flashing and sealants         39,610         SF         28.50         42,750           Roof terrace         1,105         SF         38.00         41,990           Parapet         1,307         LF         42,55         55.592	HM flush, single	3	EA	2,860.00	8,580
B3010 Roof Coverings       78,700       SF       21.97       1,729,180         TPO membrane system       39,610       SF       18.55       734,766         Coverboard - 7" thk.       39,610       SF       6.80       269,348         Insulation - R-30       39,610       SF       8.00       316,880         Vapor barrier       39,610       SF       2.00       79,220         Fall protection, allow       1       LS       50,000.00       50,000         Caps, flashing and sealants       39,610       SF       3.50       138,635         Roof walking pads, allow       1,500       SF       28.50       42,750         Parapet       1,307       LF       42,55       55.592	B30 Roofing	78,700	SF	30.09	2,368,180
TPO membrane system       39,610       SF       18.55       734,766         Coverboard - 7" thk.       39,610       SF       6.80       269,348         Insulation - R-30       39,610       SF       8.00       316,880         Vapor barrier       39,610       SF       2.00       79,220         Fall protection, allow       1       LS       50,000.00       50,000         Caps, flashing and sealants       39,610       SF       3.50       138,635         Roof walking pads, allow       1,500       SF       28.50       42,750         Roof terrace       1,105       SF       38.00       41,990         Parapet       1.307       LF       42,55       55.592	B3010 Roof Coverings	78,700	SF	21.97	1,729,180
Coverboard - 7" thk.       39,610       SF       6.80       269,348         Insulation - R-30       39,610       SF       8.00       316,880         Vapor barrier       39,610       SF       2.00       79,220         Fall protection, allow       1       LS       50,000.00       50,000         Caps, flashing and sealants       39,610       SF       3.50       138,635         Roof walking pads, allow       1,500       SF       28.50       42,750         Roof terrace       1,105       SF       38.00       41,990         Parapet       1,307       LF       42,55       55,592	TPO membrane system	39.610	SF	18.55	734,766
Insulation - R-30       39,610       SF       8.00       316,880         Vapor barrier       39,610       SF       2.00       79,220         Fall protection, allow       1       LS       50,000.00       50,000         Caps, flashing and sealants       39,610       SF       3.50       138,635         Roof walking pads, allow       1,500       SF       28.50       42,750         Roof terrace       1,105       SF       38.00       41,990         Parapet       1.307       LF       42,55       55.592	Coverboard - 7" thk.	39,610	SF	6.80	269.348
Vapor barrier       39,610       SF       2.00       79,220         Fall protection, allow       1       LS       50,000.00       50,000         Caps, flashing and sealants       39,610       SF       3.50       138,635         Roof walking pads, allow       1,500       SF       28.50       42,750         Roof terrace       1,105       SF       38.00       41,990         Parapet       1.307       LF       42,55       55.592	Insulation - R-30	39,610	SF	8.00	316 880
Fall protection, allow       1       LS       50,000       50,000         Caps, flashing and sealants       39,610       SF       3.50       138,635         Roof walking pads, allow       1,500       SF       28.50       42,750         Roof terrace       1,105       SF       38.00       41,990         Parapet       1.307       LF       42,55       55.592	Vapor barrier	39,610	SF	2.00	79,220
Caps, flashing and sealants       39,610       SF       3.50       138,635         Roof walking pads, allow       1,500       SF       28.50       42,750         Roof terrace       1,105       SF       38.00       41,990         Parapet       1.307       LF       42,55       55.592	Fall protection, allow	1	LS	50.000.00	50.000
Roof walking pads, allow       1,500       SF       28.50       42,750         Roof terrace       1,105       SF       38.00       41,990         Parapet       1.307       LF       42.55       55.592	Caps, flashing and sealants	39.610	SF	3 50	138.635
Roof terrace       1,105       SF       38.00       41,990         Parapet       1.307       LF       42.55       55.592	Roof walking pads. allow	1.500	SF	28 50	42.750
Parapet 1.307 LF 42.55 55.592	Roof terrace	1,105	SF	38.00	41.990
	Parapet	1,307	LF	42.55	55.592

North Kirkland (Building) - Option 1	Quantity	Unit	Rate	Total
B3020 Roof Openings	78 700	SF	8 12	639 000
Boof monitor incl. skylight	2,880		210.00	CO4 800
Skylighte	2,880	SF	210.00	004,800
OKynginta	200	55	171.00	34,200
C10 Interior Construction	78,700	SF	23.74	1,868,380
C1010 Partitions	78,700	SF	23.74	1,868,380
Solid and glazed walls				
Wood stud framing - 2x4				
Framing	38.138	SF	13.50	514.864
Acoustical batt insulation	38,138	SF	4.50	171,621
GWB, 2x	76,276	SF	4.85	369,940
Shaft wall, metal stud - 4"	1,204	SF		
Framing, 2x	2,408	SF	20.40	49,123
Acoustical batt insulation	1,204	SF	4.50	5,418
GWB, 2x	2,408	SF	4.85	11,679
Operable partition	80	LF	1,000.00	80,000
Folding glass wall	50	LF	1,500.00	75,000
Interior of exterior walls	19,069	SF	8.50	162,087
Storefront, allow	500	SF	98.00	49,000
Doors and frames				
Storefront, double	4	EA	4,750.00	19,000
HM, glass panel - single	12	EA	2,885.00	34,620
HM, flush - single	18	EA	2,385.00	42,930
Fittings				
Window treatment - roller shades	5,134	SF	11.50	59,041
Wayfinding and signage	78,700	SF	0.66	51,627
Whiteboards and writable surfaces, allow	400	SF	36.50	14,600
Corner guards and kick plates	1	LS	10,000.00	10,000
Mirrors - restroom	3	EA	280.00	840
Restroom fitout	3	EA	1,500.00	4,500
Lockers, allow	30	EA	375.00	11,250
Benches, allow	10	EA	750.00	7,500
Guardrail, glazed	538	LF	230.00	123,740
C20 Stairways	78,700	SF	2.86	225,000
C2010 Stair Construction	78,700	SF	2.86	225,000
Feature stair	3	FLT	75,000.00	225,000

#### Feasibility Study Cost Plan January 24, 2023 40

North Kirkland (Building) - Option 1				
	Quantity	Unit	Rate	Total
C30 Interior Finishes	78,700	SF	26.03	2,048,169
C3010 Wall Finishes	78,700	SF	6.59	518,562
Paint	97,753	SF	2.10	205,282
Tile restroom walls to 7' ht.	3,164	SF	20.00	63,280
Acoustic paneling, allow	1	LS	150,000.00	150,000
Misc. graphics and special finishes, allow	1	LS	100,000.00	100,000
C3020 Floor Finishes	78,700	SF	13.43	1,056,786
Walk-off mat	200	SF	15.00	3.000
Carpet tile	12,349	SF	6.50	80,269
Linoleum	6,644	SF	9.50	63,118
Polished concrete	16,094	SF	8.50	136,799
Sealed concrete	7,018	SF	3.90	27,370
Epoxy resinous flooring	3,220	SF	22.00	70,840
Tile	700	SF	20.00	14,000
Rubber sport flooring	4,380	SF	18.30	80,154
Sprung hardwood flooring	2,959	SF	31.60	93,504
Hardwood sport flooring	17,419	SF	28.00	487,732
C3030 Ceiling Finishes	78,700	SF	6.01	472,821
ACT	18,993	SF	8.50	161,441
ACT, washable	717	SF	13.50	9.680
Acoustic treatment, allow	1	IS	100.000.00	100.000
Open to structure, painted	46,947	SF	1.85	86,852
GWB, painted	10,938	SF	10.50	114,849
D10 Conveying Systems	78 700	SF	2 87	226 000
	10,100		2.01	220,000
D1010 Elevators & Lifts	78,700	SF	2.87	226,000
4500 LB - elevator w/ SS finish system	4	ST	56,500.00	226,000
D20 Plumbing Systems	78.700	SF	18.06	1.421.119
				.,
D2010 Plumbing Fixtures	78,700	SF	3.50	275,450
Sanitary fixtures, allow	78,700	SF	3.50	275,450
Water closets				incl.
Lavatories				incl.
Mop sink				incl.
Lab sink				incl.
Kitchen sink, two compartment				incl.

North Kirkland (Building) - Option 1			
	Quantity Unit	Rate	Total
Hose bib			incl.
Deck-mounted eye wash			incl.
Drinking fountain			incl.
Connections			incl.
D2020 Domestic Water Distribution	78,700 SF	7.20	566,640

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Domestic water, allow	78,700	SF	7.20	566,640
Piping and drainage				incl.
Domestic water, 2" HW/CW				incl.
Insulation				incl.
Seismic bracing				incl.
Shut off valves and specialties				incl.
Hot water heaters				incl.
Expansion tanks				incl.
HW circulation pump				incl.
Mixing valves				incl.
Reduced pressure backflow preventer, allow				incl.

D2030 Sanitary Waste	78,700	SF	6.92	544,604
Sanitary waste, allow	78,700	SF	6.92	544,604
Sanitary and vent piping				incl.
Floor drains				incl.
Sanitary filtration				incl.
Ancillaries				incl.

D2040 Rain Water Drainage	78,700	SF	0.44	34,425
Gutters and downspouts	1,089	LF	25.00	27,225
Roof drains	6	EA	1,200.00	7,200

D30 Heating, Ventilation & Air Conditioning	78,700	SF	86.63	6,817,728
D3020 Heat Generating Systems	78,700	SF	44.48	3,500,552
VRF system w/ heat recovery, complete	78,960	SF	36.50	2,882,040
Energy recovery unit-integrated	2	EA	15,000.00	30,000
Piping and insulation, incl. VRF refrigerant piping	78,960	SF	7.20	568,512
Ancillaries	1	LS	20,000.00	20,000
D3040 Distribution Systems	78,700	SF	24.44	1,923,166
Ductwork including flex	86,570	LBs	13.50	1,168,695
Electric duct heaters	173	EA	1,350.00	233,739

	Quantity	Unit	Rate	Total
	Calantity	<u>Or int</u>		
Diffusers and grilles	525	EA	190.00	99,687
Exhaust - general	78,700	SF	5.35	421,045
D3090 Other HVAC Systems & Equipment	78,700	SF	17.71	1,394,010
DDC controls	78,700	SF	14.50	1,141,150
Dehumidification system.	78,700	SF	1.10	86,570
Seismic bracing	78,700	SF	1.70	133,790
Testing and balancing	160	HR	130.00	20,800
Commissioning assist	90	HR	130.00	11,700
D40 Fire Protection	78,700	SF	7.58	596,308
D4010 Sprinklers	78,700	SF	7.54	593.308
	79 700	O.	5.95	460,205
Dry system - soffit	14 034	OF QE	0.00 8 00	400,393
	14,934	ЗГ	0.90	132,913
D4030 Fire Protection Specialties	78,700	SF	0.04	3,000
Fire extinguisher boxes	8	EA	375.00	3,000
CO2 alarm system - not required				NIC
D50 Electrical Lighting, Power & Communications	78,700	SF	65.11	5,124,205
D5010 Electrical Service & Distribution	78,700	SF	13.13	1,033,698
Main distribution board	1	IS	250.000.00	250.000
Distribution panels	1	LS	60.000.00	60.000
	1	١F	50,000,00	50,000
Transformers		<u> </u>	00,000.00	50,000
Transformers Secondary conduit and feeder - allow	78,700	SF	4.50	354,150
Transformers Secondary conduit and feeder - allow Grounding	78,700 1	SF LS	4.50 20,000.00	354,150 20,000
Transformers Secondary conduit and feeder - allow Grounding Metering	78,700 1 78,700	SF LS SF	4.50 20,000.00 0.55	354,150 20,000 43,285
Transformers Secondary conduit and feeder - allow Grounding Metering Receptacles, typ.	78,700 1 78,700 394	SF LS SF EA	4.50 20,000.00 0.55 575.00	354,150 20,000 43,285 226,263
Transformers Secondary conduit and feeder - allow Grounding Metering Receptacles, typ. PV system - not required	78,700 1 78,700 394	SF LS SF EA	4.50 20,000.00 0.55 575.00	354,150 20,000 43,285 226,263 <i>NIC</i>
Transformers Secondary conduit and feeder - allow Grounding Metering Receptacles, typ. PV system - not required Ancillaries and equipment	78,700 1 78,700 394 1	SF LS SF EA LS	4.50 20,000.00 0.55 575.00 30,000.00	354,150 20,000 43,285 226,263 <i>NIC</i> 30,000
Transformers Secondary conduit and feeder - allow Grounding Metering Receptacles, typ. PV system - not required Ancillaries and equipment	78,700 1 78,700 394 1 78,700	SF LS SF EA LS	4.50 20,000.00 0.55 575.00 30,000.00	30,000 354,150 20,000 43,285 226,263 <i>N/C</i> 30,000 1,913,800
Transformers Secondary conduit and feeder - allow Grounding Metering Receptacles, typ. PV system - not required Ancillaries and equipment D5020 Lighting & Branch Wiring Lighting controls	78,700 1 78,700 394 1 <b>78,700</b> 78,700	SF LS SF EA LS SF SF	4.50 20,000.00 0.55 575.00 30,000.00 24.32 4.50	30,000 354,150 20,000 43,285 226,263 <i>NIC</i> 30,000 <b>1,913,800</b> 354,150
Transformers Secondary conduit and feeder - allow Grounding Metering Receptacles, typ. PV system - not required Ancillaries and equipment D5020 Lighting & Branch Wiring Lighting controls Branch wiring and conduit	78,700 1 78,700 394 1 78,700 78,700 78,700	SF LS SF EA LS SF SF SF	4.50 20,000.00 0.55 575.00 30,000.00 24.32 4.50 5.00	354,150 20,000 43,285 226,263 <i>NIC</i> 30,000 <b>1,913,800</b> 354,150 393,500
Transformers Secondary conduit and feeder - allow Grounding Metering Receptacles, typ. PV system - not required Ancillaries and equipment D5020 Lighting & Branch Wiring Lighting controls Branch wiring and conduit LED lighting	78,700 1 78,700 394 1 <b>78,700</b> 78,700 78,700 78,700	SF LS SF EA LS SF SF SF SF	4.50 20,000.00 0.55 575.00 30,000.00 24.32 4.50 5.00 14.50	354,150 20,000 43,285 226,263 <i>NIC</i> 30,000 <b>1,913,800</b> 354,150 393,500 1,141,150

North Kirkland (Building) - Option 1	Quantity	Unit	Rate	Total
D5030 Communications & Security	78,700	SF	24.36	1.916.957
Phone and data including wiring and conduit	78 700	QE	4.30	228 /10
	10,100	SF EA	4.30	0 000
Fire alarm system	78 700	CE CE	1,000.00	9,900 236 100
DAS	10,700	19	50,000,00	50,000
PA system	78 700	CE	1 21	05 227
$\Delta N$ and sound system - infrastructure only	78,700	SI SE	1.21	302 005
Projection screen, recessed	10,100	FΔ	4 850 00	19/100
Speakers	4	ΕA	2,600,00	20,400
Additional equipment allow	1		500.000.00	500.000
CCTV - infrastructure only	78 700	SE	3 75	295 125
Access control	6	FΔ	5 500 00	33,000
ADA button	4	FA	4,000,00	16,000
			.,	10,000
D5040 Electrical Specialty	78,700	SF	3.30	259,750
Electrical to mechanical systems - equipment connections	78.700	SF	2.50	196.750
PV systems, allow	15	KW	4,200.00	63,000
E10 Equipment	78,700	SF	5.54	436,390
	70 700	05	4 5 4	404.000
E1010 Commercial Equipment	78,700	SF	1.54	121,000
Rofrigerator/freezer	I	EA	121,000.00	121,000
Microwaya				by Owner
Coffer maker				by Owner
				by Owner
E1090 Other Equipment	78,700	SF	4.01	315,390
Basketball backboards - retractable	4	EA	8,500.00	34,000
Court divider curtain			17 000 00	17 200
	1	ΕA	17,300.00	17,300
Wall padding	1 3,150	EA SF	17,300.00 8.60	27,090
Wall padding Scoreboard	1 3,150 2	EA SF EA	17,300.00 8.60 18,500.00	27,090 37,000
Wall padding Scoreboard Food service equipment, allow	1 3,150 2 1	EA SF EA LS	17,300.00 8.60 18,500.00 200,000.00	27,090 37,000 200,000
Wall padding Scoreboard Food service equipment, allow	1 3,150 2 1	EA SF EA LS	17,300.00 8.60 18,500.00 200,000.00	17,300 27,090 37,000 200,000
Wall padding Scoreboard Food service equipment, allow E20 Furnishings	1 3,150 2 1 <b>78,700</b>	EA SF EA LS SF	17,300.00 8.60 18,500.00 200,000.00 2.19	17,300 27,090 37,000 200,000 172,679
Wall padding Scoreboard Food service equipment, allow E20 Furnishings	1 3,150 2 1 78,700 <u>78,700</u>	EA SF EA LS SF	17,300.00 8.60 18,500.00 200,000.00 2.19 	17,300 27,090 37,000 200,000 172,679 1 <u>72,679</u>
Wall padding Scoreboard Food service equipment, allow E20 Furnishings E2010 Fixed Furnishings Mirror wall - 8' ht.	1 3,150 2 1 78,700 78,700 480	EA SF EA LS SF SF	17,300.00 8.60 18,500.00 200,000.00 2.19 2.19 36.15	17,300 27,090 37,000 200,000 172,679 172,679
Wall padding Scoreboard Food service equipment, allow E20 Furnishings E2010 Fixed Furnishings Mirror wall - 8' ht. Ballet barre	1 3,150 2 1 78,700 78,700 480 60	EA SF EA LS SF SF SF	17,300.00 8.60 18,500.00 200,000.00 2.19 2.19 36.15 69.20	17,300 27,090 37,000 200,000 172,679 172,679 17,352 4 152
Wall padding Scoreboard Food service equipment, allow E20 Furnishings E2010 Fixed Furnishings Mirror wall - 8' ht. Ballet barre Reception desk, allow	1 3,150 2 1 78,700 78,700 480 60 1	EA SF EA LS SF SF LF LS	17,300.00 8.60 18,500.00 200,000.00 2.19 2.19 36.15 69.20 12,500.00	17,300 27,090 37,000 200,000 172,679 172,679 17,352 4,152 4,152 12,500
Wall padding Scoreboard Food service equipment, allow E20 Furnishings E2010 Fixed Furnishings Mirror wall - 8' ht. Ballet barre Reception desk, allow Chair rail, allow	1 3,150 2 1 78,700 78,700 480 60 1 200	EA SF EA LS SF SF LF LS LF	17,300.00 8.60 18,500.00 200,000.00 2.19 2.19 36.15 69.20 12,500.00 85.00	17,300 27,090 37,000 200,000 172,679 172,679 17,352 4,152 12,500 17,000

North Kirkland (Building) - Option 1				
	Quantity	Unit	Rate	Total
Counters incl. cabinets, PLAM (allow)	125	LF	425.00	53,125
Counters incl. cabinets, solid surface (allow)	50	LF	475.00	23,750
Cubbies, allow	20	LF	340.00	6,800
E2020 Movable Furnishings	78,700	SF		
FF&E - by Owner				FF&E

### North Kirkland (Sitework) - Option 1 Summary

				\$/SF	TOTAL
			Gross Area:	187,854 SF	
G10	Site Preparation		7%	7.80	1,465,934
G20	Site Improvements		47%	55.91	10,502,032
G30	Site Mechanical Utilities		3%	3.97	746,662
G40	Site Electrical Utilities		1%	0.92	173,000
G	Building Sitework		57%	68.60	12,887,628
SITE	ELEMENTAL COST BEFORE CONTINGENCIES		57%	68.60	12,887,628
	Design Contingency	15.00%	9%	0.00	1,933,144
	Construction Contingency	5.00%	0%	3.94	741,039
SITE	ELEMENTAL COST INCLUDING CONTINGENCIES		69%	82.84	15,561,811
	General Conditions	7.00%	5%	5.80	1,089,327
	General Requirements	7.50%	6%	6.65	1,248,835
	Corporate Tax (OR)	0.57%	0%	0.54	102,030
	Subcontractor Default Insurance (OR)	1.75%	0%	1.68	315,035
	Office Overhead & Profit	4.50%	4%	4.39	824,267
	Bonds and Insurance	1.50%	1%	1.53	287,120
	Permit				By Owner
SITE	CONSTRUCTION COST BEFORE ESCALATION		86%	103.42	19,428,424
	Escalation to Start Date (May 2025)	15.83%	14%	16.38	3,076,167
RECO	DMMENDED BUDGET		100%	119.80	22,504,592

North Kirkland (Sitework) - Option 1				
	Quantity	Unit	Rate	Total
Control Quantities	107.054			
Program Areas	187,854	SF		
Building footprint	39,610	SF		
Roadwork				
No work anticipated		05		
	44,165	SF		
Raised parking structure	44,165	SF		
Pedestrian Paving	13,784	SF		
Concrete - sidewalk	12,694	SF		
Concrete W/ Integral color - courtyard	1,090	SF		
Landscape	90,295	SF		
Planting area	90,295	SF		
G10 Site Preparation	187,854	SF	7.80	1,465,934
G1010 Site Clearing	187,854	SF	0.81	153,074
Construction entrance	1	EA	5,000.00	5,000
Construction fence	1,778	LF	13.50	24,003
Erosion control w/ catch basin filters and monitoring	187,854	SF	0.20	37,571
Tree protection, allow	1	LS	12,500.00	12,500
Utility protection, allow	1	LS	7,500.00	7,500
Temp facilities	16	MO	1,500.00	24,000
Dewatering	1	LS	15,000.00	15,000
Construction survey, incl. layout	1	LS	27,500.00	27,500
G1020 Site Demolition and Relocations	187,854	SF	1.13	212,247
Clear and grub - existing vegetation	150,283	SF	0.75	112,712
Demo - hardscape	37,571	SF	2.25	84,534
Demo - misc. site obstructions, allow	1	LS	15,000.00	15,000
G1030 Site Earthwork	187,854	SF	5.86	1,100,614
Mass excavation - building, see 'Building"				incl.
Mass excavation	23,484	CY	18.00	422,706
Haul and dispose	23,484	CY	20.00	469,673
Grading - incl. compaction	187,854	SF	0.50	93,927
Base aggregates				
Building footprint - 12" depth	1,467	CY	45.00	66,017
Vehicular paving - 6" depth	818	CY	45.00	36,804
Pedestrian paving - 6" depth	255	CY	45.00	11,487

North Kirkland (Sitework) - Option 1				
	Quantity	Unit	Rate	Total
C1040 Hazardaya Wasta Remediation	107 051	0E		
G 1040 Hazardous Waste Remediation	107,004	ы		
No work anticipated				NIC
G20 Site Improvements	187,854	SF	55.91	10,502,032
G2010 Roadways	187,854	SF		
No work anticipated				NIC
G2020 Parking Lots	187,854	SF	0.40	75,513
Asphalt - See "Raised parking structure incl. SOG, allow"				incl. below
Striping	88,330	SF	0.25	22,083
Concrete curb - 6"	1,178	LF	35.00	41,230
ADA curb ramp	4	EA	1,550.00	6,200
ADA sign	8	EA	750.00	6,000
G2030 Pedestrian Paving	12,694	SF	12.92	163,966
Concrete - sidewalk	12,694	SF	11.50	145,981
Concrete w/ integral color - courtyard	1,090	SF	16.50	17,985
G2040 Site Development	187,854	SF	48.57	9,124,620
Site structures				
Raised parking structure incl. SOG, allow	44,165	SF	190.00	8,391,350
Retaining wall incl. waterproofing, 5-7'	2,640	SF	75.50	199,320
Retaining wall incl. waterproofing, 10'	4,400	SF	75.50	332,200
Site walls, stairs & railings				
Seat wall - CIP conc w/ wood top	200	LF	275.00	55,000
Stairs	750	SF	55.00	41,250
Rails	300	LF	185.00	55,500
Site furnishing				
Café tables, bike racks, trash receptacles (etc.)	1	ALW	50,000.00	50,000
Park improvements - no work anticipated	_			NIC

G2050 Landscaping	187,854	SF	6.06	1,137,933
Trees - 3" cal., deciduous	40	EA	650.00	26,000
Tree grates - not required				NIC
Planting area	90,295	SF		
Top soil - 24" depth	6,689	CY	45.00	300,983
Mulch - 3" depth	836	CY	40.00	33,443
Planting - 2 gallon, 24" O.C.	22,574	EA	25.00	564,344
Irrigation				
Planting area	90,295	SF	2.25	203,164

North Kirkland (Sitework) - Option 1	Quantity	Unit	Rate	Total
Devices and controls	1	LS	10,000.00	10,000
G30 Site Mechanical Utilities	187,854	SF	3.97	746,662
G3010 Water Supply	187,854	SF	0.47	89,000
Water line	180	LF	55.00	9,900
Fire service line	180	LF	95.00	17,100
FD connection	1	EA	10,000.00	10,000
Vault structure	1	EA	30,000.00	30,000
Fire hydrants	2	EA	7,500.00	15,000
Connection to existing service	2	EA	3,500.00	7,000
G3020 Sanitary Sewer	187,854	SF	0.16	30,350
SS - 8" pipe, incl. trenching and backfill	220	LF	105.00	23,100
SS - cleanout	5	EA	750.00	3,750
Connection to existing service	1	EA	3,500.00	3,500
G3030 Storm Sewer	187,854	SF	3.34	627,312
SW - 8" pipe, incl. trenching and backfill	380	LF	85.00	32,300
Devices and controls - allow	1	EA	35,000.00	35,000
Detention vault, allow	463,760	GAL	1.20	556,512
Connection to existing service	1	EA	3,500.00	3,500
Stormwater vault - not required				NIC
G3060 Fuel Distribution	187,854	SF		
No work anticipated				NIC
G40 Site Electrical Utilities	187,854	SF	0.92	173,000
G4010 Electrical Distribution	187,854	SF	0.24	45,000
Transformer - by franchise utility				NIC
Power distribution - to building	1	LS	45,000.00	45,000
G4020 Site Lighting	187,854	SF	0.68	128,000
Pedestrian light poles	6	EA	6,000.00	36,000
Parking - light poles	10	EA	9,200.00	92,000
G4090 Other Site Electrical Utilities	187,854	SF		
No work anticipated				NIC

# North Kirkland (Building) - Option 2 Summary

NOIL	rrandiana (Ballaing) Option 2 Oannary			<b>•</b> / • <b>-</b>	
			%	\$/SF	TOTAL
			Gross Area:	51,712 SF	
A10	Foundations		2%	19.81	1,024,387
А	Substructure		2%	19.81	1,024,387
B10	Superstructure		10%	82.87	4,285,329
B20	Exterior Enclosure		7%	58.05	3,002,096
B30	Roofing		5%	37.15	1,921,230
В	Shell		22%	178.08	9,208,655
C10	Interior Construction		3%	27.20	1,406,518
C20	Stairways		0%	0.72	37,000
C30	Interior Finishes		4%	31.92	1,650,484
С	Interiors		8%	59.83	3,094,002
D10	Conveying Systems		0%	2.19	113,000
D20	Plumbing Systems		2%	18.22	942,440
D30	Heating, Ventilation & Air Conditioning		11%	87.25	4,511,963
D40	Fire Protection		1%	6.15	318,115
D50	Electrical Lighting, Power & Communications		9%	70.46	3,643,866
D	Services		23%	184.28	9,529,384
E10	Equipment		1%	8.49	438,798
E20	Furnishings		1%	3.97	205,473
Е	Equipment & Furnishings		2%	12.46	644,271
F10	Special Construction		0%	0.00	0
F20	Selective Demolition		0%	0.00	0
F	Special Construction & Demolition		0%	0.00	0
BUILI	DING ELEMENTAL COST BEFORE CONTINGENCIES		57%	454.45	23,500,700
	Design Contingency	15.00%	9%	68.17	3,525,105
	Construction Contingency	5.00%	3%	26.13	1,351,290
BUILI	DING ELEMENTAL COST INCLUDING CONTINGENCIES		69%	548.75	28,377,095
	General Conditions	7.00%	5%	38.41	1,986,397
	General Requirements	7.50%	6%	44.04	2,277,262
	Corporate Tax	0.57%	0%	3.60	186,052
	SDI	1.75%	1%	11.11	574,469
	Office Overhead & Profit	4.50%	4%	29.07	1,503,057
	Bonds and Insurance	1.50%	1%	10.12	523,565
	Permit				By Owner
BUILI	DING CONSTRUCTION COST BEFORE ESCALATION		86%	685.10	35,427,898
	Escalation to Start Date (May 2025)	15.83%	14%	108.47	5,609,417
RECO	DMMENDED BUDGET		100%	793.57	41,037,315

North Kirkland (Building) - Option 2				
	Quantity	Unit	Rate	Total
			1	
Controls				
Building Footprint	31,953	SF		
Level 1	31,953	SF		
Level 2	18,397	SF		
Roof Terrace - Unconditioned Space	1,362	SF		
Building ht. Total, Average	28	LF		
Exterior Enclosure Total	23,285	LF		
Cladding	15,135	LF		
Glazing	8,150	LF		
Roof, typ	31,953	SF		
Soffit	1,500	SF		
Total Building Area	51,712	SF		
A10 Foundations	51,712	SF	19.81	1,024,387
A1010 Standard Foundations	51,712	SF	8.33	430,608
Building excavation	1,776	CY	18.00	31,968
Haul and dispose	1,776	CY	20.00	35,520
Reinforced footings				
Continuous footing - 2' x 2'	111	CY	690.00	76,590
Spread footing - 4' x 4'	22	CY	690.00	15,371
Perimeter insulation	1,490	SF	4.00	5,960
Perimeter drainage and bedding	795	LF	32.00	25,440
Elevator pit - complete	1	EA	22,500.00	22,500
Anchors and connections, allow	1	LS	8,500.00	8,500
Rammed aggregate piers	2,130	VLF	98.00	208,760
Temp shoring - not required				NIC
A1030 Slab On Grade	51,712	SF	11.48	593,779
Slab on grade - 4" thk., reinforced	31 953	SF	13.10	418.584
Vapor barrier	31,953	SF	3.00	95,859
Miscellaneous concrete specialties	31,953	SF	1 15	36 746
Waterproofing	1 490	SF	12 50	18 625
Allowance for blockouts	31,953	SF	0.75	23,965
A20 Basement Construction	51,712	SF		

A2010 Basement Excavation No work anticipated 51,712

SF
North Kirkland (Building) - Option 2				
	Quantity	Unit	Rate	Total
B10 Superstructure	51,712	SF	82.87	4,285,329
B1010 Floor Construction	51,712	SF	81.16	4,197,042
Transfer beams	110	CY	1,040.00	114,785
Stem wall - 1' ht.	28	CY	910.00	25,109
Mass timber construction - columns and beams Wood timber package				
CLT panels, spline ends and side joints	51,712	SF	28.00	1,447,936
Glu-lam beams	2,268	LF	130.00	294,840
Glu-lam blocking	38	EA	554.00	20,826
Glu-lam columns	1,053	LF	124.00	130,519
Layout/installation	51,712	SF	18.50	956,672
Lifting system	1	LS	24,000.00	24,000
Hardware	1	LS	95,000.00	95,000
Shop drawings	1	LS	36,000.00	36,000
Transport	1	LS	88,000.00	88,000
Decking				
Mass plywood panels - see "Wood timber package"				incl. above
Acoustic mat	18,397	SF	6.21	114,245
2" gypcrete	18,397	SF	5.00	91,985
Firestopping	18,397	SF	0.75	13,798
Sealants	18,397	SF	0.55	10,118
Shear wall	5,292	SF	85.00	449,820
Shear wall - interior	2,796	SF	85.00	237,639
Channels and angels	1	LS	30,000.00	30,000
Structural steel				
Elevator hoist beams	0.50	TNs	16,500.00	8,250
Misc. steel angles and connections	1	LS	7,500.00	7,500
B1020 Roof Construction	51,712	SF	1.71	88,287
Mass timber construction - beams and decking				incl. above
Beams - glu-lam				incl.
CLT decking				incl.
Hardware				incl.
PV support system - not required				NIC
Soffit	1,500	SF	35.00	52,500
Strapping, blocking and connections, add	31,953	SF	1.12	35,787

orth Kirkland (Building) - Option 2	Quantity	Unit	Rate	Total
0 Exterior Enclosure	51,712	SF	58.05	3,002,096
B2010 Exterior Walls	51,712	SF	40.13	2,075,171
Wood stud framing	23,285	SF		
Framing	23,285	SF	19.10	444,740
Sheathing	15,135	SF	6.50	98,378
Batt insulation R-21	15,135	SF	6.20	93,838
Weather barrier	15,135	SF	7.20	108,973
Cladding				
Metal panel system	7,568	SF	65.00	491,891
Stained wood system	4,541	SF	75.00	340,540
Terracotta system	3,027	SF	88.00	266,378
Facias, bands and screens	2,235	SF	35.00	78,225
Caps, flashing and sealants, allow	51,712	SF	2.75	142,208
Louvers, allow	1	LS	10,000.00	10,000
B2020 Exterior Windows	51,712	SF	17.33	896,355
Curtainwall	1,983	SF	140.00	277,628
Storefront	4,700	SF	102.00	479,361
Clerestory	1,467	SF	95.00	139,365
B2030 Exterior Doors	51,712	SF	0.59	30,570
Storefront, double	2	EA	5,425.00	10,850
Storefront, single	4	EA	3,500.00	14,000
HM flush, single	2	EA	2,860.00	5,720
0 Roofing	51,712	SF	37.15	1,921,230
B3010 Roof Coverings	51,712	SF	27.72	1,433,430
TPO membrane system	31,953	SF	18.55	592,728
Coverboard - 7" thk.	31,953	SF	6.80	217,280
Insulation - R-30	31,953	SF	8.00	255,624
Vapor barrier	31,953	SF	2.00	63,906
Fall protection, allow	1	LS	50,000.00	50,000
Caps, flashing and sealants	31,953	SF	3.50	111,836
			0.00	10 750
Roof walking pads, allow	1,500	SF	28.50	42,750
Roof walking pads, allow Roof terrace	1,500 1,362	SF SF	28.50 38.00	42,750 51,756

North Kirkland (Building) - Option 2	Quantity	Lloit	Pata	Total
	Quantity	Unit	Nate	TULAI
B3020 Roof Openings	51,712	SF	9.43	487,800
Roof monitor, incl. skylight	2,160	SF	210.00	453,600
Skylights	200	SF	171.00	34,200
C10 Interior Construction	51,712	SF	27.20	1,406,518
C1010 Dertitions	51 710	0E	27.20	1 406 519
	51,712	or	21.20	1,400,516
Solid and glazed walls				
Wood stud framing - 2x4	00.070	05	10 50	400.040
	30,270	SF	13.50	408,648
	30,270	SF	4.50	136,216
GvvD, ZX	60,540	SF	4.85	293,621
Shaft Wall, metal stud - 4"	1,204	SF	00.40	40,400
Acoustical batt inculation	2,408	SF	20.40	49,123
	1,204	SF	4.50	5,418
Operable partition	2,408	55	4.85	11,679
	30		1,000.00	30,000
	40		1,500.00	60,000
Interior of exterior walls	15,135	SF	8.50	128,649
Storefront, allow	350	SF	98.00	34,300
Doors and trames	0		4 750 00	0 500
	2	EA	4,750.00	9,500
HM fluch single	10	EA	2,885.00	28,850
rivi, ilusii - single	16	ΕA	2,385.00	38,160
Fittings	4.075	05	11.50	10.001
Window treatment - roller shades	4,075	SF	11.50	46,861
Wayfinding and signage	51,712	SF	0.66	33,923
Whiteboards and writable surfaces, allow	400	SF	36.50	14,600
Corner guards and kick plates	1	LS	10,000.00	10,000
Mirrors - restroom	4	EA	280.00	1,120
Restroom fitout	4	EA	1,500.00	6,000
Lockers, allow	30	EA	375.00	11,250
Benches, allow	5	EA	750.00	3,750
Guardrail, glazed	195	LF	230.00	44,850
C20 Stairways	51,712	SF	0.72	37,000
C2010 Stair Construction	51,712	SF	0.72	37,000
Egress stairs	2	FLT	18,500.00	37,000

Clannity         Unit         Rate         Total           C30 Interior Finishes         51,712         SF         31.92         1,650,484           C3010 Walk Finishes         51,712         SF         9.23         477,256           Paint         76,084         SF         2.10         165,376           Tile restroom walks to 7 ht.         3,164         SF         2.00         652,200           Acoustic paneling, allow         1         LS         150,000,00         160,000           Misc. graphics and special finishes, allow         1         LS         150,000,00         160,000           C3020 Floor Finishes         51,712         SF         16.11         833,257           Walk-off mat         200         SF         15,00         3,000           Carpet tile         4,854         SF         6,59         31,551           Lindeum         6,135         SF         3.90         18,311           Epoxy resinus flooring         1,940         SF         22.00         7,600           Sprung hardwood flooring         2,845         SF         31.90         89,402           Tile         380         SF         2.00         460,572           C3030 Colling Fin	North Kirkland (Building) - Option 2				
C30 Interior Finishes         51,712         SF         31.92         1,650,484           C3010 Wall Finishes         51,712         SF         9.23         477,256           Paint         76,064         SF         2.10         163,276           Tile restroom walls to 7'ht.         3,164         SF         2.00         63,280           Accustic pareling, allow         1         LS         150,000.00         150,000           Misc. graphics and special finishes, allow         1         LS         100,000.00         150,000           C3020 Floor Finishes         51,712         SF         16.11         833,257           Walk-off mat         200         SF         15.00         3000           Carpet tile         2.03         SF         6.50         31,551           Linoleum         6,135         SF         9.50         556,253           Polished concrete         14,174         SF         8.50         55,253           Polished concrete         14,174         SF         8.50         55,253           Tile         380         SF         22.00         43,556           Tile         380         SF         2.00         7,600           Sprung hardwoo		Quantity	Unit	Rate	Total
C.3010 Wall Finishes         51,712         SF         9,23         477,256           Paint         78,084         SF         2.10         163,976           The restroom walls to 7' ht.         3,164         SF         2.000         63,228           Accustic paneling, allow         1         LS         150,000,00         150,000           Misc. graphics and special finishes, allow         1         LS         150,000,00         100,000           C3020 Floor Finishes <b>51,712</b> SF <b>16,11 933,257</b> Walk-off mat         200         SF         15,00         3,000           Carget tile         4,854         SF         50,112,2479           Seated concrete         14,174         SF         6,50         12,0479           Seated concrete         14,854         SF         20,00         7,600           Sprung hardwood flooring         1,868         SF         20,00         7,600           Sprung hardwood flooring         16,449         SF         20,00         7,600           ACT         10,986         SF         8,50         39,972           ACT         10,986         SF         8,50         39,972           ACT <th>C30 Interior Finishes</th> <th>51,712</th> <th>SF</th> <th>31.92</th> <th>1,650,484</th>	C30 Interior Finishes	51,712	SF	31.92	1,650,484
C3010 Wall Finishes         51,712         SF         9,23         477,256           Paint         70,084         SF         2.10         163,976           The restroom walls to 7' ht.         3,164         SF         20,000         63,280           Acoustic paneling, allow         1         LS         150,000         150,000           Mise, graphies and special finishes, allow         1         LS         150,000         100,000           C3020 Floor Finishes         51,712         SF         16.11         833,257           Walk off mat         200         SF         15.00         3,000           Carget tile         6,135         SF         9.50         58,223           Polished concrete         14,174         SF         8.50         120,479           Sealed concrete         4,695         SF         3.90         16,311           Epoxy resinous flooring         1,980         SF         22.00         43,550           Tale         380         SF         22.00         43,550           ACT         1,989         SF         8.50         99,402           ACT         1,989         SF         8.50         99,402           ACT         1,9					
Paint         78,084         SF         2,10         163,976           Tile restroom walls to 7' ht.         3,164         SF         20,00         63,200           Acoustic paneling, allow         1         LS         150,000         160,000           Misc, graphics and special finishes, allow         1         LS         150,000         160,000           C3020 Floor Finishes <b>51,712</b> SF <b>16,11 833,267</b> Walk off mat         200         SF         15,00         3,000           Carpet tile         4,854         SF         6,50         31,551           Linoleum         6,135         SF         9,50         56,283           Polished concrete         14,174         SF         8,50         120,479           Sealed concrete         4,695         SF         3,90         18,311           Epoxy resinous flooring         1,980         SF         22,00         7,600           Tile         3800         SF         21,00         7,600         59,902           ACT         1,989         SF         8,50         93,407           ACT         1,989         SF         15,00         14,742           ACT <td>C3010 Wall Finishes</td> <td>51,712</td> <td>SF</td> <td>9.23</td> <td>477,256</td>	C3010 Wall Finishes	51,712	SF	9.23	477,256
Tile restroom walls to 7' ht.       3,164       SF       20,00       63,280         Acoustic paneling, allow       1       LS       150,000,00       150,000         Misc. graphics and special finishes, allow       1       LS       100,000,00       100,000         C3020 Floor Finishes       51,712       SF       16,11       833,257         Walk-off mat       200       SF       15,00       3,000         Carpet tile       4,654       SF       6,650       31,511         Lindleum       6,135       SF       9,50       58,283         Polished concrete       14,174       SF       8,50       120,479         Sealed concrete       14,174       SF       3,00       18,311         Epoxy resinous flooring       1,980       SF       22,00       43,560         Tile       380       SF       20,00       7,600         Sprung hardwood flooring       16,449       SF       31,61       89,902         Hardwood sport flooring       16,449       SF       16,53       93,407         ACT       X0 washable       1,123       100,000       100,000         Open to structure, painted       31,214       SF       135,5       14,74	Paint	78,084	SF	2.10	163,976
Accustic pareling, allow       1       LS       150,000,00       160,000         Misc. graphics and special finishes, allow       1       LS       100,000,00       100,000         C3020 Floor Finishes       51,712       SF       16.11       833,257         Walk-off mat       200       SF       15.00       3,000         Carpet tile       4,854       SF       6,50       31,551         Linoleum       6,135       SF       -5.0       65,283         Polished concrete       14,174       SF       8.50       120,479         Sealed concrete       4,695       SF       3.90       16,311         Epoxy resinous flooring       1,980       SF       22.00       43,560         Tile       380       SF       28.00       7,600         Sprung hardwood flooring       2,845       SF       31.60       89,902         Hardwood sport flooring       1,989       SF       8.50       93,407         ACT       10,989       SF       8.50       14,422         Accustic treatment, allow       1       LS       100,000,0       100,000         Open to structure, painted       31,214       SF       1.85       65,746	Tile restroom walls to 7' ht.	3,164	SF	20.00	63,280
Misc. graphics and special finishes, allow       1       LS       100,000.00         C3020 Floor Finishes       51,712       SF       16,11       833,257         Walk-off mat       200       SF       15,00       3,000         Carpet tile       4,854       SF       6,50       31,551         Linoleum       6,135       SF       9,50       58,283         Polished concrete       14,174       SF       8,50       120,479         Sealed concrete       4,695       SF       3,90       18,311         Epoxy resinous flooring       1,980       SF       2,00       7,600         Sprung hardwood flooring       2,845       SF       6,57       39,902         Hardwood sport flooring       16,449       SF       28,00       460,572         C3030 Ceiling Finishes       51,712       SF       6,57       39,902         ACT       10,989       SF       8,50       9,3,07         ACT       10,989       SF       8,50       14,742         Acoustic treatment, allow       1       LS       100,000,00       100,000         Open to structure, painted       7,055       SF       10,50       74,078         D1010 Ele	Acoustic paneling, allow	1	LS	150,000.00	150,000
C3020 Floor Finishes         51,712         SF         16,11         833,257           Walk-off mat         200         SF         15,00         3,000           Carpet tile         4,854         SF         6,50         31,651           Linoleum         6,135         SF         9,50         15,203         31,651           Polished concrete         14,174         SF         8,50         120,479           Sealed concrete         4,695         SF         3,90         18,311           Epoxy resinous flooring         1,980         SF         2,00         7,600           Sprung hardwood flooring         2,845         SF         31,60         89,902           Hardwood sport flooring         16,449         SF         28,00         460,572           C3030 Ceiling Finishes         51,712         SF         6.57         399,972           ACT         10,989         SF         8,50         93,407           ACT, washable         10,92         SF         13,50         14,742           Acoustic treatment, allow         1         LS         100,000,00         100,000           Open to structure, painted         7,055         SF         10,50         74,078	Misc. graphics and special finishes, allow	1	LS	100,000.00	100,000
Walk-off mat         200         SF         15.00         3.000           Carpet tile         4.854         SF         6.50         31.551           Linoleum         6,135         SF         9.50         58.283           Polished concrete         14,174         SF         8.50         120,479           Sealed concrete         14,955         SF         3.30         18,311           Epoxy resinous flooring         1,980         SF         22.00         43,660           Tile         380         SF         20.00         7,600           Sprung hardwood flooring         1,649         SF         28.00         460,572           C3030 Celling Finishes <b>51,712</b> SF         6.67         339,902           ACT         ACT         10,989         SF         8.50         93,407           ACT, washable         1         LS         100,000.00         100,000           Open to structure, painted         7,055         SF         10.50         74,078           D1010 Elevators & Lifts <b>51,712</b> SF         2.19         113,000           4500 LB - elevator w/SS finish system         2         ST         56,500.00         113,000	C3020 Floor Finishes	51,712	SF	16.11	833,257
Carpet tile         4,854         SF         6.50         31,551           Linoleum         6,135         SF         9.50         568,283           Polished concrete         14,174         SF         8.50         120,479           Sealed concrete         14,174         SF         8.50         120,479           Sealed concrete         14,955         SF         3.90         18,311           Epoxy resinous flooring         1,980         SF         22.00         43,560           Tile         380         SF         20.00         7,600           Sprung hardwood flooring         2,845         SF         31.60         89,902           Hardwood sport flooring         2,845         SF         31.60         89,902           ACT         10,989         SF         8.50         93,407           ACT         10,989         SF         13.50         14,742           Acoustic treatment, allow         1         LS         100,000.00         100,000           Open to structure, painted         31,214         SF         1.85         57,746           GWB, painted         51,712         SF         2.19         113,000           J01010 Elevators & Lifts	Walk-off mat	200	SF	15.00	3,000
Linoleum       6,135       SF       9.50       58,283         Polished concrete       14,174       SF       8.50       120,479         Sealed concrete       4,695       SF       3.90       18,311         Epoxy resinous flooring       1,980       SF       22.00       43,660         Tile       380       SF       20.00       7,600         Sprung hardwood flooring       2,845       SF       31.60       89,902         Hardwood sport flooring       2,845       SF       31.60       89,902         ACT       10,989       SF       8.50       93,407         ACT, washable       1,092       SF       13.50       14,742         Acoustic treatment, allow       1       LS       100,000.00       100,000         Open to structure, painted       31,214       SF       1.05       77,46         GWB, painted       51,712       SF       2.19       113,000         D1010 Elevators & Lifts       51,712       SF       2.19       113,000         4500 LB - elevator w/ SS finish system       51,712       SF       3.50       180,992         Sanitary fixtures, allow       51,712       SF       3.50       180,992	Carpet tile	4,854	SF	6.50	31,551
Polished concrete       14,174       SF       8.50       120,479         Sealed concrete       4,695       SF       3.90       18,311         Epoxy resinous flooring       1,980       SF       22.00       43,560         Tile       380       SF       20.00       7,600         Sprung hardwood flooring       2,845       SF       31.60       89,902         Hardwood sport flooring       16,449       SF       28.00       460,572         C3030 Ceiling Finishes <b>51,712</b> SF <b>6.57 339,972</b> ACT       10,989       SF       8.50       93,407         ACT, washable       1,092       SF       13.50       14,742         Acoustic treatment, allow       1       LS       100,000.00       100,000         Open to structure, painted       7,055       SF       1.85       57,746         GWB, painted <b>51,712</b> SF <b>2.19 113,000</b> D101 Cenveying Systems <b>51,712</b> SF <b>2.19 113,000</b> J2010 Plumbing Fixtures <b>51,712</b> SF <b>3.50</b> 180,992         Water closets       incl.       incl.       incl.       incl. </td <td>Linoleum</td> <td>6,135</td> <td>SF</td> <td>9.50</td> <td>58,283</td>	Linoleum	6,135	SF	9.50	58,283
Sealed concrete         4,695         SF         3,90         18,311           Epoxy resinous flooring         1,980         SF         22.00         43,560           Tile         380         SF         20.00         7,600           Sprung hardwood flooring         2,845         SF         31.60         89,902           Hardwood sport flooring         16,449         SF         28.00         460,572           C3030 Ceiling Finishes <b>51,712</b> SF <b>6.67 399,972</b> ACT         10,889         SF         8.50         93,407           ACT, washable         1,092         SF         13.50         14,742           Acoustic treatment, allow         1         LS         100,000.00         100,000           Open to structure, painted         31,214         SF         1.85         57,746           GWB, painted <b>51,712</b> SF <b>2.19 113,000</b> D1010 Elevators & Lifts <b>51,712</b> SF <b>2.19 130,00</b> 4500 LB - elevator w/ SS finish system         2         ST         56,500.00         113,000           D2010 Plumbing Fixtures         SI         51,712         SF	Polished concrete	14,174	SF	8.50	120,479
Epoxy resinous flooring         1,980         SF         22.00         43,560           Tile         380         SF         20.00         7,600           Sprung hardwood flooring         2,845         SF         31.60         89,902           Hardwood sport flooring         16,449         SF         28.00         460,572           C3030 Ceiling Finishes         51,712         SF         6.57         339,972           ACT         10,989         SF         8.50         93,407           ACT, washable         1,092         SF         13.50         14,742           Acoustic treatment, allow         1         LS         100,000.00         100,000           Open to structure, painted         31,214         SF         1.85         57,746           GWB, painted         7,055         SF         10.50         74,078           D1010 Elevators & Lifts         51,712         SF         2.19         113,000           4500 LB - elevator w/ SS finish system         2         ST         56,500.00         113,000           D2010 Plumbing Fixtures         51,712         SF         3.50         180,992           Sanitary fixtures, allow         51,712         SF         3.50	Sealed concrete	4,695	SF	3.90	18,311
Tile       380       SF       20.00       7,600         Sprung hardwood flooring       2,845       SF       31.60       89,902         Hardwood sport flooring       16,449       SF       28.00       460,572         C 3030 Ceiling Finishes <b>51,712</b> SF <b>6.57 339,972</b> ACT       10,989       SF       8.50       93,407         ACT, washable       1,092       SF       13.50       14,742         Acoustic treatment, allow       1       LS       100,000.00       100,000         Open to structure, painted       31,214       SF       1.85       57,746         GWB, painted       7,055       SF       10.50       74,078         D10 Conveying Systems <b>51,712</b> SF <b>2.19 113,000</b> A500 LB - elevator w/ SS finish system       2       ST       56,500.00       113,000         D20 Plumbing Fixtures <b>51,712</b> SF <b>3.50</b> 180,992         Water closets       incl.       incl.       incl.       incl.         Lavatories       incl.       incl.       incl.       incl.         Map sink       incl.       incl.       incl.       incl. <td>Epoxy resinous flooring</td> <td>1,980</td> <td>SF</td> <td>22.00</td> <td>43,560</td>	Epoxy resinous flooring	1,980	SF	22.00	43,560
Sprung hardwood flooring         2,845         SF         31.60         89,902           Hardwood sport flooring         16,449         SF         28.00         460,572           C3030 Ceiling Finishes         51,712         SF         6.57         339,972           ACT         10,989         SF         8.50         93,407           ACT, washable         1,092         SF         13.50         14,742           Acoustic treatment, allow         1         LS         100,000.00         100,000.00           Open to structure, painted         31,214         SF         1.85         57,746           GWB, painted         7,055         SF         10.50         74,078           D10 Conveying Systems         51,712         SF         2.19         113,000           4500 LB - elevator w/ SS finish system         2         ST         56,500.00         113,000           D2010 Plumbing Fixtures         51,712         SF         3.50         180,992           Water closets         incl.         incl.         incl.         incl.           Lavatories         incl.         incl.         incl.         incl.           Mop sink         ish, k.vo compartment         incl.         incl.	Tile	380	SF	20.00	7,600
Hardwood sport flooring       16,449       SF       28.00       460,572         C3030 Ceiling Finishes       51,712       SF       6.57       339,972         ACT       10,989       SF       8.50       93,407         ACT, washable       1,092       SF       13.50       14,742         Acoustic treatment, allow       1       LS       100,000.00       100,000         Open to structure, painted       31,214       SF       1.85       57,746         GWB, painted       7,055       SF       10.50       74,078         D10 Conveying Systems       51,712       SF       2.19       113,000         4500 LB - elevator w/ SS finish system       2       ST       56,500.00       113,000         D20 Plumbing Systems       51,712       SF       18.22       942,440         D2010 Plumbing Fixtures       51,712       SF       3.50       180,992         Sanitary fixtures, allow       51,712       SF       3.50       180,992         Water closets       incl.       incl.       incl.       incl.         Lab sink       incl.       incl.       incl.       incl.         Kitchen sink, two compartment       incl.       incl. <tdincl.< td=""><td>Sprung hardwood flooring</td><td>2,845</td><td>SF</td><td>31.60</td><td>89,902</td></tdincl.<>	Sprung hardwood flooring	2,845	SF	31.60	89,902
C3030 Ceiling Finishes         51,712         SF         6.57         339,972           ACT         10,989         SF         8.50         93,407           ACT, washable         1,092         SF         13.50         14,742           Acoustic treatment, allow         1         LS         100,000.00         100,000           Open to structure, painted         31,214         SF         1.85         57,746           GWB, painted         7,055         SF         10.50         74,078           D10 Conveying Systems         51,712         SF         2.19         113,000           4500 LB - elevator w/ SS finish system         2         ST         56,500.00         113,000           D20 Plumbing Systems         51,712         SF         2.942,440         3.50         180,992           Sanitary fixtures, allow         51,712         SF         3.50         180,992           Water closets         incl.         incl.         incl.         incl.           Lab sink         Kitchen sink, two compartment         incl.         incl.           Hose bib         incl.         incl.         incl.	Hardwood sport flooring	16,449	SF	28.00	460,572
ACT       10,989       SF       8.50       93,407         ACT, washable       1,092       SF       13.50       14,742         Acoustic treatment, allow       1       LS       100,000.00       100,000         Open to structure, painted       31,214       SF       1.85       57,746         GWB, painted       7,055       SF       10.50       74,078         D10 Conveying Systems       51,712       SF       2.19       113,000         D1010 Elevators & Lifts       51,712       SF       2.19       113,000         4500 LB - elevator w/ SS finish system       2       ST       56,500.00       113,000         D20 Plumbing Systems       51,712       SF       18.22       942,440         D2010 Plumbing Fixtures       51,712       SF       3.50       180,992         Sanitary fixtures, allow       51,712       SF       3.50       180,992         Water closets       incl.       incl.       incl.       incl.         Lab sink       Kitchen sink, two compartment       incl.       incl.         Hose bib       incl.       incl.       incl.	C3030 Ceiling Finishes	51,712	SF	6.57	339,972
ACT, washable       1,092       SF       13.50       14,742         Acoustic treatment, allow       1       LS       100,000       100,000         Open to structure, painted       31,214       SF       1.85       57,746         GWB, painted       7,055       SF       10.50       74,078         D10 Conveying Systems       51,712       SF       2.19       113,000         D1010 Elevators & Lifts       51,712       SF       2.19       113,000         4500 LB - elevator w/ SS finish system       2       ST       56,500.00       113,000         D20 Plumbing Systems       51,712       SF       18.22       942,440         D2010 Plumbing Fixtures       51,712       SF       3.50       180,992         Sanitary fixtures, allow       51,712       SF       3.50       180,992         Water closets       incl.       incl.       incl.       incl.         Lab sink       incl.       incl.       incl.       incl.         Hose bib       incl.       incl.       incl.       incl.	ACT	10.989	SF	8.50	93.407
Acoustic treatment, allow       1       LS       100,000,00       100,000         Open to structure, painted       31,214       SF       1.85       57,746         GWB, painted       7,055       SF       10.50       74,078         D10 Conveying Systems       51,712       SF       2.19       113,000         D1010 Elevators & Lifts       51,712       SF       2.19       113,000         4500 LB - elevator w/ SS finish system       2       ST       56,500.00       113,000         D20 Plumbing Systems       51,712       SF       18.22       942,440         D2010 Plumbing Fixtures       51,712       SF       3.50       180,992         Sanitary fixtures, allow       51,712       SF       3.50       180,992         Water closets       incl.       incl.       incl.       incl.         Lavatories       incl.       incl.       incl.       incl.         Mop sink       incl.       incl.       incl.       incl.         Lab sink       two compartment       incl.       incl.       incl.         Hose bib       incl.       incl.       incl.       incl.	ACT, washable	1,092	SF	13.50	14,742
Open to structure, painted         31,214         SF         1.85         57,746           GWB, painted         7,055         SF         10.50         74,078           D10 Conveying Systems         51,712         SF         2.19         113,000           D1010 Elevators & Lifts         51,712         SF         2.19         113,000           4500 LB - elevator w/ SS finish system         2         ST         56,500.00         113,000           D20 Plumbing Systems         51,712         SF         18.22         942,440           D2010 Plumbing Fixtures         51,712         SF         3.50         180,992           Sanitary fixtures, allow         51,712         SF         3.50         180,992           Water closets         incl.         incl.         incl.         incl.           Lavatories         incl.         incl.         incl.         incl.           Mop sink         incl.         incl.         incl.         incl.           Lab sink         incl.         incl.         incl.         incl.           Hose bib         incl.         incl.         incl.         incl.	Acoustic treatment, allow	1	LS	100.000.00	100.000
GWB, painted         7,055         SF         10.50         74,078           D10 Conveying Systems         51,712         SF         2.19         113,000           D1010 Elevators & Lifts         51,712         SF         2.19         113,000           4500 LB - elevator w/ SS finish system         2         ST         56,500.00         113,000           D20 Plumbing Systems         51,712         SF         18.22         942,440           D2010 Plumbing Fixtures         51,712         SF         3.50         180,992           Sanitary fixtures, allow         51,712         SF         3.50         180,992           Water closets         incl.         incl.         incl.         incl.           Lab sink         incl.         incl.         incl.         incl.           Kitchen sink, two compartment         incl.         incl.         incl.           Hose bib         incl.         incl.         incl.         incl.	Open to structure, painted	31,214	SF	1.85	57,746
D10 Conveying Systems         51,712         SF         2.19         113,000           D1010 Elevators & Lifts         51,712         SF         2.19         113,000           4500 LB - elevator w/ SS finish system         2         ST         56,500.00         113,000           D20 Plumbing Systems         51,712         SF         18.22         942,440           D2010 Plumbing Fixtures         51,712         SF         3.50         180,992           Sanitary fixtures, allow         51,712         SF         3.50         180,992           Water closets         incl.         incl.         incl.         incl.           Lavatories         incl.         incl.         incl.         incl.           Mop sink         incl.         incl.         incl.         incl.           Kitchen sink, two compartment         incl.         incl.         incl.	GWB, painted	7,055	SF	10.50	74,078
D1010 Elevators & Lifts         51,712         SF         2.19         113,000           4500 LB - elevator w/ SS finish system         2         ST         56,500.00         113,000           D20 Plumbing Systems         51,712         SF         18.22         942,440           D2010 Plumbing Fixtures         51,712         SF         3.50         180,992           Sanitary fixtures, allow         51,712         SF         3.50         180,992           Water closets         incl.         incl.         incl.         incl.           Lavatories         incl.         incl.         incl.         incl.           Kitchen sink, two compartment         incl.         incl.         incl.         incl.	D10 Conveying Systems	51 712	SF	2 19	113 000
D1010 Elevators & Lifts       51,712       SF       2.19       113,000         4500 LB - elevator w/ SS finish system       2       ST       56,500.00       113,000         D20 Plumbing Systems       51,712       SF       182.2       942,440         D2010 Plumbing Fixtures       51,712       SF       3.50       180,992         Sanitary fixtures, allow       51,712       SF       3.50       180,992         Water closets       incl.       incl.       incl.       incl.         Lavatories       incl.       incl.       incl.       incl.         Kitchen sink, two compartment       incl.       incl.       incl.         Hose bib       incl.       incl.       incl.		01,112		2110	110,000
4500 LB - elevator w/ SS finish system2ST56,500.00113,000D20 Plumbing Systems51,712SF18.22942,440D2010 Plumbing Fixtures51,712SF3.50180,992Sanitary fixtures, allow51,712SF3.50180,992Water closetsincl.Lavatoriesincl.Mop sinkincl.Lab sinkincl.Kitchen sink, two compartmentincl.Hose bibincl.	D1010 Elevators & Lifts	51,712	SF	2.19	113,000
D20 Plumbing Systems51,712SF18.22942,440D2010 Plumbing Fixtures51,712SF3.50180,992Sanitary fixtures, allow51,712SF3.50180,992Water closets51,712SF3.50180,992Lavatoriesincl.incl.incl.Mop sinkincl.incl.incl.Lab sinkincl.incl.incl.Kitchen sink, two compartmentincl.incl.Hose bibinclincl.	4500 LB - elevator w/ SS finish system	2	ST	56,500.00	113,000
D2010 Plumbing Fixtures51,712SF3.50180,992Sanitary fixtures, allow51,712SF3.50180,992Water closetsincl.Lavatoriesincl.Mop sinkincl.incl.Lab sinkincl.incl.Kitchen sink, two compartmentincl.Hose bibincl.	D20 Plumbing Systems	51,712	SF	18.22	942,440
Sanitary fixtures, allow51,712SF3.50180,992Water closetsincl.Lavatoriesincl.Mop sinkincl.Lab sinkincl.Kitchen sink, two compartmentincl.Hose bibincl.	D2010 Plumbing Fixtures	51,712	SF	3.50	180,992
Water closetsincl.Lavatoriesincl.Mop sinkincl.Lab sinkincl.Kitchen sink, two compartmentincl.Hose bibincl.	Sanitary fixtures, allow	51.712	SF	3.50	180.992
Lavatoriesincl.Mop sinkincl.Lab sinkincl.Kitchen sink, two compartmentincl.Hose bibincl.	Water closets				incl.
Mop sinkincl.Lab sinkincl.Kitchen sink, two compartmentincl.Hose bibincl.	Lavatories				incl.
Lab sinkincl.Kitchen sink, two compartmentincl.Hose bibincl.	Mop sink				incl.
Kitchen sink, two compartmentincl.Hose bibincl.	Lab sink				incl.
Hose bib incl.	Kitchen sink, two compartment				incl.
	Hose bib				incl.

Ductwork including flex

Electric duct heaters

lorth Kirkland (Building) - Option 2				
	Quantity	Unit	Rate	lotal
Deck-mounted eve wash				incl
Drinking fountain				incl
Connections				incl.
D2020 Domestic Water Distribution	51,712	SF	7.20	372,326
Domestic water, allow	51,712	SF	7.20	372,326
Piping and drainage	·			incl.
Domestic water, 2" HW/CW				incl.
Insulation				incl.
Seismic bracing				incl.
Shut off valves and specialties				incl.
Hot water heaters				incl.
Expansion tanks				incl.
HW circulation pump				incl.
Mixing valves				incl.
Reduced pressure backflow preventer, allow				incl.
D2030 Sanitary Waste	51,712	SF	6.92	357,847
Sanitary waste, allow	51,712	SF	6.92	357,847
Sanitary and vent piping				incl.
Floor drains				incl.
Sanitary filtration				incl.
Ancillaries				incl.
D2040 Rain Water Drainage	51,712	SF	0.60	31,275
Gutters and downspouts	963	LF	25.00	24,075
Roof drains	6	EA	1,200.00	7,200
0 Heating, Ventilation & Air Conditioning	51,712	SF	87.25	4,511,963
D3020 Heat Generating Systems	51,712	SF	44.89	2,321,176
VRF system w/ heat recovery, complete	51.972	SF	36.50	1.896.978
Energy recovery unit-integrated	2	FA	15,000,00	30 000
Piping and insulation, incl. VRF refrigerant piping	51 972	SF	7 20	374 198
Ancillaries	1	LS	20,000.00	20,000
D3040 Distribution Systems	51.712	SF	24.44	1,263,669

56,883

114

LBs

ΕA

13.50

1,350.00

767,923

153,585

North Kirkland (Building) - Option 2	Quantity	Unit	Rate	Total
	y			
Diffusers and grilles	345	EA	190.00	65,502
Exhaust - general	51,712	SF	5.35	276,659
D3090 Other HVAC Systems & Equipment	51,712	SF	17.93	927,118
DDC controls	51,712	SF	14.50	749,824
Dehumidification system.	51,712	SF	1.10	56,883
Seismic bracing	51,712	SF	1.70	87,910
Testing and balancing	160	HR	130.00	20,800
Commissioning assist	90	HR	130.00	11,700
D40 Fire Protection	51,712	SF	6.15	318,115
D4010 Sprinklers	51.712	SF	6.11	315.865
Fire sprinkler system complete	51 712	QE	5.85	202 515
Dry system - soffit	1 500	SE	5.65 8.90	13 350
Dry System Some	1,300	51	0.90	13,330
D4030 Fire Protection Specialties	51,712	SF	0.04	2,250
Fire extinguisher boxes	6	FΔ	375.00	2 250
-	0		010.00	2,200
CO2 alarm system - not required	0	E, (	010.00	NIC
CO2 alarm system - not required D50 Electrical Lighting, Power & Communications	51,712	SF	70.46	3,643,866
CO2 alarm system - not required D50 Electrical Lighting, Power & Communications D5010 Electrical Service & Distribution	51,712	SF	70.46	2,200 NIC 3,643,866 709,818
CO2 alarm system - not required D50 Electrical Lighting, Power & Communications D5010 Electrical Service & Distribution Main distribution board	51,712 51,712 1	SF SF LS	70.46 13.73 185,000.00	2,200 N/C 3,643,866 709,818 185,000
CO2 alarm system - not required D50 Electrical Lighting, Power & Communications D5010 Electrical Service & Distribution Main distribution board Distribution panels	51,712 51,712 1 1	SF SF LS LS	70.46 13.73 185,000.00 40,000.00	2,200 NIC 3,643,866 709,818 185,000 40,000
CO2 alarm system - not required D50 Electrical Lighting, Power & Communications D5010 Electrical Service & Distribution Main distribution board Distribution panels Transformers	51,712 51,712 1 1 1	SF SF LS LS LF	70.46 13.73 185,000.00 40,000.00 35,000.00	2,200 N/C 3,643,866 709,818 185,000 40,000 35,000
CO2 alarm system - not required D50 Electrical Lighting, Power & Communications D5010 Electrical Service & Distribution Main distribution board Distribution panels Transformers Secondary conduit and feeder - allow	5 51,712 51,712 1 1 1 51,712	SF SF LS LS LF SF	70.46 13.73 185,000.00 40,000.00 35,000.00 4.50	2,200 NIC 3,643,866 709,818 185,000 40,000 35,000 232,704
CO2 alarm system - not required D50 Electrical Lighting, Power & Communications D5010 Electrical Service & Distribution Main distribution board Distribution panels Transformers Secondary conduit and feeder - allow Grounding	5 51,712 51,712 1 1 1 51,712 1	SF SF LS LS LF SF LS	70.46 13.73 185,000.00 40,000.00 35,000.00 4.50 20,000.00	2,200 N/C 3,643,866 709,818 185,000 40,000 35,000 232,704 20,000
CO2 alarm system - not required D50 Electrical Lighting, Power & Communications D5010 Electrical Service & Distribution Main distribution board Distribution panels Transformers Secondary conduit and feeder - allow Grounding Metering	51,712 51,712 1 1 51,712 1 51,712 1 51,712	SF SF LS LS LF SF LS SF	70.46 13.73 185,000.00 40,000.00 35,000.00 4.50 20,000.00 0.55	2,200 N/C 3,643,866 709,818 185,000 40,000 35,000 232,704 20,000 28,442
CO2 alarm system - not required D50 Electrical Lighting, Power & Communications D5010 Electrical Service & Distribution Main distribution board Distribution panels Transformers Secondary conduit and feeder - allow Grounding Metering Receptacles, typ.	51,712 51,712 1 1 1 51,712 1 51,712 1 51,712 259	SF SF LS LS LS LF SF LS SF EA	70.46 13.73 185,000.00 40,000.00 35,000.00 4.50 20,000.00 0.55 575.00	2,230 N/C 3,643,866 709,818 185,000 40,000 35,000 232,704 20,000 28,442 148,672
CO2 alarm system - not required D50 Electrical Lighting, Power & Communications D5010 Electrical Service & Distribution Main distribution board Distribution panels Transformers Secondary conduit and feeder - allow Grounding Metering Receptacles, typ. PV system - not required	5 51,712 51,712 1 1 51,712 1 51,712 259	SF SF LS LS LF SF LS SF EA	70.46 13.73 185,000.00 40,000.00 35,000.00 4.50 20,000.00 0.55 575.00	2,200 N/C 3,643,866 709,818 185,000 40,000 35,000 232,704 20,000 28,442 148,672 <i>N/C</i>
CO2 alarm system - not required D50 Electrical Lighting, Power & Communications D5010 Electrical Service & Distribution Main distribution board Distribution panels Transformers Secondary conduit and feeder - allow Grounding Metering Receptacles, typ. PV system - not required Ancillaries and equipment	5 51,712 51,712 1 1 51,712 1 51,712 259 1	SF LS LS LF SF LS SF EA LS	70.46 13.73 185,000.00 40,000.00 35,000.00 4.50 20,000.00 0.55 575.00 20,000.00	2,230 N/C 3,643,866 709,818 185,000 40,000 35,000 232,704 20,000 28,442 148,672 <i>N/C</i> 20,000
CO2 alarm system - not required D50 Electrical Lighting, Power & Communications D5010 Electrical Service & Distribution Main distribution board Distribution panels Transformers Secondary conduit and feeder - allow Grounding Metering Receptacles, typ. PV system - not required Ancillaries and equipment D5020 Lighting & Branch Wiring	5 51,712 51,712 1 1 51,712 1 51,712 259 1 1 51,712	SF LS LS LS LF SF LS SF EA LS SF	70.46 13.73 185,000.00 40,000.00 35,000.00 4.50 20,000.00 0.55 575.00 20,000.00 20,000.00	2,230 N/C 3,643,866 709,818 185,000 40,000 35,000 232,704 20,000 28,442 148,672 <i>N/C</i> 20,000 1,259,588
CO2 alarm system - not required D50 Electrical Lighting, Power & Communications D5010 Electrical Service & Distribution Main distribution board Distribution panels Transformers Secondary conduit and feeder - allow Grounding Metering Receptacles, typ. PV system - not required Ancillaries and equipment D5020 Lighting & Branch Wiring Lighting controls	5 51,712 51,712 1 1 51,712 1 51,712 259 1 1 51,712 259	SF SF LS LS LS LF SF LS SF LS SF SF	70.46 13.73 185,000.00 40,000.00 35,000.00 4.50 20,000.00 0.55 575.00 20,000.00 20,000.00 24.36 4.50	2,230 N/C 3,643,866 709,818 185,000 40,000 35,000 232,704 20,000 28,442 148,672 <i>N/C</i> 20,000 1,259,588 232,704
CO2 alarm system - not required D50 Electrical Lighting, Power & Communications D5010 Electrical Service & Distribution Main distribution board Distribution panels Transformers Secondary conduit and feeder - allow Grounding Metering Receptacles, typ. PV system - not required Ancillaries and equipment D5020 Lighting & Branch Wiring Lighting controls Branch wiring and conduit	5 51,712 51,712 1 1 51,712 1 51,712 259 1 1 51,712 51,712 51,712 51,712	SF LS LS LS LF SF LS SF EA LS SF SF SF	70.46         13.73         185,000.00         40,000.00         35,000.00         4.50         20,000.00         0.55         575.00         20,000.00         20,000.00         4.50         20,000.00         20,000.00         5.575.00         20,000.00         20,000.00	2,200 N/C 3,643,866 709,818 185,000 40,000 35,000 232,704 20,000 28,442 148,672 N/C 20,000 1,259,588 232,704 258,560
CO2 alarm system - not required  CO2 alarm system - not required  D50 Electrical Lighting, Power & Communications  D5010 Electrical Service & Distribution  Main distribution board  Distribution panels  Transformers  Secondary conduit and feeder - allow  Grounding  Metering  Receptacles, typ.  PV system - not required  Ancillaries and equipment  D5020 Lighting & Branch Wiring  Lighting controls  Branch wiring and conduit  LED lighting	5 51,712 51,712 1 51,712 1 51,712 259 1 1 51,712 51,712 51,712 51,712 51,712 51,712	SF LS LS LS LF SF LS SF EA LS SF SF SF SF	70.46         13.73         185,000.00         40,000.00         35,000.00         4.50         20,000.00         0.55         575.00         20,000.00         20,000.00         13.73         20,000.00         20,000.00         20,000.00         20,000.00         14.50         5.00         14.50	2,230 N/C 3,643,866 709,818 185,000 40,000 35,000 232,704 20,000 28,442 148,672 N/C 20,000 1,259,588 232,704 258,560 749,824

North Kirkland (Building) - Option 2	Quantity	Unit	Rate	Total
	54 740	05	~~~~	4 400 400
D5030 Communications & Security	51,712	SF	28.66	1,482,180
Phone and data including wiring and conduit	51,712	SF	4.30	222,362
Wireless access points	6	EA	1,650.00	9,900
Fire alarm system	51,712	SF	3.00	155,136
DAS	1	LS	50,000.00	50,000
PA system	51,712	SF	1.21	62,572
A/V and sound system - infrastructure only	51,712	SF	3.85	199,091
Projection screen, recessed	4	EA	4,850.00	19,400
Speakers	8	EA	2,600.00	20,800
Additional equipment, allow	1	LS	500,000.00	500,000
CCTV - infrastructure only	51,712	SF	3.75	193,920
Access control	6	EA	5,500.00	33,000
ADA button	4	EA	4,000.00	16,000
D5040 Electrical Specialty	51,712	SF	3.72	192,280
Electrical to mechanical systems - equipment connections	51.712	SF	2.50	129.280
PV systems, allow	15	KW	4,200.00	63,000
E10 Equipment	51,712	SF	8.49	438,798
E1010 Commercial Equipment	51,712	SF	2.34	121,000
Type 1 hood - cultural kitchen	1	ΕA	121,000.00	121,000
Refrigerator/freezer				by Owner
Microwave				by Owner
Coffer maker				by Owner
E1090 Other Equipment	51 712	SF	6 15	317 798
Baskathall backboards - rotractable	1	ΕΛ	8 500 00	24.000
	4		0,000.00	17 200
	ا ۱۵۸ د	EA SE	17,300.00	20,409
Scoreboard	0,400		18 500 00	29,490
	2		200,000,00	200,000
r ood service equipment, anow	I	LO	200,000.00	200,000
E20 Furnishings	51,712	SF	3.97	205,473
E2010 Fixed Furnishings	5 <u>1,712</u>	SF	3.97	205,47 <u>3</u>
Mirror wall - 8' ht.	1.212	SF	36.15	43.814
Ballet barre	152	LF	69.20	10.484
Reception desk, allow	1	LS	12,500,00	12 500
•				
Chair rail, allow	200	LF	85.00	17.000

North Kirkland (Building) - Option 2				
	Quantity	Unit	Rate	Total
Counters incl. cabinets, PLAM (allow)	125	LF	425.00	53,125
Counters incl. cabinets, solid surface (allow)	50	LF	475.00	23,750
Cubbies, allow	20	LF	340.00	6,800
E2020 Movable Euroishings	51 712	SE		
	01,112	01		
FF&E - by Owner				FF&E

## North Kirkland (Sitework) - Option 2 Summary

			\$/SF	TOTAL
-		Gross Area:	187,854 SF	
G10 Site Preparation		6%	7.79	1,464,158
G20 Site Improvements		47%	56.40	10,595,300
G30 Site Mechanical Utilities		3%	3.97	746,662
G40 Site Electrical Utilities		1%	0.92	173,000
G Building Sitework		57%	69.09	12,979,119
SITE ELEMENTAL COST BEFORE CONTINGENCIES		57%	69.09	12,979,119
Design Contingency	15.00%	9%	0.00	1,946,868
Construction Contingency	5.00%	0%	3.97	746,299
SITE ELEMENTAL COST INCLUDING CONTINGENCIES		69%	83.43	15,672,287
General Conditions	7.00%	5%	5.84	1,097,060
General Requirements	7.50%	6%	6.70	1,257,701
Corporate Tax (OR)	0.57%	0%	0.55	102,754
Subcontractor Default Insurance (OR)	1.75%	0%	1.69	317,272
Office Overhead & Profit	4.50%	4%	4.42	830,118
Bonds and Insurance	1.50%	1%	1.54	289,158
Permit				By Owner
SITE CONSTRUCTION COST BEFORE ESCALATION		86%	104.16	19,566,349
Escalation to Start Date (May 2025)	15.83%	14%	16.49	3,098,005
RECOMMENDED BUDGET		100%	120.65	22,664,355

North Kirkland (Sitework) - Option 2				
	Quantity	Unit	Rate	Total
Control Quantities				
Program Areas	187 854	SE		
Building footprint	31 953	SE		
Site Development	44 165	SE		
Raised parking structure	44 165	SE		
Pedestrian Paving	14 034	SE		
Concrete - sidewalk	12 944	SE		
Concrete w/ integral color - plaza	1 090	SE		
	97 702	SE		
Planting area	97,702	SF		
G10 Site Preparation	187,854	SF	7.79	1,464,158
G1010 Site Clearing	187,854	SF	0.81	153,074
Construction entrance	1	FΔ	5 000 00	5 000
	1 778	LF	13 50	24 003
Erosion control w/ catch basin filters and monitoring	187 854	SE	0.20	27,000
	107,004	19	12 500 00	12 500
Litility protection, allow	1		7 500.00	7 500
Tomp facilities	16	MO	1,500.00	24 000
Dewatering	10		1,000.00	15 000
Construction survey, incl. layout	1	LS	27,500.00	27,500
G1020 Site Demolition and Relocations	187,854	SF	1.13	212,247
Clear and arub existing vegetation	150 283	QE	0.75	110 710
	100,200	OF OF	0.75	01 521
Demo - misc. site obstructions, allow	1	LS	15,000.00	15,000
G1030 Site Earthwork	187,854	SF	5.85	1,098,837
Mass excavation - building, see 'Building"				incl
Mass excavation	23,767	CY	18.00	427.811
Haul and dispose	23.767	CY	20.00	475.345
Grading - incl. compaction	187.854	SF	0.50	93,927
Base aggregates				
Building footprint - 12" depth	1.183	CY	45.00	53.255
Vehicular paving - 6" depth	818	CY	45.00	36.804
Pedestrian paving - 6" depth	260	CY	45.00	11,695
G1040 Hazardous Waste Remediation	187,854	SF		
No work anticipated		_		NIC

North Kirkland (Sitework) - Option 2				
	Quantity	Unit	Rate	Total
G20 Site Improvements	187,854	SF	56.40	10,595,300
G2010 Roadways	187,854	SF		
No work anticipated				NIC
G2020 Parking Lots	187,854	SF	0.40	75,513
Asphalt - See "Raised parking structure incl. SOG, allow"				incl. below
Striping	88,330	SF	0.25	22,083
Concrete curb - 6"	1,178	LF	35.00	41,230
ADA curb ramp	4	EA	1,550.00	6,200
ADA sign	8	EA	750.00	6,000
G2030 Pedestrian Paving	12,944	SF	12.89	166,841
Concrete - sidewalk	12,944	SF	11.50	148,856
Concrete w/ integral color - plaza	1,090	SF	16.50	17,985
G2040 Site Development	187,854	SF	48.57	9,124,620
Site structures				
Raised parking structure incl. SOG, allow	44,165	SF	190.00	8,391,350
Retaining wall incl. waterproofing, 5-7'	2,640	SF	75.50	199,320
Retaining wall incl. waterproofing, 10'	4,400	SF	75.50	332,200
Site walls, stairs & railings				
Seat wall - CIP conc w/ wood top	200	LF	275.00	55,000
Stairs	750	SF	55.00	41,250
Rails	300	LF	185.00	55,500
Site furnishing				
Café tables, bike racks, trash receptacles (etc.)	1	ALW	50,000.00	50,000
Park improvements - no work anticipated				NIC

G2050 Landscaping	187,854	SF	6.54	1,228,326
Trees - 3" Cal., deciduous	40	EA	650.00	26,000
Tree grates - not required				NIC
Planting area	97,702	SF		
Top soil - 24" depth	7,237	CY	45.00	325,673
Mulch - 3" depth	905	CY	40.00	36,186
Planting - 2 gallon, 24" O.C.	24,426	ΕA	25.00	610,638
Irrigation				
Planting area	97,702	SF	2.25	219,830
Devices and controls	1	LS	10,000.00	10,000

North Kirkland (Sitework) - Option 2				
	Quantity	Unit	Rate	Total
G30 Site Mechanical Utilities	187,854	SF	3.97	746,662
G3010 Water Supply	187,854	SF	0.47	89,000
Water line	180	LF	55.00	9,900
Fire service line	180	LF	95.00	17,100
FD connection	1	EA	10,000.00	10,000
Vault structure	1	EA	30,000.00	30,000
Fire hydrants	2	EA	7,500.00	15,000
Connection to existing service	2	EA	3,500.00	7,000
G3020 Sanitary Sewer	187,854	SF	0.16	30,350
SS - 8" pipe, incl. trenching and backfill	220	LF	105.00	23,100
SS - cleanout	5	EA	750.00	3,750
Connection to existing service	1	EA	3,500.00	3,500
G3030 Storm Sewer	187,854	SF	3.34	627,312
SW - 8" pipe, incl. trenching and backfill	380	LF	85.00	32,300
Devices and controls - allow	1	EA	35,000.00	35,000
Detention vault, allow	463,760	GAL	1.20	556,512
Connection to existing service	1	EA	3,500.00	3,500
Stormwater vault - not required				NIC
G3060 Fuel Distribution	187,854	SF		
No work anticipated				NIC
G40 Site Electrical Utilities	187,854	SF	0.92	173,000
G4010 Electrical Distribution	187,854	SF	0.24	45,000
Transformer - by franchise utility				NIC
Power distribution - to building	1	LS	45,000.00	45,000
G4020 Site Lighting	187,854	SF	0.68	128,000
Pedestrian light poles	6	EA	6,000.00	36.000
Parking - light poles	10	EA	9,200.00	92,000
G4090 Other Site Electrical Utilities	187,854	SF		
No work anticipated				NIC

Alternates				
	Quantity	Unit	Rate	Total
Alt 1: Houghton Option 1 - Steel Structure in lieu of Mass Timber				
ADD				
Steel structure	109,705	SF	13.71	1,503,566
Alternate Cost Before Markups				1,503,566
Design Contingency	15.00%			225.535
Construction Contingency	5.00%			86,455
General Conditions	7.00%			127,089
General Requirements	7.50%			145,698
Corporate Tax	0.57%			11,904
SDI	1.75%			36,754
Office Overhead & Profit	4.50%			96,165
Bonds and Insurance	1.50%			33,497
Escalation to Start Date (May 2025)	15.83%			358,888
Alternate Cost After Markups				2,625,553
Alternate Cost After Markups				2,625,553
Alternate Cost After Markups Alt 2: Houghton Option 2 - Steel Structure in lieu of Mass Timber ADD				2,625,553
Alternate Cost After Markups Alt 2: Houghton Option 2 - Steel Structure in lieu of Mass Timber ADD Steel structure	91,463	SF	13.61	<b>2,625,553</b> 1,244,905
Alternate Cost After Markups Alt 2: Houghton Option 2 - Steel Structure in lieu of Mass Timber ADD Steel structure Alternate Cost Before Markups	91,463	SF	13.61	<b>2,625,553</b> 1,244,905 <b>1,244,905</b>
Alternate Cost After Markups Alt 2: Houghton Option 2 - Steel Structure in lieu of Mass Timber ADD Steel structure Alternate Cost Before Markups Design Contingency	91,463	SF	13.61	<b>2,625,553</b> 1,244,905 <b>1,244,905</b> 1,244,905
Alternate Cost After Markups Alt 2: Houghton Option 2 - Steel Structure in lieu of Mass Timber ADD Steel structure Alternate Cost Before Markups Design Contingency Construction Contingency	91,463 15.00% 5.00%	SF	13.61	<b>2,625,553</b> 1,244,905 <b>1,244,905</b> 186,736 71,582
Alternate Cost After Markups          Alt 2: Houghton Option 2 - Steel Structure in lieu of Mass Timber         ADD         Steel structure         Alternate Cost Before Markups         Design Contingency         Construction Contingency         General Conditions	91,463 15.00% 5.00% 7.00%	SF	13.61	<b>2,625,553</b> 1,244,905 <b>1,244,905</b> 186,736 71,582 105,226
Alternate Cost After Markups Alt 2: Houghton Option 2 - Steel Structure in lieu of Mass Timber ADD Steel structure Alternate Cost Before Markups Design Contingency Construction Contingency General Conditions General Requirements	91,463 15.00% 5.00% 7.00% 7.50%	SF	13.61	<b>2,625,553</b> 1,244,905 <b>1,244,905</b> 186,736 71,582 105,226 120,634
Alternate Cost After Markups          Alt 2: Houghton Option 2 - Steel Structure in lieu of Mass Timber         ADD         Steel structure         Alternate Cost Before Markups         Design Contingency         Construction Contingency         General Conditions         General Requirements         Corporate Tax	91,463 15.00% 5.00% 7.00% 7.50% 0.57%	SF	13.61	<b>2,625,553</b> 1,244,905 <b>1,244,905</b> 186,736 71,582 105,226 120,634 9,856
Alternate Cost After Markups         Alt 2: Houghton Option 2 - Steel Structure in lieu of Mass Timber         ADD         Steel structure         Alternate Cost Before Markups         Design Contingency         Construction Contingency         General Conditions         General Requirements         Corporate Tax         SDI	91,463 15.00% 5.00% 7.00% 7.50% 0.57% 1.75%	SF	13.61	<b>2,625,553</b> 1,244,905 <b>1,244,905</b> 186,736 71,582 105,226 120,634 9,856 30,431
Alternate Cost After Markups         Alt 2: Houghton Option 2 - Steel Structure in lieu of Mass Timber         ADD         Steel structure         Alternate Cost Before Markups         Design Contingency         Construction Contingency         General Conditions         General Requirements         Corporate Tax         SDI         Office Overhead & Profit	91,463 15.00% 5.00% 7.00% 7.50% 0.57% 1.75% 4.50%	SF	13.61	<b>2,625,553</b> 1,244,905 <b>1,244,905</b> 186,736 71,582 105,226 120,634 9,856 30,431 79,622
Alternate Cost After Markups         At 2: Houghton Option 2 - Steel Structure in lieu of Mass Timber         ADD         Steel structure         Alternate Cost Before Markups         Design Contingency         Construction Contingency         General Conditions         General Requirements         Corporate Tax         SDI         Office Overhead & Profit         Bonds and Insurance	91,463 15.00% 5.00% 7.00% 7.50% 0.57% 1.75% 4.50% 1.50%	SF	13.61	2,625,553 1,244,905 1,244,905 186,736 71,582 105,226 120,634 9,856 30,431 79,622 27,735
Alternate Cost After Markups         ALD         Steel structure         Alternate Cost Before Markups         Alternate Cost Before Markups         Design Contingency         Construction Contingency         General Conditions         General Requirements         Corporate Tax         SDI         Office Overhead & Profit         Bonds and Insurance         Escalation to Start Date (May 2025)	91,463 15.00% 5.00% 7.50% 0.57% 1.75% 4.50% 1.50% 15.83%	SF	13.61	2,625,553 1,244,905 1,244,905 186,736 71,582 105,226 120,634 9,856 30,431 79,622 27,735 297,148

Alternates				
	Quantity	Unit	Rate	Total
Alt 3: North Kirkland Option 1 - Steel Structure in lieu of Mass Timber				
ADD				
Steel structure	78,700	SF	13.40	1,054,696
Alternate Cost Before Markups				1,054,696
Design Contingency	15.00%			158,204
Construction Contingency	5.00%			60,645
General Conditions	7.00%			89,148
General Requirements	7.50%			102,202
Corporate Tax	0.57%			8,350
SDI	1.75%			25,782
Office Overhead & Profit	4.50%			67,456
Bonds and Insurance	1.50%			23,497
Escalation to Start Date (May 2025)	15.83%			251,747
Alternate Cost After Markups				1,841,728
Alt 4: North Kirkland Option 2 - Steel Structure in lieu of Mass Timber				
ADD				
Steel structure	51,712	SF	13.76	711,572
Alternate Cost				711,572
Design Contingency	15.00%			
Construction Contingency	5 00%			106,736
General Conditions	0.0070			106,736 40,915
	7.00%			106,736 40,915 60,146
General Requirements	7.00% 7.50%			106,736 40,915 60,146 68,953
General Requirements Corporate Tax	7.00% 7.50% 0.57%			106,736 40,915 60,146 68,953 5,633
General Requirements Corporate Tax SDI	7.00% 7.50% 0.57% 1.75%			106,736 40,915 60,146 68,953 5,633 17,394
General Requirements Corporate Tax SDI Office Overhead & Profit	7.00% 7.50% 0.57% 1.75% 4.50%			106,736 40,915 60,146 68,953 5,633 17,394 45,511
General Requirements Corporate Tax SDI Office Overhead & Profit Bonds and Insurance	7.00% 7.50% 0.57% 1.75% 4.50% 1.50%			106,736 40,915 60,146 68,953 5,633 17,394 45,511 15,853
General Requirements Corporate Tax SDI Office Overhead & Profit Bonds and Insurance Escalation to Start Date (May 2025)	7.00% 7.50% 0.57% 1.75% 4.50% 1.50% 15.83%			106,736 40,915 60,146 68,953 5,633 17,394 45,511 15,853 169,846
General Requirements Corporate Tax SDI Office Overhead & Profit Bonds and Insurance Escalation to Start Date (May 2025)	7.00% 7.50% 0.57% 1.75% 4.50% 1.50% 15.83%			106,736 40,915 60,146 68,953 5,633 17,394 45,511 15,853 169,846
General Requirements Corporate Tax SDI Office Overhead & Profit Bonds and Insurance Escalation to Start Date (May 2025) Alternate Cost After Markups	7.00% 7.50% 0.57% 1.75% 4.50% 1.50% 15.83%			106,736 40,915 60,146 68,953 5,633 17,394 45,511 15,853 169,846 <b>1,242,559</b>
General Requirements Corporate Tax SDI Office Overhead & Profit Bonds and Insurance Escalation to Start Date (May 2025) Alternate Cost After Markups	7.00% 7.50% 0.57% 1.75% 4.50% 1.50% 15.83%			106,736 40,915 60,146 68,953 5,633 17,394 45,511 15,853 169,846 <b>1,242,559</b>
General Requirements Corporate Tax SDI Office Overhead & Profit Bonds and Insurance Escalation to Start Date (May 2025) Alternate Cost After Markups Alt 5: North Kirkland Option 2 - Pool in lieu of Basketball Court	7.00% 7.50% 0.57% 1.75% 4.50% 1.50% 15.83%			106,736 40,915 60,146 68,953 5,633 17,394 45,511 15,853 169,846 <b>1,242,559</b>
General Requirements Corporate Tax SDI Office Overhead & Profit Bonds and Insurance Escalation to Start Date (May 2025) Alternate Cost After Markups Alt 5: North Kirkland Option 2 - Pool in lieu of Basketball Court DEDUCT	7.00% 7.50% 0.57% 1.75% 4.50% 1.50% 15.83%			106,736 40,915 60,146 68,953 5,633 17,394 45,511 15,853 169,846 <b>1,242,559</b>
General Requirements Corporate Tax SDI Office Overhead & Profit Bonds and Insurance Escalation to Start Date (May 2025) Alternate Cost After Markups Alternate Cost After Markups Alt 5: North Kirkland Option 2 - Pool in lieu of Basketball Court DEDUCT Hardwood sport flooring	7.00% 7.50% 0.57% 1.75% 4.50% 1.50% 15.83%	SF	(28.00)	106,736 40,915 60,146 68,953 5,633 17,394 45,511 15,853 169,846 <b>1,242,559</b> (460,572)
General Requirements Corporate Tax SDI Office Overhead & Profit Bonds and Insurance Escalation to Start Date (May 2025) Alternate Cost After Markups Alt 5: North Kirkland Option 2 - Pool in lieu of Basketball Court DEDUCT Hardwood sport flooring Basketball backboards - retractable	7.00% 7.50% 0.57% 1.75% 4.50% 1.50% 15.83%	SF EA	(28.00) (8,500.00)	106,736 40,915 60,146 68,953 5,633 17,394 45,511 15,853 169,846 <b>1,242,559</b> (460,572) (34,000)

Alternates				
	Quantity	Unit	Rate	Total
Wall padding	3,430	SF	(8.60)	(29,498)
Scoreboard	2	EA	(18,500.00)	(37,000)
ADD				
Temp shoring, allow	1	LS	75,000.00	75,000
New pool construction, allow	5,815	SF	390.00	2,267,850
Pool equipment, allow	1	LS	50,000.00	50,000
Pool mech/plumbing				incl. above
Natatorium decking	5,086	SF	18.20	92,565
Alternate Cost				1,907,045
Design Contingency	15.00%			286,057
Construction Contingency	5.00%			109,655
General Conditions	7.00%			161,193
General Requirements	7.50%			184,796
Corporate Tax	0.57%			15,098
SDI	1.75%			46,617
Office Overhead & Profit	4.50%			121,971
Bonds and Insurance	1.50%			42,486
Escalation to Start Date (May 2025)	15.83%			455,195

#### Alternate Cost After Markups

3,330,114



## Section I – Demographic Assessment

The following is a summary of the demographic characteristics within areas identified as the Primary Service Areas. The Primary Service Area encompasses the City of Kirkland.

B\*K accesses demographic information from Environmental Systems Research Institute (ESRI) who utilizes 2020 Census data and their demographers for 2022-2027 projections. In addition to demographics, ESRI also provides data on housing, recreation, and entertainment spending and adult participation in activities. B\*K also uses information produced by the National Sporting Goods Association (NSGA) to overlay onto the demographic profile to determine potential participation in various activities.

**Service Areas:** The information provided includes the basic demographics and data for the Primary Service Area with comparison data for the State of Washington and the United States.

Primary Service Areas are defined as the distance people will travel on a regular basis (a minimum of once a week) to utilize recreation facilities. Use by individuals outside of this area will be much more limited and will focus more on special activities or events.

Service areas can flex or contract based upon a facility's proximity to major thoroughfares. Other factors impacting the use as it relates to driving distance are the presence of alternative service providers in the service area. Alternative service providers can influence participation, membership, daily admissions and the associated penetration rates for programs and services.

Service areas can vary in size with the types of components in the facility.



## <u>Map A – Service Area Maps</u>



• Black Boundary – Primary Service Area (Kirkland City limits)



# **Demographic Summary**

	Primary Service Area
Population:	
2020 Census	92,175 <sup>1</sup>
2022 Estimate	95,253
2027 Estimate	98,472
Households:	
2020 Census	38,037
2022 Estimate	39,349
2027 Estimate	40,467
Families:	
2020 Census	23,357
2022 Estimate	23,648
2027 Estimate	24,540
Average Household Size:	
2020 Census	2.39
2022 Estimate	2.39
2027 Estimate	2.40
Ethnicity (2022 Estimate):	
Hispanic	7.9%
White	64.8%
Black	2.1%
American Indian	0.5%
Asian	18.5%
Pacific Islander	0.2%
Other	3.6%
Multiple	10.4%
Median Age:	
2020 Census	37.9
2022 Estimate	39.9
2027 Estimate	41,1
Median Income:	
2022 Estimate	\$144,799
2027 Estimate	\$162,497

<sup>&</sup>lt;sup>1</sup> From the 2010-2020 Census, the Primary Service Area experienced a 17.5% increase in population.



Age and Income: The median age and household income levels are compared with the national number as both factors are secondary determiners of participation in recreation activities. The lower the median age, the higher the participation rates are for most activities. The level of participation also increases as the median income level goes up.

### <u>Table A – Median Age:</u>

	2020 Census	2022 Projection	2027 Projection
Primary Service Area	37.9	39.9	41.1
State of Washington	37.2	39.0	39.7
Nationally	38.6	38.9	39.6



### <u>Chart A – Median Age:</u>

A lower median age typically points to the presence of families with children. Parks and recreation activities, programs and events draw a large demographic but tend to be most popular with youth and their parents. Grandparents are becoming an increasing part of the household though, as they care for and are involved with their grandchildren.



The following chart provides the number of households and percentage of households in the Primary Service Area with children.

### Table B – Households w/ Children

	Number of Households w/ Children	Percentage of Households w/ Children
Primary Service Area	11,139	30.0%
State of Washington		30.4%

The information contained in Table-B helps further outline the presence of families with children. As a point of comparison in the 2020 Census, 30.7% of households nationally had children present.



## <u>Table C – Median Household Income:</u>

	2022 Projection	2027 Projection
Primary Service Area	\$144,799	\$162,497
State of Washington	\$88,312	\$106,259
Nationally	\$72,414	\$84,445



### Chart B – Median Household Income:





In addition to looking at the Median Age and Median Income, it is important to examine Household Budget Expenditures. Reviewing housing information; shelter, utilities, fuel and public services along with entertainment & recreation can provide a snapshot into the cost of living and spending patterns in the services areas. The table below looks at that information and compares the service areas.

### <u>Table D – Household Budget Expenditures<sup>2</sup>:</u>

SPI	Average Amount Spent	Percent
184	\$52,535.24	32.5%
188	\$43,065.14	26.7%
167	\$9,470.10	5.9%
176	\$6,468.58	4.0%
	<b>SPI</b> 184 188 167 176	SPI         Average Amount Spent           184         \$52,535.24           188         \$43,065.14           167         \$9,470.10           176         \$6,468.58

State of Washington	SPI	Average Amount Spent	Percent
Housing	119	\$34,023.85	32.0%
Shelter	120	\$27,427.54	25.8%
Utilities, Fuel, Public Service	117	\$6,596.30	6.2%
Entertainment & Recreation	118	\$4,319.39	4.1%

SPI: Average Amount Spent: Percent: Spending Potential Index as compared to the National number of 100. The average amount spent per household. Percent of the total 100% of household expenditures.

Note: Shelter along with Utilities, Fuel, Public Service are a portion of the Housing percentage.

<sup>&</sup>lt;sup>2</sup> Consumer Spending data are derived from the 2018 and 2019 Consumer Expenditure Surveys, Bureau of Labor Statistics. ESRI forecasts for 2022 and 2027.







The consistency between the median household income and the household budget expenditures is important. It also points to the fact that compared to a National level the dollars available, the money being spent in the Primary Service Area is significantly higher. This could point to the ability to pay for programs and services offered at a recreation facility of any variety.





**Population Distribution by Age:** Utilizing census information for the Primary Service Areas, the following comparisons are possible.

Ages	Population	% of Total	Nat. Population	Difference
0-5	4,989	5.2%	5.8%	-0.6%
5-17	14,207	14.9%	15.9%	-1.0%
18-24	6,927	7.3%	9.2%	-1.9%
25-44	28,901	30.4%	26.8%	+3.6%
45-54	12,708	13.3%	12.0%	+1.3%
55-64	12,470	13.1%	12.8%	+0.3%
65-74	9,374	9.8%	10.2%	-0.4%
75+	5,676	6.0%	7.2%	-1.2%

#### **Table F – 2022 Primary Service Area Age Distribution** (ESRI estimates)

Population: % of Total: National Population: Difference:

2022 census estimates in the different age groups in the Primary Service Area. Percentage of the Primary Service Area population in the age group. Percentage of the national population in the age group. Percentage difference between the Primary Service Area population and the national population.



### Chart F – 2022 Primary Service Area Age Group Distribution



Population Distribution Comparison by Age: Utilizing census information from the Primary Service Area, the following comparisons are possible.

# Table G – 2022 Primary Service Area Population Estimates (U.S. Census Information and ESRI)

Ages	2020 Census	2022	2027	Percent	Percent
		Projection	Projection	Change	Change Nat'l
-5	5,723	4,989	5,156	-9.9%	-8.3%
5-17	12,960	14,207	14,053	+8.4%	-8.5%
18-24	7,318	6,927	7,215	-1.4%	-8.9%
25-44	30,445	28,901	28,990	-4.8%	+3.3%
45-54	14,388	12,708	13,521	-6.0%	-17.8%
55-64	11,494	12,470	11,937	+3.9%	+2.5%
65-74	5,668	9,374	10,129	+78.7%	+58.2%
75+	4,194	5,676	7,470	+78.1%	+46.3%

## Chart G – Primary Service Area Population Growth





Below is listed the distribution of the population by race and ethnicity for the Primary Service Area for 2022 population projections. Those numbers were developed from 2020 Census Data.

### Table H – Primary Service Area Ethnic Population and Median Age 2022

(Source - U.S. Census Bureau and ESRI)

Ethnicity	Total Population	Median Age	% of Population	% of WA Population
Hispanic	7,479	29.4	7.9%	25.7

## Table I – Primary Service Area by Race and Median Age 2022

(Source – U.S. Census Bureau and ESRI)

Race	Total	Median Age	% of	% of WA
	Population		Population	Population
White	61,760	44.5	64.8%	44.8
Black	1,963	37.2	2.1%	34.7
American Indian	440	40.6	0.5%	35.4
Asian	17,601	37.6	18.5%	37.9
Pacific Islander	180	36.8	0.2%	32.4
Other	3,389	32.0	3.6%	27.6
Multiple	9,921	22.0	10.4%	22.1

### 2022 Primary Service Area Total Population:

95,253 Residents









## Section II–Participation

In addition to analyzing the demographic realities of the service areas, it is possible to project possible participation in recreation and sport activities.

**Participation Numbers:** On an annual basis, the National Sporting Goods Association (NSGA) conducts an in-depth study and survey of how Americans spend their leisure time. The data is collected in one year and the report is issued in June of the following year. This information provides the data necessary to overlay rate of participation onto the Primary Area to determine market potential.

The information contained in this section of the report, utilizes the NSGA's 2019 & 2021 data. The COVID-19 Pandemic had a significant impact on participation of sports and activities. Many indoor facilities were closed for a substantial part of the year. Team sports and leagues did not operate and individuals sought different ways to fill their time. As a result, participation from 2020 to 2021 varied widely in nearly all activities tracked. Many of the activities bounced back from the 2020 participation, however not all have. Some of this may be a trend, while some of it is still a reflection on reduced offerings by departments.

B\*K takes the national average and combines that with participation percentages of the Immediate and Primary Service Area based upon age distribution, median income, region and National number. Those four percentages are then averaged together to create a unique participation percentage for the service area. This participation percentage, when applied to the population of the Primary Service Area, then provides an idea of the market potential for outdoor recreation.



### Table A – Participation Rates in the Primary Service Area

<b>Indoor Activities</b>	Age	Income	Region	Nation	Average
Aerobics	16.0%	20.0%	18.5%	15.8%	17.6%
Basketball	7.3%	9.2%	5.3%	7.5%	7.3%
Bicycle Riding	14.2%	16.9%	13.5%	14.2%	14.7%
Boxing	1.5%	1.9%	1.1%	1.5%	1.5%
Exercise Walking	41.5%	50.5%	42.0%	41.4%	43.9%
Exercise w/ Equipment	19.1%	22.3%	16.7%	18.9%	19.2%
Gymnastics	1.7%	2.9%	1.6%	1.7%	2.0%
Martial Arts/MMA	1.7%	2.0%	1.3%	1.7%	1.7%
Pickleball	1.2%	2.1%	1.1%	1.2%	1.4%
Pilates	2.0%	1.9%	2.4%	1.9%	2.0%
Running/Jogging	15.2%	18.4%	16.4%	14.9%	16.2%
Swimming	15.5%	19.5%	12.8%	15.6%	15.9%
Table Tennis/Ping Pong	3.8%	5.7%	2.7%	3.8%	4.0%
Volleyball	3.5%	5.0%	3.1%	3.6%	3.8%
Weightlifting	12.6%	15.1%	12.6%	12.4%	13.2%
Workout @ Clubs	8.2%	11.3%	7.4%	8.1%	8.7%
Wrestling	1.0%	1.4%	0.9%	1.0%	1.1%
Yoga	10.5%	12.5%	10.3%	10.2%	10.9%

	Age	Income	Region	Nation	Average
Did Not Participate	20.5%	20.5%	22.4%	20.6%	21.0%

Age: Income: Participation based on individuals ages 7 & Up of the Primary Service Area.

Participation based on the 2022 estimated median household income in the Primary Service Area.

Participation based on regional statistics (Pacific).

National: Average:

**Region:** 

Participation based on national statistics. Average of the four columns.



**Anticipated Participation Number:** Utilizing the average percentage from Table-A above plus the 2020 census information and census estimates for 2022 and 2027 (over age 7) the following comparisons are available.

Indoor Activities	Average	2020 Population	2022 Population	2027 Population	Difference
Aerobics	17.6%	14,818	15,486	16,023	1,205
Basketball	7.3%	6,183	6,462	6,686	503
Bicycle Riding	14.7%	12,391	12,950	13,399	1,008
Boxing	1.5%	1,269	1,327	1,373	103
Exercise Walking	43.9%	36,982	38,649	39,989	3,007
Exercise w/ Equipment	19.2%	16,227	16,958	17,546	1,319
Gymnastics	2.0%	1,657	1,731	1,791	135
Martial Arts/MMA	1.7%	1,416	1,480	1,531	115
Pickleball	1.4%	1,172	1,225	1,268	95
Pilates	2.0%	1,726	1,804	1,866	140
Running/Jogging	16.2%	13,677	14,293	14,789	1,112
Swimming	15.9%	13,367	13,970	14,454	1,087
Table Tennis/Ping Pong	4.0%	3,363	3,514	3,636	273
Volleyball	3.8%	3,207	3,351	3,468	261
Weightlifting	13.2%	11,101	11,601	12,004	903
Workout @ Clubs	8.7%	7,371	7,703	7,970	599
Wrestling	1.1%	900	940	973	73
Yoga	10.9%	9,167	9,580	9,912	745

### Table B – Participation Growth or Decline for Indoor Activities in Primary Service Area

	Average	2020 Population	2022 Population	2027 Population	Difference
Did Not Participate	21.0%	17,708	18,506	19,147	1,440

**Note:** These figures do not necessarily translate into attendance figures for various activities or programs. The "Did Not Participate" statistics refers to all 58 activities outlined in the NSGA 2021 Survey Instrument.



**National Summary of Sports Participation:** The following chart summarizes participation for indoor activities utilizing information from the 2021 National Sporting Goods Association survey.

Sport	Nat'l Rank <sup>3</sup>	Nat'l Participation (in millions)
Exercise Walking	1	125.0
Cardio Fitness	2	86.1
Strength Training	3	68.9
Exercising w/ Equipment	4	57.2
Hiking	5	48.8
Swimming	6	47.2
Running/Jogging	7	45.0
Bicycle Riding	8	42.8
Weightlifting	9	37.5
Yoga	10	30.7
Fishing (fresh water)	11	29.5
Workout @ Club	13	24.6
Basketball	14	22.5
Golf	16	19.0
Target Shooting (live ammunition)	17	18.8
Hunting w/ Firearms	18	16.4
Boating (motor/power)	19	14.6
Soccer	20	14.5
Tennis	22	13.8
Kayaking	24	11.5
Baseball	26	11.3
Volleyball	27	10.8
Fishing (salt water)	29	9.6
Softball	30	9.3
Football (touch)	32	8.2
Canoeing	33	7.8
Hunting w/ Bow & Arrow	34	6.9
Football (tackle)	35	6.7
Mountain Biking (off road)	38	6.0
Football (flag)	41	5.4
Water Skiing	49	3.8
Pickleball	50	3.6

### Table C – Sports Participation Summary (National)

Nat'l Rank: Popularity of sport based on national survey.

**Nat'l Participation:** Population that participate in this sport on national survey.

**National Participation by Age Group:** Within the NSGA survey, participation is broken down by age groups. As such B\*K can identify the top 3 age groups participating in the activities reflected in this report.

<sup>&</sup>lt;sup>3</sup> This rank is based upon the 58 activities reported on by NSGA in their 2021 survey instrument.



### Chart D – Participation by Age Group (National):

Activity	Largest	Second Largest	Third Largest
Aerobics	35-44	25-34	45-54
Baseball	7-11	12-17	25-34
Basketball	12-17	25-34	18-24
Bicycle Riding	55-64	45-54	12-17
Billiards/Pool	25-34	34-44	45-54
Bowling	25-34	35-44	18-24
Cheerleading	12-17	7-11	18-24
Exercise Walking	55-64	65-74	45-54
Exercise w/ Equipment	25-34	45-54	55-64
Football (flag)	7-11	12-17	25-34
Football (tackle)	12-17	18-24	7-11
Football (touch)	12-17	25-34	7-11
Gymnastics	7-11	12-17	25-34
Lacrosse	12-17	7-11	18-24
Martial Arts MMA	7-11	25-34	12-17
Pickleball	12-17	65-74	18-24
Pilates	25-34	35-44	45-54
Running/Jogging	25-34	35-44	45-54
Skateboarding	12-17	18-24	7-11
Soccer	7-11	12-17	25-34
Softball	12-17	7-11	25-34
Swimming	55-64	12-17	7-11
Tables Tennis	25-34	18-24	12-17
Tennis	25-34	35-44	12-17
Volleyball	12-17	25-34	18-24
Weightlifting	25-34	45-54	35-44
Workout at Clubs	25-34	35-44	45-54
Wrestling	12-17	25-34	7-11
Yoga	25-34	35-44	45-54
Did Not Participate	45-54	55-64	65-74

Largest: Second Largest: Third Largest: Age group with the highest rate of participation.

Age group with the second highest rate of participation.

rd Largest: Age g

Age group with the second highest rate of participation.



**Arts Participation:** In contrast to the National Sporting Goods Association (NSGA), it is difficult to locate one source for all information on participation in the arts. An added challenge is that participants are not surveyed with the frequency of those participating in the NSGA survey. The National Endowment for the Arts (NEA) is the source that B\*K uses to provide insight into how Americans are spending their time with art and art-like activities.

It is important to note that the information that is produced by the NEA is not as specific as the information from the NSGA by comparison. As such, all the participation numbers that are reflected in this section of the report are national participation numbers and reflective of national trends.

A trend that is important for the reader to understand is that more and more, parks and recreation departments are becoming the home for arts and enrichment programming in communities. Through no fault of their own many school districts are having to make the hard decision to limit or eliminate art, music, theater, and the like from their curriculum. Subsequently, it has created an opportunity for many agencies to provide those programs. Many agencies have embraced this opportunity.

Important art footnotes and key takeaway findings from the 2017 survey instrument:

- In comparison to the 2012 findings the 2017 findings are much more positive.
  - Adults attending visual or performing arts activities grew by 3.6%.
- An area of substantial growth in the 2017 findings is reading poetry.
  - o 18-24 year old who read poetry doubled.
  - Women showed notable gains.
  - Hispanic readers increased from 4.9% to 9.7%.
- The top three forms of arts attendance in the performing arts are:
  - Outdoor performing arts festivals.
  - o Musicals.
  - Other performing arts events.



### Data by Discipline:

### Dance

- Attendance
  - o 6.3% of adults attended a dance performance other than ballet.
  - o 3.1% of adults attended a ballet performance.

### Literature

- Reading
  - o 11.7% of adult read poetry an increase of 76% from 2012.
  - 3.7% of adults read a play an increase of 28.2% from 2012.
  - o 52.7% of adults read a book not required for work.
  - 41.8% of adults read a novel or short story a decrease of 7.6% from 2012.

### Museums

- Attendance
  - 23.7% of adults visited an art museum or art gallery an increase of 12.9% from 2012.

### Music

- Attendance
  - 8.6% of adults attended a classical music performance.
  - 8.6% of adults attended a jazz concert.

### Opera

- Attendance
  - o 2.2% of adults attended an opera performance.

### Theater

• 16.5% of adults attended a musical theater performance.



## Adult Reading 2012-2017:

Books	2012	2017	Statistically Significant Change
All Adults	54.6%	52.7%	No
Male	44.7%	44.3%	No
Female	63.7%	60.5%	Yes
Literature <sup>4</sup>	2012	2017	Statistically Significant Change
All Adults	47.0%	44.2%	Yes
Male	37.0%	35.2%	No
Female	56.1%	52.5%	Yes
<b>Novels or Short Stories</b>	2012	2017	Statistically Significant Change
All Adults	45.2%	41.8%	Yes
Male	35.1%	33.0%	No
Female	54.6%	50.0%	Yes
Poetry	2012	2017	Statistically Significant Change
All Adults	6.7%	11.7%	Yes
Male	5.2%	8.7%	Yes
Female	8.0%	14.5%	Yes
			¥
Plays	2012	2017	Statistically Significant Change
All Adults	2.9%	3.7%	Yes
Male	2.3%	2.9%	No
Female	3.4%	4.5%	Yes

## Adult Visual Arts 2012-2017:

Visit Art Museum or Gallery	2012	2017	Statistically Significant Change
All Adults	21.0%	23.7%	Yes
Male	18.7%	21.1%	Yes
Female	23.1%	26.2%	Yes

<sup>&</sup>lt;sup>4</sup> Novels or short stories, poetry, or plays.



Toured Parks,	2012	2017	Statistically Significant Change
Buildings, or			
Neighborhoods <sup>5</sup>			
All Adults	23.9%	28.3%	Yes
Male	23.1%	26.6%	Yes
Female	24.6%	29.9%	Yes

Attended Craft Fairs or Visual Arts Festivals	2012	2017	Statistically Significant Change
All Adults	22.4%	23.8%	No
Male	18.2%	19.5%	No
Female	26.4%	27.8%	No

## Adult Performing Arts 2012-2017:

Jazz Music	2012	2017	Statistically Significant Change
All Adults	8.1%	8.6%	No
Male	7.9%	8.7%	No
Female	8.3%	8.5%	No

Classical Music	2012	2017	Statistically Significant Change
All Adults	8.8%	8.5%	No
Male	8.0%	6.8%	No
Female	9.5%	10.3%	No

Latin, Spanish, or	2012	2017	Statistically Significant Change
Salsa			
All Adults	5.1%	5.9%	No
Male	4.8%	5.5%	No
Female	5.2%	6.2%	No

Opera	2012	2017	Statistically Significant Change
All Adults	2.1%	2.2%	No
Male	1.8%	1.5%	No
Female	2.4%	2.8%	No

<sup>&</sup>lt;sup>5</sup> For historic nature or design value.


Ballet	2012	2017	Statistically Significant Change
All Adults	2.8%	3.1%	No
Male	2.1%	2.2%	No
Female	3.4%	4.0%	No

Dance other than	2012	2017	Statistically Significant Change
Ballet			
All Adults	5.6%	6.3%	No
Male	4.6%	4.4%	No
Female	6.6%	8.0%	No

Musical Plays	2012	2017	Statistically Significant Change		
All Adults	15.2%	16.5%	No		
Male	12.9%	12.8%	No		
Female	17.3%	19.9%	Yes		

Non-Musical Plays	2012	2017	Statistically Significant Change
All Adults	8.3%	9.4%	No
Male	7.3%	8.2%	No
Female	9.2%	10.5%	No

<b>Outdoor Performing</b>	2012	2017	Statistically Significant Change
Arts Festivals			
All Adults	20.8%	24.2%	Yes
Male	19.8%	24.1%	Yes
Female	21.8%	24.4%	Yes



# **Historical Perspective**

Adult Reading	2002	2008	2012	2017
Any Type	56.6%	54.3%	54.6%	52.7%
Novel/Short Story	45.1%	47.0%	45.2%	41.8%
Poetry	12.1%	8.3%	6.7%	11.7%
Plays	3.6%	2.6%	2.9%	3.7%

Visual Art	2002	2008	2012	2017
Art Museums/Galleries	26.5%	22.7%	21.0%	23.7%
Historic or Notable Parks,	31.6%	24.9%	23.9%	28.3%
Monuments, Buildings				
Craft Fairs or Visual Arts	33.4%	24.5%	22.4%	23.8%
Festivals				

Performing Arts	2002	2008	2012	2017
Jazz	10.8%	7.8%	8.1%	8.6%
Classical Music	11.6%	9.3%	8.8%	8.6%
Latin Music	-	4.9%	5.1%	5.9%
Opera	3.2%	2.1%	2.1%	2.2%
Ballet	3.9%	2.9%	2.8%	3.1%
Other Dance	6.3%	5.2%	5.6%	6.3%
Musical Plays	17.1%	16.7%	15.2%	16.5%
Non-Musical Plays	12.3%	9.4%	8.35	9.4%
Outdoor Performing Arts		20.8%	20.8%	24.2%
Festivals				



The following are assumptions that have been made for the proposed facilities at the Houghton Park & Ride location.

- The operations plan is for the two different program options.
- The operations plan is based on a program for each option but without the benefit of a final concept plan or a designated site. The final concept plan could impact part-time staffing levels and site could influence revenue.
  - The net subsidy of each scenario could vary +/- 5-10% based on the above factors and/or changes in the market.
- All operating expenses are shown in current dollars and assumes the facility is fully operational for a complete calendar year. Depending on when the facility is ultimately constructed and operated, the City should expect that future staffing and operating costs will grow approximately 3% per year.
- The presence of other public or private aquatics providers in the market will remain the same.
- Operation of the center is shown by the City of Kirkland with all costs and revenues included. This is based on Department staff guarding the pool during all hours of use.
- Full-time staff costs are based on current staff rates for the same basic positions using City compensation and benefits.
- Part-time rates are based on current market rates in the Puget Sound area and include a 7.65% benefit factor.
- City of Kirkland administrative support charge backs have been added to the expense portion of the budget. Per the City, a factor of 18% of personnel, commodities, and contractual obligations was included.
- City of Kirkland IT charges have been added to the total expenses.
- Revenues assumptions are based on current market rates for aquatics and wellness facilities in the Puget Sound, and includes market rates for admissions, memberships, rentals, and programs.
- The operational plan assumes that the City will purchase all weight and cardio equipment.



Week Assumptions

- Summer Hours 14 Weeks
- School Year Hours 36 Weeks
- Total Operational Year 50 Weeks (2-week maintenance closure)

Operating Day Both Options:

- Monday-Friday: 5:30A-9:00P 77.5 hours • Saturday: 7:00A-7:00P 12 hours 10:00A-7:00P • Sunday: 9 hours 98.5 hours
- Weekly Operational Hours:



The following expenses have been developed by B\*K using previous planning efforts and feedback from City staff. The information used to develop the plans also includes B\*K's familiarity with similar operations. The location of the facility, along with final design, can impact the operational expenses associated with the facility.

Personnel	Option #1	Option #2
Full-Time	2,013,353	1,880,864
Part-Time	1,281,295	1,229,747
Sub-Total	\$3,294,648	\$3,110,611

Commodities/Service & Supplies	Option #1	Option #2
Office Supplies	8,000	7,000
Chemicals	80,000	80,000
Maintenance/Repair/Materials	50,000	40,000
Janitor Supplies	25,000	20,000
Recreation Supplies	9,500	8,500
Uniforms	8,000	6,000
Printing/Postage	5,000	4,000
Other Misc. Exp.	3,000	2,500
Fuel/Mileage	1,500	1,500
Sub-Total	\$190.000	\$169,500



Contractual	Option #1	Option #2
Utilities (gas and electric)	$607,547^{1}$	483,313 <sup>2</sup>
Water/Sewer	85,000	85,000
Insurance <sup>3</sup>	27,616	21,969
Communications (phone)	7,500	5,000
Contract Services	40,000	35,000
Rental Equipment	15,000	15,000
Advertising	15,000	15,000
Training	9,000	8,000
Conference	5,000	5,000
Dues/Subscriptions	2,500	2,500
Bank Charges <sup>4</sup>	109,817	102,450
Other	1,500	1,500
Sub-Total	925,479	779,731

Administrative Support	Option #1	Option #2
Charge Backs (18%)	793,823	730,772

IT Fees	<b>Option #1</b>	Option #2
Annual	127,284	127,284

Capital Improvement Fund	<b>Option #1</b>	Option #2
Annual Allocation	200,000	150,000

<sup>&</sup>lt;sup>1</sup> 110,463 square feet @ \$5.50 per square foot.
<sup>2</sup> 87,874 square feet @ \$5.50 per square foot.
<sup>3</sup> Factored at \$0.25 per square foot. Square footage used is the same as that to calculate utility costs.
<sup>4</sup> Factored at 3% of total revenue generation.



Totals	Option #1	Option #2
Staffing	3,294,648	3,110,611
Commodities	190,000	169,500
Contractual	925,479	779,731
Administrative Support	793,823	730,772
IT Fees	127,284	127,284
Total w/out Replacement Fund	\$5,331,234	\$4,917,898
Capital Replacement Fund	200,000	150,000
Total w/ Replacement Fund	\$5,531,234	\$5,067,898



### Full Time Staffing

Positions	Salary/Benefit	<b>Option #1</b>	Option #2
Facility Manager	\$106,500	1	1
Sports & Competition Supervisor	\$85,500	1	1
Fitness Supervisor	\$85,500	1	1
Front Desk Supervisor	\$85,500	1	1
Aquatics Supervisor	\$85,500	1	1
Aquatics Coordinator	\$83,000	1	1
Lifeguards	\$65,000	4	4
Youth Program Supervisor	\$85,500	1	1
Enrichment & Senior Supervisor	\$85,500	1	1
Maintenance Supervisor	\$85,500	1	1
Maintenance Tech	\$65,000	1.5	1
Custodial	\$62,000	5	4
Total Positions		19.5	18
Total Full-Time Wages		\$2,013,353	\$1,880,864

NOTES:

- Full time wages include benefits, with information provided by the City.
- It is the belief of B\*K that the number of allocated full-time Custodial/Building Maintenance positions is the minimum that the City should consider.



Positions	Hourly Rate	Hours	Weeks	Total
Lead Front Desk	\$21.00	94	14	27,489
		76	36	57,456
Front Desk	\$18.00	164	14	41,202
		77	36	49,896
Building Supervisor	\$24.00	59	14	19,824
		44	36	38,016
Fitness Attendant	\$17.00	54	50	45,475
Lifeguard	\$19.00	536	14	142,576
		378	36	258,552
Lead Lifeguard	\$22.00	70	14	21,406
		54	36	42,372
Custodial Support	\$16.00	40	50	32,000
Lead Child Care	\$21.00	45	14	13,230
		54	36	40,446
Child Care	\$18.00	90	14	22,680
		100	36	64,800
Sub-Total				917,420
Aquatic Programs				128,564
Rental Staff				13,680
Dry Programs				130,578
Sub-Total				1,190,242
FICA				91,053
Total				\$1,281,295



Positions	Hourly Rate	Hours	Weeks	Total
Lead Front Desk	\$21.00	94	14	27,489
		76	36	57,456
Front Desk	\$18.00	164	14	41,202
		77	36	49,896
Building Supervisor	\$24.00	59	14	19,824
		44	36	38,016
Fitness Attendant	\$17.00	54	50	45,475
Lifeguard	\$19.00	477	14	126,749
		335	36	229,140
Lead Lifeguard	\$22.00	70	14	21,406
		54	36	42,372
Custodial Support	\$16.00	40	50	32,000
Lead Child Care	\$21.00	45	14	13,230
		50	36	37,800
Child Care	\$18.00	90	14	22,680
		100	36	64,800
Sub-Total				869,535
Aquatic Programs				128,564
Rental Staff				13,680
Dry Programs				130,578
Sub-Total				1,142,357
FICA				87,390
Total				\$1,229,747



The following revenue opportunities developed by B\*K, are based on feedback provided by the City, familiarity with the market, and experience as facility operators.

The projections are what B\*K feels the City could anticipate achieving once the facility is fully operational. It is important to note that these numbers are reflective of new revenue and do not reflect existing program revenue. B\*K believes this is a realistic estimation of potential revenue, in fact some of the revenue associated with competition rentals and practice rentals could be characterized as moderate to aggressive in nature.

Category	Option #1	Option #2
Fees		
Daily Admission	251,000	251,000
Membership	2,409,000	2,273,700
Sub-Total	\$2,660,000	\$2,524,700
Programs		
Aquatic	325,980	325,980
Non-Aquatic	274,125	274,125
Sub-Total	\$600,105	600,105
Other		
Birthday Parties	78,400	78,400
Practice Rentals	220,800	138,000
Other Aquatic	32,850	21,600
Other Non-Aquatic	68,400	52,200
Sub-Total	\$400,450	\$290,200
Total	\$3,660,555	\$3,415,005

Revenues:

Note: Programs are not factored at maximum participant capacity.



### **Option #1**

Daily Admission:

	Resident	Non-Resident
Under 2	Free	Free
Youth (2-17)	\$12.00	\$15.00
Adult	\$14.00	\$17.00
Senior (65+)	\$12.00	\$15.00

Membership Detail:

	Resident Annual	Non-Resident Annual
Youth	\$540	\$648
Adult	\$900	\$1,080
Household	\$1,560	\$1,872
Senior	\$600	\$720
Senior +1	\$720	\$864

- Fees are for drop-in use of all areas of the center (aquatics and dry-side amenities).
- Membership rates include basic fitness class and childcare/watch services.
- 20% differential between Resident & Non-Resident Rates
- 1,525 resident passes sold in option #1, which equates to a 3.88% household penetration rate.
- 525 non-resident passes.



Category	Year 1	Year 2	Year 3	Year 4	Year 5
Expenses	\$5,531,234	\$5,586,546	\$5,754,142	\$5,926,767	\$6,104,570
Revenues	\$3,660,555	\$4,026,611	\$4,227,941	\$4,354,779	\$4,485,423
Difference	(\$1,870,679)	(\$1,559,936)	(\$1,526,201)	(\$1,571,987)	(\$1,619,147)
Cost Recovery	66.2%	72.1%	73.5%	73.5%	73.5%
Cap. Invest.	\$200,000	\$400,000	\$600,000	\$800,000	\$1,000,000

# Option #1 – 5-Year Cost Recovery Projection

Capital Improvement line item is cumulative, with \$200,000 allocated annually.



### **Option #2**

Daily Admission:

	Resident	Non-Resident
Under 2	Free	Free
Youth (2-17)	\$12.00	\$15.00
Adult	\$14.00	\$17.00
Senior (65+)	\$12.00	\$15.00

Membership Detail:

	Resident Annual	Non-Resident Annual
Youth	\$540	\$648
Adult	\$900	\$1,080
Household	\$1,560	\$1,872
Senior	\$600	\$720
Senior +1	\$720	\$864

- Fees are for drop-in use of all areas of the center (aquatics and dry-side amenities).
- Membership rates include basic fitness class and childcare/watch services.
- 20% differential between Resident & Non-Resident Rates
- 1,475 resident passes sold in option #2, which equates to a 3.75% household penetration rate.
- 475 non-resident passes.



Category	Year 1	Year 2	Year 3	Year 4	Year 5
Expenses	\$5,067,898	\$5,118,577	\$5,272,134	\$5,430,298	\$5,593,207
Revenues	\$3,415,005	\$3,756,506	\$3,944,331	\$4,062,661	\$4,184,541
Difference	(\$1,652,893)	(\$1,362,071)	(\$1,327,803)	(\$1,367,637)	(\$1,408,666)
Cost Recovery	67.4%	73.4%	74.8%	74.8%	74.8%
Cap. Invest.	\$150,000	\$300,000	\$450,000	\$600,000	\$750,000

# Option #1 – 5-Year Cost Recovery Projection

Capital Improvement line item is cumulative, with \$150,000 allocated annually.



Rental rate and program fees have been vetted with the City or are reflective of current/planned rate structure.

Rental Rates

- 25Y Lap Lane \$25.00/hr
- Therapy Rental \$75.00/hr
- Leisure Pool \$600/hr
- Gymnasium \$45.00/hr
- Community Rooms \$25.00/hr

Aquatic Group Exercise<sup>5</sup>

• \$65 per month for drop-in access

Swim Lessons

• \$95 per session, 8, 35-minute classes per session Private Swim Lessons

- \$150 per session, 4, 30-minute classes per session Semi-Private Swim Lessons
- \$195 per session, 4, 30-minute classes per session Birthday Parties
  - \$350 per party, 2 hour guided party

Dive-In Movie

• \$5.00 per attendee

Little Swimmers

- \$5.00 per attendee
- Group Exercise Dry-Side<sup>6</sup>
  - Included in Membership

Personal Training

• \$65 per session

Camp Programs

• \$175 per week

**Enrichment Program** 

• \$75 per session

<sup>&</sup>lt;sup>5</sup> Aquatic group exercise classes would not be included in membership.

<sup>&</sup>lt;sup>6</sup> Dry Side Group Exercise and Child Care would be included in membership.



The following are assumptions that have been made for the proposed facilities at the North Kirkland location.

- The operations plan is for the three different program options.
- The operations plan is based on a program for each option but without the benefit of a final concept plan or a designated site. The final concept plan could impact part-time staffing levels and site could influence revenue.
  - $\circ~$  The net subsidy of each scenario could vary +/- 5-10% based on the above factors and/or changes in the market.
- All operating expenses are shown in current dollars and assumes the facility is fully operational for a complete calendar year. Depending on when the facility is ultimately constructed and operated, the City should expect that future staffing and operating costs will grow approximately 3% per year.
- The presence of other public or private aquatics providers in the market will remain the same.
- Operation of the center is shown by the City of Kirkland with all costs and revenues included. This is based on Department staff guarding the pool during all hours of use.
- Full-time staff costs are based on current staff rates for the same basic positions using City compensation and benefits.
- Part-time rates are based on current market rates in the Puget Sound area and include a 7.65% benefit factor.
- City of Kirkland administrative support charge backs have been added to the expense portion of the budget. Per the City, a factor of 18% of personnel, commodities, and contractual obligations was included.
- City of Kirkland IT charges have been added to the total expenses.
- Revenues assumptions are based on current market rates for aquatics and wellness facilities in the Puget Sound, and includes market rates for admissions, memberships, rentals, and programs.
- The operational plan assumes that the City will purchase all weight and cardio equipment.



Week Assumptions

- Summer Hours 14 Weeks
- School Year Hours 36 Weeks
- Total Operational Year 50 Weeks (2-week maintenance closure)

Operating Day Both Options:

- Monday-Friday: 5:30A-9:00P 77.5 hours • Saturday: 7:00A-7:00P 12 hours 10:00A-7:00P • Sunday: 9 hours 98.5 hours
- Weekly Operational Hours:



The following expenses have been developed by B\*K using previous planning efforts, feedback from City staff, and the consulting team. The information used to develop the plans also includes B\*K's familiarity with similar operations. The location of the facility, along with final design, can impact the operational expenses associated with the facility.

Personnel	Option #1	Option #2	Option #3
Full-Time	1,586,444	1,110,021	1,586,444
Part-Time	1,013,677	547,607	1,013,677
Sub-Total	\$2,600,121	\$1,657,628	\$2,600,121

Commodities/Service &	Option #1	Option #2	Option #3
Supplies			
Office Supplies	7,000	5,000	5,000
Chemicals	30,000	5,000	30,000
Maintenance/Repair/Materials	40,000	25,000	30,000
Janitor Supplies	20,000	15,000	15,000
Recreation Supplies	8,500	7,000	7,000
Uniforms	6,000	4,000	5,000
Printing/Postage	4,000	3,000	3,000
Other Misc. Exp.	2,500	2,000	2,000
Fuel/Mileage	1,500	1,500	1,500
Sub-Total	\$119,500	\$67,500	\$98,500



Contractual	Option #1	Option #2	Option #3
Utilities (gas and electric	370,190 <sup>1</sup>	182,452 <sup>2</sup>	250,872
Water/Sewer	60,000	15,000	60,000
Insurance <sup>3</sup>	18,510	11,403	11,403
Communications (phone)	5,000	4,000	4,000
Contract Services	30,000	25,000	25,000
Rental Equipment	10,000	10,000	10,000
Advertising	12,000	12,000	12,000
Training	8,000	6,000	6,000
Conference	5,000	5,000	5,000
Dues/Subscriptions	2,500	2,500	2,500
Bank Charges <sup>4</sup>	87,533	35,176	74,424
Other	1,500	1,500	1,500
Sub-Total	\$610,233	\$310,031	\$462,698

Administrative Support	Option #1	Option #2	Option #3
Charge Backs (18%)	599,374	366,329	569,038

IT Fees	Option #1	Option #2	Option #3
Annual	116,675	85,518	116,675

Capital Investment Fund	Option #1	Option #2	Option #3
Annual Allocation	150,000	100,000	150,000

<sup>&</sup>lt;sup>1</sup> 74,038 square feet @ \$5.50 per square foot.
<sup>2</sup> 45,613 square feet @ \$4.00 per square foot.
<sup>3</sup> Factored at \$0.25 per square foot. Square footage used is the same as that to calculate utility costs.
<sup>4</sup> Factored at 3% of total revenue generation.



Totals	Option #1	Option #2	Option #3
Staffing	2,600,121	1,657,628	2,600,121
Commodities	119,500	67,500	98,500
Contractual	610,233	310,031	462,698
Administrative Support	699,374	366,329	569,038
IT Fees	116,675	85,518	116,675
Total w/out Replace. Fund	\$4,045,902	\$2,487,005	\$3,847,032
Capital Replacement Fund	150,000	100,000	150,000
Total w/ Replacement Fund	\$4,195,902	\$2,587,005	\$3,997,032



### Full Time Staffing

Positions	Salary/Benefit	Option #1	Option #2	Option #3
Facility Manager	\$106,500	1	1	1
Sports & Competition Supervisor	\$85,500	1	1	1
Fitness Supervisor	\$85,500	1	1	1
Front Desk Supervisor	\$85,500	1	1	1
Aquatics Supervisor	\$85,500	1	0	1
Aquatics Coordinator	\$83,000	0	0	0
Lifeguards	\$65,000	3	0	3
Youth Program Supervisor	\$85,500	1	1	1
Enrichment & Senior Supervisor	\$85,500	1	1	1
Maintenance Supervisor	\$85,500	1	1	1
Maintenance Tech	\$65,000	1	1	1
Custodial	\$62,000	3	2	3
Total Positions		15	10	15
Total Full-Time Wages		\$1,586,444	\$1,110,021	\$1,586,444

NOTE:

- Full time wages include benefits, with information provided by the City.
- It is the belief of B\*K that the number of allocated full-time Custodial/Building Maintenance positions is the minimum that the City should consider.



Positions	Hourly Rate	Hours	Weeks	Total
Lead Front Desk	\$21.00	94	14	27,489
		76	36	57,456
Front Desk	\$18.00	98	14	24,570
		69	36	44,388
Building Supervisor	\$24.00	59	14	19,824
		44	36	38,016
Fitness Attendant	\$17.00	54	50	45,475
Lifeguard	\$19.00	307	14	81,596
		219	36	149,796
Lead Lifeguard	\$22.00	70	14	21,406
		54	36	42,372
Custodial Support	\$16.00	40	50	32,000
Lead Child Care	\$21.00	45	14	13,230
		50	36	37,800
Child Care	\$18.00	90	14	22,680
		100	36	64,800
Sub-Total				722,898
Aquatic Programs				128,564
Rental Staff				13,680
Dry Programs				15,000
NK Existing Inst.				61,500
Sub-Total				941,642
FICA				72,036
Total				\$1,013,677



Positions	Hourly Rate	Hours	Weeks	Total
Lead Front Desk	\$21.00	94	14	27,489
		76	36	57,456
Front Desk	\$18.00	98	14	24,570
		69	36	44,388
Building Supervisor	\$24.00	59	14	19,824
		44	36	38,016
Fitness Attendant	\$17.00	54	50	45,475
Lifeguard	\$19.00	0	14	0
		0	36	0
Lead Lifeguard	\$22.00	0	14	0
		0	36	0
Custodial Support	\$16.00	40	50	32,000
Lead Child Care	\$21.00	45	14	13,230
		50	36	37,800
Child Care	\$18.00	90	14	22,680
		100	36	64,800
Sub-Total				427,728
Rental Staff				4,464
Dry Programs				15,000
NK Existing Inst.				61,500
Sub-Total				508,692
FICA				38,915
Total				\$547,607



Positions	Hourly Rate	Hours	Weeks	Total
Lead Front Desk	\$21.00	94	14	27,489
		76	36	57,456
Front Desk	\$18.00	98	14	24,570
		69	36	44,388
Building Supervisor	\$24.00	59	14	19,824
		44	36	38,016
Fitness Attendant	\$17.00	54	50	45,475
Lifeguard	\$19.00	307	14	81,596
		219	36	149,796
Lead Lifeguard	\$22.00	70	14	21,406
		54	36	42,372
Custodial Support	\$16.00	40	50	32,000
Lead Child Care	\$21.00	45	14	13,230
		50	36	37,800
Child Care	\$18.00	90	14	22,680
		100	36	64,800
Sub-Total				722,898
Aquatic Programs				128,564
Rental Staff				13,680
Dry Programs				15,000
NK Existing Inst.				61,500
Sub-Total				941,642
FICA				72,036
Total				\$1,013,677



The following revenue opportunities developed by B\*K, are based on feedback provided by the City, familiarity with the market, and experience as facility operators.

The projections are what B\*K feels the City could anticipate achieving once the facility is fully operational. It is important to note that these numbers are reflective of new revenue and do not reflect existing program revenue. B\*K believes this is a realistic estimation of potential revenue, in fact some of the revenue associated with competition rentals and practice rentals could be characterized as moderate to aggressive in nature.

Category	Option #1	Option #2	Option #3
Fees			
Daily Admission	204,000	133,700	204,000
Membership	2,001,540	729,720	\$1,564,560
Sub-Total	\$2,205,540	\$863,420	\$1,768,560
Programs			
Aquatic	325,980	0	\$325,980
Non-Aquatic	70,000	70,000	\$70,000
Sub-Total	\$395,980	\$70,000	\$395,980
Other			
Birthday Parties	78,400	34,100	78,400
Practice Rentals	0	0	0
Other Aquatic	\$32,850	0	\$32,850
Other Non-Aquatic	0	0	0
Sub-Total	\$111,250	\$34,100	\$111,250
Existing Revenue	\$205,000	\$205,000	\$205,000
Total	\$2,917,770	\$1,172,520	\$2,480,790

Note: Programs are not factored at maximum participant capacity.



## **Option #1**

Daily Admission:

	Resident	Non-Resident
Under 2	Free	Free
Youth (2-17)	\$12.00	\$15.00
Adult	\$14.00	\$17.00
Senior (65+)	\$12.00	\$15.00

Membership Detail:

	<b>Resident Annual</b>	Non-Resident Annual
Youth	\$480	\$576
Adult	\$840	\$1,008
Household	\$1,500	\$1,800
Senior	\$540	\$648
Senior +1	\$660	\$792

- Fees are for drop-in use of all areas of the center (aquatics and dry-side amenities).
- Membership rates include basic fitness class and childcare/watch services.
- 20% differential between Resident & Non-Resident Rates
- 1,450 resident passes sold in option #1, which equates to a 3.68% household penetration rate.
- 365 non-resident passes.



Category	Year 1	Year 2	Year 3	Year 4	Year 5
Expenses	\$4,195,902	\$4,237,861	\$4,364,997	\$4,495,947	\$4,630,826
Revenues	\$2,917,770	\$3,122,014	\$3,278,115	\$3,376,458	\$3,477,752
Difference	(\$1,278,132)	(\$1,115,847)	(\$1,086,883)	(\$1,119,489)	(\$1,153,074)
Cost Recovery	69.5%	73.7%	75.1%	75.1%	75.1%
Cap. Invest.	\$150,000	\$300,000	\$450,000	\$600,000	\$750,000

# Option #1 – 5-Year Cost Recovery Projection

Capital Improvement line item is cumulative, with \$150,000 allocated annually.



## **Option #2**

Daily Admission:

	Resident	Non-Resident
Under 2	Free	Free
Youth (2-17)	\$12.00	\$15.00
Adult	\$14.00	\$17.00
Senior (65+)	\$12.00	\$15.00

Membership Detail:

	Resident Annual	Non-Resident Annual
Youth	\$240	\$288
Adult	\$480	\$576
Household	\$960	\$1,152
Senior	\$300	\$360
Senior +1	\$360	\$432

- Fees are for drop-in use of all areas of the center.
- Membership rates include basic fitness class and childcare/watch services.
- 20% differential between Resident & Non-Resident Rates
- 926 resident passes sold in option #2, which equates to a 2.35% household penetration rate.
- 205 non-resident passes.



Category	Year 1	Year 2	Year 3	Year 4	Year 5
Expenses	\$2,587,005	\$2,612,875	\$2,691,262	\$2,772,000	\$2,855,160
Revenues	\$1,172,520	\$1,231,146	\$1,292,703	\$1,331,484	\$1,371,429
Difference	(\$1,414,485)	(\$1,381,729)	(\$1,398,558)	(\$1,440,515)	(\$1,483,731)
Cost Recovery	45.3%	47.1%	48.0%	48.0%	48.0%
Cap. Invest.	\$100,000	\$200,000	\$300,000	\$400,000	\$500,000

# Option #2 – 5-Year Cost Recovery Projection

Capital Improvement line item is cumulative, with \$100,000 allocated annually.



## Option #3

Daily Admission:

	Resident	Non-Resident
Under 2	Free	Free
Youth (2-17)	\$12.00	\$15.00
Adult	\$14.00	\$17.00
Senior (65+)	\$12.00	\$15.00

Membership Detail:

	<b>Resident Annual</b>	Non-Resident Annual
Youth	\$420	\$504
Adult	\$660	\$792
Household	\$1,140	\$1,368
Senior	\$480	\$576
Senior +1	\$540	\$648

- Fees are for drop-in use of all areas of the center (aquatics and dry-side amenities).
- Membership rates include basic fitness class and childcare/watch services.
- 20% differential between Resident & Non-Resident Rates
- 1,450 resident passes sold in option #3, which equates to a 3.68% household penetration rate.
- 365 non-resident passes.



Category	Year 1	Year 2	Year 3	Year 4	Year 5
Expenses	\$3,997,032	\$4,037,002	\$4,158,112	\$4,282,856	\$4,411,341
Revenues	\$2,480,790	\$2,654,445	\$2,787,168	\$2,870,783	\$2,956,906
Difference	(\$1,516,242)	(\$1,382,557)	(\$1,370,945)	(\$1,412,073)	(\$1,454,435)
Cost Recovery	62.1%	65.8%	67.0%	67.0%	67.0%
Cap. Invest.	\$150,000	\$300,000	\$450,000	\$600,000	\$750,000

# Option #3 – 5-Year Cost Recovery Projection

Capital Improvement line item is cumulative, with \$150,000 allocated annually.



Rental rate and program fees have been vetted with the City or are reflective of current/planned rate structure.

Rental Rates

- 25Y Lap Lane \$25.00/hr
- Therapy Rental \$75.00/hr
- Leisure Pool \$600/hr
- Gymnasium \$45.00/hr
- Community Rooms \$25.00/hr

Aquatic Group Exercise<sup>5</sup>

• \$65 per month for drop-in access

Swim Lessons

• \$95 per session, 8, 35-minute classes per session Private Swim Lessons

- \$150 per session, 4, 30-minute classes per session Semi-Private Swim Lessons
- \$195 per session, 4, 30-minute classes per session Birthday Parties
  - \$350 per party, 2 hour guided party

Dive-In Movie

• \$5.00 per attendee

Little Swimmers

- \$5.00 per attendee
- Group Exercise Dry-Side<sup>6</sup>
  - Included in Membership

Personal Training

• \$65 per session

Camp Programs

• \$175 per week

**Enrichment Program** 

• \$75 per session

<sup>&</sup>lt;sup>5</sup> Aquatic group exercise classes would not be included in membership.

<sup>&</sup>lt;sup>6</sup> Dry Side Group Exercise and Child Care would be included in membership.



206.419.0873

## Memo

To	Chris Roberts	Onsis	Architecture
10.	CHIIS NODELLS	, Opsis	Alchitecture

From: Steve Hatzenbeler, P.E.

Date: September 15, 2022

Re: Kirkland RAFS Civil Site Assessment

This memo summarizes our findings to date regarding the existing conditions at the four sites under consideration for new Kirkland Community/Recreation/Aquatics Centers. The four sites are the North Kirkland Community Center Park, the Houghton Park and Ride, Peter Kirk Park, and Juanita Beach Park.

### North Kirkland Community Center Park

Water (Northshore Utility Distric	t)
Existing Infrastructure Nearby:	6" Cl in 103 <sup>rd</sup> Ave NE;
	8" DI on site west of bldg, from NE 124 <sup>th</sup> St;
	12" DI in NE 124 <sup>th</sup> St
Existing Connections:	4" DI fire line on west side;
	2" irrig off 103 <sup>rd</sup> Ave NE;
	1" possibly dom water svc off 103 <sup>rd</sup> Ave NE
Sewer (Northshore Utility Distric	t)
Existing Infrastructure Nearby:	8" conc pipe on south edge of NE 124 <sup>th</sup> St;
	8" conc pipe in 103 <sup>rd</sup> Ave NE
Existing Connections:	6" on south side of bldg, to 103 <sup>rd</sup> Ave NE
Stormwater (City of Kirkland)	
Existing Infrastructure Nearby:	12" "Drainage Concern" Line in 103 <sup>rd</sup> Ave NE;
	18" CPEP in NE 124 <sup>th</sup> St; drainage ditch (identified as a conveyance
	ditch and not a stream in the Kirkland GIS) along the west property edge
Existing Connections:	6" from CB in parking lot appears to drain west to the ditch along the west property edge. CBs in 103 <sup>rd</sup> Ave NE connect to main line in 103 <sup>rd</sup> Ave NE.
Stormwater Mitigation:	Level 2 Flow Control (forested pre-developed condition) and Flow Control BMPs

#### **Electrical/Communications**

Appears to be underground (no overhead wires).

Chris Roberts Opsis Architecture Kirkland RAFS Civil Site Assessment Page 2 of 5

Right of Way (City of Kirkland)		
Existing Conditions:	103 <sup>rd</sup> Ave NE:	Curb, gutter, sidewalk on west side.
		Curb, gutter on east side.
		One traffic lane each direction, widening to 3 lanes at
		the intersection for left turn lane.
		Right of way is narrow: southern 1/3 is only 30 ft,
		northern 1/3 only 50 ft.
		Portion of the sidewalk in the southern 1/3 appears to
		be on private property.
	NE 124 <sup>th</sup> St:	Curb, gutter, sidewalk on both sides.
		Two traffic lanes each direction, plus center turn lane.
		Right of way width +/-84 ft; appears to be narrower
		here than several other properties nearby, so a right
		of way dedication may be required.

### Grading

Existing Conditions: Site is mostly below the level of both adjacent streets, with considerable fall of approximately 30 ft from the streets down to the drainage ditch. Seems to lend itself to a building with a daylight basement facing west.

Houghton Park & Ride Site	
Water (City of Kirkland)	
Existing Infrastructure Nearby:	8" DI water main in 116 <sup>th</sup> Ave NE;
	$8^{\prime\prime}$ AC water main in NE $70^{th}$ Place (not connected to the main in $116^{th}$
	Ave NE)
Existing Connections:	No apparent connections to on-site facilities
Sewer (City of Kirkland)	
Existing Infrastructure Nearby:	8" conc pipe in NE 70 <sup>th</sup> St right of way;
	8" conc pipe in 116 <sup>th</sup> Ave NE;
	8" AC pipe continues west across I-405 right of way
Existing Connections:	No apparent connections to on-site facilities
Stormwater (City of Kirkland)	
Existing Infrastructure Nearby:	Stormwater pond at north end of site (not well maintained, with vegetation overgrowth);
	At least 2, 12" CMP pipes come off the park & ride lot;
	12" CMP SD main line in 116 <sup>th</sup> Ave NE;
	18" CMP SD main line in NE 70 <sup>th</sup> Place.
	The SD main lines in 116 <sup>th</sup> Ave NE and NE 70 <sup>th</sup> Place both appear to
	drain to the pond at the north end of the property.
Existing Connections:	At least 2, 12" CMP pipes come off the parking lot, connecting to SD main line in 116 <sup>th</sup> Ave NE
Stormwater Mitigation:	Level 2 Flow Control (forested pre-developed condition) and Flow Control BMPs

Chris Roberts Opsis Architecture Kirkland RAFS Civil Site Assessment Page 3 of 5

#### **Electrical/Communications**

Appears to be underground (no overhead wires).

#### Right of Way (City of Kirkland)

Existing Conditions:	116 <sup>th</sup> Ave NE:	Curb, gutter, sidewalk on project (east) side. Width varies from 3 lanes at the south, to 5 lanes north of the I-405 onramp traffic signal, to 4 lanes at the intersection w/ NE 70 <sup>th</sup> Place.
	NE 70 <sup>th</sup> Place:	Curb, gutter, sidewalk both sides.
		One traffic lane each direction plus a center turn lane, and bike lane each side.
		Right of way width +/-64 ft.
	NE 70 <sup>th</sup> St:	Appears the 40-ft right of way still exists and cuts across the middle of the site.
	Other:	Another 60-ft right of way appears to cross the south end of the site.
		Other rights of way appear to wrap around the perimeter of the site.

### Grading

Existing Conditions: Site slopes down from southeast to northwest, getting progressively steeper toward the northwest corner. There is a grade drop of over 30 ft. A building with a north/south oriented axis may need to be stepped or have a partial basement.

Peter Kirk Park	
Water (City of Kirkland)	
Existing Infrastructure Nearby:	12" DI water main in Kirkland Ave; 8" AC water line on-site serving FH just NE of the Peter Kirk Pool
Existing Connections:	Appears to be a service connection (size unknown) from Kirkland Ave at the SE corner of the pool building
Sewer (City of Kirkland)	
Existing Infrastructure Nearby:	6" PVC north of pool, continues west and ties into 8" PVC, over to 10" PVC in 3 <sup>rd</sup> St;
	Also 8" PVC and 8" conc pipe in Kirkland Ave
Existing Connections:	Multiple
Stormwater (City of Kirkland)	
Existing Infrastructure Nearby:	24" conc SD main line in Kirkland Ave; Various on-site SD lines including 18" PVC along west edge of pool, other 6", 8", and 12" pipes originating on-site and flowing north.
Existing Connections:	Most on-site improvements appear to connect to the on-site 6", 8", 12", and 18" pipes, draining across the site to Central Way at the north, or to 3 <sup>rd</sup> St at the west.
Stormwater Mitigation:	Level 1 Flow Control (existing conditions) and Flow Control BMPs
Chris Roberts Opsis Architecture Kirkland RAFS Civil Site Assessment Page 4 of 5

# **Electrical/Communications**

Appears to be underground (no overhead wires).

# Right of Way (City of Kirkland)

Existing Conditions:	Kirkland Ave:	Curb, gutter, sidewalk w/ street tree pits; One traffic lane each direction w/ bike lanes and parking both sides Right of way width +/-60 ft.					
	3 <sup>rd</sup> Street:	Curb, gutter, sidewalk w/ planter strip both sides. Two traffic lanes (w/ left turn lane) southbound; or wide lane northbound. Right of way width +/-30 ft and it appears a large					
		property for the library.					

# Grading

Existing Conditions: South edge of the site is relatively level with the street, and steps down roughly 15 ft to the north into the baseball field. A building with a daylight basement facing north may be a good fit here.

# Juanita Beach Park

# Water (Northshore Utility District)

Existing Infrastructure Nearby:	8" DI in 97 <sup>th</sup> Ave NE;
	12" DI in NE Juanita Dr
Existing Connections:	1" @ SE prop corner near pkg lot;
	2" irrig of NE Juanita Dr

# Sewer (Northshore Utility District)

Existing Infrastructure Nearby:	8" conc pipe in 97 <sup>th</sup> Ave NE
Existing Connections:	6" SSS to ex bldg on site, connected to 8" SS in 97th Ave NE

## Stormwater (City of Kirkland)

Existing Infrastructure Nearby:	12" PVC SD main in 97 <sup>th</sup> Ave NE;
	12" PE SD main in Juanita Drive
Existing Connections:	No documented connections to on-site facilities
Stormwater Mitigation:	Level 2 Flow Control (forested pre-developed condition) and Flow
	Control BMPs

# **Electrical/Communications**

Appears to be underground (no overhead wires), except for an overhead service to the on-site building.

Chris Roberts Opsis Architecture Kirkland RAFS Civil Site Assessment Page 5 of 5

Right of Way (City of Kirkland)		
Existing Conditions:	97 <sup>th</sup> Ave NE:	Curb, gutter, sidewalk w/ tree pits east side of street. No improvements on most of west side; limited curb and gutter near Juanita Dr intersection. One traffic lane each direction, plus parking lane on east side. Bight of way width +/-60 ft
	Juanita Dr:	Curb, gutter, sidewalk, and planter strip both sides. One traffic lane each direction plus vegetated median, which transitions to a left turn lane at the intersection. Bike lane each side. Right of way width +/-60 ft.

# Grading

Existing Conditions: Site has a relatively uniform and gentle slope down from northeast to southwest, with a grade drop of approximately 10 ft.



Memorandum

www.geoengineers.com

17425 NE Union Hill Road, Suite 250, Redmond, WA 98052 Telephone: 425.861.6000, Fax: 425.861.6050

То:	Chris Roberts – Opsis Architecture
From:	Carson Cheung, PE and Morgan A. McArthur, PE
Date:	September 21, 2022
File:	0231-159-00
Subject:	Preliminary Geotechnical Findings City of Kirkland Recreation and Aquatics Centers

## **INTRODUCTION AND PURPOSE**

This memorandum transmits the results of our geotechnical feasibility evaluation and preliminary geotechnical findings for the City of Kirkland Recreation and Aquatics Centers. We performed a site visit to each of the four proposed sites, and reviewed existing information, including geologic maps, previous geotechnical reports, available nearby well logs, and geologic hazard maps. Our services were provided in accordance with our signed agreement dated August 22, 2022.

The following sections summarize our findings for each of the four proposed sites. This information is preliminary in nature and is not sufficient for design of proposed facilities. No project-specific subsurface explorations were advanced as part of this evaluation. Additional geotechnical studies, including subsurface explorations, will be required to facilitate design and construction. The findings and considerations presented herein are subject to change, depending on the results of the design geotechnical studies.

# **HOUGHTON PARK AND RIDE**

- Site address: 7024 116<sup>th</sup> Avenue NE, Kirkland, Washington 98033
- Area Geology: Published geologic information for the site vicinity includes a United States Geological Survey (USGS) Geologic Map of the Kirkland Quadrangle, Washington (Minard 1983) and Geologic Map of Surficial Deposits in the Seattle 30' x 60' Quadrangle, Washington (Yount, Minard, and Dembroff 1993). The mapped surface geologic unit in the site vicinity includes advance outwash (Qva). Advance outwash generally consists of moderately- to well-sorted, stratified sand and gravel with varying amounts of silt and clay in a dense nature.
- Subsurface Conditions: Based on our review of limited geotechnical subsurface exploration information obtained from the Washington State Department of Natural Resource (WA DNR), soils encountered in the site vicinity generally consists of relatively shallow fill overlying native, very dense sand with variable silt and gravel content. These soils generally become saturated at about 7 to 22 feet blow existing site grades. Hard silt with variable sand content was encountered below the native sand at about 25 feet below existing site grades. A landfill (Houghton Landfill) is located approximately 325 feet southeast of the site.
- Groundwater Conditions: Nearby exploration logs indicate that groundwater was encountered at about 6 to 20 feet below existing site grades at the time of exploration. No well logs and information are available in the immediate site vicinity from the Department of Ecology (WA DOE).

Memorandum to Opsis Architecture September 21, 2022 Page 2

- Liquefaction Potential: Based on our review of the City of Kirkland Liquefaction Potential Map (2020), the site is not mapped as having liquefaction potential.
- Landslide Susceptibility: Based on our review of the City of Kirkland Landslide Susceptibility Map (2020), portions of the site (mainly in the northwest corner and along the west portion of the site) are mapped as having moderate and high landslide susceptibility. These designations are likely associated with the steepness and/or overall height of the localized slopes and adjacent slopes to the property. Most of these areas are either developed or covered with vegetation, and we do not anticipate these areas will adversely impact the development.
- Topographic Information: Based on our review of the City of Kirkland Topographic Survey, existing site grades range from approximate Elevation 380 to 410 feet. The site generally slopes down from the east to the west and northwest.
- Preliminary Geotechnical Findings and Considerations: Based on our review of very limited geotechnical information, we anticipate the proposed building may be supported on conventional spread or mat foundations on the dense to very dense advance outwash deposits. We recommend a detailed field exploration program to further identity and evaluate the nature and extent of unsuitable surficial soils, groundwater conditions, and the depth to soils suitable for foundation support. The native outwash deposits are likely to be suitable for reuse as structural fill, provided that they meet the project plans and specifications. The upper portions of on-site surficial soils may contain a sufficient percentage of fines content (silt/clay) to be highly sensitive to changes in moisture content. Because portions of the site are mapped as having moderate and high landslide susceptibility, a quantitative slope stability analysis may be required to determine necessary setback for proposed structures in the slope vicinity per City of Kirkland Municipal Code.

We anticipate that the proposed buildings will be constructed at-grade, and the pool will be constructed approximately 20 feet below grade. For planning purposes, temporary unsupported cut slopes more than 4 feet high may be inclined at 1½H:1V (horizontal to vertical) maximum steepness. Flatter slopes may be necessary if seepage is present on the face of the cut slopes or if localized sloughing occurs. Soil nail walls or solider pile and tieback walls may also be considered for temporary excavation support. If excavation occurs above the regional groundwater table, groundwater seepage encountered during excavation may be handled adequately by dewatering sumps and pumps. However, if excavation occurs below the regional groundwater table and/or if excessive groundwater seepage is encountered during excavation, more extensive dewatering techniques such as deep pumping wells or vacuum wellpoints may be needed. In addition, if the proposed structures extend below the regional groundwater table, they will need to either be designed to resist hydrostatic pressure or exercise permanent dewatering, if approved by City of Kirkland.

# NORTH KIRKLAND COMMUNITY CENTER PARK

- Site address: 12421 103<sup>rd</sup> Avenue NE, Kirkland, Washington 98034
- Area Geology: Published geologic information for the site vicinity includes a USGS Geologic Map of the Kirkland Quadrangle, Washington (Minard 1983) and Geologic Map of Surficial Deposits in the Seattle 30' x 60' Quadrangle, Washington (Yount, Minard, and Dembroff 1993). The mapped surface geologic in the site vicinity includes recessional outwash (Qvr), advance outwash (Qva) and transitional beds (Qtb).

Recessional outwash generally consists of moderately sorted to well sorted, stratified sand and gravel with varying amounts of silty sand and silt in a loose to dense nature. Advance outwash generally consists of moderately- to well-sorted, stratified sand and gravel with varying amounts of silt and clay in a medium dense to dense nature. Transitional beds generally consist of massive to bedded clay, silt and fine to very fine sand that were mostly deposited in lakes, distant from the ice front, and in fluvial systems prior to the advance of the ice. Peaty sand and gravel may occur in the lower part. The deposits have been compacted by the overriding Vashon glacier and are therefore typically dense to very dense. The transitional beds may be underlain by older glacial sediments deposited by pre-Fraser glacial episodes.

- Subsurface Conditions: Based on our review of limited geotechnical subsurface exploration information obtained from the WA DNR, soils encountered in the site vicinity generally consists of shallow fill overlying native stiff silt and clay with variable sand content, and loose to dense sand and gravel with variable silt content. These soils become saturated at about 5 feet below existing site grades.
- Groundwater Conditions: Nearby exploration logs indicate that groundwater was encountered at about 5 feet below existing site grades at the time of exploration. No well logs and information are available in the immediate site vicinity from the WA DOE.
- **Liquefaction Potential:** Based on our review of the City of Kirkland Liquefaction Potential Map (2020), the entire site is mapped as having a medium liquefaction potential.
- Landslide Susceptibility: Based on our review of the City of Kirkland Landslide Susceptibility Map (2020), portions of the site are mapped as having moderate and high landslide susceptibility. These designations are likely associated with the steepness and/or overall height of the localized slopes and adjacent slopes to the property. Most of these areas are either developed or covered with vegetation, and we do not anticipate these areas will adversely impact the development.
- **Topographic Information:** Based on our review of the City of Kirkland Topographic Survey, existing site grades range from approximate Elevation 96 to 160 feet. The site generally slopes down from the southeast to the west and northwest.
- Preliminary Geotechnical Findings and Considerations: Based on our review of very limited geotechnical information, potentially liquefiable soils may be present at the site. The site may be designated as seismic Site Class F per American Society of Civil Engineers (ASCE) 7-16, and ground improvement or deep foundations may be needed if potentially liquefiable soils are found to be present. Shallow conventional spread or mat foundations bearing on improved ground may be feasible such that: (1) differential settlement is compliant with provisions in ASCE 7-16 and (2) an adequate factor of safety against bearing failure is achieved for the post seismic condition where a weaker, liquefied soil layer underlies the non-liquefiable soil/improved ground.

Ground improvement methods such as densification by means of stone columns or rammed aggregate piers may be feasible at the site, depending on percentage of fines of the potentially liquefiable soils. These ground improvement methods are not feasible and effective in soils with a high percentage of fines content. Other ground improvement methods may include augercast grout columns or rigid inclusions. Deep foundations may include augercast piles or drilled shafts, or driven piles. It should be noted that liquefiable soils can impose downdrag loads on deep foundations, which may significantly reduce the axial load capacity, depending on the thickness of potentially liquefiable soils.

We recommend a detailed field exploration program to further identity and evaluate the nature and extent of unsuitable surficial soils, the nature, thickness and presence of potentially liquefiable soils, groundwater conditions, and the depth to soils suitable for foundation support. Because the site is mapped as having liquefaction susceptibility, we anticipate deep subsurface explorations such as borings or cone penetration tests, and quantitative liquefaction analyses will be required to address liquefaction per City of Kirkland Municipal Code.

The native outwash deposits are expected to be suitable for reuse as structural fill, provided they meet the project plans and specifications. The upper portions of on-site surficial soils and silty and clayey soils (transitional bed deposits) may contain a sufficient percentage of fines content (silt/clay) to be highly sensitive to changes in moisture content.

We anticipate that the proposed buildings will be constructed at-grade, and the pool will be constructed approximately 20 feet below grade. For planning purposes, temporary unsupported cut slopes more than 4 feet high may be inclined at 1½H:1V maximum steepness. Flatter slopes may be necessary if seepage is present on the face of the cut slopes or if localized sloughing occurs. Soil nail walls or solider pile and tieback walls may also be considered for temporary excavation support. If excavation occurs above the regional groundwater table, groundwater seepage encountered during excavation may be handled adequately by dewatering sumps and pumps. However, if excavation occurs below the regional groundwater table and/or if excessive groundwater seepage is encountered during excavation, more extensive dewatering techniques such as deep pumping wells or vacuum wellpoints may be needed. In addition, if the proposed structures extend below the regional groundwater table, they will need to either be designed to resist hydrostatic pressure or exercise permanent dewatering, if approved by City of Kirkland.

# PETER KIRK PARK

- Site address: 352 Kirkland Avenue, Kirkland, Washington 98033
- Area Geology: Published geologic information for the site vicinity includes a USGS Geologic Map of the Kirkland Quadrangle, Washington (Minard 1983) and Geologic Map of Surficial Deposits in the Seattle 30' x 60' Quadrangle, Washington (Yount, Minard, and Dembroff 1993). The mapped surface geologic unit at the site includes transitional beds (Qtb), and mapped surface geologic units in the site vicinity include Vashon glacial till (Qvt), advance outwash (Qva), and modified land (ml). Glacial till generally consists of a non-sorted, non-stratified mixture of clay, silt, sand, and gravel with larger constituents up to the size of boulders. The glacial till is very dense and relatively impermeable but can contain localized zones of interbedded stratified sand and gravel. Advance outwash generally consists of moderately- to well-sorted, stratified sand and gravel with varying amounts of silt and clay in a medium dense to dense nature. Transitional beds generally consist of massive to bedded clay, silt and fine to very fine sand that were mostly deposited in lakes, distant from the ice front, and in fluvial systems prior to the advance of the ice. Peaty sand and gravel may occur in the lower part. The deposits have been compacted by the overriding Vashon glacier and have been oxidized. The transitional beds may be underlain by older glacial sediments deposited by pre-Fraser glacial episodes. Modified land generally refers to land areas altered by man for construction or development purposes that involve cutting, filling, leveling, and constructing at engineering projects.
- Subsurface Conditions: Based on our review of limited geotechnical boring information obtained from the WA DNR, soils encountered in the site vicinity generally consists of variable thickness of fill and high

compressible peat overlying loose to medium dense sand with variable silt and gravel content and soft to stiff silt with variable sand and gravel content. The thickness of fill ranges from approximately 4 to 14 feet, and the thickness of peat ranges from approximately 2 to 7 feet. The sand generally becomes medium dense to dense, and the silt generally becomes stiff to hard at approximately 15 to 22 feet below existing site grades.

- Groundwater Conditions: Nearby exploration logs indicate that groundwater was encountered at about 4 to 15 feet below existing site grades at the time of exploration. Well logs and information in the immediate site vicinity obtained from the WA DOE generally confirm the subsurface and groundwater conditions at the site. Groundwater was generally encountered at about 2 to 8 feet below existing site grades in the WA DOE wells. The north-central portion of the site is mapped as Federal Emergency Management Agency (FEMA) 100-year floodplain by the King County iMap and a regulatory floodplain by the City of Kirkland Interactive Map. A stream is mapped along Central Way (north of the site) and Kirkland Avenue (south of the site) by the City of Kirkland Interactive Map.
- Liquefaction Potential: Based on our review of the City of Kirkland Liquefaction Potential Map (2020), approximately the west two-thirds of the site is mapped as having a medium liquefaction potential. The east approximate one-third is mapped as having zones of medium and high liquefaction potential.
- Landslide Susceptibility: Based on our review of the City of Kirkland Landslide Susceptibility Map (2020), portions of the site (mainly in the southwest quadrant and west portion of the site) are mapped as having moderate and high landslide susceptibility. These designations are likely associated with the steepness and/or overall height of the localized slopes. Most of these areas are either developed or covered with vegetation, and we do not anticipate these areas will adversely impact the development.
- Topographic Information: Based on our review of the City of Kirkland Topographic Survey, existing site grades range from approximate Elevation 32 to 58 feet. The site generally slopes down from the east and southeast to the north and west.
- Preliminary Geotechnical Findings and Considerations: Based on our review of very limited geotechnical information, potentially liquefiable soils may be present at the site. The site may be designated as seismic Site Class F per ASCE 7-16, and ground improvement or deep foundations may be needed if potentially liquefiable soils are found to be present. In addition, highly compressible peat may be present at the site.

We recommend a detailed field exploration program to further identity and evaluate the nature, thickness, extent and presence of unsuitable surficial soils, potentially liquefiable soils and/or highly compressible peat, groundwater conditions, and the depth to soils suitable for foundation support. Because the site is mapped as having liquefaction susceptibility, we anticipate deep subsurface explorations such as borings or cone penetration tests, and quantitative liquefaction analyses will be required to address liquefaction per City of Kirkland Municipal Code.

Ground improvement methods such as densification by means of stone columns or rammed aggregate piers may not be feasible and effective given the high percentage of fines content in underlying peat and silty soils. Other ground improvement methods may include augercast grout columns or rigid inclusions. Deep foundations may include augercast piles or drilled shafts, or driven piles. It should be noted that liquefiable soils can impose downdrag loads on deep foundations, which may significantly reduce the axial load capacity, depending on the thickness of potentially liquefiable soils. Installation of augercast piles or drilled piles also produces minimal ground vibrations, which is beneficial given the close proximity of adjacent buildings and other improvements.

Groundwater seepage encountered during excavation may be handled adequately by dewatering sumps and pumps, if completed in a manner that does not cause adverse impacts to adjacent buildings and other improvements. Settlement of the adjacent buildings and other improvements caused by increases in effective stress as groundwater levels are lowered by temporary dewatering is possible if drawdown extends significantly offsite and affects the groundwater levels.

We anticipate that the proposed buildings will be constructed at-grade, and the pool will be constructed approximately 20 feet below grade. For planning purposes, temporary unsupported cut slopes more than 4 feet high may be inclined at 1<sup>1</sup>/<sub>2</sub>H:1V maximum steepness. Flatter slopes may be necessary if seepage is present on the face of the cut slopes or if localized sloughing occurs. If below-grade configuration is considered, the risk of potential settlement to adjacent buildings and other improvements from temporary dewatering and potential for offsite drawdown is considered moderate to high if the project were to be completed using conventional temporary shoring, such as soldier pile and tieback walls, given the shallow groundwater table anticipated at the site. Given this risk, we recommend that temporary excavation support be completed using a diaphragm-type shoring system, such as sheet piles, secant piles or cutter soil-mixed walls (CSM walls). Diaphragm-type temporary shoring systems are relatively impermeable and where the walls are embedded in low permeability silty and/or clayey soils, cutoff for horizontal groundwater flow can be achieved. This condition can reduce the drawdown of groundwater outside the site footprint and can reduce the risk of settlement of adjacent improvements. We recommend that a settlement monitoring program be implemented to confirm that dewatering induced settlements do not adversely impact adjacent buildings and other improvements. In addition, if the proposed structures extend below the regional groundwater table, they will need to either be designed to resist hydrostatic pressure or exercise permanent dewatering, if approved by City of Kirkland.

The native on-site surficial soils may contain a sufficient percentage of fines content (silt/clay) to be highly sensitive to changes in moisture content, and a sufficient percent of organic content which may not meet the project plans and specifications.

# JUANITA BEACH PARK

- Site address: 9703 NE Juanita Drive, Kirkland, Washington 98034
- Area Geology: Published geologic information for the site vicinity includes a USGS Geologic Map of the Kirkland Quadrangle, Washington (Minard 1983) and Geologic Map of Surficial Deposits in the Seattle 30' x 60' Quadrangle, Washington (Yount, Minard, and Dembroff 1993). The mapped surface geologic unit at the site includes recessional outwash (Qvr). Mapped surface geologic unit in the site vicinity also include advance outwash (Qva). Recessional outwash generally consists of moderately sorted to well sorted, stratified sand and gravel with varying amounts of silty sand and silt in a loose to dense nature. Advance outwash generally consists of moderately- to well-sorted, stratified sand and gravel with varying amounts of silty and and gravel with varying amounts of silt and clay in a medium dense to dense nature.
- Subsurface Conditions: Based on our review of limited geotechnical boring information obtained from the WA DNR, soils encountered in the site vicinity generally consists of relatively shallow fill overlying approximately 3 to 9 feet of loose to medium dense sand with variable silt and gravel content. The loose to medium dense sand was underlain by approximately 5 to 9 feet thick of soft silt and peat. Dense to very dense silty sand with variable silt and gravel content was observe below the soft silt and peat at approximately 18 to 23 feet below existing site grades.

Memorandum to Opsis Architecture September 21, 2022 Page 7

- Groundwater Conditions: Nearby exploration logs indicate that groundwater was encountered at about 10 feet below existing site grades at the time of exploration. Well logs and information in the immediate site vicinity obtained from the WA DOE generally confirm the groundwater conditions at the site. Groundwater was generally encountered at about 6 to 8 feet below exiting site grades in the WA DOE wells. A creek (Juanita Creek) runs along the west portions of the site, and is mapped by both the King County iMap and City of Kirkland Interactive Map. Three wetlands are also mapped in the southern portions of the site by the City of Kirkland Interactive Map.
- Liquefaction Potential: Based on our review of the City of Kirkland Liquefaction Potential Map (2020), the entire site is mapped as having a high liquefaction potential, with the exception of approximately the northeast quadrant. The northeast quadrant of the site is mapped as having a medium liquefaction potential.
- Landslide Susceptibility: Based on our review of the City of Kirkland Landslide Susceptibility Map (2020), portions of the site (mainly along Juanita Creek) are mapped as having moderate and high landslide susceptibility. These designations are likely associated with the steepness and/or overall height of the localized slopes along Juanita Creek. Most of these areas are either developed or covered with vegetation, and we do not anticipate these areas will adversely impact the development.
- Topographic Information: Based on our review of the City of Kirkland Topographic Survey, existing site grades range from approximate Elevation 18 to 42 feet. The site generally slopes down from the northeast to the east and the south.
- Preliminary Geotechnical Findings and Considerations: Based on our review of very limited geotechnical information, potentially liquefiable soils may be present at the site. The site may be designated as seismic Site Class F per ASCE 7-16, and ground improvement or deep foundations may be needed if potentially liquefiable soils are found to be present. In addition, highly compressible peat may be present at the site.

We recommend a detailed field exploration program to further identity and evaluate the nature, thickness, extent and presence of unsuitable surficial soils, potentially liquefiable soils and/or highly compressible peat, groundwater conditions, and the depth to soils suitable for foundation support. Because the site is mapped as having medium liquefaction susceptibility, we anticipate deep subsurface explorations such as borings or cone penetration tests, and quantitative liquefaction analyses will be required to address liquefaction per City of Kirkland Municipal Code.

Ground improvement methods such as densification by means of stone columns or rammed aggregate piers may not be feasible and effective given the high percentage of fines content in underlying peat and silty soils. Other ground improvement methods may include augercast grout columns or rigid inclusions. Deep foundations may include augercast piles or drilled shafts, or driven piles. It should be noted that liquefiable soils can impose downdrag loads on deep foundations, which may significantly reduce the axial load capacity, depending on the thickness of potentially liquefiable soils. Installation of augercast piles or drilled piles also produces minimal ground vibrations, which is beneficial given the close proximity of adjacent buildings and other improvements.

Groundwater seepage encountered during excavation may be handled adequately by dewatering sumps and pumps, if completed in a manner that does not cause adverse impacts to adjacent buildings and other improvements. Settlement of the adjacent buildings and other improvements caused by increases in effective stress as groundwater levels are lowered by temporary dewatering is possible if drawdown extends significantly offsite and affects the groundwater levels. We anticipate that the proposed buildings will be constructed at-grade, and the pool will be constructed approximately 20 feet below grade. For planning purposes, temporary unsupported cut slopes more than 4 feet high may be inclined at 1<sup>1</sup>/<sub>2</sub>H:1V maximum steepness. Flatter slopes may be necessary if seepage is present on the face of the cut slopes or if localized sloughing occurs. If below-grade configuration is considered, the risk of potential settlement to adjacent buildings and other improvements from temporary dewatering and potential for offsite drawdown is considered moderate to high if the project were to be completed using conventional temporary shoring, such as soldier pile and tieback walls, given the shallow groundwater table anticipated at the site. Given this risk, we recommend that temporary excavation support be completed using a diaphragm-type shoring system, such as sheet piles, secant piles or CSM walls. Diaphragm-type temporary shoring systems are relatively impermeable and where the walls are embedded in low permeability silty and/or clayey soils, cutoff for horizontal groundwater flow can be achieved. This condition can reduce the drawdown of groundwater outside the site footprint and can reduce the risk of settlement of adjacent improvements. We recommend that a settlement monitoring program be implemented to confirm that dewatering induced settlements do not adversely impact adjacent buildings and other improvements. In addition, if the proposed structures extend below the regional groundwater table, they will need to either be designed to resist hydrostatic pressure or exercise permanent dewatering, if approved by City of Kirkland.

The native on-site surficial soils may contain a sufficient percentage of fines content (silt/clay) to be highly sensitive to changes in moisture content, and a sufficient percent of organic content which may not meet the project plans and specifications.

## LIMITATIONS

We have prepared this report for the exclusive use of Opsis Architecture, LLP and their authorized agents for the City of Kirkland Recreation and Aquatics Centers project in Kirkland, Washington.

Within the limitations of scope, schedule and budget, our services have been executed in accordance with generally accepted practices in the field of geotechnical engineering in this area at the time this report was prepared. No warranty or other conditions, express or implied, should be understood.

Any electronic form, facsimile or hard copy of the original document (email, text, table and/or figure), if provided, and any attachments are only a copy of the original document. The original document is stored by GeoEngineers, Inc. and will serve as the official document of record.

Please refer to Appendix B for additional information pertaining to use of this report.

Attachments: Appendix A. Reference Information Appendix B. Report Limitations and Guidelines for Use

### CC:MM:nld

Disclaimer: Any electronic form, facsimile or hard copy of the original document (email, text, table, and/or figure), if provided, and any attachments are only a copy of the original document. The original document is stored by GeoEngineers, Inc. and will serve as the official document of record.

# **APPENDIX A** Reference Information

Memorandum to Opsis Architecture September 21, 2022 Page A-1

# APPENDIX A.1 REFERENCE INFORMATION FOR HOUGHTON PARK AND RIDE

Included in this section are City of Kirkland Landslide Susceptibility Map and Liquefaction Susceptibility Map, and exploration logs from previous studies completed in the immediate vicinity of the project site.





NAD\_1983\_StatePlane\_Washington\_North\_FIPS\_4601\_Feet





NAD\_1983\_StatePlane\_Washington\_North\_FIPS\_4601\_Feet

SR-405: Northup to Bothell W.O. W 7148-1 BORING NO. BRZ-39 PROJECT

DEPTH (feet)	SOIL DESCRIPTION Approximate ground surface elevation: <i>389 feet</i>	SAMPLE TYPE	SAMPLE NUMBER	GROUND	STANDARD	RESISTANCE ol 40 50	TESTING	
- 0 -	Asphalt							
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- 5 -	· _	-	-	-				_
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- 10 -								
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		-	.					-
			5-3.			·	50/5">	<b>۱</b>
	• •							
- 15 -		-	-	-				-
	Becomes gray to brown with trace silt and	-	-					-
	gravel .	1						
			5-4		•		30,3	• 🖽 ·
- 20 -	_	_	-	L				-
		-	-					
		-	5-5				50/6">	
		-	-					
- 25 -	-	-	-	-				-
		-						•
	Hard, gray SILT with some sand and organics		5-6				50/6">	
								•
- 30						20 10		
	LEGEND				<u>й</u> . мо	DISTURE CONTE	NT	,
-					Plastic limit	Natural	Liguid limit	
-		alysis level illing aring			RZA	RITTENHOU ASSOCIATES Geolechnica Environment 1400 140Lh A Religious	SE-ZEMAN & 7, INC. 1 & 4al Consultant 4ve NE shington 0000	'S 25
D	rilling started: 12 April 1991 Drilling co	mple	ted:	12 A	pril 1991	Logged	by: JDC	

PROJECT SR-405: Northup to Bothell W.O. W 7148-1 BORING NO BRZ-39

DEPTH (feet)	SOIL DESCRIPTION Approximate ground surface elevation: <i>389 feet</i>	SAMPLE TYPE	SAMPLE NUMBER	GROUND WATER	STANDARD	TESTING	
	SILT os above						
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- 35 -	Boring terminated at 33.5 feet	-	_	-			
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- 40 -		-					-
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- 45 -							- -
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- 50 -	-	-					-
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- 55 -			_	-			
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60		-					
	LEGEND			(	о 10 МС	20 30 40 5 DISTURE CONTENT	0
-	2-inch (ID split speed someles Att a	-	Plastic limit	Natural Liquid limit			
-	Crain size an Sample not recovered CBR California bea CBR California bea CBR California bea CBR California bea	alysis level illing aring			RZA	RITTENHOUSE-ZEMAN & ASSOCIATES, INC. Geolechnical & Environmental Consultan 1400 140th Ave NE Bellevue, Washington 980	£ 1.s 0.5

Drilling started: 12 April 1991

Drilling completed: 12 April 1991

PROJECT

SR-405: Northup to Bothell W.O. W 7148-1 BORING NO. BRZ-40



Drilling started: 12 April 1991

Drilling completed: 12 April 1991

# PROJECT SR-405: Northup to Bothell W.O. W 7148-1 BORING NO. BRZ-41



Drilling started: 15 April 1991

Drilling completed:

15 April 1991

# PROJECT SR-405: Northup to Bothell W.O. W 7148-1 BORING NO. BRZ-41

d DEPTH (feet)	SOIL DESCRIPTION Approximate ground surface elevation: 384 feet						STANDARD PENETRATION RESISTANCE Blows per foot 10 20 30 40 50						TESTING	
- 30 -	SAND as above													
			4											
	Becomes mottled gray			S-7								50/4		·
	Boring terminated at 33.3	feet	-											-
- 35 -				-	+									-
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- 40 -		_		-	-		-		_					
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	X Sample not recovered Groundwater level at time of drilling							A	RITTENHOUSE-ZEMAN & ASSOCIATES, INC. Geolechnical &					
(	Grab Sample	R California bee R ratio test	ring						En 14 Be	vironn 00 140 Nevue,	nental Uh Ave Washi	Consu NE ngton	Itant: 9800	s 5

Drilling started: 15 April 1991

Drilling completed: 15 April 1991

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# PROJECT SR-405: Northup to Bothell W.O. W 7148-1 BORING NO. BRZ-43

DEPTH (feet)	SOIL DESCRIPTION Approximate ground surface elevation: 344 feet	SAMPLE TYPE	SAMPLE	ROUND	STANDARD I	E	
- 0	Asphalt						<u>50 F</u>
	Medium dense to very dense, wet, gray, gravelly silly SAND (Fill)		5-1				······
- 5							····· -
	Becomes mottled, with organics		5-2		•	5074"	
- 1.0	Very dense, moist, brown, fine to medium SAND with some silt and gravel		-				······
			S3-			50/5	······
- 15 -			-				
- 20 -			- 3-4				
- 25			S–5			50/5	
			5-6			50/3	
F 30 ·	ΤΤΩΈΝΤ		<u></u>	1		20 30 40	50
			Plastic limit	Natural House H	nit		
	2-inch OD split spoon sampler Grain Size A	nalysis					AT 6.
	X Sample not recovered Groundwate at time of d	r level Irilling			RZA	ATTICIVITUUSE-ZEMA ASSOCIATES, INC. Geolechnical & Environmental Consul 1400 140Lh Ave NE Bellevue, Washington .	iv & Iants 98005

Drilling started: 15 April 1991

Drilling completed: 15 April 1991

### SR-405: Northup to Bothell W.O. W 7148-1 BORING NO. BRZ-43 PROJECT

d DEPTH (feet)	SOIL DESCRIPTION Approximate ground surface elevation: 34	14 feet	SAMPLE TYPE	SAMPLE	GROUND	5	FAND	ARD	PENE Bl	RATI ows p	ON RE er foot	SIST	ANCE	TESTING
- 30 -	SAND as above													<u> </u>
	Becomes mottled aray													· ·
				5-7	<u> </u>							50/	73	
	Boring terminated at 32.8 feet													
- 35 -				-	-							_		-
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(	Grab Sample							Ē	Env 140 Bell	oroni 0 140 levue	nenta. Oth Av Wash	' Coi e NE vingt	nsultan 5 'on 980	ls 05

Drilling started: 15 April 1991

Drilling completed: 15 April 1991

Memorandum to Opsis Architecture September 21, 2022 Page A-2

# APPENDIX A.2 REFERENCE INFORMATION FOR NORTH KIRKLAND COMMUNITY CENTER PARK

Included in this section are City of Kirkland Landslide Susceptibility Map and Liquefaction Susceptibility Map, and exploration logs from previous studies completed in the immediate vicinity of the project site.



NAD\_1983\_StatePlane\_Washington\_North\_FIPS\_4601\_Feet

This map was automatically generated using Geocortex Essentials.





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Subsurface conditions depicted represent our observations at the time and location of this exploratory hole, modified by engineering tests, analysis and judgment. They are not necessarily representative of other times and locations. We cannot accept responsibility for the use or interpretation by others of information presented on this log.

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	0.0		+		-50 /0 mile	3					
			3	SP-S	SP-SM Brown poorly graded SAND with silt, medium dense, moist						
		<b>*</b> •		_							
		0	5	_							
	63								• . • • .		
	0.0	- <b>a</b> 111	6		Test nit te	erminated at 6 (	) feet below	existing grade N	o groundw	rater	
					encounte	red during exca	avation.	restoring grade. It	e gi eunan		
		1									
	l				1						
	L				<u>I</u>						
							Test Pit Log				
Earth Consultants Inc. Geolectrical Engineers, Geologises & Environmental Scientists Holy Spirit Lutheran Church Kirkland, Washington											
		1			_						
Proj. No. 102	62	Dwn.	GLS	5	Date Sept. 20	002 Checked	SSR	Date 9/9/02	Plate	A3	

**Test Pit Log** 

Subsurface conditions depicted represent our observations at the time and location of this exploratory hole, modified by engineering tests, analysis and judgment. They are not necessarily representative of other times and locations. We cannot accept responsibility for the use or interpretation by others of information presented on this loc

Memorandum to Opsis Architecture September 21, 2022 Page A-3

# APPENDIX A.3 REFERENCE INFORMATION FOR PETER KIRK PARK

Included in this section are City of Kirkland Landslide Susceptibility Map and Liquefaction Susceptibility Map, and exploration logs from previous studies completed in the immediate vicinity of the project site.

















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#### BORING NO. B-1

	Logged B	. WB Date: <u>3/31/03</u>	_			C	Ground Elev	. <u>36.9' ±</u>
Depth	1-1-			Sample		(N)	w	
	USC	Soil Description	· · ·	Type	No.	Blows/ ft.	%	Other Test
		Asphalt pavement and gravel base	/					
. –		Gray loose to medium-dense silty fine SAND, w	ith					
	-   0""	city, loose to moduli delice, only line of a tay	1.1					
_	-	some graver, moist (i icc)						
_								
5		4/11/03		-1				
	ML	Gray, stiff, very-fine sandy SILT, moist (FILL)		SS	1	11		
				L				
_	OL	Dark-brown, soft, organic silty PEAT, with few sa	nd					
-	1 1	seams saturated						
	-							
10	4		ł	1				
				ss	2	2		
_				1				
·	SP/C	Gray, very-loose, medium-grained SAND, with pe	eat					
		and organic silt seams, saturated						
15								
·• —	1.1		ľ	Iss	3	2		
	-			<b>_</b>	Ŭ	_		
	4							
_	4. 1							
20				_				
	SP/G	Brown, medium-dense, SAND and GRAVEL se	am,	ss	4	24		
	1	saturated						
	SM	Grav-brown to gray medium-dense, silty, fine to						
	-   0	ven-fine SAND moist						
_	-							
25	<mark>┥╍┥</mark> ╸╴			٦ F				
	_ ML	Gray, very-stiff, SILT, with thin, gray, very fine sar	nd .	SS	5	33		1
		and silt partings, moist	· •	ו				
	1							
	1							
-	-							
30	+-+	Crew dance alle your fine CANID trace of fine				20		
_		Gray, dense, sity, very line SAND, trace of line		55	D	28		
		gravel, moist	t	- <b>J</b>	:			
35	]	(Continued on PLATE 4B)						
1.50				Seal				
LEG		U.D. spin-spoor sample GROC		- Ceai				
	ST - 3	O.D. Shelby-Tube Sample			-	·		
	B - B	ik Sample	Ш	Observ	ation	vvell Tip		
					BO	RING L	.OG	
	T TT	RACCOCIATES INC	1	ĸ	IRKI		OTFL	
	LIU	X ADDULATED, INC.		1				DEET
			KIRKL	AND /	٩VE	NUE AN	ND 3RD ST	KEEI
	Geotechnical I	ngineering Engineering Geology Earth Science		KIRKI	_ANI	D, WAS	HINGTON	
			JOB NO.	3A033		DATE	5/19/03	PLATE 4A

	BORING N	NO. <b>B-1</b>	(Continued	from PL	ATE 4A)	
Logged By	Date:	-			Ground Elev	. <u>t</u>
Depth USCS	Soil Description		Sample	(N) Blows/ ft	W %	Other Test
SM	Gray, dense, silty, very fine SAND, trace of fine gravel, moist (SUM as above	e)	SS 7	39		
40	- few fine sand seams		SS 8	46		
45			ss 9	47		
	Boring terminated at 46.5 ft.					
<sup>55</sup>						
60						
65						
LEGEND: SS - 2" ST - 3" B - Bu	O.D. Split-Spoon Sample GROU O.D. Shelby-Tube Sample Ik Sample	INDWATER:	Seal       Observation	Well Tip		
LIU C Geotechnical E	& ASSOCIATES, INC.	KIRK	BC KIRK LAND AVE KIRKLAN	DRING L LAND H ENUE AN ID, WAS	LOG IOTEL ND 3RD ST SHINGTON	REET
		JOB NO.	3A033	DATE	5/19/03	PLATE 4B

Γ

# BORING NO. **B-2**

	Logged By	: <u>WB</u> Date: <u>4/11/03</u>	_			Ground Elev	v. <u>42.9' ±</u>
Depth	11000		Sa	mple	(N)	w	04h az Ta at
ft.	USCS	Soli Description	Ту	pe No.	ft.	%	Other rest
		Asphalt pavement and gravel base					
	ML	Gray, medium-stiff, gravelly SILT, intermixed with					
		gravel and brick fragments, moist (FILL)					
I _							
5							
			s	is   1	11		
_			Ч				
_							
_	OL∕SF	Dark-brown, very-loose, interbedded, organic silt	у		1		
10		PEAT and gray fine SAND, saturated					
	▼4/1	(sand in about 2-inch seams)	s	S 2	2		
			L .				
l _							
15							
_	CL	Brown-gray, very-soft, silty CLAY with scattered g	jravel, S	S 3	24		
_		wet (gravel in thin bedding)	Ч				
l	<b></b>						
20	GP	Gravel seams, saturated					
<u> </u>			s	S 4	33		
			μ				
	SM/ML	Gray-brown to gray, very-stiff, sandy SILT to SIL1	Γ,				
I		with gray, thin, very-fine sand partings, moist					
25							
			s	S 5	33		
			Ч				
	SM	Gray, dense, sitty, very-fine SAND, moist					
30							
			S	S 6	28		
			P				
							ς
	4/11/02	- increased moisture below 35 ft					
35		(Continued on PLATE 5B)					
LEG	END: SS - 2"	D.D. Split-Spoon Sample GROU	NDWATER: 🛄 Sea	ai -			
	ST - 3"	D.D. Shelby-Tube Sample	Water Level				-
L	B - Bul	k Sample	U Obs	servation	Well Tip		
				BO	RING L	.OG	
	LIUA	ASSOCIATES, INC.		KIRK	LAND H	OTEL	
			KIRKI AN			ID 3RD ST	REET
	Seotechnical Fr	gineering · Engineering Geology · Earth Science	KIF	REAN	D. WAS	HINGTON	
			JOB NO. 3A0	33	DATE	5/19/03	PLATE 5A

		BORING N	IO. <b>B-2</b>	(Continued f	rom PLA	ATE 5A)	
Log	ged By:	Date:			(	Ground Ele	v. <u> </u>
Depth	USCS	Soil Description		Sample	(N) Blows/	W	Other Test
<u>ft.</u>				Type No.	ft.	%	
	SIM	Gray, dense, silly, very-line SAND, moist	is above	SS 7	29		
				1			
		- with fine sand in phases					
40							
				SS 8	39		
45							
				ss 9	47		
			<u> </u>	+			-
		Boring terminated at 46.5 ft.					
				SS 4	37		
55							
60							
		· · ·					· .
65				<u> </u>			
LEGEND	: SS - 2" C	D.D. Split-Spoon Sample GROU		Seal			
	SI - 3" O B - Bulk	Source Sample	vvaler Level	Observation	Well Tip		
				BO	RING L	OG	
I	JU &	ASSOCIATES, INC.		KIRKI	LAND H	OTEL	
Cast	chnical Er-	incesting . Engineering Coolegy . Earth Science	KIRK	LAND AVE	NUE AN	ND 3RD ST	REET
	Manual LIL	Antering Lightering Georogy Later Oucles	JOB NO.	3A033	DATE	5/19/03	PLATE 58

BORING NO. B-3

	Logged By:	WB Date: 4/14/03	-			C	Ground Elev	. <u>36.9' ±</u>
Depth			Si	ample		(N) Plana	w	Other Test
Ĥ	USCS	Soil Description	т	уре	No.	ft,	%	Other rest
		6-inch concrete slab over pea gravel base						
	ML	Brown, soft, sandy SILT, intermixed with brick						
1	1 1	fragments (FILL)						-
- 1	MI	Brown-gray, very-stiff, very-fine sandy SILT, mois	t					
°			h.		4	19		
—	4		U.	33	•	10		
	4		· · ·					
	<u> </u>							
	SM	Brown, very-dense, sitty, very-line SAND,						
10		vague bedding, moist						
				ss	2	59		
			ľ					
· ·								
15			·····					
	ML	Gray, very-stiff SILT, with trace very fine sand, mo	pist st	ss	З	24		
			Ч					
-	1							
-								
	1			1				
<sup>20</sup>	1 1	- less sand	h.	ss	4	21		
-	-	- 1055 50110	ĽI.			-1		
-	4 1							
	4							
	4							
<sup>25</sup>								
_	┟──┼───	4/14/03		SS	5	. 31		
_	ML	Gray, very-stiff, very-fine sandy SILT, moist to we	t P	-				
		in seams of silty very-fine sand						
30	1							
				ss	6	25		
	1		Ц					
-	1							
-	ML	Grav. very-stiff SILT, with one 2-inch fine gravely						
		sand seam moist (Continued on PLAT	E 6B)					
	tl			l				
LEG	END: SS - 2" (	D.D. Split-Spoon Sample GROU		eai				
	ST - 3" (	D.D. Shelby-Tube Sample	Water Level	<b>X</b>				
	B - Bull	Sample	<u> </u>	bserv	ation \	Nell Tip		
					BO	ring l	.OG	
	T TT P	ASSOCIATES INC		к	IRKI	AND H	OTEL	
		ADDULIATED, IIV.						DEET
			KIRKLAI	עאו אט או	۲VE		UNCTON	
	Geotechnical En	gineering Engineering Geology Earth Science	KI	IKKL	AN	J, WAS	HINGTON	
			JOB NO. 3A	1033		DATE	5/19/03	PLATE 6A

		BORING 1	NO. <u>B-3</u>	(contin	ued f	rom prev	vious page)	
	Logged By	: Date:				;	Ground Elev	/. ±
Depth ft.	USCS	Soil Description		Samp Type	le No.	(N) Blows/ ft.	W %	Other Test
	ML	Gray, very-stiff SILT, with one 2-inch fine gravelly	1	ss	7	24		
		sand seams, moist	ubove)	-  -				•
40	SM/M	Gray, medium-dense, silty, very-fine SAND to fine sandy SILT, in 1/4-inch bedding, moist to wet	e	ss	8	24		
45 <u>-</u>				ss	9	37		
	MUC	Brown and gray soft clayer SILT with some find						
<sup>50</sup> —		sand saturated		$h_{a}$				
- 1		Gray, dense, very-fine, sandy SILT, moist to wet	<b>_</b>	ss	10	34		
55		Test boring terminated @ 51.5 ft.	<b>/</b>					
60								
65		· · · · · · · · · · · · · · · · · · ·						
LEG	END: SS - 2" ST - 3" B - Bul	O.D. Split-Spoon Sample GROU O.D. Shelby-Tube Sample k Sample	NDWATER:	Seal	ation V	Vell Tip		
	LIU 8	& ASSOCIATES, INC.		к	BOI IRKL	RING L AND H	.og otel	
	Geotechnical Fr	gineering / Engineering Geology · Earth Science	KIRK	LAND A KIRKI		NUE AN	ID 3RD ST	REET
			JOB NO.	3A033		DATE	5/19/03	PLATE 6B

and the second second

### BORING NO. **B-4**

	Logged B	r:WB Date:4/14/03	-			Ground Elev	. <u>51.4' ±</u>
Depth		T	S	ample	(N)	w	Other T
fi	USC	Soil Description	1	vpe No.	Blows/	%	Other Test
		6-inch concrete slab over fill					
·	ML	Brown-gray to gray mottled, medium-stiff SILT,					
. —	1 [	with very fine sand, moist (FILL)					
	] ]						
5							
				SS 1	5	[.	
	ML	Brown to light-gray, very-stiff SILT, with interbeds	H				
	4	of very-fine sandy silt, moist					
10			h				
_	4			SS 2	28		
	-						
	- 1						
15	4		h	<b>F 2</b>	27		
-	- 1						
-							
- 1	ML	Gray, very-stiff, very-fine sandy SILT, moist					
20	1						
_			·	ss 4	23		
	1		Ч				
	]						
_							
25							
_		- zones of very fine sand		SS 5	29		
			L L				
_	<u></u>		·		[		
	SM	Gray, dense, silty, very-fine SAND, moist					1
30	4		h		20		
-	4 1			55 0	29		
· -							
	4/14/0	3 (Continued on PLATE 7B)					
150				eal		<u>،                                    </u>	
LEG	CINU. 33-2	O.D. Shelby-Tube Sample	Water Level				
	8_R	Ik Sample	По	bservation	Well Tip		
				R	RING	OG	· · · · · · · · · · · · · · · · · · ·
	<b>.</b>			עוסע			
	LIU	X ADDULA I ED, INC.					DEET
			KIRKLA			NU JKU ST	
	Geotechnical I	ngineering Engineering Geology Earth Science	K		ID, WAS		DIATE 74
			I JORNO 34	1033	DAIL	5/19/03	PLAIE /A

BORING NO. **B-4** (Continued from PLATE 7A)

	Logged By:	Date:	-		(	Ground Ele	:v. <u>t</u>
Depth	11505		Samp	le T	(N) Blows/	W	Other Test
ft.	0505	Soli Description	Туре	No.	ft.	%	
	-	Gray, dense, silty, very-fine SAND, moist	above ss	7	32		
40	ML	Gray, very-stiff SILT, with occasional seams of silty very-fine sand, thin bedding with interbedded gray very-fine sand, moist	ss	8	19		
	SM	Gray, medium-dense, silty, very-fine SAND, satura	ated				
45			ss	9	20		
 50							
			ss	10	38		
55 <u> </u>			ss	11	29		
 60	ML	Gray, very-stiff SILT, moist	ss	12	23		
  		r Test Boring terminated @ 61.5 ft.					
LEG	END: SS - 2" C	D. Split-Spoon Sample GROU					
	ST - 3" O B - Bulk	.D. Shelby-Tube Sample Sample	Water Level	vation	Well Tip		
	· · · · · · · · · · · · · · · · · · ·			BO	RING L	OG	
	LIU &	ASSOCIATES, INC.				OTEL	TOPET
		incering . Engineering Coology . Earth Science		AVE 1 ANI		ID 3RD S HINGTON	
	Jeoleciniicai Eng	meening · Engineening Geology · Earlin Science	JOB NO 3A033		DATE	5/19/03	PLATE 7B

## BORING NO. **B-5**

	Logged By:	WB Date: 4/14/03					Ground Elev	. <u>38.2'±</u>
Depth				Sample	)	(N)	w	
ft.	USCS	Soil Description		Түре	No.	Blows/ ft.	%	Other Test
		Asphalt pavement over crushed rock base						
	SP/ML	Brown-gray intermixed, loose, very-fine SAND and	nd					
		SILT, trace gravel, moist (FILL)						
5								
				SS	1	6		
	ML	Dark-brown, to gray-brown, soft, sandy SILT, with	th	Ц				
		fine organics in matrix, one 2-inch sand seam,						
_	┢╍┼╴──	and gray, soft, clayey silt at base of sampler, s	aturated /					
10	ML	Brown-gray mottled, stiff, very-fine sandy SILT, n	noist					
				SS	2	15		
· .								
_	┟╌╍╁╌╴╌╌╴							
15	SM/ML	Brown-gray to gray, medium-dense, very-fine		- <b>-</b> 1				
		sandy SILT to silty very-fine SAND, moist		SS	3	31		
	4			L)				
-	4							
	-							
20				-				:
		4/14/03		SS	4	15		
-				1				
	-	- grades to silty very-fine SAND, saturated						
	-							
25	4			-				
_				SS	5	26		
				- L				
·	-							
		lest Boring terminated @ 26.5 ft.						
30	4							
	-							
_								
		. <b>.</b>						
	4				[			
35		·	<u> </u>					
LEG	END: SS - 2" C	D.D. Split-Spoon Sample GROU		Seal				
	ST - 3" O	.D. Shelby-Tube Sample	Water Level			*		
	B - Bulk	Sample	Ш	Observa	ation V	Vell Tip		
					BOF	ring l	OG	
	LIU &	ASSOCIATES, INC.		K	IRKL	AND H	OTEL	
			KIRKL		VEN	IUE AN	ID 3RD ST	REET
(	Geotechnical Eng	ineering · Engineering Geology · Earth Science		KIRKL	.ANC	, WASI	HINGTON	
		· · · ·	JOB NO.	3A033		DATE	5/19/03	PLATE 8

PR PR LO	OJECT	WWREG/75 State Street/WA DRILLIN NUMBER: 033-1562-100 DRILLIN V: 75 State Street, Kirkland, WA DRILL F	RE( NG METI NG DATE RIG: Mo	50k HOD: 1 E: 2/17 bile <u>B-5</u>	KD OI Hollow St /03 i9	- B(	JRE ger (H	HOLE SA)DATUM: AZIMUTH: COORDIN		i-1	surveyed	SHEET 1 ELEVAT INCLINA	i of 2 ION: 49.5 TION: -90
DEPTH (ft)	BORING METHOE	DESCRIPTION	USCS	GRAPHIC LOG	ELEV. DEPTH (ft)	NUMBER	түре	SAMPLES BLOWS per 6 in 140 lb hammer 30 inch drop	N	REC / ATT	PENETRATION RES BLOWS / ft 1 10 20 30 WATER CONTENT (I W, I	ISTANCE 40 PERCENT) W	NOTES WATER LEV GRAPHK
- 0 -		0.0-0.1 <u>ASPHALT (SURFACING)</u> 0.1-0.2 <u>CRUSHED ROCK (SUBBASE)</u> 0.2-3.0 Hard, olive gray to medium gray, massive, CLAYEY SILT, little fine sand, damp. PID: 0 ppm (TRANSITIONAL BEDS)	MUCL		0.2								Monument and Concrete Bentonite Chips
		1 3.0 - 3.1 Dense, light gray, fine to medium SAND lense. 3.1 - 12.0 Stiff to very stiff, medium gray, massive, CLAYEY SILT with light gray fine SAND and SILT taminae, damp. PID: 0 ppm	ГSP_] 		46.5 3.1	1	SPT	8-14-17	31	<u>1.5</u> 1.5			
						2	SPT	3-3-7	10	<u>1.5</u> 1.5			1-inch pvc riser
		At 7.5 feet, becomes very stiff.	ML/CL			3	SPT	4-7-10	17	<u>1.5</u> 1.5			10-20 Silica Sand
- 10 -	140lb. Autohammer	Sample 4: Slightly fractured with steeply dipping larninae.			<u>37.5</u> 12.0	4	SPT	5-11-14	25	<u>1.5</u> 1.5			
	25 inch I.D. HSA with	Compact, medium gray, SIL I and tine SAND, moist to wet. PtD: 0 ppm	ml/sp			5	SPT	5-8-11	19	<u>1.5</u> 1.5			1-inch diameter slotted pvc
- 15	4.	15.0 - 29.0 Stiff to very stiff, medium gray, massive, CLAYEY SILT, with steeply dipping, light gray, fine SAND laminae, damp. PID: 0 ppm			15.0	6	SPT	3-7-9	16	<u>1.5</u> 1.5			Bentonite Chips
						7	SPT	3-4-8	12	<u>1.5</u> 1.5			
- 20			ML/CL			8	SPT	56-11	17	<u>1.5</u> 1.5			Bentonite Chips
- 25		Log continued on next page											

.

PR( PR( LO	DJECT: DJECT CATION	: WWREG/75 State Street/WA NUMBER: 033-1562-100 N: 75 State Street, Kirkland, WA	REC DRILLING METH DRILLING DATE DRILL RIG: MOI	CORD O HOD: Hollow St 2/17/03 bile B-59	= B( em Au	ORE ger (H	EHOLE ISA)DATUM: AZIMUTH COORDIN		-1	surveved		SHEET 2 0 ELEVATION INCLINATION	f 2 N: 49.5 DN: -90
	ê	SOIL P	ROFILE				SAMPLES		. 1102 .	PENET	ATION RE	SISTANCE	······
СЕЛН (#)	BORING METH	DESCRIPTION	uscs	DEPTH O (ft)	NUMBER	ТҮРЕ	BLOWS per 6 in 140 the hammer 30 inch drop	N	REC / ATT	10 WATER W, H	BLOWS / f	t III 2 40 (PERCENT) t w,	NOTES WATER LEVELS GRAPHIC
25 -		15.0 - 29.0 Stiff to very stiff, medium gray, mas CLAYEY SILT, with steeply dipping gray, fine SAND laminae, damp. P ppm (Continued) (SAML Q.S WSOT)	ssive, , light ID: 0 ML/CL										-
		Boring completed at 29.0 f		<u>20.5</u> 29.0	9	SPT	4-11-14	25	<u>1.5</u> 1.5				-
30													
													-
35													
											-		-
ю	-												-
15													-
													-
50													-
1 in DRI	to 3 ft LLING	CONTRACTOR: Holt Drill	ing	•k	LO CH	GGE ECK	D: T. Marst ED: RDL	nall	<b>I</b>	<u> </u>		Ć	Golder

PR( PR( LO(		WWREG/75 State Street/WA DRILLIN NUMBER: 033-1562-100 DRILLIN I: 75 State Street, Kirkland, WA DRILL F	IG MET IG DATI IG: Mo	501 HOD: 1 E: 2/18 bile B-5	Hollow St /03 59	- B(	URE 1.ger (H	CHOLE SA)DATUM: AZIMUTH: COORDIN		-2	urveyed		Sher Elev Incl	ET 1 o /ATIOI INATIK	f 1 N: 48 DN: -90
(#)	BORING METHOD	SOIL PROFILE DESCRIPTION	USCS	GRAPHIC LOG	ELEV. DEPTH (ft)	NUMBER	түре	SAMPLES BLOWS per 6 in 140 lb hammer 30 inch drop	N	REC / ATT	PENETI 10 WATER W, I	RATIO BLOW 20 CONTI	N RESISTAN S / ft ■ 30 40 ENT (PERCE <sub>O</sub> W	ice Int) I W,	NOTES WATER LEVELS GRAPHIC
,		0.0 - 1.0 CRUSHED ROCK (FILL) PID: 0 ppm			47.0										
		1.0 - 11.0 Very stiff, medium gray, massive, CLAYEY SILT to SILTY CLAY, with light gray fine sand and silt laminae, damp, PID: 0 ppm (TRANSITIONAL BEDS)			1.0	1	SPT	6-12-13	25	<u>1.5</u> 1.5					
	ammer		CL/ML					. <u></u>							
	140lb. Autoh	Sample 2: Becomes olive gray with steeply dipping (75 degrees) fine sand and silt laminae.				2	SPT	4-8-12	20	<u>1.5</u> 1.5					
0	HSA with														Bentonite Chips
	4.25-inch I.D.	11.0 - 14.5 Very stiff, olive gray, massive, CLAYEY SILT interbedded with olive gray fine SAND and SILT. PID: 0 ppm	NL/CL/S	<b>1111</b>	11.0								-		
		14.5 - 20.0	<u> </u>		<u>33.5</u> 14.5	3	SPT	7-10-15	25	<u>1.5</u> 1.5					
5		Very stiff, olive gray, massive, CLAYEY SILT, with steepty dipping (60 degrees) light gray, fine sand and silt taminae, damp.	CL/ML												
20		Boring completed at 20.0 ft.	-		28.0	4	SPT	4-7-13	20	<u>1.5</u> 1.5					
		g p	an a		20.0										
<u>)</u> in	to 3 ft		<u> </u>	L	I	LO	GGEI	D: T. Marsh	all						

		100WBER 033-1902-100 DRILLIN 175 State Street, Kirkland, WA DRILL F SOIL PROFILE	IG DATE	2/17 bile B-5	703 59		<u> </u>	AZIMUTH: COORDIN SAMPLES	N/A ATES	<u>not s</u>	PENETR			ION: -90
DEPTH (ft)	BORING MET	DESCRIPTION	uscs	GRAPHIC LOG	elev. Depth (ft)	NUMBER	TYPE	BLOWS per 6 in 140 lb hammer 30 inch drop	N	REC / ATT	10 WATER C W, H	20 30 CONTENT (PER	40 RCENT) 1 W <sub>1</sub>	NOTES WATER LEVELS GRAPHIC
	4.25-inch I.D. HSA with 140lb. Autohammer	0.0 - 0.2         ASPHALT (SURFACING)         0.2 - 0.3         LCRUSHED ROCK (SUBBASE)         0.3 - 1.0         Losse, yellow brown, gravely SAND. (FILL)         1.0 - 19.0         Compact, medium gray, massive, SILT, trace fine sand, with fine sand and silt laminae, damp. PID: 0 ppm (TRANSITIONAL BEDS)         At 9 feet: 1-inch thick lense of fine to medium SAND.         At 14.5 feet: slightly fractured.         At 16 feet: Becomes dark gray, SILT, little fine sand, steeply dipping (60 degrees) laminae of fine sand.         19.0 - 20.0         Very stiff, medium gray, massive, SILTY CLAY, trace fine sand, damp. PID: 0 ppm         Boring completed at 20.0 ft.	ML		26.0 1.0 25.0 20.0	1 2 3 4 5 6 7	SPT SPT SPT SPT SPT SPT	6-8-9 4-8-13 5-9-14 3-6-8 2-5-10 4-7-12 8-7-9	17 21 23 14 15 19 19	$\begin{array}{c} \underline{15}\\ \underline{15}\\ 1.5\\ 1.5\\ 1.5\\ 1.5\\ 1.5\\ 1.5\\ 1.5\\ 1.5$				Bentonite
	to 3 ff					10	GGE	D. T. Marsh						

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PR PR	oject Oject <u>Catio</u> i	: WWREG/75 State Street/WA DRILLIN NUMBER: 033-1562-100 DRILLIN N: 75 State Street, Kirkland, WA DRILL F	IG MET IG DATI IG CATI	501° HOD: 1 E: 2/17 bile B-5	KD OF Hollow Sta 7/03 59	em Au	URI ıger (H	= HULE ISA)DATUM: AZIMUTH: COORDIN	GE : N/A IATES	;-4 : not:	surveyed	SHEE ELEV INCLI	et 1 of 1 "Ation: 44 "Nation: -90
РТН (f)	METHOD	SOIL PROFILE	6	₽	ELEV.	a.	I	SAMPLES		Ę	PENETRA BL	TION RESISTAN OWS / ft ■ 20 30 40	CE NOTE WATER LE
Ц Ц Ц Ц Ц Ц	BORING	DESCRIPTION	nsc	GRAPH	DEPTH (ft)	NUMBI	τγρε	per 6 in 140 lb hammer 30 inch drop	N	REC / A	WATER CO	NTENT (PERCE	NT) GRAPH
-		ASPHALT (SURFACING) 0.1 - 0.2 LCRUSHED ROCK (SUBBASE) 0.2 - 10	sw		0.2 43.0 1.0								
	ohammer	Loose, yellow brown, gravelly SAND. PID: 1.8 ppm (FILL) 1.0 -7.1 Soft to very stiff, yellow brown to medium gray, massive, CLAYEY SILT, with fine sand laminae, trace fine roots in upper 6 inches, moist. PID: 0 ppm (TRANSTICINAL BEDS)											
- 5	ith 140lb. Aut	(,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,	CL/ML			1	SPT	1-5-8	13	<u>1.5</u> 1.5			Bentonite
	nch i.D. HSA w						SDT	20.14	22	1.5			Chips
-	4.25-ir	At 7 feet: 1-inch thick lense of fine to medium SAND. 7.1 - 10.0 Compact, dark gray, massive, SILT, trace		PARK	36.9 7.1		071	J=3=14	23	1.5			
-		fine sand, damp. PID: 0 ppm At 9 feet: Light gray fine SAND laminae and occasional fractures observed.	ML		34.0	3	SPT	5-9-13	22	<u>1.5</u> 1.5			
-		Boring completed at 10.0 ft.			10.0								
-													
-													
- 15													
- 20													
1				-									
-				And a second		1							
- 25													

PROJECT PROJECT LOCATIO	: WWREG/75 State Street/WA DRILLIN NUMBER: 033-1562-100 DRILLIN N: 75 State Street, Kirkland, WA DRILL R	REC IG METH IG DATE	COR HOD: H E: 2/17/ bile B-5	LD OF Hollow Sta /03 9	= B( em Au	ORE 19er (H	EHOLE SA)DATUM: AZIMUTH: COORDIN	GB N/A ATES	-5		ed		Sheet 1 Elevati Inclina	of 1 ON: 43.5 TION: -90
BORING METHO	DESCRIPTION	USCS	GRAPHIC LOG	ELEV. DEPTH (ft)	NUMBER	TYPE	BLOWS per 6 in 140 lb hammer 30 inch drop	N	REC / ATT	PENI 1 WATE W, H		10N RI 0WS / 20 3 NTENT - 0 <sup>W</sup>	ESISTANCE ft <b>1</b> 30 40 (PERCENT)	NOTES WATER LEVELS GRAPHIC
0 5 10 15 20 25	0.0 - 0.1       ASPHALT (SURFACING)         0.1 - 0.2       CRUSHED ROCK (SUBBASE)         0.2 - 1.0       Soft, light gray, CLAYEY SIL T, little fine to medium sand, petroleum odor. PID reading: 29 ppm         1.0 - 13.3       Stiff to very slift, olive gray, slightly fractured, CLAYEY SIL T, with moderately dipping (45 degrees), light gray, fine sand laminae. PID: 0 ppm (TRANSITIONAL BEDS)         At 6 feet: Becomes sliff and dark gray.         At 8.5 feet: Becomes massive.         13.3 - 15.5         Compact, medium gray, SIL T and fine SAND, moist. PID: 0 ppm         15.5 - 20.0         Firm, medium gray, massive, CLAYEY SILT, trace fine sand, moist. PID: 0 ppm         At 19 feet: Light gray, fine sand laminae observed.         Boring completed at 20.0 ft.	ML/CL ML/CL ML/CL		0.2 42.5 1.0 30.2 13.3 28.0 15.5 20.0	1 2 3 4 5 6 7	SPT SPT SPT SPT SPT SPT	2-9-11 1-3-6 3-5-7 6-7-9 2-2-4 2-2-3	20 9 11 12 16 5	$\frac{15}{1.5}$ $\frac{1.5}{1.5}$ $\frac{1.5}{1.5}$ $\frac{1.5}{1.5}$					Bentonite
1 in to 3 ft DRILLING	CONTRACTOR: Holt Drilling	- <b>I</b>	L	1	LO CH		D: T. Marsh ED: RDL	all		i	L	1	· [	Golder

and the second

PRO LOC	DJECT	NUMBER: 033-1562-100 DRILLIN N: 75 State Street, Kirkland, WA DRILLIN COULDEDING	NG DATE RIG: Mot	: 2/18 bile B-5	/03 59	1		AZIMUTH	: N/A IATES	: not :	surveyed	INCLINA	10N: -90
DEPTH (ft)	BORING METHOI	DESCRIPTION	uscs	GRAPHIC LOG	ELEV. DEPTH (ft)	NUMBER	TYPE	BLOWS per 6 in 140 lb hammer 30 inch drop	N	REC / ATT	PENETRA BI 10 WATER CO W, I	TION RESISTANCE LOWS / ft ■ 20 30 40 DNTENT (PERCENT) 	NOTES WATER LEV GRAPHI
-0 -		0.0 - 0.2 ASPHALT (SURFACING)	,	Ϋ́ΛΫ́Λ	0.3				1				Monument in
-		CRUSHED ROCK. PID: 5 ppm (SUBBASE)											Concrete
-		0.3 - 5.5 Compact, medium gray, SILT, some fine sand, moist, heavy petroleum odor. (TRANSITIONAL BEDS)	ML										Bentonite Chips
		At 3.5 to 4 feet. PID: 88 ppm											
		At 4 to 5 feet, PID: 44 to 52 ppm				1	SPT	5-7-7	14	<u>1.2</u> 1.5			
-5					37.0					├			
		5.5 - 10.5 Stiff, olive gray, CLAYEY SILT, with light			5.5				ļ				
		gray, nine sang laminae.				2	SPT	1-4-5	9	<u>1.5</u>			2 inch RVC
-		. From 7 feet to 8 feet, PID: 10 ppm								1.5			riser
-			ML/CL										
-							1		<u>†</u>				
		From 9 feet to 9.5 feet, PID: 18 ppm				3	SPT	4-5-7	12	1.5			10-20 Silica Sand
- 10	nmer	From 9.5 feet to 10.5 feet, PID: 4 to 8 ppm			32.0					<u> </u>			
-	140lb. Autohar	10.5 - 13.0 Compact, olive gray, SILT, trace fine sand, with light gray, fine sand laminae, moist. PID: 9 ppm	ML		10.5	4	SPT	3-5-11	16	<u>1.5</u> 1.5			
_	A with				29.5	<u> </u>			<u> </u>				
	D. HS	13.0 - 15.8 Dense, medium gray, fine SAND, some silt, interbedded with dive gray clavey silt moist			13.0				ļ	<u> </u>			2-inch slotted
-	-inch -	1-inch diameter rock in tip of sampler. PID: 1 - 2 ppm	SP			5	SPT	6-10-13	23	<u>1.5</u> 1.5			
- 15	4.25				-				<b> </b>				
		15.8-30.0	-	mm	26.8								
		Stiff to very stiff, olive gray, massive, CLAYEY SILT, trace fine sand, moist. PID: 3 - 5 rom					0.07	257		1.5			
-		3-3 фил				6	SPI	3-5-7	12	1.5			
-									1				Bentonite
		At 18.5 feet: Recomes your stiff, DID: 0							ļ				Cinps
-		ppm.				7	SPT	4-6-12	18	<u>-1.5</u> 1.5			
- 20			MAL/CI						╂	┣──			
-			MOCE										
-													
-													Bentonite Chips
_		At 23.5 feet: Light gray, fine sand laminae				<b> </b>			1			•	
		observed.				8	SPT	5-7-13	20	1.5 1.5			
- 25		Log continued on next page			1				<u> </u>				

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PR PR	OJECT: OJECT CATION	: WWREG/75 State Street/WA DRILLIN NUMBER: 033-1562-100 DRILLIN I: 75 State Street Kirkland WA DRIL R	REC G METH G DATE	COR HOD: H E: 2/18/	D OF	= B( em Au	ORE ger (H	EHOLE SAIDATUM: AZIMUTH:	GB N/A	-6				SHI ELE INC	EET 2 ( EVATIC	of 2 N: 42.5 ON: -90
CEPTH (ft)	BORING METHOD	SOIL PROFILE	RSCS	GRAPHIC LOG	elev. Depth (ft)	NUMBER	түре	SAMPLES BLOWS per 6 in 140 lb hammer 30 inch drop	N	REC / ATT	PENET 10 WATER W, I	RATI BLC 21	ION RE IVS / 1 3 ITENT	ESIST/ ft <b>1</b> (PERC	NCE 0 CENT) 1 W,	NOTES WATER LEVELS GRAPHIC
- 23 -		15.8 - 30.0 Stiff to very stiff, olive gray, massive, CLAYEY SILT, trace fine sand, moist. PID: 3 - 5 ppm (Continued)	ML/CL													-
- 30		Boring completed at 30.0 ft.			<u>12.5</u> 30.0	9	SPT	3-6-10	16	<u>1.5</u> 1.5		-				
																-
- 35																-
-  													-			- -
								:					,			
- - - 45										-						
-																
-																-
- <sup>50</sup> 1 in DRI DRI	to 3 ft LLING LLER:	CONTRACTOR: Holt Drilling Mike Reynolds	L	<u> </u>		LO CH DA	ggei Iecki Te:	D: T. Marsh ED: RDL 7/9/03	ali	<u> </u>				<u> </u>	C	Golder

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PR( PR( LO(	DJECT	: WWREG/75 State Street/WA DRILLIN NUMBER: 033-1562-100 DRILLIN V: 75 State Street, Kirkland, WA DRILL R	REC IG METH IG DATE	COR HOD: H E: 2/18/ bile B-5	ND OF Hollow Ste /03	= B( em Au	ORE ıger (H	EHOLE SA)DATUM: AZIMUTH: COORDIN	GB N/A ATES	5-7	surveyed	<u>.</u>	SHEET 1 ( ELEVATIO INCLINAT	of 1 DN: 41.5 ON: -90
DEPTH (ft)	BORING METHOD	SOIL PROFILE	nscs	GRAPHIC LOG	ELEV. DEPTH (ft)	NUMBER	ТҮРЕ	SAMPLES BLOWS per 6 in 140 lb hammer 30 inch drop	N	REC / ATT	PENETR 10 WATER C	ATION RES BLOWS / ft 20 30 CONTENT (	A0 PERCENT)	NOTES WATER LEV GRAPHIC
	b. Autohammer	0.0 - 0.2 <u>ASPHALT (SURFACING)</u> 0.2 - 0.3 CRUSHED ROCK. PID: 5 ppm <u>(SUBBASE)</u> 0.3 - 12.5 Stiff, medium gray to olive gray, massive, CLAYEY SILT, trace fine sand, with steeply dipping (60 degrees) light gray fine sand and silt laminae, damp. (TRANSITIONAL BEDS) AI 3.5 feet, PID: 2 ppm From 4 feet to 4.5 feet, PID: 0 ppm At 6 feet, PID: 0 ppm	ML/CL		0.3	1	SPT	3-4-4 2-3-7	8	<u>1.5</u> 1.5				
- 10	4.25-inch I.D. HSA with 140	Becomes very stiff. PID: 0 ppm Occasional fine gravel. From 10.5 feet to 12 feet, PID: 0 ppm				3	SPT	3-5-9 3-4-9	14	<u>1.5</u> <u>1.5</u> <u>1.5</u> <u>1.5</u>				Bentonite Chips
- 15		12.5 - 14.5 Compact, dark gray, fine to medium SAND, some sit, interbedded with medium gray, CLAYEY SILT, moist. PID: 0 ppm Boring completed at 14.5 ft.	SP		29.0 12.5 27.0 14.5	5	SPT	4-8-13	21	<u>1.5</u> 1.5				
-25	to 3 ft		1	<u> </u>		LO	GGE	D: T. Marsh	all					

PRO PRO LOC	)JECT )JECT <u>ATIO</u>	WWREG/75 State Street/WA DRILLIN NUMBER: 033-1562-100 DRILLIN V: 75 State Street, Kirkland, WA DRILL F	REC IG METI IG DATE RIG: Mo	COR HOD: 1 E: 2/18 bile B-5	LD OF tollow St /03 9	- B( em Au	ORE Iger (H	EHOLE SA)DATUM: AZIMUTH: COORDIN	GB N/A ATES	-8	survey	ed	   		of 1 DN: 43.5 ION: -90
0 DEPTH (ft)	BORING METHO	DESCRIPTION	USCS	GRAPHIC LOG	ELEV. DEPTH (ft)	NUMBER	TYPE	BLOWS per 6 in 140 lb hammer 30 inch drop	N	REC / ATT	WATE	ETRAT BLC D 2 R COI	ION RESI DWS / ft 0 30 NTENT (P	40 ERCENT)	NOTES WATER LEVELS GRAPHIC
	4.25-inch I.D. HSA with 140lb. Autohammer	0.0-0.1         ASPHALT (SURFACING)         0.1-0.3         CONCRETE         0.3-0.6         CRUSHED ROCK (SUBBASE) PID: 14         ppm         0.6-10.0         Sliff, medium gray, massive, CLAYEY SILT, with light gray, fine sand laminae, damp.         PID: 0 ppm (TRANSITIONAL BEDS)         At 6 feet: Becomes very stift. PID: 0 ppm         10.0-12.8         Compact, medium gray, massive, fine to medium SAND and SILT, moist. PID: 0 ppm         12.8-14.5         Very stiff, olive gray, massive, CLAYEY         SILT, rocist. 1-inch gravel at 14 ft. PID: 0 ppm         Boring completed at 14.5 ft.	ML/CL SP/ML ML/CL		423) 0.6 33.5 10.0 30.8 12.8 29.0 14.5	1	SPT SPT SPT SPT	24-5 7-8-9 2-3-4 4-10-12 3-5-9	9 17 7 22 14	$\frac{1.5}{1.5}$ $\frac{1.5}{1.5}$ $\frac{1.5}{1.5}$					Bentonite Chips
- 25 1 in 1 DRIL DRIL	o 3 ft LING LER:	CONTRACTOR: Holt Drilling Mike Reynolds				LO CH DA	GGEI ECKE TE: 7	D: T. Marsh ED: RDL 1/9/03	all						Golder

PR( PR( LO(	DJECT DJECT CATION	: WWREG/75 State Street/WA DRILLI NUMBER: 033-1562-100 DRILLI V: 75 State Street, Kirkland, WA DRILL	REC NG METI NG DATE RIG: Mo	COF HOD: E: 2/18 bile B-	RD OF Hollow St 3/03 59	= B em Au	ORE .ger (H	EHOLE SA)DATUM: AZIMUTH: COORDIN		-9	surveyed		SHEET 1 ELEVATI INCLINA	of 1 ON: 44 FION: -90
DEPTH (f)	RING METHOD	SOIL PROFILE	uscs	ZAPHIC LOG	ELEV.	JMBER	түрЕ	SAMPLES BLOWS per 6 in	N	C / ATT	PENETRA BI 10 WATER CC	TION R _OWS / 20	ESISTANCE ft 30 40 (PERCENT)	NOTES WATER LEVELS GRAPHIC
0 -	BG	0.0 - 0.2 ASPHALT (SURFACING) 0.2 - 0.3 CRUSHED ROCK (SUBBASE) 0.3 - 5.5 Soft, olive gray, SILT, trace fine sand, mint (DANSETION DEDOS)			(ft) 0.3	Z		140 lb hammer 30 inch drop		~~~~			1 w,	
5	щег	At 4.5 feet: Becomes stiff, medium gray,	ML			1	SPT	0-0-2	2	<u>0.7</u> 1.5				
×	HSA with 140bb. Autoham	Sit. 1, trace me sand, with steeping, light gray, fine sand and silt laminae. PID: 2.5 ppm	 [		<u>38.5</u> 5.5	2	SPT	3-5-7	12	<u>1.5</u> 1.5				
10	4.25-inch I.D.	At 9 feet: interbeds of light gray to olive gray, fine to medium sand. PID: 0 ppm	ML/CL			3	SPT	4-8-13	21	<u>1.5</u> 1.5				Bentonite Chips
		13.0-14.5			<u>31.0</u> 13.0	4	SPT	4-10-16	26	<u>1.5</u> 1.5		-		
15		14.5 - 20.0 Very stiff, olive gray, massive, CLAYEY SILT, with steeply dipping, light gray fine sand and silt laminae. PID: 0 ppm	SP/SM		29.5 14.5	5	SPT	9-9-9	18	<u>1.5</u> 1.5				
			ML/CL			6	SPT	4-7-12	19	<u>1.5</u> 1.5				
20		Boring completed at 20.0 ft.			24.0 20.0	7	SPT	3-5-9	14	<u>1.5</u> 1.5				
												and a state of the second s		
25 1 in	to 3 ft						GGE	). T. Mareh						

DEPTH FEET	RAPHIC LOC	MATERI	AL DESCRIPTION	DEPTH	TESTING	SAMPLE	BLOW COUNT     MOISTURE CONTENT     IIII RQD% ZZ CORE F	% EC%	СОММІ	ENTS
-0.0	100	CONCRETE.		35.5				100		
1	200	AGGREGATE BA	SE.	7 0.5						
-	269	Medium dense, b	orown GRAVEL with	0.8						
	PFF	1 sand (GW); moist	t; 70% to 80% fine to	7 2.0						
2.5 -		Coarse gravel, 20	% to 30% fine to	i			17			
1		Very stiff area	andy SILT with grave					-		
-		(ML); moist: 5% t	o 10% fine gravel. 30%							
F 0 -	t H	to 40% fine sand	40% to 50% silt - FILL	1 4.5						
-0.E		Stiff, gray, sandy	SILT (ML); moist; 20%				8			
-		to 30% fine sand	, 70% to 80% silt - FILL.							
-				28.5	1					
7.5 -		Stiff, brown, san	dy ORGANIC SOIL	7.0		-		1		
-	1R	(OL/OH), minor v	wood fragments; moist;		DD	1.010			D = 68 pcf C = 21%	
-	EF.	organic soil, 5%	to 10% wood fragments.		oc	Circles 1			nn (* 1949) (* 1957) (* 1	
2	HA	2		•						
10.0 -		hecomes gravebr	own and interhedded							
5	HR.	with fine sand at	10.0 feet	-			4			
-			un antificial rates and		-					
-	XX	1		22.0						
12.5 -	11	Medium dense, o	ray, silty SAND with	12.5						
-		gravel (SM); wet;	10% to 20% fine to						12	
-	1	coarse gravel, 40 sand, 20% to 309	isilt.							
15.0-										
							25			
1									2	
1						-				
17.5	1									
-				17.0		1				
1	TIT	Stiff, gray, sandy	SILT (ML); wet; 20% to	18.5						
-		30% fine sand, 70	0% to 80% silt.							
20.0										
-										
• -										
225									8 - E	
				1.	1				1	
-	1111									
1									8	
25.0-			ff with the set of the							
-		25.0 feet	n with trace sand at				<b>1</b> 6	-		
1	Ш			2.0						
-		Exploration comp	pleted at a depth of	26.5						
27.5-		20.5 1661.								
-			151 K		. 1					
-										
30.0 -	-	i and a second								
30.0						0	50	100		
	DRIL	LED BY: Boreteo®		LOGO	ED BY	: NRC	x 15	COM	PLETED: 07/08/0	8
		BORING METHO	)D: hollow-stern auger (see report text)				SORING BIT DIAMETE	k: 8-inch		
GE	DD	) ESIGNE	INCA-1-01				BORING B	-1		
0700 Meric	llan Avi Seattle	WA 98133	AUGUST 2008			KIR	KLAND TRANSIT CENTER		FIG	JRE /

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2.5         Dense, gravel odor; 1 50% to to 30%           5.0         Soft, bl Fill.           7.5         Very so moist, odor, w gravel, 55% to           10.0         Very lo to minto odor; 0           12.5         Very lo to minto odor; 0           12.5         Very lo volo; 0           15.0         Stiff, gr toughn 95% silt           22.5         Explora 21.5 fe           20.0         95% silt           22.5         Explora 21.5 fe           30.0         DRILLED BY: Bore	BORING METHOD: hollow-stem auger (see report text)	LOCCI	ED BY:	HFH	BORING BIT DIAMETER: 8-Inch BORING B-2	COMPLETE	D: 07/07/08
Dense, gravel odor; 1 50% to to 30%           5.0         Soft, bl Fill.           7.5         Very so moist, odor; 0 fine to very lo odor; 0 fine to very so to ughn 5% fine           10.0         Very lo 0% to 1           15.0         Stiff, gr toughn 95% sift           17.5         Stiff, gr toughn 95% sift           20.0         Stiff, gr toughn 95% sift           20.0         Stiff, gr toughn 95% sift           21.5         Explora 21.5 fe           30.0         DRILLED BY: Bore	BORING METHOD: hollow-stem auger (see report text)	LOCG	ED BY:	HFH	BORING BIT DIAMETER: 8-Inch	COMPLETE	D: 07/07/08
2.5       Dense, gravel odor; 1         5.0       Soft, bl Fill.         7.5       Very so moist, odor; 0         10.0       Very lo vory so to mind odor; 0         12.5       Very lo vory so to ughn 5% fine         12.5       Stiff, gi toughn 95% sint         12.5       Stiff, gi toughn 95% sint         12.5       Explora 21.5 fe         20.0       95% sint         21.5       Stiff, gi toughn 95% sint         22.5       Explora 21.5 fe         23.0       30.0	etac®						
2.5 2.5 2.5 2.5 2.5 2.5 2.5 2.5					) <u>50</u> 10	10	
2.5         Dense, gravel odor; 1 50% to to 30%           5.0         Soft, bl Fill.           7.5         Very so moist, odor, w gravel, 55% to           10.0         Very lo to mind odor; 0           10.0         Very lo to mind odor; 0           12.5         Stiff, gi toughn 95% silt           20.0         Stiff, gi toughn 95% silt           21.5 fe         Explora 21.5 fe	а 12 д. 127						an Gu Run Heit <sup>a</sup>
2.5 2.5 2.5 2.5 2.5 2.5 2.5 2.5	ation completed at a depth of eet.	10.5 21.5		Ш			4) 
2.5 Dense, gravel odor; 1 50% to to 30% 5.0 Soft, bl FILL. 7.5 Very so moist, odor, 0 gravel, 55% to 10.0 Very lo to mind odor; 0 fine to Very so to uphn 5% fine 12.5 Very lo 0% to 1 medium	ray SILT (ML); moist, low less; 0% to 10% fine sand, 85% to t.	- <u>13.0</u> 19.0		n	13		a
2.5 Dense, gravel odor; 1 50% to to 30% 5.0 Soft, bl FILL. 7.5 Very so moist, odor, w gravel, 55% to 10.0 Very lo to mind odor; 0 fine to Very so to ughn 5% fine 15.0 Very lo 0% to 1 medium	2 9 82				2		а
2.5 Dense, gravel odor; 1 50% to 30% 5.0 Soft, bl FiLL. 7.5 Very so moist, odor, w gravel 5.0 Very so moist, odor, w gravel 5.0 Very so to mine odor; 0 fine to Very so	ess; 0% to 5% fine gravel, 0% to e sand, 90% to 100% silt. pose, gray, silty SAND (SM); wet; 10% fine gravel, 65% to 75% fine to m sand, 5% to 15% silt.	18.5 13.5		•		*	太 14.0 使
2.5 5.0 7.5 Very sc moist, odor, 1 50% to 50% to 50% Very sc moist, odor, 1 50% to 50% to 50% Very sc moist, odor, 1 50% to 50% 50% 50% 50% 50% 50% 50% 50%	pose, gray, silty SAND (SM), trace or gravel; moist, hydrocarbon-like % to 10% fine gravel, 50% to 60% medium sand, 30% to 40% silt. oft, brown SILT (ML); moist, low	/ 21.0 / 11.0			2		tt, during explorati
2.5 5.0 Soft, bl FILL.	oft, brown, sandy SILT (ML); low toughness, hydrocarbon-like wood debris; 0% to 10% fine 25% t 35% fine to medium sand, 65% silt.	- 25.0 7.0			4	*	5
2.5 Dense, gravel 2.5 50% to 50% to 30%	lue-gray, sandy SILT (ML); moist -	<u>27.0</u> 5.0	SIEV		<b>4</b> •		40 73
	EGATE BASE. , brown-gray, silty SAND with (SM); moist, hydrocarbon-like 10% to 20% fine to coarse gravel, 60% fine to medium sand, 20% 5 silt - FILL.	313 0.7			32		
	MATERIAL DESCRIPTION	PER ELEVATIO	TESTING	SAMPLE	BLOW COUNT     MOISTURE CONTENT %     MOISTURE CONTENT %     RQD% ZZ CORE REC%     50 10	INST	ALLATION AND COMMENTS

	DEPTH FEET	APHIC LOG	MATERI	AL DESCRIPTION	DEPTH	TESTING	SAMPLE	▲ BLOW COUNT ● MOISTURE CONTENT IIII RQD% Z CORE	INS REC%	COMMENTS	ND
	0.0 - 2.5		CONCRETE. AGGREGATE BAS Medium stiff, gra SILT (ML); moist; FILL.	E. ay with orange mottles 95% to 100% silt -	34.0 33.5 0.5 33.2 0.8			50	100		
	5.0		Medium stiff, bro sand (OL/OH); m sand, 85% to 959	own ORGANIC SOIL with oist; 5% to 15% fine 6 organic soil.	<u>29.5</u> 4.5						
	7.5		becomes stiff at	7.5 feet	24.0	DD OC		<b></b> ]3: ●	DD =	72 pcf 26%	
	10.0		Loose, gray, fine and silt; wet; 0% to 95% fine sand	SAND (SP), trace gravel to 5% fine gravel, 85% , 0% to 5% silt.	10.0						2 2 3
	- - 15.0		Medium dense, o with gravel (SM); gravel, 60% to 7( 10% to 20% silt.	lark gray, silty SAND wet; 10% to 20% coarse % fine to coarse sand,	2 <u>20.0</u> 14.0			<b>2</b> <sup>26</sup>			
	17.5	10 10 10 10 10 10 10 10 10 10 10 10 10 1	Very stiff, gray S sand; wet; 0% to silt.	ILT (ML), trace fine 5% sand, 95% to 100%	15.5 18.5						21
/8/08:08	22.5		Exploration com 21.5 feet.	pleted at a depth of	12.5 21.5						
ICN.CDT FRINT DATE: 8	25.0										
11-01-81-8.GPJ GEODES	30.0	DR	LED BY: Boretec®		LOGO	CED &	( /: NRC	D 50	100 COMPLE	TED: 07/08/08	
LOG INC	GE		)FSICNE	INCA-1-01				BORING	3-3		
BORING	0700 Merid Off 206.83	ian Avieattle 8.9900	enue North - Sutte 210 WA 98133 Fax 206.838.9901	AUGUST 2008	-		KIR	KLAND TRANSIT CENTER		FIGURE	A-3

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	DEPTH FEET	GRAPHIC LOC	MATE	RIAL DESCRIPTION	C ELEVATION	TESTING	SAMPLE	BLOW COUNT     MOISTURE CONTENT %      IIII RQD% ZZ CORE REC3 0 50	INS <sup>-</sup>	TALLATION AND COMMENTS
	0.0 - - - 2.5 - - -		CONCRETE. Very loose, gra trace to minor hydrocarbon-li gravel, 50% to sand, 30% to 4	ny-blue, silty SAND (SM), gravel; moist, ke odor; 0% to 10% fine 60% fine to medium 0% silt - FILL.	31.6 0.4			*		
	5.0 — - - 7 5 —		Very soft, brow trace to minor toughness; 0% 35% fine to me silt.	vn-gray, sandy SILT (ML), gravel; moist, low to 10% fine gravel, 25% to dium sand, 55% to 65%	4.5			3		ing exploration
			Loose, brown	n at 7.5 feet SAND (SP); wet; 5% to 15% gravel, 85% to 95% fine	22.5 9.5			<b>3</b>		内 10.0 feet, dur
	- - 12.5 — -		sand, 5% to 15	% silt.	18.0		Ш			
	- 15.0 — - -		Very soft, gray gravel; moist, l fine gravel, 0% 100% silt.	SILT (ML), trace to minor ow toughness; 0% to 10% to 10% fine sand, 90% to	14.0			<b>A</b>		
	17.5		horemer hard	with trace growel (Clocial	4				-	- 2 - 2
08:08	22.5		Exploration con 21.5 feet.	mpleted at a depth of	<u>10.5</u> 21.5			31		
PRINT DATE 8/8	25.0			2						2
CPJ GEODESICN.CD	27.5							D 50	100	
8-18-10-J		DRI	LED BY: Boretec®	-	LOCK	ED B	(: HFH		COMPLET	ED: 07/07/08
OC INCA.			BORING MET	HOD: hollow-stem auger (see report text)				BORING BIT DIAMETER: 8-	inch	
BORING L	10700 Meric Off 206,83	lian Av Seattle 8.9900	PESIGNZ enue North - Suite 210 WA 98133 ) Fax 206.838.9901	AUGUST 2008			Kiri	KLAND TRANSIT CENTER KIRKLAND, WA		FIGURE A-6

	DEPTH FEET	GRAPHIC LOG	MATE	RIAL DESCRIPTION	ELEVATION	TESTING	SAMPLE	BLOW COUNT     MOISTURE CONTENT     MOISTURE CONTENT     MOISTURE CONTENT     CORE F     50	% EC%	INSTALLATION AND COMMENTS			
	2.5 - - - - - - - - - - - - - - - - - - -		- CONCRETE. Medium stiff, trace to minor hydrocarbon-li 0% to 10% fine sand, 85% to 9	prown-gray SILT (ML), gravel; moist, ke odor, low toughness; gravel, 0% to 10% fine 5% silt - FILL.	0.4			<b>A</b>					
_	7.5		Very loose, bro moist; 0% to 10 fine to medium Soft, brown-bla toughness; 0% 10% fine sand, Loose to mediu	wn, silty SAND (SM); % fine gravel, 75% to 85% 1 sand, 10% to 20% silt. ack SILT (ML); moist, low to 10% fine gravel, 0% to 85% to 95% silt. un dense, brown-black.	5.5 6.0	P200		2 20 0	P	200 - 51%			
	10.0 10.0 12.5		silty SAND (SM Imoist; 0% to 10 Ifine to medium Medium dense gravel; wet; 5% to 95% fine to silt. Stiff, brown-gra	), trace to minor gravel; )% fine gravel, 50% to 60% 1 sand, 30% to 40% silt. , gray SAND (SP), minor to 15% fine gravel, 85% medium sand, 5% to 15% ay, sandy SILT (ML), trace	9.5			<b>A</b>					
	15.0 	11 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1	to minor grave 0% to 10% fine medium sand, Medium dense trace gravel; m gravel, 50% to 30% to 40% silt	I; moist, low toughness; gravel, 25% to 35% fine to 55% to 65% silt. , gray, silty SAND (SM), olst; 0% to 10% fine 60% fine to medium sand,	16.0			A <sup>15</sup>					
	20.0		Hard, gray SILT low toughness to 10% fine sar Lacustrine). Exploration con 21.5 feet.	(ML), trace gravel; moist, 0% to 5% fine gravel, 0% id, 85% to 95% silt (Glacial mpleted at a depth of	20.0			43		•			
DT PRINT DATE: 8/8/08:C	25.0		,										
81-8.GPJ GEODESIGN.C	30.0							0 SO	. 100				
-10-1-1	DRILLED BY: Boreled®				LOG	GED BY	: HFI	BOBING BIT DIAMETE	CON	NPLETED: 07/07/08			
OC INC				INCA-1-01		-	1	BORING B	-7				
ORING L	10700 Meridi S	an Ave	HESIGNZ enue North - Suite 210 WA 98133	AUGUST 2008			KIR	KLAND TRANSIT CENTER		FIGURE A-7			

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#### **RESOURCE PROTECTION WELL REPORT**

2	-1-1-0
RESOURCE PROTECT	YON WELL REPORT $25/5E/5P$
PROJECT NAME: CITY OF KIRKLAND - PETER WELL INDENTIFICATION NO. MAN-1	KIRK PARK King Co + START CARD NO. 43854
DRILLING METHOD: JAIELL ARANDONMENT DRILLER: JON C. Koloski FIBM: GEOENGINEERS INC.	DISTANCE: FT. FROM N/S SECTION LINE FT. FROM E/W SECTION LINE
SIGNATURE: SAME REPRESENTATIVE: SAME	WATER LEVEL ELEVATION: INSTALLED: ABANDONED ON 2-19-93

Elevatio	on reference: aufface elevation: 41 foot	Well complete Casing elevation	d: <i>8 ∤</i> આ:	\or <u>i</u> 19	92 ·		AS-BUI	LT DESIGN	P o
(Iser)	SOIL DESCRIPTION	SAMPLE	SAMPLE	BLOW	OVM READING	TROUND		Flush-mounted studimonument	π
	Surlace-grass in lawn area							Ground surface	
	Medium sillf, wet, grey with brown motiling SiLT with some gravel (Fil		S-1	7	lppn			Bontonita —— Casing (Schequia-40)	
	Madium silil, wel, grey SiLT with tr gravel and buint organics interbo with loose, wel, grey line to medi SAND with trace silt and burnt org		s-2	8	- Ippn	V		4-hch I.D. PVC) _ 10-20 sond Aller pack	2
	(Fil) Loose, saluraled, dark grey line to	,	S-3	4	Ippn	4/13/9;		- Scioon	
	(FIN)	ganics	S-4	4	lppm	-		(4-inch 1.D. schodula-40 PVC wilh 0.01-inch skots)	
	Very sill, wel, motlied grey brown		S-5	26	lppn			,Throaded end cap	
15 -	Silil, moist to wet, mottled rushy bro		S-6	23	ngq I				
	dense, moist, grey fine to medium	SAND	S-7	.14	1pp <u>m</u>		н 1 - А С С		
20-			-	-			•		
	Very sliff, wel, grey SiLT with trace f SAND	ine	S-8	21	ppm				
25 -			+	• .			. <sup>.</sup>		•
	Hard, wel, grey SILT with trace fne	sond	S-9	31 1	ppm		· .		
ــد <sub>30</sub>	LEGEND				<u> </u>		RZA AC	SRA, Inc.	
	Observed groundwater level 0/00/00 = date observed			-	. ·	• .	11335 NIE 122nd	Way, Suite 100	

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The Department of Ecology does NOT Warranty the Data and/or the Information on this Well Report.

RESOURCE	PROTECTION	WELL	REPORT
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PROJECT NAME: <u>CITY OF KIRKLAND - PETER</u> KIRK PARK         WELL INDENTIFICATION NO. <u>MAN-2</u> DRILLING METHOD: <u>MAELL ARANDONMENT</u> DRILLER: <u>JON C, Koloski</u> DRILLER: <u>JON C, Koloski</u> FIRM: <u>Sec Koloski</u> DATUM:         WATER LEVEL ELEVATION: <u>LON C-19-93</u>		DN WELL REPORT $25/5E/5p$ START CARD NO 43854
SIGNATURE: Sac Nolosk; WATER LEVEL ELEVATION: CONSULTING FIRM: SAME INSTALLED: ABANDONED ON 2-19-93	PROJECT NAME: <u>CITY OF KIRKLAND - PETER</u> 7 WELL INDENTIFICATION NO. <u>MW-2</u> DRILLING METHOD: <u>MELL ARANDONMENT</u> DRILLER: <u>JON C, KOLOSKI</u> FIRM: <u>GEOENGINEERS</u> INC.	KIRK PARK LOCATION: T.25 N,R SE. SEC. SE 1/4 of Scol DISTANCE: FT. FROM N/S SECTION LINE FT. FROM E/W SECTION LINE DATUM:
REPRESENTATIVE: SAME DEVELOPED:	SIGNATURE: <u>Sac Koloski</u> CONSULTING FIRM: <u>SAME</u> REPRESENTATIVE: <u>SAME</u>	WATER LEVEL ELEVATION: INSTALLED: ABANDONEN ON 2-19-93 DEVELOPED:

ž I		CIPILITY CIEL	ation:						0[7
	SOIL DESCRIPTION		TYPE	AUMBER.	BLOW COUNTS	OVM EADING	ROUND	Flush-mounted steet monument	TESTING
0	urlaco-grass in park lawn area	,			- 0	- 🕰	0 -	Ground surface	
		. 1.		1				line for cosing	
s	IIII wel crov Sil Twill kono fe	1		-				Concrete	-
- "	redium sand and burnt organi	ics (FBI)	s	-1	10	lppm	•	Dantonilo	
	- 	t	┶┷╼┥					Casing	
5 -			TI.	<u>_</u>	12		$\mathbf{\nabla}$	PVC 4-Inch I.D.)	· -
		i 1	Цз	<b>~</b>	·2	ippm	4/13/92	10-20 sand	
	oosa to madum dansa, salura Iay lina to coarsa SAND with tu	10 <b>d,</b>   0Ce  -						fillor pock	
Q'	ravel and burnt organics (FII)		S.	3	9	lppm			-
		1-		1	1	-		Screen (4-loch LD	
N [	ary sliff, weit, Ian-brown SiLT		Tl s-	<b>⊿</b> †	20		•	schodulo-40	-
		1-	Ц-	1		[!!!		0.01-Inch slots)	
		<u> </u> _	_	1					
	ccasional rust motiling SILT	. 1	S	5	25	Ippm		Ihreaded end cap	-
					·	· ·			Ī
יין רי	ard, wel, grey SiLî	- -	Πs	st.			-		-
		1-	Ц	1	~ 1	, indu			
		1_		1	1				-
			S-	7	35	1ppm			4
20-				1		. 1	1		
20				-	·	. 1	- ·		۰ -
	2	1						- -	÷. •
		. ]		1.					-
	na, wei, giey sitt win Itace in	ne sand	S-	8 .	32	Ippm			
25		1				<u> </u>	İ		-
<b>23</b>	•	7		Ť		1			
				1		1			
		1_		1					
Ve	ery silli, wel, grey SiLî with Iracı me line sond	e to	S-	9	23	n ppm	.		
30		].		1	ſ	···			· .
	1 DOGND						I.		
T 24	hch O.D.				• ,		•	KZA AGKA, Inc.	
	#FIDGON LONDA								
411AR 0/0	10/00 = date obsolvad							11335 NE 122nd Way, Suite 100 Kirkland, Washington 98034-6918	• •

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		DECAIDOR BROWN	יחייני	0.51	<b>11/1</b> 7		1200	25/5E/5P
1		RESOURCE PROTE	ιCΠ	UN .	WE	LL 1	LEPC	START CARD NO 1/3854
PROJECT NAME:	CIT	Y OF KIRKLAND - PETE	R'	Kir	К	PAR	K	START CARD NO. 4202 1
WELL INDENTIFI	CATIO	DN NO			LOG	CATI	ON: 1	T <u>25N,R 56_,SEC. 5_</u> SE'14 of SW/
DRILLING METH	د :do	NELL ARANDONMENT	<u> </u>	•	DIS	TAN	CE:	FT. FROM N/S SECTION LINE
DRILLER: JOA		Koloski	_					FT. FROM E/W SECTION LINE
FIRM: <u>Geo</u>	EN	SINGERS INC.	_		DA.	TUM:	-	
SIGNATURE:	Saa	c Koloski			WA	TER	LEVE	EL ELEVATION:
CONSULTING FIF	RM;	SAME	<u> </u>		INS	TAL	LED:	ABANDONED ON 2-19-93
REPRESENTATIV	E:	SAME		•	DE	VELO	DPED:	
	<del>,</del>							·
•	PRO	DJECT: Kirkland Resource	Lib	rary	<b>y</b> :	N .	1.0.	W-8182 WELL NO. MW-
	Elevati	on reference: Well con	pleted	: 2 🍂	x <b>i</b> 19	92		AS-BUILT DESIGN
	~		14		. 12	<u> </u>	6~	
	(leal)	SOIL DESCRIPTION	ANY SE	SAMPI UMBI		NAN NAN	ROUN VATEI	Fush-mounlod steel monument
	- 0 -	Surface-2 1/2" Inick asphaltic concrete				<u>~</u>	0 >	Giovind surface
		in poiking orea						
			-			h		
		Soft to madum sillf, wat, grey-brown SiLT with trace gravel (FB), Dark		S-1	5(	ppp	V	
	- 5 -	discoloration, potroleum hydrocarbon- like odor noted in sample	<b> </b> _	-	-	<b>.</b>	4/13/9:	(Schodulo-40 PVC 4-hch I.D.)
		Interbedded soft, seturated, brown		S-2	3	þppm		
•		librous PEAT and very loose, salurated, grey medium SAND		-		1.		nier pack
		Very loose, salurated, grey line to		·S-3 1	Ī	Jopni		
		medium SAND				. <sup>-</sup> .		Scleen (4-bch 1 D
	- 10 -	Medium dense, salurated, grey fine to		S-4	- 20	- 1000	-	schedule 40 PVC with
		interbedded with sillf, wel, brown	╎──┴─┤					0.01-hch slols)
		organic str						
				S-5	18	7ppm		Ihreaded and cap
	- 15 -	Very still, wet, Ian-grey with rust molling			-	· .		
		liace Grovel		S-6	25	Jppm		
				-				
	<del></del>			S-7	22	Dopm		
5		Very stiff, wet, grey SILT with trace fine		-				
	- 20 -	sond -		-	-	-	-	
•		•				· ·	1	
		Voorelle wat grove foo and to fir t				1	1	
		vary sin, wer, gray, into sandy SiLi		S-8	-25	Эррп		
	- 25 -		l ·	-	_		<b> </b>	
•			ł	-		ĺ		
						·		
-		Very still to hord, wel, grey SILT with trace to some ting soud	ΙT	S-9	30	Jopn		
			╽╾┸╼					· · · · · · · · · · · · · · · · · · ·
•	<b>-</b> 30-	1 ECCUD		· · ·		· · · · ·	·	
· .	.		micoi c	noivit			· .	KZA AGKA, Inc.
· ·		tion (son comple (son comple ) (son complexity of complex	npie no	, showin)				
		NAL NORMON & COLO CONSINCT			•			Kirkland, Washington 98034-6918
	· · ·	****			f <sup>3</sup>	•••		
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The Department of Ecology does NOT Warranty the Data and/or the Information on this Well Report.

#### **RESOURCE PROTECTION WELL REPORT**

25 5E 5F START CARD NO. 43854

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	STANT CAND NO. 1222 1
PROJECT NAME: CITY OF KIRKLAND - PETER 18	IRK PARK
WELL INDENTIFICATION NO////- 4	LOCATION: T.25 N,R.56 ,SEC. 5 SE 1/4 of Sw/14
DRILLING METHOD: MALL ARANDONMENT	DISTANCE: FT. FROM N/S SECTION LINE
DRILLER: JON C. Koloski	FT. FROM E/W SECTION LINE
FIRM: GEOENGINEERS INC.	DATUM:
SIGNATURE: Soa C. Hotoski	WATER LEVEL ELEVATION:
CONSULTING FIRM: SAME	INSTALLED: ABONDONED ON 2-19-93
REPRESENTATIVE: 54ME	DEVELOPED:

Endition     SOIL DESCRIPTION     The set of	levation reference: iround surface elevation: J2 1001	Well complet Casing elevat	icd: ion:	7 Api	199	2		AS-11U	ILT DESIGN	Page : of 2
0       Sutace-21/2" asphallic concrete in poking area         Soft, wei, gray-brown SILT with some gravel, incee argonics and block       5-1       3       Ippm       Concrete         Bontantia       Soft, wei, gray-brown SILT with some gravel, incee argonics (sould block in some gravel, incee argonics (sould block in some gravel)       5-1       3       Ippm       Concrete         -5       Vary soft, softwated, brown amorphous proved ince area organics (wood and line or mechan sond       5-2       2       Ippm       -10-20 sand filter pack.         -10       Contrains some intermixed organics       5-3       4       Ippm       Scroon       -10-20 sand filter pack.         -10       Contrains some intermixed organics       5-4       9       Ippm       Scroon       -10-20 sand filter pack.         -10       Contrains some intermixed organics       5-4       9       Ippm       -10-20 sand filter pack.         -10       Contrains some intermixed organics       5-4       9       Ippm       -10-20 sand filter pack.         -10       Contrains index (gray fine to machim some concrete organics)       5-5       8       Ippm       -10-20 sand filter pack.         -10       Contrains index (gray fine to machim some concrete organics)       5-5       8       Ippm       -10-20 sand filter pack.         -15	SOIL DESCRIPTION	SAMPLE	TYPE SAMPLE	NUNDER	BLOW	OVM READING	GROUND WATER		Flush-mounted steet monument Ground surface	TESTIN
Soft, wei, gray-brown SLI with some gravel, trace organics and blok regression in the maximum organics (wood and trace organics (wood and trace fine to machine sond       S-1       3       1ppm       Depticipation       Cosing (Schadule-40 PVC 4-hch LD)         5       Vary soft, softwated, brown amorphous PEAT with some organics (wood and trace fine to machine sond       S-2       2       1ppm       10-20 sand filler pack.         10-20 sand       Itace fine to machine sond       S-3       4       1ppm       Soft, weil, gray the to machine sond         10-20 sand       Itace fine to machine sond       S-3       4       1ppm       Soft, bit is the pack.         10-20 sand       Itace fine to machine sond       S-3       4       1ppm       Soft, bit is the pack.         10-10 costs, softwated, grey fine to machine sond       S-3       4       1ppm       School and filler pack.         10-10 contohs some intermixed organics       S-4       9       1ppm       School and filler pack.         10-10 contohs frace gravel       S-5       8       1ppm       School and contoh	0 - Surfaco-2 1/2* asphalik: conc paking area	crote in							Top of casing Concrete	
- 5     Vary soft, sofurated, brown amorphous PEAT with some argonics (wood and liace the to medium sond     5-2     2     Ippm     4-hch LD,       - 10- 10- 10- 10- 10- 10- 10- 10- 10- 10-	Soft, wel. gray-brown SILT will gravel, frace organics and b fragments (FW)	h some dck	[.	S-1	.3	lppm	<u>v.</u>		Bentonke Coshn (Schedule-40 PVC	
S-3 4 lppm I coso, solurolod, grey line la medum SAND Contains some kitermixed organics Contains some kitermixed organics S-8 10 lppm Still, wel, grey Sill with trace fine sond Contains some fill with trace fine sond Contains some fill with trace fine some	5 - Very soft, saturated, brown a PEAT with some organics (wa trace fine to medium sond	morphous – nod and –	Γ.	s-2	2	lppm	4/13/92		4-hch LDJ 10-20 sand filler pack	
10       Contains some intermixed organics       S-4       9       1ppm       schedule 40         0.01-inch stots)       S-5       8       1ppm       Thraaded and cap         - 15       Mechum danse, saturated, grey line to coarse SAND       S-6       16       1ppm         - 15       Mechum danse, saturated, grey line to coarse SAND       S-6       16       1ppm         - 15       Mechum danse, saturated, grey line to coarse SAND       S-7       54       1ppm         - 10 anse for very danse, wolf, grey, sity line       S-7       54       1ppm         - 20       - 10, mechum SAND, with same groval       S-7       54       1ppm         - 20       - 5.8       10       1ppm       - 5.8       10       1ppm         - 20       - 5.9       18       1ppm       - 5.9       18       1ppm	Loose, saluraled, grey fine is SAND	a medium -	Ī	s-3	4	1ppm		Annalization (	Scroon (4-Inch I.D.	
Contoks trace gravel - 15 Medium dense, saturated, grey fine to coarse SAND - Danse fo very danse, wolf, grey, sity fine - Toanse fo very danse, wolf, grey, sity fine - to,medium SAND, with same groval. - 20 Loose, saturated, grey fine to madium SAND with trace organics - Still, wel, grey SLT with trace fine sand - 25 - Medium dense, saturated fine sand - 25 - 27 - 28 - 29 - 28 - 29 - 28 - 29 - 28 - 29 - 28 - 29 - 20 - 20	10 - Contains some intermixed o	rganics		S-4	ç	1ppjī			schedule 40 0.01-inch slois)	
- 15 -       Mactum dense, saturated, grey fine to coarse SAND       S-6       16       tppm         - Danse to very dense, wat, grey, sity lina       S-7       54       tppm         - Loose, saturated, grey fine to modium       S-7       54       tppm         - 20 -       -       -       -       -         - 20 -       -       -       -       -         - 20 -       -       -       -       -         - 20 -       -       -       -       -         - 20 -       -       -       -       -         - 20 -       -       -       -       -         - 20 -       -       -       -       -         - 20 -       -       -       -       -         - 20 -       -       -       -       -         - 20 -       -       -       -       -         - 20 -       -       -       -       -       -         - 20 -       -       -       -       -       -         - 20 -       -       -       -       -       -       -         - 25 -       -       -       -       -       -	Contoins trace gravel		T.	\$-5 I	8	lppn			Threaded and cap	
- Donise to very dense, wet, grey, sity line     S-7     54     Ippm       - 20 -          - 20 -          - 20 -          - 20 -          - 20 -          - 20 -	- 15 - Medium dense, saturaled, g coarse SAND	grey fine lo		\$-6	16	lppn				
- 20 - Loose, salurated, grey fine to medium SAND with trace organics SIII, wel, grey SILT with trace fine sand - 25 - Nextellit, wel, grey SILT with trace to S-9 18  ppm	Dense to very dense, wet, c	çēy, silīy līnā _groval		S-7	54	1ppi	n N			
Loose, salurated, gray fine to madium SAND with trace organics Sill, wel, gray SILT with trace fine sand - 25 - 	- 20 -	-							: : :	ļ
	Looso, saluraled, gray fine SAND with frace organics	lo madium		S-8	10	Іррі	'n			
S-9 18 Ippgi	- 25 -				• <b>†</b> -		•		.• *	
		trace to		S-9	11	l Ipp	Ω.		•	
	LEGE	ND						KZN	AUNA, 110.	D.

The Department of Ecology does NOT Warranty the Data and/or the Information on this Well Report.
# **RESOURCE PROTECTION WELL REPORT**

25/5E/5P START CARD NO. 43854

	PROJECT NAME:	CIT	Y OF KIRKLAND - PET	ER	KIR	гК	PAR	ĸ	31741 96	
ئې	WELL INDENTIFI		DN NO			LO	CATI	ON:	T 25 N.R. 56 ,SEC. 5	SE 1/4 of Scolly
Ď	DRILLING METH	NELL ARANDONMENT	<u> </u>		DIS	STAN	CE:	FT. FROM N/S S	ECTION LINE	
Ş,	DRILLER: _JOA	Koloski						FT. FROM E/W	SECTION LINE	
<u> </u>	FIRM: GEO	EN	GINEERS INC.			DA	TUM:			
Vel	SIGNATURE:	500	c Koloski	<u> </u>		WA	TER	LEV	EL ELEVATION:	
5	CONSULTING FIR	M;	SAME			INS	STAL	LED	ABANDONED ON	2-19-93
ij.	REPRESENTATIV	E:	SAME		•	• DE	VELO	OPED	D;	
ц с										
0	•	່. ນກ <i>ເ</i>	NECT Kirkland Resource	. Y iJ	) <b>r</b> /7 <b>r</b>		11/	$\sim$	W. 8182 WELL NO	MW-S
<u>5</u>		PRC				<u>y</u>	<u></u>	<u>.u.</u>		<u></u>
lat		Ground	surface elevation: 35 foot Casing	cicvatio	: 0/44 1:		¥2		AS-BUILT DESIGN	
E L		2	<u></u>	3	近既	- F	2	ខ្លឹត	Flush-mounled	-
£		DCF (feet)	SOIL DESCRIPTION	NYS A	SAMO		N S S	WAT	sleet monument	1
<u> </u>		- 0 -	Surface-3* asphallic concrete in parkin	0	· · ·			<u> </u>	Ground surface	
Б			0100	]			1		Concrate	-
ž			Loose to modium dense, moist, grey-						Bantoolla	
ĕ.	•		biown sondy GRAVEL/provelly SAND (FID		-5-1	20	4ppm	<u>V</u> 413/92	Casing	
an		- 5 -	Loose, wol, dark brown, fine to modiur	n	-	-	$\square$		(Schodula-40 PVC) 4-Inch I.D.)	
ta			SAND (F#), Prominent sheen ond hydrocarbon-like odor abserved in		S-2	₄ (	100)	• .		
Daj			sample	·-					(Nilor pock	
ē			Very loose to loose, saturated, grey fin	o T	S-3	1	loom			
국			Ibnous, PEAT	" <del> _</del> _	.	·			Scieon	
Ę		- 10 -			5-1	+	-	-	schedulo 40	
rar			Soff to medium stiff, wet, grey-brown SiLT with trace organics interbedded	· [		ĺ			0.01-Inch slots)	
ar			with soft, fibrous PEAT	]		<b>1</b> • •	]			
3			Dense, wel to saluraled. grey silly	-	·S-5	36	lbbū		Threaded end cop	
Б		- 15 -	GRAVEL with some line to medium son			-		-		1
ž					5-6	26	Ippm			
es			Medium dense, salutaled, gioy line to medium SAND	,						
မ			·		S-7	13	4000			
Σ			Stiff to very stiff, wet, grey SiLT with trac line sond	o	<i> .</i>				, , , , , , , , , , , , , , , , , , ,	
<u>ŏ</u>		- 20 -				ł	-	<b>.</b>		
8			•	1		1	-			
Ш	•			1						
δ			Very sliff, wel, grey SILT with trace line sand		S-8	20	lppm	· .		
ent		- 25 -			1.	1		-		· · · ·
Ĕ	• .							, i		
art						-	.			
ep			Medium dense, soluraled, grey silly fir	ie 🗌	5-9	22	Ippm			
			PHADALIA 2000Å SITI		-					
-he		- 30- <sup> </sup>	L	!	<u> </u>			<u> </u>	1	-!
		1	LEGEND						R7A AGRA Inc	

ation and a	reference: Well com unface elevation: 35 foot Casing ele	pleted: evation	: 8 <sub>,</sub> A) :	9 <b>1 1</b> 9	92		AS-BUILT DESIGN
(Icci)	SOIL DESCRIPTION	SAMPLE TYPE	SAMPLE	BLOW COUNTS	OVM READING	CROUND WATER	Flush-mounted
	Surlace-3* asphallic concrete in parking area						Top of cashg Concrate
	Loose to madium dense, molst, gray- brown sondy GRAVEL/gravely SAND (FID	Τ	·S-1	20	4ppm	<u>▼</u> 413/92	2 Bentontie
	Loose, wel, dark brown, line la modium SAND (F#), Prominent sheen and hydrocarbon-like odor observed in sample		s-2	- 4 (	asi PDni	-	(Schoduka-40 PVC 4-Inch I.D.)
	Very loose to loose, saturated, grey fine to measurn SAND interbedded with soft, fibrous, PEAT		S-3	1	Ιρρη		Scroon (4-Jnch I.D.
	Sofi to medium still, wet, grey-brown SILT with trace organics hiorbedded with soft fitzaus PEAT		·S-4	ز م	ippm	•	schedulo 40 PVC with 0.01-Inch stols)
	Dense, wet to saluraled. grey stily GRAVEL with some line to medium sond		S-5	36	lppm		Threaded end cap
	– Medium dense, saluraled, groy line to - medium SAND		5-0	26	lppm	-	
_	Still to very still, wet, grey SILT with trace		<b>S-7</b>	13	Αρρη		
					-	 	<b>F</b>
	Very sliff, wel, grey SILT with frace fine sand		S-8	20	1ppm	· .	
-						•	
	Medium dense, saluraled, grey silly fine SAND/line sandy SILT		S-9	22	Ippri		

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Conserved groundwater level

# **RESOURCE PROTECTION WELL REPORT**

START CAHD NO. 43854

25/5E/5P

PROJECT NAME: CITY OF KIRKLAND - PETER KIN	zk PARK
WELL INDENTIFICATION NO	LOCATION: T 25 N,R SE ,SEC. 5 SE 1/4 of Scol
DRILLING METHOD: MALL ARANDONMENT	DISTANCE: FT. FROM N/S SECTION LINE
DRILLER: JON C. KOLOSKI	FT, FROM E/W SECTION LINE
FIRM: <u>GEDENGINEERS</u> INC.	DATUM:
SIGNATURE: Koloski	WATER LEVEL ELEVATION:
CONSULTING FIRM: SAME	INSTALLED: ABANDONED ON 2-19-93
REPRESENTATIVE: SAME	• DEVELOPED:



# **RESOURCE PROTECTION WELL REPORT**

5E/5P 25, START CARD NO/43854

F	PROJECT NAME: CITY OF KIRKLAND - PETER							2 KIRK PARK							
; V	VELL INDENT	IFICA	TION NO^				I	-OCA	TION	N: T-25.N, F	₹ <u>5€</u> ,SE	c. <u>5</u>	న€	1/4 of 50	
<u>'</u> [	DRILLING METHOD: MELL ARANDONMENT						i	DIST	ANCE		FT. FR	OM N/S	SECTIC	N LINE	
0	DRILLER:	<u>5 N C</u>	<u> . Koloski</u>								FT. FR	om e/w	SECTIO	N LINE	
F	1RM:64	DE	NGINGERS IN	<u>, , , , , , , , , , , , , , , , , , , </u>			Ľ	DATU	ім: <u> </u>			· ·	· -		
S	IGNATURE:_		Bac Koloski			· .	۷	VATE	RLE	EVEL ELEVA	ATION:				
C	ONSULTING I	FIRM:	SAME				· [	NST/	ALLE	D: ABAN	DONED	ON	2-19	7-93	
R	EPRESENTAT	IVE:_	SAME				- 1	DEVE		ED:					
• • •			• •			- • -							-	· · · · · · · · · · · · · · · · · · ·	
•		י סמי	NIECT. Viebland Par		r :1.			-	10	117 0100			1011 7		
		PRC	J <u>ECT Kirkiana Kes</u>	ource		rar	<u>y</u>	M	<u>v.O.</u>	W-8182	WEL	LNO.	<u>.M W-7</u>	1 <sup>.</sup>	
		Ground	on reference: I surface elevation: 34 (00)	Well com Casing ele	picted vation	: 0A, 2	pi <b>l</b> K	992		AS-B	UILT DESIGN		Page 1	•	
		=	Г — — — — — — — — — — — — — — — — — — —		щ	5	. r	2	.e.«		<u></u>	- · ·	012		
		DEP (feet)	SOIL DESCRIPTION		RWA TYPE	NMP UMB	0250	NON	NATE V		Hush-mount steet monut	nent	DALLST		
		- 0 -	Surlace - 2 1/2" asoballic coor	rele in		<b>e</b> 7		- ~	0 2		← Ground si — Jop of coth	xlace			
	•		porking area					1	·				· ·		
			Soll, wet, grey SiLT with some a	ravel (FII)	_		1	1			Сопста	10			
						S-1	4	ippn	1735792		Donion	10			
				4		: •		1			(Schedule	Ing 3-40 PVC -			
		5 -	Very loose to loose, saturated,	grey fine		c_ 7		-	-		4-Inch	I.D.)	-	•	
			organics	eimxed		J-2.	. 4	i ppi	1		10-20 sone	t .		-	
	-			·			· .		ĺ		filler pack				
				1		S-3	З	Ippni							
			Interbedded with soll, brown,	_1		-					Scieen (4-Inch I.D.				
						-S-4	13	ippm	<b>–</b>	THE PARTY OF	schedule 4 PVC with	0.	-	• • •	
•			Madium dense, saluraled, ore	vsitv		·				HILL	0.01-Inch slo	ls)		- 44 	
			sandy GRAVEL/silly grovely SA	ND		_				11111	1 1 1			· ·	
				1		S-5	15	lppm			Ihroodod c	nd cap			
		- 15 -	• •									•			
			Bottom of botion at 15 fee		ĺ										
			penemer pointg at to iot	" <b>`</b>	[									-	
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		• 30 J									1		L	•	

n noiseval	elerence: face elevation: 34 [00]	Well comple Casing cleva	ited: 0/	\p <b>i</b> ∎ 19	X72		AS-BU	JILT DESIGN	Page of 2
i iii	SOIL DESCRIPTION	SAMPLE	TYPE SAMPLE MUMBER	BLOW	OVM READING	GROUND	· · ·		TESTIN
	Surlace - 2 1/2° asphallic con parking area	crele in		-				Ground surface — Top of cashg	
	Soll, wet, grey SILT with some	gravel (FII) —			loon	<u>v</u>		Concrete Bentonite	1
						n/ 13/ Y2		Cosing (Schodula-40 PVC	
-	Very loose to loose, saturated to modium SAND with trace is organics	i, grey line nieimked 	<b>S-2</b> .	.4	lppm	-		4-inch I.D. )	
			[  s-3	3	Ippm			fillor pack	
0 -	Interbedded with soll, brown, amorphous PEAT		┕╴┤ ┎╴┨╴╶	-		-		Screen (4-Inch I.D. schedule 40	
	Medium dense, saturated, gri	ey silty	<b>S</b> -4	13	ίρρπ		1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1	PVC with 0.01-inch slots)	
	sandy GRAVEL/silly grovelly S	₩D —	-s-5	15	lppm	•	The second s	Ihreaded end cap	
s			<u> </u>	1					
	Bottom of boring at 15 fe	oet.		1				•	
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		<b> </b> .							

2-Inch O.D. 1981-1990n tompie

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11335 NE 122nd Way, Suite 100 Kitkland, Washington 98034-6918

Geolechnical & Environmental Group

### APPENDIX A.4 REFERENCE INFORMATION FOR JUANITA BEACH PARK

Included in this section are City of Kirkland Landslide Susceptibility Map and Liquefaction Susceptibility Map, and exploration logs from previous studies completed in the immediate vicinity of the project site.









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Fu BLOG. LIMITS brown groo SILT COST TOD. M. SAND lose ton me OOSE SAND Soft brn. any organio SILT w/ayers of PEAT SAND sofbrown org. SILT, w/oce 1415. PEDT mod dense to denso Ane - med. SAND con. gr. crse. SAND Some sint ENSE - TO - DENSE w/occasional loyers of o.m. MATTER



16975 **RESOURCE PROTECTION WELL REPORT** 104947 START CARD NO. R. 58642 PROJECT NAME: Juanita Village Cleaners COUNTY: King 26-5E-30R WELL IDENTIFICATION NO. AGT 042 LOCATIONSE 14 SE 14 SOBO TWO DON R SE The Department of Ecology does NOT Warranty the Data and/or the Information on this Well Report. TORILLING METHOD: HSA STREET ADDRESS OF WELL: NE WOTH place & 97th AVE NE, ORILLER: BRIAN LODSE Ki. Kland WA Cascade Drilling, Inc. WATER LEVEL ELEVATION: 37 FIRM: SIGNATURE · · · · · Gallowa Env. CONSULTING FIRM: INSTAULED: ....... 101 14 REPRESENTATIVE: Dary Gal DEVELOPED: NO 1599 sec next page : FORMATION DESCRIPTION AS-BUILT WELL DATA 0-50 ft. Brown sand w/ gilt. WELL COVER CONCRETE SURFACE SEAL DEPTH = 1/ft .: PVC BLANK 2 "x 35 ft. BACKFILL TYPE: ft. PVC SCREEN SLOT SIZE: GRAVEL PACK MATERIAL: 2 RECEIVED OCT 1 9 2001 WELL DEPTH 50. DEPT OF ECOLOGY SCALE: 1" -PAGE OF ECY 050-12 (Rov. 11/89) 10494

**RESOURCE PROTECTION WELL REPORT** START CARD NO. R. 58642 104948 COUNTY: King PROJECT NAME: Juanita Village Cleaners 26-5E-30 R WELL IDENTIFICATION NO. \_ AGT 643 LOCATIONSEN SE N S0030 TWN 2010 R 5E DRILLING METHOD: HSA STREET ADDRESS OF WELL: NE DOT place & 97th AVE NE, Kirkhand WA DRILLER: Brian Lose FIRM: Cascade Drilling, Inc. WATER LEVEL ELEVATION: GROUND SURFACE EXEVATION: N/A INSTALLED: 9601 SIGNATURE: CONSULTING FIRM: Galloway 'Env. REPRESENTATIVE: bary ballowing DEVELOPED: 1599 AS-BUILT WELL DATA FORMATION DESCRIPTION 0 - 45 Ft. Brown samel solt. + fome grave WELL COVER CONCRETE SURFACE SEAL DEPTH = 1/ft\_\_\_\_\_ft. .: PVC BLANK 2 "x 36" BACKFILL \_\_\_\_\_\_ TYPE: hent. ft. PVC SCREEN 2"x 15" SLOT SIZE: GRAVEL PACK 17 ft MATERIAL: RECEIVEDT OCT 1 9 2001 DEPT OF ECOLOGY WELL DEPTH 45. SCALE: 1" -PAGE OF ECY 050-12 (Roy. 11/89) 104948

The Department of Ecology does NOT Warranty the Data and/or the Information on this Well Report.

# **APPENDIX B** Report Limitations and Guidelines for Use

### APPENDIX B REPORT LIMITATIONS AND GUIDELINES FOR USE<sup>1</sup>

This appendix provides information to help you manage your risks with respect to the use of this report.

#### **Geotechnical Services Are Performed for Specific Purposes, Persons and Projects**

This report has been prepared for the exclusive use of Opsis Architecture, LLP and other project team members for the City of Kirkland Recreation and Aquatics Centers project in Kirkland, Washington. This report is not intended for use by others, and the information contained herein is not applicable to other sites.

GeoEngineers structures our services to meet the specific needs of our clients. For example, a geotechnical or geologic study conducted for a civil engineer or architect may not fulfill the needs of a construction contractor or even another civil engineer or architect that are involved in the same project. Because each geotechnical or geologic study is unique, each geotechnical engineering or geologic report is unique, prepared solely for the specific client and project site. Our report is prepared for the exclusive use of our Client. No other party may rely on the product of our services unless we agree in advance to such reliance in writing. This is to provide our firm with reasonable protection against open-ended liability claims by third parties with whom there would otherwise be no contractual limits to their actions. Within the limitations of scope, schedule and budget, our services have been executed in accordance with our Agreement with the Client and generally accepted geotechnical practices in this area at the time this report was prepared. This report should not be applied for any purpose or project except the one originally contemplated.

#### A Geotechnical Engineering or Geologic Report Is Based on a Unique Set of Project-specific Factors

This report has been prepared for the City of Kirkland Recreation and Aquatics Centers project in Kirkland, Washington. GeoEngineers considered a number of unique, project-specific factors when establishing the scope of services for this project and report. Unless GeoEngineers specifically indicates otherwise, do not rely on this report if it was:

- Not prepared for you,
- Not prepared for your project,
- Not prepared for the specific site explored, or
- Completed before important project changes were made.

For example, changes that can affect the applicability of this report include those that affect:

- The function of the proposed structure;
- Elevation, configuration, location, orientation or weight of the proposed structure;

<sup>&</sup>lt;sup>1</sup> Developed based on material provided by ASFE, Professional Firms Practicing in the Geosciences; www.asfe.org .

- Composition of the design team; or
- Project ownership.

If important changes are made after the date of this report, GeoEngineers should be given the opportunity to review our interpretations and recommendations and provide written modifications or confirmation, as appropriate.

#### **Subsurface Conditions Can Change**

This geotechnical or geologic report is based on conditions that existed at the time the study was performed. The findings and conclusions of this report may be affected by the passage of time, by manmade events such as construction on or adjacent to the site, or by natural events such as floods, earthquakes, slope instability or groundwater fluctuations. Always contact GeoEngineers before applying a report to determine if it remains applicable.

#### **Most Geotechnical and Geologic Findings Are Professional Opinions**

Our interpretations of subsurface conditions are based on field observations from widely spaced sampling locations at the site. Site exploration identifies subsurface conditions only at those points where subsurface tests are conducted or samples are taken. GeoEngineers reviewed field and laboratory data and then applied our professional judgment to render an opinion about subsurface conditions throughout the site. Actual subsurface conditions may differ, sometimes significantly, from those indicated in this report. Our report, conclusions and interpretations should not be construed as a warranty of the subsurface conditions.

#### **Geotechnical Engineering Report Recommendations Are Not Final**

Do not over-rely on the preliminary construction recommendations included in this report. These recommendations are not final, because they were developed principally from GeoEngineers' professional judgment and opinion. GeoEngineers' recommendations can be finalized only by observing actual subsurface conditions revealed during construction. GeoEngineers cannot assume responsibility or liability for this report's recommendations if we do not perform construction observation.

Sufficient monitoring, testing and consultation by GeoEngineers should be provided during construction to confirm that the conditions encountered are consistent with those indicated by the explorations, to provide recommendations for design changes should the conditions revealed during the work differ from those anticipated, and to evaluate whether or not earthwork activities are completed in accordance with our recommendations. Retaining GeoEngineers for construction observation for this project is the most effective method of managing the risks associated with unanticipated conditions.

#### A Geotechnical Engineering or Geologic Report Could Be Subject to Misinterpretation

Misinterpretation of this report by other design team members can result in costly problems. You could lower that risk by having GeoEngineers confer with appropriate members of the design team after submitting the report. Also retain GeoEngineers to review pertinent elements of the design team's plans and specifications. Contractors can also misinterpret a geotechnical engineering or geologic report. Reduce that risk by having GeoEngineers participate in pre-bid and preconstruction conferences, and by providing construction observation.

#### **Do Not Redraw the Exploration Logs**

Geotechnical engineers and geologists prepare final boring and testing logs based upon their interpretation of field logs and laboratory data. To prevent errors or omissions, the logs included in a geotechnical engineering or geologic report should never be redrawn for inclusion in architectural or other design drawings. Only photographic or electronic reproduction is acceptable, but recognize that separating logs from the report can elevate risk.

#### **Give Contractors a Complete Report and Guidance**

Some owners and design professionals believe they can make contractors liable for unanticipated subsurface conditions by limiting what they provide for bid preparation. To help prevent costly problems, give contractors the complete geotechnical engineering or geologic report, but preface it with a clearly written letter of transmittal. In that letter, advise contractors that the report was not prepared for purposes of bid development and that the report's accuracy is limited; encourage them to confer with GeoEngineers and/or to conduct additional study to obtain the specific types of information they need or prefer. A pre-bid conference can also be valuable. Be sure contractors have sufficient time to perform additional study. Only then might an owner be in a position to give contractors the best information available, while requiring them to at least share the financial responsibilities stemming from unanticipated conditions. Further, a contingency for unanticipated conditions should be included in your project budget and schedule.

#### **Contractors Are Responsible for Site Safety on Their Own Construction Projects**

Our geotechnical recommendations are not intended to direct the contractor's procedures, methods, schedule or management of the work site. The contractor is solely responsible for job site safety and for managing construction operations to minimize risks to on-site personnel and to adjacent properties.

#### **Read These Provisions Closely**

Some clients, design professionals and contractors may not recognize that the geoscience practices (geotechnical engineering or geology) are far less exact than other engineering and natural science disciplines. This lack of understanding can create unrealistic expectations that could lead to disappointments, claims and disputes. GeoEngineers includes these explanatory "limitations" provisions in our reports to help reduce such risks. Please confer with GeoEngineers if you are unclear how these "Report Limitations and Guidelines for Use" apply to your project or site.

#### Geotechnical, Geologic and Environmental Reports Should Not Be Interchanged

The equipment, techniques and personnel used to perform an environmental study differ significantly from those used to perform a geotechnical or geologic study and vice versa. For that reason, a geotechnical engineering or geologic report does not usually relate any environmental findings, conclusions or recommendations; e.g., about the likelihood of encountering underground storage tanks or regulated contaminants. Similarly, environmental reports are not used to address geotechnical or geologic concerns regarding a specific project.

### **Biological Pollutants**

GeoEngineers' Scope of Work specifically excludes the investigation, detection, prevention or assessment of the presence of Biological Pollutants. Accordingly, this report does not include any interpretations, recommendations, findings, or conclusions regarding the detecting, assessing, preventing or abating of Biological Pollutants and no conclusions or inferences should be drawn regarding Biological Pollutants, as they may relate to this project. The term "Biological Pollutants" includes, but is not limited to, molds, fungi, spores, bacteria, and viruses, and/or any of their byproducts.

If Client desires these specialized services, they should be obtained from a consultant who offers services in this specialized field.

# **Chris Roberts**

From:	David Conlin <dconlin@geoengineers.com></dconlin@geoengineers.com>
Sent:	Thursday, September 8, 2022 12:14 PM
То:	Chris Roberts
Cc:	Emily Hurn; mmcarthur; Fiona M. McNair; Carson Cheung
Subject:	Kirkland RAFS - Environmental Review
Attachments:	Kirkland RAFS_Table 1. Critical Areas Summary_GeoEngineers.pdf

Hi Chris,

This email serves as transmittal of our deliverable addressing environmental review in support of the City of Kirkland Recreation and Aquatics Feasibility Study (RAFS) project.

### Introduction

GeoEngineers was contracted by Opsis Architecture to support the project by evaluating up to four sites that may be potentially developed with a large aquatics and recreation center and/or a medium-sized community recreation center. Our scope included a paper study that would be used to help develop a short-list of three preferred sites. Although our scope relies primarily on a review of existing data and did not include field assessment, we also participated in a workshop during which each of the sites was briefly visited, as described below.

### <u>Methods</u>

We completed background data research on existing mapped critical areas on or adjacent to each of the four potential sites (Houghton Park and Ride, Peter Kirk Park, North Kirkland Community Center Park, and Juanita Beach Park North). For the purposes of this scope, critical areas that were considered include wetlands, streams, lakes, wildlife habitat areas, frequently flooded areas, and associated buffers. We also reviewed jurisdiction under the Shoreline Management Act. We did not include geologic hazard areas (steep slopes, landslide hazards, etc.), critical aquifer recharge areas, or tree management/landscape requirements in our review.

Our review included the following data sources:

- City of Kirkland Greater Downtown Kirkland Urban Center Plan
- City of Kirkland Sustainability Master Plan (2020)
- City of Kirkland Aquatics, Recreation, & Commnity Center Concept Plan, Part 2: Technical Report (2014)
- Juanita Beach Park Master Plan Report (J.A. Brennan Associates 2006)
- Final Wetland/Stream Delineation Report and Mitigation Plan, Juanita Beach Park Phase II Improvements Project (Shannon & Wilson 2017)
- City of Kirkland GIS Data Critical Areas/Wetlands/Streams/Lakes
- King County iMap GIS Data Critical Areas/Wetlands/Streams/Lakes
- Washington State Department of Fish & Wildlife, Priority Habitats and Species Data
- Federal Emergency Management Agency, Flood Insurance Rate Maps
- Washington Department of Natural Resources Forest Practices Application Mapping Tool
- City of Kirkland Zoning Code, Chapter 90 (Critical Areas: Wetlands, Streams, Minor Lakes, Fish and Wildlife Habitat Conservation Areas, and Frequently Flooded Areas)

We also completed a brief site visit to visually assess the conditions at each site. This did not include a detailed assessment or wetland delineation nor did we examine adjacent properties in person for potential critical areas that could have buffers extending onto the sites.

# <u>Results</u>

The results of our assessment are presented in the **attached tabular matrix**. In summary:

- Juanita Beach Park and Juanita Bay Park are characterized by extensive wetlands (J.A. Brennan 2006, City of Kirkland 2014, The Watershed Company 2016, Shannon & Wilson 2017). However, wetlands identified within the park are located south of NE Juanita Dr, whereas the subject site investigated is located to the north of this major arterial roadway; wetland buffers are therefore not anticipated to extend to the subject site.
- Juanita Creek flows adjacent to and partially within Juanita Beach Park North, continuing through the southern section as well. Juanita Creek is considered a Type F stream, requiring a 100-foot stream buffer according to Table 90.65.1, Streams and Associated Buffer Standards (City of Kirkland Zoning Code, Chapter 90), as well as an additional 10-foot structure setback from the edge of the buffer according to code section 90.140. Juanita Creek provides habitat for ESA-listed fish species.
- Peter Kirk Park is characterized by an area of shallow ponding, 1 to 3 feet in depth, at a BFE of 32 feet, which is mapped as a Zone AH Flood Hazard Area by FEMA.
- Lake Washington is a Shoreline of the State. Juanita Beach Park North is beyond the limits of shoreline jurisdiction. No other sites are within the jurisdiction of the City of Kirkland Shoreline Master Program.
- No other critical areas were identified at any of the other sites.

David B. Conlin, PWS | Senior Biologist | GeoEngineers, Inc. o: 253.722.2414 | c: 253.363.2003 | <u>dconlin@geoengineers.com</u> 1101 Fawcett Avenue, Suite 200 | Tacoma, WA 98402 | <u>www.geoengineers.com</u>

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### Table 1. Summary of Critical Areas and Environmental Permitting Considerations

Location	Critical Area	s Present at the Site	Preliminary Required Buffer Associated with Critical Area	Permitting Implications		
	Wetlands	No	NA	None		
Houghton Park & Ride	Streams	No	NA	None		
7024 116th Ave NE, Kirkland,	Lake	No	NA	None		
WA 98033	Wildlife Habitat Area	No	NA	None		
	Frequently Flooded Areas	No	NA	None		
	Wetlands	No	NA	None		
	Streams	No	NA	None		
Peter Kirk Park	Lake	No	NA	None		
202 3rd St, Kirkland 98033	Wildlife Habitat Area	No	NA	None		
	Frequently Flooded Areas	Yes - FEMA Zone AH ("Flood depths of 1 to 3 feet [usually areas of ponding])"	NA	Potential to require a Letter of Map Revision-Based on Fill (LOMR-F). FIRM Map indicates Base Flood Elevation of 32 feet.		
	Wetlands	No	NA	None		
North Kirkland Community	Streams	No	NA	None		
12421 103rd Ave NF Kirkland	Lake	No	NA	None		
WA 98034	Wildlife Habitat Area	No	NA	None		
	Frequently Flooded Areas	No	NA	None		
	Wetlands	No	NA	None		
lugnite Deceb David Marth	Streams	Yes - Juanita Creek	100 feet + 10-foot structure setback	Improvements should avoid stream/buffer and site should comply with vegetative requirements in buffer; alternatively, there are provisions for buffer reduction and/or mitigation. Impacts to Waters of the State or Waters of the U.S. would trigger additional federal and state permit requirements.		
9703 Juanita Dr NE, Kirkland, WA 98034	Lake	No - OHWM of Lake Washington is >550 ft from northern portion of park where development is proposed.	NA	None		
	Wildlife Habitat Area	Yes - Juanita Creek (Steelhead and Chinook salmon)	NA	Fish species are addressed through compliance with streams and associated buffer requirements - see above. Impacts to stream habitat for federally protected species would trigger a number of additional permits		
	Frequently Flooded Areas	No	NA	None		

# MEMORANDUM

DATE: February 8, 2023

TO: Chris Roberts, AIA, OPSIS

FROM: Michael Read, PE, Principal, TENW

### SUBJECT: Kirkland Community Centers – Traffic & Parking Evaluation TENW Project No. 2022-253

This memorandum summarizes the results of a preliminary traffic and parking analysis of the proposed recreational facilities at two different sites in the City of Kirkland. Known as the Kirkland Community Centers project, redevelopment of the existing North Kirkland Community Center and transformation of the existing Houghton Park-and-Ride facility/transit center are under consideration. The proposed facilities would range in size from approximately 48,000 square-feet to upwards of 103,000 square-feet to provide a new aquatics facility, active recreational spaces, new community event spaces to serve a variety of programs and supporting administrative/maintenance areas.

This study addresses the following traffic impacts associated with the proposed action:

- > Description of potential development options at each proposed project site.
- > Documentation of existing adjacent roadway and intersection conditions.
- Estimation of vehicular weekday a.m. peak hour, p.m. peak hour, and daily trips generated by the proposed development options.
- > Evaluation of peak parking demand of development options.

# **Project Description**

The Kirkland Community Centers project is considering redevelopment of the existing North Kirkland Community Center and transformation of the existing Houghton Park-and-Ride facility/transit center into a new community recreational facility. Both project sites would be redeveloped with structured parking and multistory recreational/community facilities that are contained within each property. Vehicular site access would be maintained at the North Kirkland Community Center via 103<sup>rd</sup> Avenue NE at its intersection with NE 124<sup>th</sup> Street, although reconstruction of 103<sup>rd</sup> Avenue NE is expected along with a new traffic signal at its intersection with NE 124<sup>th</sup> Street. proposed via SE 216<sup>th</sup> Street via its intersection to the west at 132<sup>nd</sup> Avenue SE. Site access at the Houghton Park-and-Ride facility would be maintained with a full access driveway onto NE 70<sup>th</sup> Place, a signalized access onto 116<sup>th</sup> Avenue NE at the NB I-405 freeway ramps, and a full access driveway to the south onto 116<sup>th</sup> Avenue NE.

Redevelopment options under consideration at the North Kirkland site range from approximately 48,617 square-feet with 151 on-site parking stalls to approximately 73,299 square-feet and 198 on-site stalls. At the Houghton Park-and-Ride site, development options range from approximately

85,415 square-feet with 292 on-site parking stalls to 102,738 square-feet and 348 stalls. Under each development option, a variety of programming programs to serve as community spaces, indoor/outdoor recreational activities, and an indoor aquatic center are under consideration. Ground level site plans of each option at both sites are provided in Attachment A.

# **Existing Roadway Conditions**

As noted, the North Kirkland site is served via 103<sup>rd</sup> Avenue NE onto the NE 124<sup>th</sup> Street arterial corridor. This arterial is generally 5-lanes in the site vicinity with a posted speed limit of 35-mph. Sidewalks are provided along both sites of the street and transit services via King County Metro Route 255 are provided immediately west of the site access intersection with service frequencies approximately every 15 minutes during peak weekday commute periods and every 30 minutes during weekday non-peak hours and on weekends. Peak two-way traffic flows on NE 124<sup>th</sup> Street west of 103<sup>rd</sup> Avenue NE average approximately 1,300 vehicles during the AM peak hour and 1,650 vehicles during the PM peak hour.

Both 116<sup>th</sup> Avenue NE and NE 70<sup>th</sup> Place serve the existing Houghton Park-and-Ride site. A signalized intersection at 116<sup>th</sup> Avenue NE provides direct access onto northbound I-405, serving both the on-ramp and off-ramp at this location. To accommodate peak directional flows at this signalized intersection, 116<sup>th</sup> Avenue NE is generally 5-lanes in the immediate vicinity of the site, transitioning to 2-lanes south of the property. Generally, a continuous sidewalk is provided on the east side of 116<sup>th</sup> Avenue NE, while only segments of sidewalk are provided on the west side in the project vicinity. The speed limit is posted at 35-mph. NE 70<sup>th</sup> Place is generally a 3-lane arterial with bike lanes along the site frontage. Continuous sidewalks are provided on both sides of NE 70<sup>th</sup> Place with a posted speed limit of 30-mph. Fixed-route transit service directly serves the site via King County Metro Route 245 and a freeway flyer stop for Route 342 is provided within 250 feet for northbound service and approximately 1,000 feet of walking distance to southbound service along I-405. Similar service frequencies to Route 255 are provided on 342 during peak commute periods only.

Peak two-way traffic flows on NE 70<sup>th</sup> Place average 1,200 vehicles during the AM and PM peak hours, while range from approximately 1,125 vehicles during the AM peak hour to 1,450 vehicles during the PM peak hour on 116<sup>th</sup> Avenue NE.

# **Project Trip Generation Analysis**

Published trip rate equations compiled by the Institute of Transportation Engineers (ITE) Trip Generation Manual, 11<sup>th</sup> Edition, 2021, for Land Use Code 495 – Recreational Community Center were initially applied to provide a trip generation analysis of the project. Vehicle trip generation ranges for each site development were generated and reported in Table 1. As shown, an estimated range of between 93 and 140 AM peak hour trips and 122 to 183 PM peak hour trips would be generated at the North Kirkland Community Center site, while a range of between 140 and 163 AM peak hour trips and 183 to 214 new PM peak hour trips would be generated at the Houghton Park-and Ride site. Weekday daily vehicle trip generation ranges from approximately 1,375 to 2,862 oneway daily vehicle trips depending upon the selected site buildout.

Kirkland Community Centers Trip Generation Summary										
Time Period	In	Out	Total							
North Kirkland Community Center – 48,617 SF										
Weekday AM Peak Hour	61	32	93							
Weekday PM Peak Hour	57	65	122							
Weekday Daily	687	688	1,375							
North Kirkland Community Center – 73,299 SF										
Weekday AM Peak Hour	92	48	140							
Weekday PM Peak Hour	86	75	183							
Weekday Daily	1,028	1,028	2,056							
Houghton Po	ark-and Ride	Site – 85,415 SF	:							
Weekday AM Peak Hour	108	55	163							
Weekday PM Peak Hour	100	114	214							
Weekday Daily	1,194	1,194	2,388							
Houghton Park-and Ride Site – 102,738 SF										
Weekday AM Peak Hour	130	66	196							
Weekday PM Peak Hour	121	136	257							

Source: Trip Generation Manual, 11<sup>th</sup> Edition, ITE, 2021.

# **Parking Demand Analysis**

Published parking generation rate equations compiled by the Institute of Transportation Engineers (ITE) Trip Generation, 5<sup>th</sup> Edition, 2019, for Land Use Code 495 – Recreational Community Center were to provide a parking generation analysis of the project. Considering peak person utilization all program areas simultaneously within each option, peak demand for parking could exceed these published rates. As such, scheduling of events with peak person utilization, special events or swim meets within the aquatic program of the facility, can be managed with effective parking management measures. For the purposes of programming, supply is higher than peak demand to provide an effective parking facility. As shown, parking surplus is expected under each development option.

Table 2										
Kirkland Community Centers Parking Generation Summary										
Location/Option	Total Peak Demand	Proposed Supply	Surplus(+) or Deficit(-)							
North Kirkland Community Center – 48,617 SF	101 stalls	151 stalls	+50							
North Kirkland Community Center – 73,299 SF	152 stalls	196 stalls	+44							
North Kirkland Community Center – 48,617 SF	177 stalls	292 stalls	+115							
North Kirkland Community Center – 48,617 SF	213 stalls	348 stalls	+135							
Source: Parking Generation Manual 5th Edition 1Th	- 2019									

ce: Parking Generation Manual, 5" Edition, 11E, 2019.

# **General Site Access Analysis**

For the redevelopment under consideration at the North Kirkland site, at a minimum frontage improvements and roadway would be required along 103<sup>rd</sup> Avenue NE to accommodate the expected peak demand and expected queuing southbound to a new signal at NE 124<sup>th</sup> Street. Given expected site trip generation and existing peak two-way flows currently along NE 124<sup>th</sup> Street, site access would require a traffic signal to provide for safety and reduced delay for site entry/exit. Also, with an increase in pedestrian access via neighboring residents and transit accessibility, a controlled signal for pedestrian crossings of NE 124<sup>th</sup> Street would also be recommended. Provision for secondary site access for fire/emergency vehicles via 105<sup>th</sup> Avenue NE is also recommended.

Given the existing arterial capacity provided at the Houghton Park-and-Ride facility along 116<sup>th</sup> Avenue NE and NE 70<sup>th</sup> Place that includes exclusive left turn only lanes and signalized access control, no additional traffic capacity improvements would be required for the proposed facilities under either option. Continuation of direct transit services to the site should be planned to accommodate fixed route buses or shuttle/school buses from area schools that would likely be using the site for school recreational programs at these 85,000+ square-foot buildings.

If you have any questions regarding the information presented in this memo, please call me at (206)361-7333x101ormikeread@tenw.com.