

Diamond Scoring Key						
		0	1	2	3	Considerations
Overall Field Condition						
	Inadequate/Poor Quality Field		1			Based on reviewers impression of the field considering multiple factors related to field condtion. This may be more subjective than individual elements
	Adequate/Good Quality Field			2		
	Excellent Quality Field				3	
Infield Condition						
	Inadequate/Poor Quality Infield		1			Are drainage issues present (is there standing water/mud)? Is there a noticeable ridge between infield and outfield? Are there areas with extreme wear?
	Adequate/Good Quality Infield			2		
	Excellent Quality Infield				3	
Turf Quality						
	Inadequate/Poor Quality Turf		1			Are there weeds present? Is turf patchy/worn? Is the field a
	Adequate/Good Quality Turf			2		
	Excellent Quality Turf				3	
Irrigation						
	No Irrigation	0				Does grass area appear to be fully covered? Are there any dry/dead spots?
	Inadequate Irrigation		1			
	Adequate Irrigation			2		
	Excellent Irrigation				3	
Field Lighting						
	No Field Lighting	0				Is the lighting LED? Are there sufficient light poles for even light distribution?
	Inadequate Quality Field Lighting		1			
	Adequate Quality Field Lighting			2		
	Excellent Field Lighting				3	
Backstop/Fencing						
	No backstop/Fencing	0				Is the field fully fenced? Are there holes/wear/rust on the fence? How many backstops are there? Do the backstops show signs of wear?
	Inadequate/Poor Quality Backstop/Fencing		1			
	Adequate/Good Quality Backstop/Fencing			2		
	Excellent Backstop/Fencing				3	
Dugout						
	No dugout	0				Is the dugout covered? Do benches show signs of wear?
	Inadequate/Poor Quality Dugout		1			
	Adequate/Good Quality Dugout			2		
	Excellent Dugout				3	
Bleachers						
	No Bleachers	0				Is there enough bleacher seating available? Do bleachers show signs of wear?
	Inadequate/Poor Quality Bleachers		1			
	Adequate/Good Quality Bleachers			2		
	Excellent Bleachers				3	

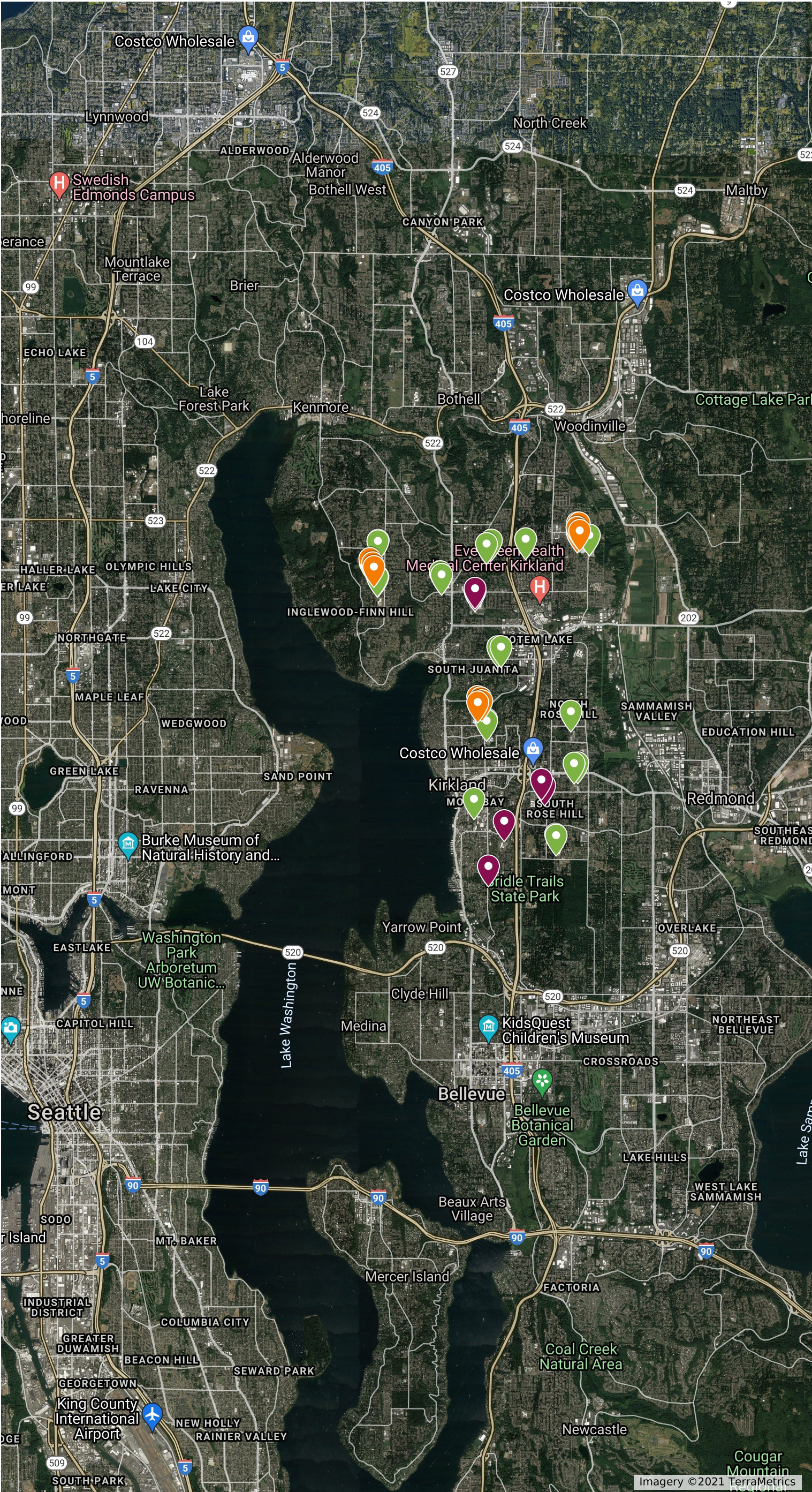
Park/School	Address	Field Name	Use	Field	Shape - Diamond								Notes	
					Overall Field Condition	Infield Condition	Turf Quality	Irrigation	Field Lighting	Backstop/Fencing	Dugout	Bleachers		
132nd Square Park	13159 132nd Ave NE, Kirkland	132nd Square Park Field 1 (to remain)	Up to U10 Baseball & Select Softball		2	3	1.5	0	0	2	1.5	2		
			Micro Soccer Practice in outfield		(No Mound)									
		132nd Square Park Field 2 (eliminated during redevelopment)	Up to U10 Baseball & Select Softball											
			Micro Soccer Practice in outfield											
Crestwoods Park	1818 6th Street, Kirkland		Softball through Adult		2	3	2	3	0	2.5	2.5	2	Dip between outfields of Field 1 and 2	
		Crestwoods Field 1	Youth Soccer In Outfield						No perimeter	Simple bench, covered	3 row			
			Softball through Adult	2	3	2	3	0	2.5	2.5	2	Dip between outfields of Field 1 and 2		
		Crestwoods Field 2	Youth Soccer In Outfield						Small backstop	Simple bench, covered	3 row			
			Up to U10 Baseball & Select Softball	3	3	3	3	0	3	2.5	2			
Everest Park	500 8th Street South, Kirkland		Settlement of drain in outfield							Somewhat worn vinyl coating	Simple bench, covered	3 row	Field is far away from parking/main road	
		Crestwoods Field 4	Youth Soccer In Outfield											
				3	3	2	3	0	3	3	3			
		Everest Field 1	Up to U12 Baseball & Collegiate Softball Games & Tournaments									Bulpen x 4, batting cage, press box		
			Settles into outfield, standing water by 2nd base											
Highlands Park	11210 NE 102nd Street, Kirkland				3	3	2	3	0	3	3	3	Bulpen x 2 (Worn)	
		Everest Field 2	Up to U12 Baseball & Collegiate Softball Games & Tournaments						Ridge between infield/outfield					
				3	3	3	3	0	3	3	3			
		Everest Field 3	Up to Collegiate Softball Games & Tournaments						Ridge between infield/outfield				Softball only, outfield facing playground/other fields, no mound	
				3	2	3	2.5	0	3	3	3			
Juanita Beach Park	9703 NE Juanita Drive, Kirkland		Up to U12 Baseball & Collegiate Softball Games & Tournaments										No bulpen	
			Irregular Grading											
Peter Kirk Park	202 3rd Street, Kirkland		Practice use up to U10 Baseball & Youth Softball		1	1	1	0	0	2	0	0		
			Practice youth soccer in Outfield							Present, but not on or active				
			Up to U10 Baseball & Youth Softball	1	3	1	0	0	2	2	2			
			Practice youth soccer in Outfield											
Spinney Homestead Park	11710 NE 100th Street, Kirkland		Up to U10 Baseball & Youth Softball		1	2	1	0	0	2	2	2		
			Pee Wee/Micro Soccer in outfield											
			U13+ Baseball Games & Tournaments	3	3	3	3	3	3	3	3	3		
Juanita High School	10601 NE 132nd Street, Kirkland		Practice use up to U10 Baseball & Youth Softball		1	1	1	0	0	1	0	0	Site is at the low-point with slopes down on all sides. "Bathtub" effect.	
			Practice youth soccer in Outfield											
			High School Level Softball	3	3	3	0	0	3	3	3	3	New	
			Juanita HS Field 1.5											
Lake Washington High School	12033 NE 80th Street, Kirkland		High School Level Baseball		3	3	3	0	0	3	3	3	New	
			Juanita HS Field 2											
			Juanita HS Field 3											
Finn Hill	8040 NE 132nd Street, Kirkland		High School Level Softball		3	3	3	0	0	3	3	3	New	
			Juanita HS Field 2											
			Juanita HS Field 3											
Kirkland Middle School	430 18th Ave NE, Kirkland		High School Level Softball		3	3	3	0	0	3	3	3	New	
			Juanita HS Field 2											
			Juanita HS Field 3											
Kirkland Middle School	430 18th Ave NE, Kirkland		High School Level Softball		3	3	3	0	0	3	3	3	New	
			Juanita HS Field 2											
			Juanita HS Field 3											
Kirkland Middle School	430 18th Ave NE, Kirkland		High School Level Softball		3	3	3	0	0	3	3	3	New	
			Juanita HS Field 2											
			Juanita HS Field 3											
Kirkland Middle School	430 18th Ave NE, Kirkland		High School Level Softball		3	3	3	0	0	3	3	3	New	
			Juanita HS Field 2											
			Juanita HS Field 3											
Kirkland Middle School	430 18th Ave NE, Kirkland		High School Level Softball		3	3	3	0	0	3	3	3	New	
			Juanita HS Field 2											
			Juanita HS Field 3											
Kirkland Middle School	430 18th Ave NE, Kirkland		High School Level Softball		3	3	3	0	0	3	3	3	New	
			Juanita HS Field 2											
			Juanita HS Field 3											
Kirkland Middle School	430 18th Ave NE, Kirkland		High School Level Softball		3	3	3	0	0	3	3	3	New	
			Juanita HS Field 2											
			Juanita HS Field 3											
Kirkland Middle School	430 18th Ave NE, Kirkland		High School Level Softball		3	3	3	0	0	3	3	3	New	
			Juanita HS Field 2											
			Juanita HS Field 3											
Kirkland Middle School	430 18th Ave NE, Kirkland		High School Level Softball		3	3	3	0	0	3	3	3	New	
			Juanita HS Field 2											
			Juanita HS Field 3											
Kirkland Middle School	430 18th Ave NE, Kirkland		High School Level Softball		3	3	3	0	0	3	3	3	New	
			Juanita HS Field 2											
			Juanita HS Field 3											
Kirkland Middle School	430 18th Ave NE, Kirkland		High School Level Softball		3	3	3	0	0	3	3	3	New	
			Juanita HS Field 2											
			Juanita HS Field 3											
Kirkland Middle School	430 18th Ave NE, Kirkland		High School Level Softball		3	3	3	0	0	3	3	3	New	
			Juanita HS Field 2											
			Juanita HS Field 3											
Kirkland Middle School	430 18th Ave NE, Kirkland		High School Level Softball		3	3	3	0	0	3	3	3	New	
			Juanita HS Field 2											
			Juanita HS Field 3											
Kirkland Middle School	430 18th Ave NE, Kirkland		High School Level Softball		3	3	3	0	0	3	3	3	New	
			Juanita HS Field 2											
			Juanita HS Field 3											
Kirkland Middle School	430 18th Ave NE, Kirkland		High School Level Softball		3	3	3	0	0	3	3	3	New	
			Juanita HS Field 2											
			Juanita HS Field 3											
Kirkland Middle School	430 18th Ave NE, Kirkland		High School Level Softball		3	3	3	0	0	3	3	3	New	
			Juanita HS Field 2											
			Juanita HS Field 3											
Kirkland Middle School	430 18th Ave NE, Kirkland		High School Level Softball		3	3	3	0	0	3	3	3	New	
			Juanita HS Field 2											
			Juanita HS Field 3											
Kirkland Middle School	430 18th Ave NE, Kirkland		High School Level Softball		3	3	3	0	0	3	3	3	New	
			Juanita HS Field 2											
			Juanita HS Field 3											
Kirkland Middle School	430 18th Ave NE, Kirkland		High School Level Softball		3	3	3	0	0	3	3	3	New	
			Juanita HS Field 2											
			Juanita HS Field 3											
Kirkland Middle School	430 18th Ave NE, Kirkland		High School Level Softball		3	3	3	0	0	3	3	3	New	
			Juanita HS Field 2											
			Juanita HS Field 3											
Kirkland Middle School	430 18th Ave NE, Kirkland		High School Level Softball		3	3	3	0	0	3	3	3	New	
			Juanita HS Field 2											
			Juanita HS Field 3											
Kirkland Middle School	430 18th Ave NE, Kirkland		High School Level Softball		3	3	3	0	0	3	3	3	New	
			Juanita HS Field 2											
			Juanita HS Field 3											
Kirkland Middle School	430 18th Ave NE, Kirkland		High School Level Softball		3	3	3	0	0	3	3	3	New	
			Juanita HS Field 2											
			Juanita HS Field 3											
Kirkland Middle School	430 18th Ave NE, Kirkland		High School Level Softball		3	3	3	0	0	3	3	3	New	
			Juanita HS Field 2											
			Juanita HS Field 3											
Kirkland Middle School	430 18th Ave NE, Kirkland		High School Level Softball		3	3	3	0	0	3	3	3	New	
			Juanita HS Field 2											
			Juanita HS Field 3											
Kirkland Middle School	430 18th Ave NE, Kirkland		High School Level Softball		3	3	3	0	0	3	3	3	New	
			Juanita HS Field 2											
			Juanita HS Field 3											
Kirkland Middle School														

Rectangle Scoring Key						
		0	1	2	3	Considerations
Overall Field Condition						
	Inadequate/Poor Quality Field		1			Based on reviewers impression of the field considering multiple factors related to field condtion. This may be more subjective than individual elements
	Adequate/Good Quality Field			2		
	Excellent Quality Field				3	
Turf Quality						
	Inadequate/Poor Quality Turf		1			Are there weeds present? Is turf patchy/worn? Is the field a consistent grade or is it undulating/lumpy? Are there areas with extreme wear?
	Adequate/Good Quality Turf			2		
	Excellent Quality Turf				3	
Synthetic Turf Quality						
	No Synthetic Turf	0				
	Synthetic Turf Appears to Have Less Than Half of Life Left		1			
	Synthetic Turf Appears to Have More Than Half of Life Left			2		
	Excellent/New Quality Synthetic Turf				3	
Irrigation						
	No irrigation	0				Does grass area appear to be fully covered? Are there any dry/dead spots?
	Inadequate Irrigation		1			
	Adequate Irrigation			2		
	Excellent Irrigation				3	
Field Lighting						
	No Field Lighting	0				Is the lighting LED? Are there sufficient light poles for even light distribution?
	Inadequate Quality Field Lighting		1			
	Adequate Quality Field Lighting			2		
	Excellent Field Lighting				3	
Bleachers						
	No Bleachers	0				Is there enough bleacher seating available? Do bleachers show signs of wear?
	Inadequate/Poor Quality Bleachers		1			
	Adequate/Good Quality Bleachers			2		
	Excellent Bleachers				3	
Goals						
	No Goals	0				Are there goals present? Do the goals show signs of wear? Are the goals movable?
	Inadequate/Poor Quality Goals		1			
	Adequate/Good Quality Goals			2		
	Excellent Goals				3	
Field Safe Zone						
	Not Striped/Marked	0				Is field safe zone clearly marked? Is field safe zone sloped?
	Inadequate Field Safe Zone		1			
	Adequate Field Safe Zone			2		
	Excellent Field Safe Zone				3	

Park/School	Address	Field Name	Use	Field	Overall Field Condition	Turf Quality	Synthetic Turf	Irrigation	Field	Fencing	Bleachers	Goals	Issues with Field Safe Zone	Notes
	13159 132nd Ave NE, Kirkland	132nd Square Park Field 3 (currently under construction)	Soccer through Adult											Sign says it will be the city's "first lighted, synthetic turf, multi-use field"
Crestwoods Park	1818 6th Street, Kirkland	Crestwoods Field 3	Multi-Use Soccer/Lacrosse through Adult		3	2.5	0	3	0	1	0	2	0	Berm on west edge
Juanita Beach Park	9703 NE Juanita Drive, Kirkland	Juanita Beach Open Space	Practice, Multi-Use Youth Sports		Wet	1	0	0	0	Needs more fencing, backstop present	0	4 movable goals	Not Striped	Large trees throughout, not in good shape
Terrace Park	10333 NE 67th Street, Kirkland	Terrace Field	Practice, Multi-Use Youth Sports		1	1	0	0	0	1	0	0	0	
					Dry, sloped to outfield	Drain lines @ 20'				Neighbor fencing, backstop present			Not striped	
International/Community School	11133 NE 65th Street, Kirkland	International/Community Field	T-Ball/Soccer Practice		2	2	0	3	0	3	0	1	3	
					Good conditions, a little bumpy	Some bare spots with clover				4' tall, not fully enclosed		Single bars	Not striped, but room allows	
Emerson High School	10903 NE 53rd Street, Kirkland	Emerson Field	T-Ball/Soccer Practice		3	3	0	3	0	3	2	0	3	
					Sloped to outfield	Worn at bases				Small backstop, no fence		3 rows + dug out benches	None	Adequate
Finn Hill	8040 NE 132nd Street, Kirkland	Finn Hill Football Field	Lacrosse/Football/Soccer		2	2	0	3	0	1	0	2	0	
					1	Worn	0	3	0	School perimeter	1	Football only (seam)	Not striped	
Kamiakin	14111 132nd Ave NE, Kirkland	Kamiakin Open Space	Open Space		Undulating	Lumpy/weeds				School perimeter				
					1	1	0	3	0	1	0	1	0	
					Massive crown	Lumpy/weeds				Far perimeter (school perimeter)			Not striped, likely uneven	
Kirkland Middle School	430 18th Ave NE, Kirkland	Kirkland Football Field	Lacrosse/Football/Soccer		1	1	0	3	0	1	1	2	0	
					High crown, lumpy/irregular clover	Lumpy/spongy clover/weeds				5' Site perimeter	Older/small		Sloped and not striped	Smells like dog urine
					1	1	0	0	0	0	0	1	0	
AG Bell	11212 NE 117th Street, Kirkland	AG Bell Field 1	Tball/Soccer Practice		Tiny	Cinders/sand material, catch basin in field of play	Has curb surrounding, could make synthetic turf installation easier					Good condition, bad nets	Not striped	
					1	1	0	0	0	0	0	1	0	
		AG Bell Field 2	Tball/Soccer Practice				Has curb surrounding, could make synthetic turf installation easier					No nets	Not striped	
					3	2	0	3	0	1	0	0	0	
Ben Franklin	12434 NE 60th Street, Kirkland	Ben Franklin Field 1	Up to U10 Little League/Soccer Practice		3	2	0	3	0	1	0	0	0	
		Ben Franklin Field 2	Up to U10 Little League/Soccer Practice			Some splotched discoloration							Not striped	Fields nearly identical
					1	0	0	0	0	2	2	1	0	
Carl Sandburg	12801 84th Ave NE, Kirkland	Carl Sandburg Field 1	Up to U10 Little League/Soccer Practice			No grass, field flat overall but uneven/irregular				Backstop + fenced on 2 sides	None, but concrete seat wall present	2 with no nets		
					1	1	0	0	0	1	0	0	0	
		Carl Sandburg Field 2	T-Ball/Pee-Wee Soccer			Lots of weeds, ground uneven, sloped on sides				Fenced only on one end			Sloped and not striped	Very tiny field at back/side of school, not immediately obvious this is meant to be played on
					1	0	0	0	0	2	0	0	0	
Helen Keller	13820 108th Ave NE, Kirkland	Helen Keller Field 1	Up to U10 Little League/Soccer Practice							Fencing only on 1.5 sides, but in good condition	No bleachers, but 3 backed benches facing field		Not striped	
					1	0	0	0	0	2	0	1	0	
		Helen Keller Field 2	Soccer Practice							Fencing only on 1.5 sides, but in good condition	No bleachers, but 3 backed benches facing field	No nets	Not striped	
John Muir	14012 132nd Ave NE, Kirkland	John Muir Field	Up to U8 Little League/Soccer Practice		1	0	0	0	0	3	0	2	0	
						No grass, field is sand/dirt	Has curb surrounding, could make synthetic turf installation easier			1 Backstop, fenced on 3 sides, 1 side with planters and shorter fence		4 movable goals	Not striped	
					2	2	0	3	0	1	0	0	0	
Juanita Elementary	9635 NE 132nd Street, Kirkland	Juanita Elementary Field 1 (Rear)	T-Ball/Pee-Wee Soccer		Undulating		0			Two backstops on west edge			Not striped	
		Juanita Elementary Field 2 (Front)	T-Ball/Pee-Wee Soccer		1	1	0	3	0	2	0	1	0	
					Small field	Worn				School perimeter fence			Not striped	
					3	0	3	0	0	3		3	3	
Lakeview	10400 NE 68th Street, Kirkland	Lakeview Field	Up to U10 Little League or U12 Softball, Lacrosse, Soccer Practice				Good condition			6' black + galvanized fence, soccer screens, backstop				
					3	3	0	3	0	2	0	2	0	
Mark Twain	9525 130th Ave NE, Kirkland	Mark Twain Field 1	T-Ball/Micro Soccer							6' Perimeter fence on downhill slope			Not striped	
					2	3	0	3	0	3	0	2	0	
Peter Kirk Elementary	1312 6th Street, Kirkland	Peter Kirk Elementary Field 1	Up to U10 Little League/Soccer			Great, just a few wear/tear areas. Almost a 3				6' fence open to school			Not striped	
		Peter Kirk Elementary Field 2 (eliminated during redevelopment)	Up to U10 Little League/Soccer											
					1	1	0	0	0	0	0	0	0	
Rose Hill	8110 128th Ave NE, Kirkland	Rose Hill Field 1	Tball/Soccer Practice		Irregular surface	Dirt + bare spots							Not striped	
					2	2	0	2	0	0	0	3	0	
		Rose Hill Field 2	Tball/Soccer Practice		Affected by construction			Some dead areas at perimeter				Small goals	Not striped	
					2	1	0	0	0	3	0	1	0	
Robert Frost	11801 NE 140th Street, Kirkland	Robert Frost Field	T-Ball/Micro Soccer			Very patchy, especially around goals, overall very uneven/irregular, lots of weeds				Fenced on 3 sides, backstop		Large holes in netting	Not striped	
					1	0	0	0	0	2	0	1	0	
Thoreau	8224 NE 138th Street, Kirkland	Thoreau Field 1	Up to U10 Little League/Soccer Practice			No grass				1 Backstop, Fenced along 2 edges, rusting material and overgrown plants through		Netting falling apart	Not striped	
					1	0	0	0	0	2	0	0	0	
		Thoreau Field 2	Soccer Practice			No grass				1 Backstop, Fenced along 2 edges, rusting material and overgrown plants through			Not striped	

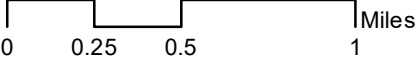
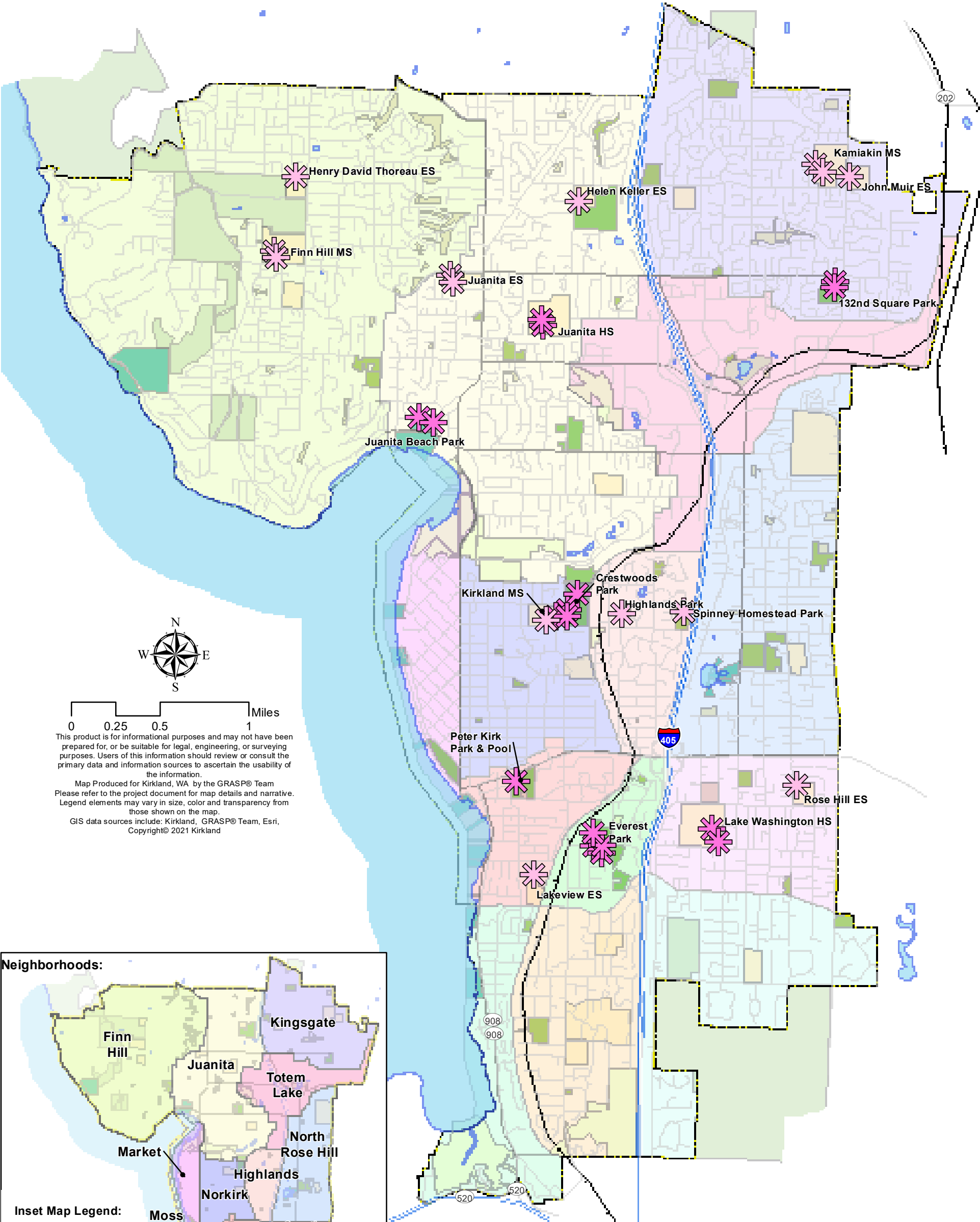
Kirkland Sports Fields

- Schools
- International Community School
- Emerson K-12
- Juanita High School_Field 1
- Juanita High School_Field 2
-
- Lake Washington High School_Field 1
-
- Lake Washington High School_Field 2
- Finn Hill_Field 1
- Finn Hill_Field 2
- Finn Hill_Football Field
- Finn Hill_Track
- Kamiakin_Field 1
- Kamiakin_Field 2
- Kamiakin_Football Field
- Kamiakin_Track
- Kamiakin_Open Space
-
- Kirkland Middle School_Field 1
-
- Kirkland Middle School_Field 2
-
- Kirkland Middle School_Football Field
-
- Kirkland Middle School_Track
- AG Bell_Field 1
- AG Bell_Field 2
- Ben Franklin_Field 1
- Ben Franklin_Field 2
- Carl Sandburg_Field 1
- Carl Sandburg_Field 2
- Helen Keller_Field 1
- Helen Keller_Field 2
- John Muir
-
- Juanita Elementary_Field 1 (Rear)
-
- Juanita Elementary_Field 2 (Front)
-
- Lakeview
- Mark Twain_Field 1
-
- Peter Kirk Elementary_Field 1
-
- Peter Kirk Elementary_Field 2
-
- Robert Frost
- Rose Hill_Field 1
- Rose Hill_Field 2
- Thoreau_Field 1
- Thoreau_Field 2



Programmed Diamond Athletic Fields (Parks and Schools)

Kirkland, Washington

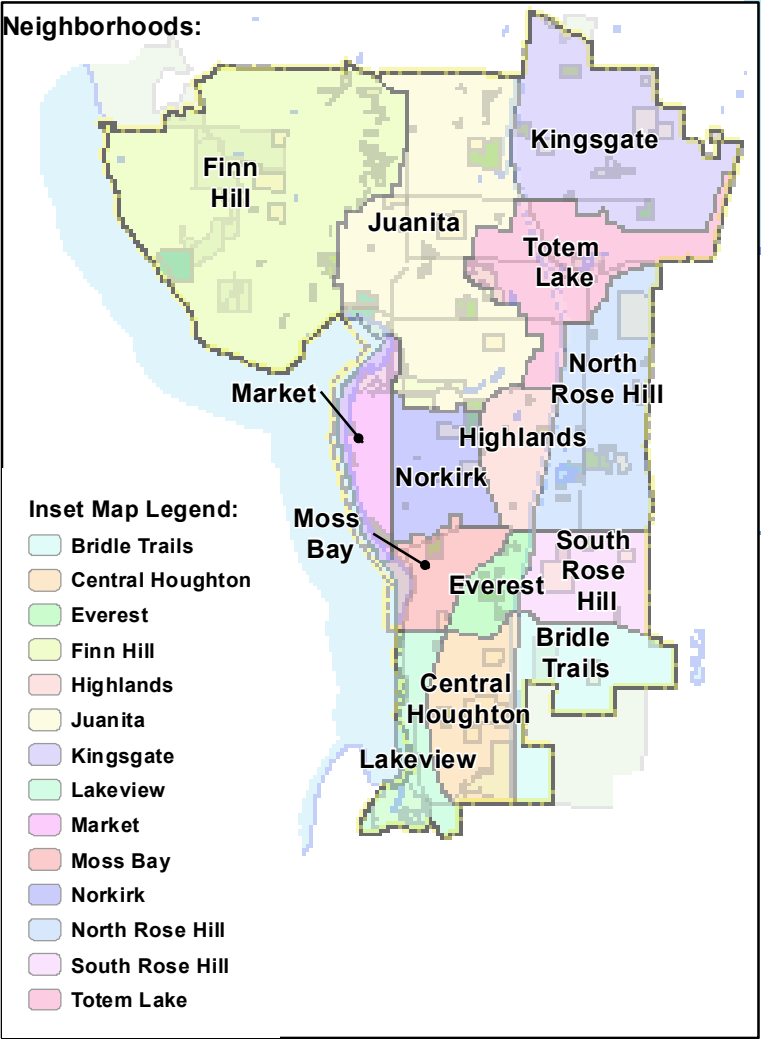


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Neighborhoods:



Inset Map Legend:

- Bridle Trails
- Central Houghton
- Everest
- Finn Hill
- Highlands
- Juanita
- Kingsgate
- Lakeview
- Market
- Moss Bay
- Norkirk
- North Rose Hill
- South Rose Hill
- Totem Lake

Legend

- Diamond Field
- Diamond Field, Practice
- Neighborhood
 - Bridle Trails
 - Central Houghton
 - Everest
 - Finn Hill
 - Highlands

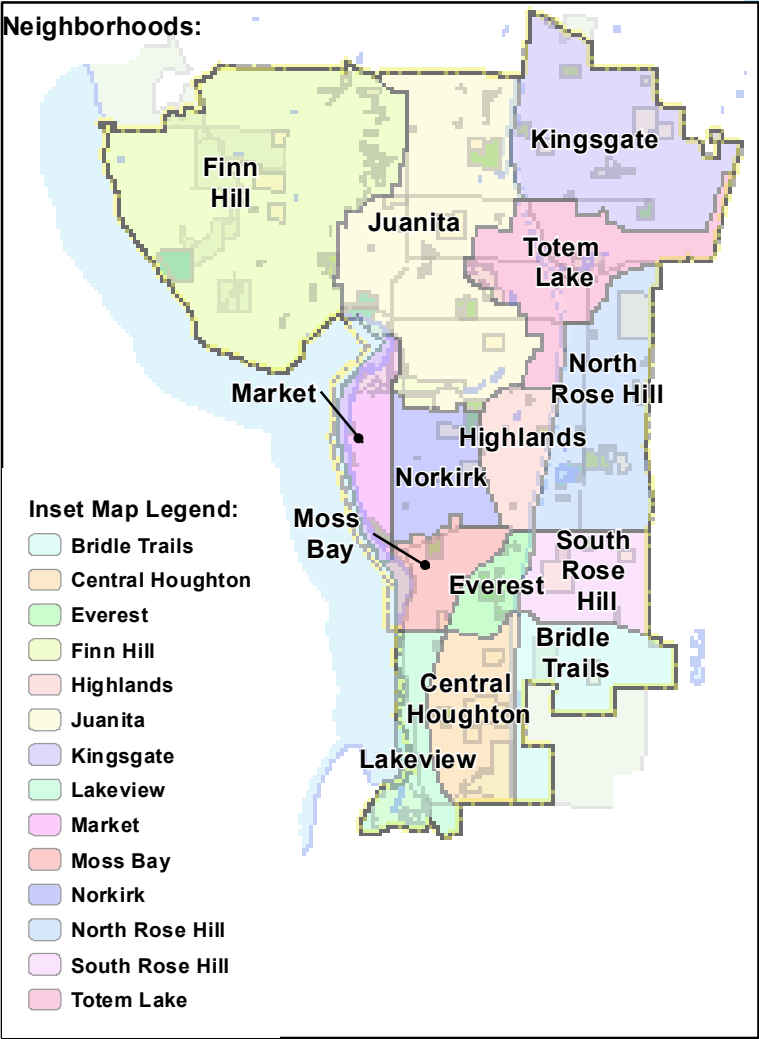
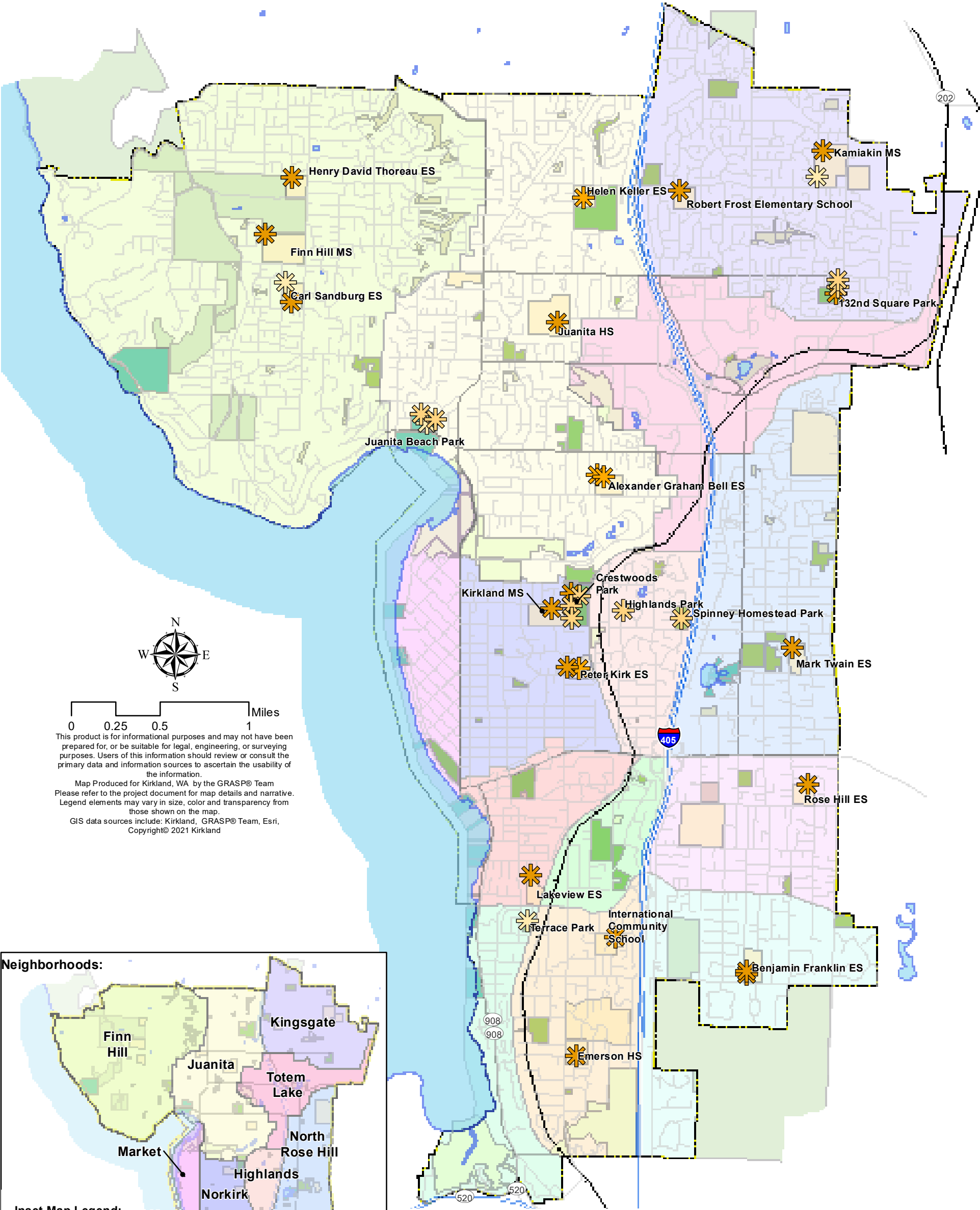
- Juanita
- Kingsgate
- Lakeview
- Market
- Moss Bay
- Norkirk
- North Rose Hill
- South Rose Hill
- Totem Lake

- Limited Access Freeway
- Highway
- Major Road/Arterial
- Other Street/Road
- Railroad

- Waterfront Park
- Community Park
- Neighborhood Park
- Nature Park Area
- Open Space
- Other Lands
- School
- Other Provider Park
- Lakes
- City Limit

Programmed Rectangular Athletic Fields (Parks and Schools)

Kirkland, Washington



Comparison of Natural Turf Field and Artificial Turf Life Cycle Costs (20 Year Cycle)

Natural Turf Field (92,000 SF Turf)		Artificial Turf Field (92,000 SF)	
Initial Major Renovation Construction Cost	\$500,000	Initial Major Renovation Construction Cost <i>Assumes \$12/sq.ft. Install, 10% Design, 15% Contingency</i>	\$1,400,000
Refurbishing/Rest Cost - 5 times over 20 years <i>Field refurbishment at year 4, 8, 12, 16 & 20 after initial project</i>	\$325,000 \$65,000	Refurbishing Cost <i>Carpet Replacement (year 12) Assumes \$6.80/sq.ft and \$45K for removal/recycling of infill/turf</i>	\$675,000
Average Maintenance Natural Grass over 20 Years <i>Annual Maintenance Natural Turf every 3 out of 4 years Maintenance costs shifted with refurbishment every 4th year</i>	\$46,625 \$51,500 \$32,000	Average Maintenance Synthetic Turf over 20 Years <i>Annual Maintenance Synthetic Turf for 18 years No maint. 1st year & replacement yr.</i>	\$20,430 \$22,700
20 Year Maintenance Costs <i>15-Year Maintenance Costs w/natural grass Maintenance Costs with Renovation every 4 Years</i>	\$932,500 \$772,500 \$160,000	20-Year Maintenance Costs	\$408,600
20-Year Total Maintenance + Capital	\$1,757,500	20-Year Total Maintenance + Capital	\$2,483,600
Average Maintenance Cost/Year over 20 Years	\$46,625	Average Maintenance Cost/Year over 20 Years	\$20,430
Avg. Annual Cost: Capital + Maintenance	\$87,875	Avg. Annual Cost: Capital + Maintenance	\$103,483.33
Natural Turf Field Use (at recommended rate) <i>32 weeks @ 2 hours per day on weekdays and 5 hours per day on weekends less 15% rain dates</i>		Synthetic Turf Field Use <i>40 weeks @ 6 hours per day on weekdays and 10 hours per day on weekends</i>	
Hours per Week	20	Hours per Week	50
Weeks of Use per Year	32	Weeks of Use per Year	40
Hours Permitted per Year	640	Hours per Year	2000
Hours per Year minus 15% for Rain	544		
Hours per Year * 20 years	10,880	Hours per Year * 20 years	40,000
Refurbish/rest field every 4 years or 5 times in 20 yrs. Close fields for 20 of 32 playable weeks each time. (20 wks*20 hrs*5 rest periods)	2000	Refurbish field at 12 years. Close for 20 of 40 playable weeks. (20 wks * 50 hrs)	1000
Total Hours Permitted Use in 20-Year Cycle	8,880	Total Hours Permitted Use in 20-Year Cycle	39,000
Cost per Use <i>(Total Maint. + Capital)/(Total Permitted Hours in 20-Year Cycle)</i>	\$198	Cost per Use <i>(Total Maint. + Capital)/(Total Permitted Hours in 20-Year Cycle)</i>	\$64
Natural Turf Field Use (at the current rate 1600 hours) <i>Has usage similar to synthetic turf, but without 4 week extended season on either end)</i> <i>32 weeks @ 6 hours per day on weekdays and 10 hours per day on weekends less 15% rain dates</i>			
Hours per Week	50		
Weeks of Use per Year	32		
Hours Permitted per Year	1600		
Hours per Year minus 15%	1,360		
Hours per Year * 20	27,200		
Refurbish/rest fields every 4 yrs or 5 times in 20 years. Close fields for 12 of 32 playable wks each time. (12 wks*50 hrs*5 rest periods)	3,000		
Total Hours Permitted Use in 20-Year Cycle	24,200		
Cost per Use <i>(Total Maint. + Capital)/(Total Permitted Hours in 20-Year Cycle)</i>	\$73		

Comparison of Natural Turf Field with 3 Scenarios and Artificial Turf Life Cycle Costs (20 Year Cycle)

Natural Turf Field (92,000 SF Turf)		Artificial Turf Field (92,000 SF)	
Scenario 1			
Initial Major Renovation Construction Cost	\$500,000	Initial Major Renovation Construction Cost <i>Assumes \$12/sq.ft. Install, 10% Design, 15% Contingency</i>	\$1,400,000
Refurbishing/Rest Cost - 5 times over 20 years <i>Field refurbishment at year 4, 8, 12, 16 & 20 after initial project</i>	\$325,000 \$65,000	Refurbishing Cost <i>Carpet Replacement (year 12) Assumes \$6.80/sq.ft and \$45K for removal/recycling of infill/turf</i>	\$675,000
Average Maintenance Natural Grass over 20 Years <i>Annual Maintenance Natural Turf every 3 out of 4 years Maintenance costs shifted with refurbishment every 4th year</i>	\$46,625 \$51,500 \$32,000	Average Maintenance Synthetic Turf over 20 Years <i>Annual Maintenance Synthetic Turf for 18 years No maint. 1st year & replacement yr.</i>	\$20,430 \$22,700
20 Year Maintenance Costs <i>15-Year Maintenance Costs w/natural grass Maintenance Costs with Renovation every 4 Years</i>	\$932,500 \$772,500 \$160,000	20-Year Maintenance Costs	\$408,600
20-Year Total Maintenance + Capital	\$1,757,500	20-Year Total Maintenance + Capital	\$2,483,600
Average Maintenance Cost/Year over 20 Years	\$46,625	Average Maintenance Cost/Year over 20 Years	\$20,430
Avg. Annual Cost: Capital +Maintenance	\$87,875	Avg. Annual Cost: Capital + Maintenance	\$103,483.33
Scenario 2			
Initial Major Renovation Construction Cost	\$500,000		
Rest & Modest Refurbishment- 10 times over 20 years <i>Field rest for 6-8 weeks every 2 years</i>	\$100,000 \$10,000		
Average Maintenance Natural Grass over 20 Years <i>Annual Maintenance Natural Turf every other year Maintenance costs shifted with rest every 2 years</i>	\$41,750 \$51,500 \$32,000		
20 Year Maintenance Costs <i>10-Year Maintenance Costs w/natural grass Maintenance Costs with rest every 2 Years</i>	\$835,000 \$515,000 \$320,000		
20-Year Total Maintenance + Capital	\$1,435,000		
Average Maintenance Cost/Year over 20 Years	\$41,750		
Avg. Annual Cost: Capital +Maintenance	\$71,750		
Scenario 3			
Initial Major Renovation Construction Cost	\$500,000		
No Refurbishment or Rest	\$0		
Annual Maintenance Natural Grass	\$51,500		
20 Year Maintenance Costs	\$1,030,000		
20-Year Total Maintenance + Capital	\$1,530,000		
Average Maintenance Cost/Year over 20 Years	\$51,500		
Avg. Annual Cost: Capital +Maintenance	\$76,500		

Number of Slots Per Elementary Per Two Hours		
Monday	4pm - Dusk	1
Tuesday	4pm - Dusk	1
Wednesday	3:00pm - Dusk	1
Thursday	4pm - Dusk	1
Friday	4pm - Dusk	1
Saturday	9am - 12pm	1
Saturday	12pm - 3pm	1
Saturday	3pm - 6pm	1
Saturday	6pm - Dusk	1
Sunday	9am - 12pm	1
Sunday	12pm - 3pm	1
Sunday	3pm - 6pm	1
Sunday	6pm - Dusk	1
Total Slots:		13

Number of Slots @ JHS/LWHS Per Field During Spring		
Monday	5:30pm - Dusk	1
Tuesday	5:30pm - Dusk	1
Wednesday	5:30pm - Dusk	1
Thursday	5:30pm - Dusk	1
Friday	5:30pm - Dusk	1
<i>Saturday</i>		
Saturday	12pm - 3pm	1
Saturday	3pm - 6pm	1
Saturday	6pm - Dusk	1
Sunday	9am - 12pm	1
Sunday	12pm - 3pm	1
Sunday	3pm - 6pm	1
Sunday	6pm - Dusk	1
Total Slots:		12

Number of Slots @ JHS/LWHS Per Field June - July		
Monday	5:30pm - Dusk	1
Tuesday	5:30pm - Dusk	1
Wednesday	5:30pm - Dusk	1
Thursday	5:30pm - Dusk	1
Friday	5:30pm - Dusk	1
Saturday	9am - 12pm	1
Saturday	12pm - 3pm	1
Saturday	3pm - 6pm	1
Saturday	6pm - Dusk	1
Sunday	9am - 12pm	1
Sunday	12pm - 3pm	1
Sunday	3pm - 6pm	1
Sunday	6pm - Dusk	1
Total Slots:		13

Number of Slots Field 1 @ 132nd Square		
Monday	4pm - Dusk	1
Tuesday	4pm - Dusk	1
Wednesday	3:00pm - Dusk	1
Thursday	4pm - Dusk	1
Friday	4pm - Dusk	1
<i>Saturday</i>	9am - 12pm	
<i>Saturday</i>	12pm - 3pm	
Saturday	3pm - 6pm	1
Saturday	6pm - Dusk	1
Sunday	9am - 12pm	1
Sunday	12pm - 3pm	1
Sunday	3pm - 6pm	1
Sunday	6pm - Dusk	1
Total Slots:		11

Number of Slots Field 2 @ 132nd Square		
Monday	4pm - Dusk	1
Tuesday	4pm - Dusk	1
Wednesday	3:00pm - Dusk	1
Thursday	4pm - Dusk	1
Friday	4pm - Dusk	1
Saturday	9am - 12pm	1
Saturday	12pm - 3pm	1
Saturday	3pm - 6pm	1
Saturday	6pm - Dusk	1
Sunday	9am - 12pm	1
Sunday	12pm - 3pm	1
Sunday	3pm - 6pm	1
Sunday	6pm - Dusk	1
Total Slots:		13

Number of Slots Field 1 & 2 at KiMS, KMS & FHMS		
<i>Monday</i>	4:30pm - Dusk	1
<i>Tuesday</i>	4:30pm - Dusk	1
<i>Wednesday</i>	3:30pm - Dusk	1
<i>Thursday</i>	4:30pm - Dusk	1
<i>Friday</i>	4:30pm - Dusk	1
Saturday	9am - 12pm	1
Saturday	12pm - 3pm	1
Saturday	3pm - 6pm	1
Saturday	6pm - Dusk	1
Sunday	9am - 12pm	1
Sunday	12pm - 3pm	1
Sunday	3pm - 6pm	1
Sunday	6pm - Dusk	1
Total Slots:		13

Kirkland WA. Sunrise/Twilight/Hous of Daylight/Rain Days Ave

	Sunrise	Twilight End	Hours of Daylite	Rain Days
January	7:55	5:03	9	8.8
February	7:32	5:43	10.3	7.8
March	6:46	6:24	12	8.9
April	6:44	8:10	13.7	8.1
May	5:48	8:55	15.2	7
June	5:12	9:38	15.9	5.4
July	5:13	9:50	15.5	4.2
August	5:45	9:19	14.2	2.8
September	6:26	8:21	12.5	6
October	7:07	7:18	10.8	7.2
November	7:52	6:23	9.3	9.1
December	7:35	4:54	8.5	8.9

Data from the Weather Atlas (online) for the Seattle area and from sunrise-sunset.org

Comparison of Natural Turf Field with 3 Scenarios and Artificial Turf Life Cycle Costs (20 Year Cycle)

Qualitative version	Synthetic Turf	Natural Grass - Scenario 1 4-year refurbishment cycle	Natural Grass - Scenario 2 Field rest every other year	Natural Grass - Scenario 3 No refurbishment or rest
Current usage intensity: Tier 3 (allows >1000 hrs/yr). Assume 1600	Quality: High Expense: High Usage: High	Quality: Poor Expense: High Usage: High	Quality: Poor Expense: Moderate Usage: High	Quality: Poor Expense: Moderate Usage: High
Usage intensity limited to Tier 2 (800-1000 hrs/yr). Assume 1000	N/A	Quality: Moderate Expense: High Usage: Moderate	Quality: Poor Expense: Moderate Usage: Moderate	Quality: Poor Expense: Moderate Usage: Moderate
Usage intensity limited to Tier 1 (sustainable capacity of <800 hrs/year). Assume 800	N/A	Quality: High Expense: High Usage: Low	Quality: High Expense: Moderate Usage: Low	Quality: Moderate Expense: Moderate Usage: Low

Quantitative version		Synthetic Turf	Natural Grass - Scenario 1 4-year refurbishment cycle	Natural Grass - Scenario 2 Field rest every other year	Natural Grass - Scenario 3 No refurbishment or rest
Current usage intensity: Tier 3 (allows >1000 hrs/yr). Assume 1600	Annual Maint + Capital Cost Cost Per Permitted Hour	Quality: High	Quality: Poor	Quality: Poor	Quality: Poor
		\$103,483	\$87,875	\$71,750	\$76,500
		\$64.68	\$54.92	\$44.84	\$47.81
		Usage: High	Usage: High	Usage: High	Usage: High
Usage intensity limited to Tier 2 (800-1000 hrs/yr). Assume 1000	Annual Maint + Capital Cost Cost Per Permitted Hour	N/A	Quality: Moderate	Quality: Poor	Quality: Poor
			\$87,875	\$71,750	\$76,500
			\$87.88	\$71.75	\$76.50
			Usage: Moderate	Usage: Moderate	Usage: Moderate
Usage intensity limited to Tier 1 (sustainable capacity of <800 hrs/year). Assume 800	Annual Maint + Capital Cost Cost Per Permitted Hour	N/A	Quality: High	Quality: High	Quality: Moderate
			\$87,875	\$71,750	\$76,500
			\$109.84	\$89.69	\$95.63
			Usage: Low	Usage: Low	Usage: Low

Natural Grass Itemized Annual Maintenance Costs													
Task	Times/ Year	Labor Hours	Rate (avg hourly + benefits)	Subtotal Labor	Supplies	Subtotal Supplies	Equip.	Deprecia		Fuel Cost Per		Total	
								Per Task	Per Year	Fuel (gal)	Year @ \$1.50/gal		
Core Aerate	2	4	\$35.00	\$280.00			Massey	\$50.00	\$100.00	10	\$30.00	\$410.00	
Aerate/Seed	2	5	\$35.00	\$350.00	8lbs (per 1000 sq.ft) * 113.256 * 1.58 per lb TriRye Seed Mix = \$1,431/application	\$2,864.00	Massey	\$50.00	\$100.00	10	\$30.00	\$3,344.00	
Top Dress	1	12	\$35.00	\$420.00	Compost@ \$1200	\$1,200.00	Kabota Topdresser	\$50.00	\$50.00	20	\$60.00	\$1,730.00	
Slice Seed & Roll	4	8	\$35.00	\$1,120.00	8lbs (per 1000 sq.ft) * 113.256 * 1.58 per lb TriRye Seed Mix = \$1431/application	\$5,728.00	Massey	\$50.00	\$200.00	10	\$60.00	\$7,108.00	
Fertilizing	3	5	\$35.00	\$525.00	5 lbs (per 1000) * 113.256 * .28 (per 50 lb bag) = \$158/application	\$475.65	Massey	\$50.00	\$150.00	10	\$45.00	\$1,195.65	
Mowing	45	1	\$35.00	\$1,575.00			Toro	\$50.00	\$2,250.00	10	\$900.00	\$4,725.00	
Field Paint	Spring Summer Fall	20 10 20	4 4 4	\$35.00 \$35.00 \$35.00	\$2,800.00 \$1,400.00 \$2,800.00	@ \$49.50 (per 5gal) = \$100/5 gal. container \$200	\$1,980.00 \$990.00 \$1,980.00	Machine/Truck Machine/Truck Machine/Truck	\$75.00 \$75.00 \$75.00	\$1,500.00 \$750.00 \$1,500.00	15 15 15	\$450.00 \$225.00 \$450.00	\$6,730.00 \$3,365.00 \$6,730.00
Humate	1	4	\$35.00	\$140.00	\$20 @ 18 lb/Acre \$840 per application	\$840.00	Massey	\$50.00	\$50.00	10	\$15.00	\$1,045.00	
Renovate Plus	1	5	\$35.00	\$175.00	\$4140 per application	\$4,140.00	Massey	\$50.00	\$50.00	10	\$15.00	\$4,380.00	
Irrigation	gallons											\$10,700.00	
Annual Turf Maintenance Total Cost per square foot grass (102,000 sq. ft.)												\$51,462.65 0.50	

Itemized Annual Maintenance Costs for Synthetic Turf													
Task	Times/ Year	Labor Hours	Rate (avg hourly + benefits)	Subtotal Labor	Supplies	Subtotal Supplies	Equip.	Depreciation		Fuel Cost Per Year @ \$1.50/gal	Total		
								Per Task	Per Year				
Inspect & Groom	12	6	\$45.00	\$3,240.00			Massey	\$50.00	\$600.00	10	\$180.00	\$4,020.00	
Address Goals	9	4	\$45.00	\$1,620.00			Hand	\$0.00	\$0.00	0	\$0.00	\$1,620.00	
Add infill	1	8	\$45.00	\$360.00	\$8,000.00		Massey	\$500.00	\$500.00	10	\$15.00	\$8,875.00	
Water					\$900.00							\$900.00	
Field Paint	6	4	\$35.00	\$840.00	\$185	\$1,000	Machine/T	\$75	\$750	15	\$225	\$2,815.00	
Contractors Services Advanced Grooming, Cleaning & Repair @ \$2700 Fall Visit: Lg Field												\$2,700.00	
Standard Grooming & Cleaning @ \$1,800 Spring Visit: Lg. Field												\$1,800.00	
Annual Maintenance Total												\$22,730.00	
*Industry Recommends Grooming every 80-100 hours of play													

*Industry Recommends Grooming every 80-100 hours of play

Natural Grass Reduced Maintenance Costs every 4 Years due to Renovation												
Task	Times/ Year	Labor Hours	Rate (avg hourly + benefits)	Subtotal Labor	Supplies	Subtotal Supplies	Equip.	Deprecia		Fuel Cost Per		Total
								Per Task	Per Year	Fuel (gal)	Year @ \$1.50/gal	
Core Aerate	1	4	\$35.00	\$140.00			Massey	\$50.00	\$50.00	10	\$15.00	\$205.00
Aerate/Seed	1	5	\$35.00	\$175.00	8lbs (per 1000 sq.ft) * 113.256 * 1.58 per lb TriRye Seed Mix = \$1,431/application	\$1,432.00	Massey	\$50.00	\$50.00	10	\$15.00	\$1,672.00
Top Dress	1	12	\$35.00	\$420.00	Compost@ \$1200	\$1,200.00	Kabota Topdresser	\$50.00	\$50.00	20	\$60.00	\$1,730.00
Slice Seed & Roll	1	8	\$35.00	\$280.00	8lbs (per 1000 sq.ft) * 113.256 * 1.58 per lb TriRye Seed Mix = \$1431/application	\$1,432.00	Massey	\$50.00	\$50.00	10	\$15.00	\$1,777.00
Fertilizing	1	5	\$35.00	\$175.00	5 lbs (per 1000) * 113.256 * .28 (per 50 lb bag) = \$158/application	\$158.55	Massey	\$50.00	\$50.00	10	\$15.00	\$398.55
Mowing	16	1	\$35.00	\$560.00			Toro	\$50.00	\$800.00	10	\$900.00	\$2,260.00
Field Paint	Spring Summer Fall	20 8 20	4 4 4	\$35.00 \$2,800.00 \$35.00 \$1,120.00 \$35.00 \$2,800.00	@ \$49.50 (per 5gal) =	\$1,980.00	Machine/Truck	\$75.00	\$1,500.00	15	\$450.00	\$6,730.00
						\$792.00	Machine/Truck	\$75.00	\$600.00	15	\$180.00	\$2,692.00
						\$1,980.00	Machine/Truck	\$75.00	\$1,500.00	15	\$450.00	\$6,730.00
Humate	1	4	\$35.00	\$140.00	\$20 @ 18 lb/Acre \$840 per application	\$840.00	Massey	\$50.00	\$50.00	10	\$15.00	\$1,045.00
Renovate Plus	1	5	\$35.00	\$175.00	\$4140 per application	\$4,140.00	Massey	\$50.00	\$50.00	10	\$15.00	\$4,380.00
800,000 gallons of water per year (wholesale) = 1070 hcfs at the current rate of 10.00												
Annual Turf Maintenance Total Cost per square foot grass (102,000 sq. ft.)												\$31,859.55 0.31