Inventory and Analysis Report

Ravensdale Park Master Plan

Ravensdale, Washington

prepared for

Ravensdale Park Fund, LLC and King County Parks

by

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Introduction

History of the Project

The Rock Creek Valley attracts many new residents because of its rural and scenic qualities. However, new parks have not been created to serve this growing community. This is understandable in a rural community with existing open space in forests and preserves. But many of the families living in the Rock Creek area want nearby athletic fields designed for the rural user. Currently, families from the Rock Creek valley rural community and the Maple Valley suburban community use the Tahoma School District fields for youth athletics during off-hours. But the school district's facilities are worn, while there is an increasing need for fields in the Rock Creek area.

Soccer players in the County.

Tahoma School District football field at Tahoma Middle School.

In 1993, King County designed and built a baseball field and an all-weather soccer field on County land that included the Gracie Hansen Community Center. The land was part of Ravensdale Park, named after the town of Ravensdale that sits to the southeast. One of King County's many roles is to provide parks and trails to unincorporated areas, including accessible athletic facilities. When it became obvious that the four athletic fields at Ravensdale would not meet demand, King County began exploring opportunities for developing additional fields.

In 1997, the year that neighboring Maple Valley incorporated, a baseball field was remodeled and a picnic/play area was added to Ravensdale Park. The forest west of the ball fields was cleared to accommodate expansion of the athletic fields, but funds were not available for field construction.

Ravensdale Park pathway.

In 2004, Friends of Rock Creek published the *Rock Creek Valley Conservation Plan and Priorities* with the assistance of the National Park Service and the endorsement of King County Council. The report proposed six conservation goals:

1. Retain at least 65% forest cover in the Valley,
2. Protect critical water resources, fish and wildlife habitat,
3. Complete protection of an undeveloped "buffer" between urban and rural lands,
4. Concentrate "active" recreational uses around four primary activity sites,
5. Link the local trail networks and complete the Renton-to-Rainier Regional Trail link through the Valley, and
6. Maintain a predominately rural/forested viewshed along the primary and secondary arterials, trail corridors, and active recreation sites within the Valley.

View south from Ravensdale Park showing Ravensdale Ridge.

In response to the fourth goal, the report identified Ravensdale Park as the best place to build more ball fields, so as to preserve forest cover in the rest of the valley. Their "strategy for expanding the active recreation facilities in the Valley is to try to concentrate this development around the existing 32-acre Ravensdale Park complex" (FRCV, 2004, p. 38).

Little League baseball player fielding the ball.

In 2005, King County bought an additional eight acres of land immediately to the east of the site, increasing the park in size to 47 acres. To fund capital improvements for the park, the Community Partnerships and Grants (CPG) Program got involved.

The CPG program is "a public/private partnership initiative that empowers user groups, sports associations, recreation clubs, and other community-based organizations to construct, develop, program, and/or maintain new or enhanced recreation facilities on King County land in a manner that does not result in new publicly funded operations and maintenance costs" (King Co, 2007). King County CPG staff explored possible funding sources and non-profit partners, eventually participating in the SE King County Ballfield Planning Group represented by community activity groups and local activists. Leadership from this meeting formed the Ravensdale Park Fund, LLC, to hire a designer, raise funds and awareness of the project, and oversee development contributions for the entire park.

Project Setting

Ravensdale Park is located in Rock Creek Valley, a few miles east of Maple Valley between Kent-Kangley Road and Ravensdale Way (Fig 1). Rock Creek, a nine-mile tributary of the Cedar River, flows intermittently through dense riparian forest immediately to the south of the park. The historic mining town of Ravensdale sits adjacent to the park's southeast corner, and the small community of Georgetown borders the north side of the park, across the road.

The facilities in the park, consisting of four athletic fields, the Gracie Hansen Community Center, parking, and a picnic area and restrooms, serve many of the rural residents of Rock Creek Valley, as well as the City of Maple Valley. Friends of Rock Creek estimates that 40,000 visitors use the park every year. There are no other public athletic fields in the valley, except those on Tahoma School District lands. King County's Levdansky Park is located north of Ravensdale, just outside of the valley boundary.

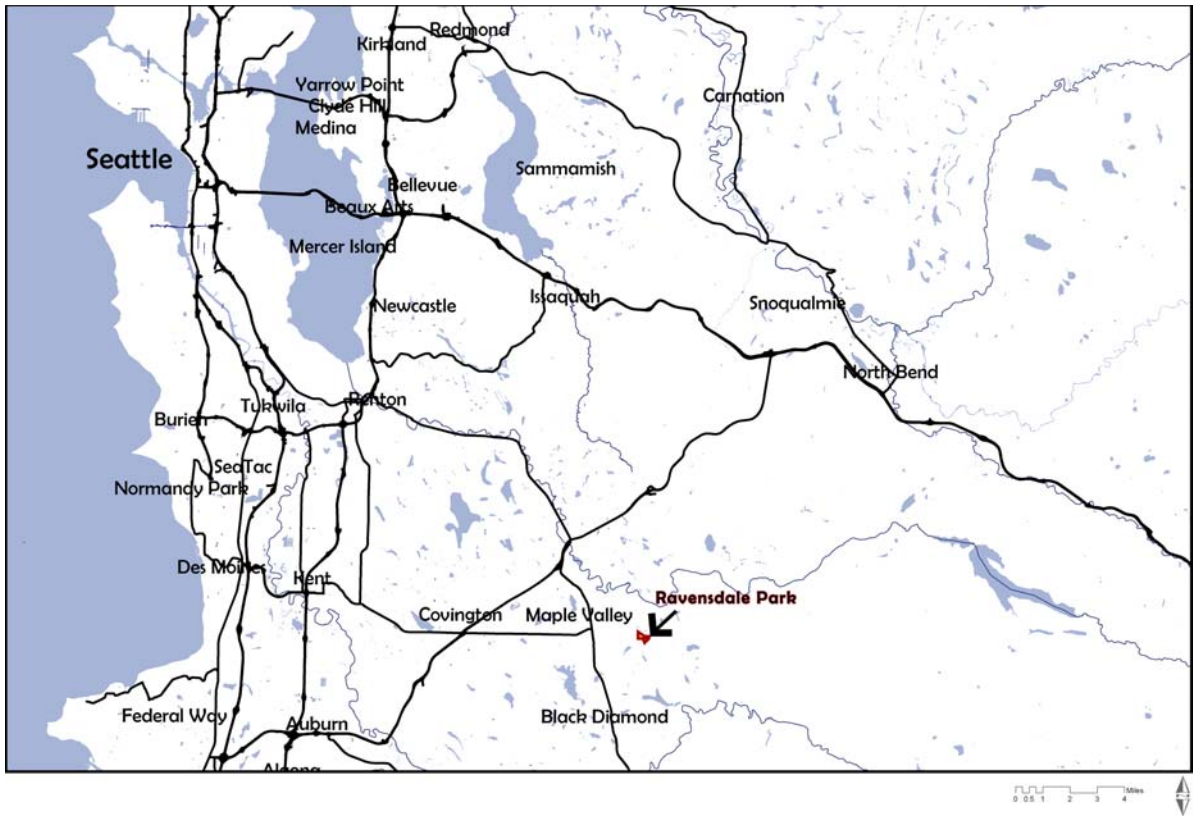


Figure 1. Location Map

Purpose

On June 27th, the Design Committee for the SE King County Ballfield Planning Group gathered to discuss the future design possibilities of Ravensdale Park. While the discussion was preliminary, several key themes emerged:

1. The youth and adult soccer, baseball, football, and lacrosse leagues need more fields, especially large fields for older kids and adults.
2. Ravensdale Park is currently the best available place for constructing new athletic fields in the valley.
3. Ravensdale Park is located within a rural, forested community.
4. If new fields are developed at Ravensdale Park, the community would like to minimize impacts to traffic and the rural character.
5. Other facilities, such as picnic areas, open grass, and walking and biking trails, should also be included in the park design, as Ravensdale Park has the potential to function as an outdoor community center.

As the design team proceeded with analysis and research, a clear project purpose arose based on feedback from the Design Committee, King County, and residents. The Ravensdale Park Master Plan should outline a strategy to:

Provide a community center of active and passive recreation opportunities while preserving the rural and natural character of the Rock Creek Valley.

Future design decisions, budget considerations, and phasing options will be considered in light of this purpose statement for the park.

Ball field at Ravensdale Park.

Process

Master Plan Process

At the request of Ravensdale Park Fund, LLC, and the SE Ballfield Planning Group, Jones & Jones developed a schedule for a transparent and thorough master plan process (Figure 2). After initial client discussions, the process starts with an inventory and analysis phase. Each phase ends in a deliverable to be reviewed by the client and the Design Committee. This phase was shortened in this process because the site has been the subject of previous analysis and research. The design team then develops several alternative scenarios for developing the park and whittles the alternative scenarios down to one master scenario that is then vetted and refined.

Stakeholder participation is key to the planning of this park, because it is such an important resource for the community. This park has many key stakeholders:

- Client Group—composed of Ravensdale Park Fund, LLC, and owner King County
- Planning Group—composed of organizations involved in the planning for several years, including:
  - City of Maple Valley
  - Maple Valley/Black Diamond Chamber of Commerce
  - Friends of Rock Creek
  - Tahoma Sports Council (soccer, baseball, etc.)
  - Tahoma School District
  - Unincorporated Area Council
  - La Liga Hispana
- Design Committee—consisting of individuals from the Planning Group interested in the programming and design of the park:
  - Greg Brown, City of Maple Valley Parks Department
  - Sandy Sutton, Maple Valley/Black Diamond Chamber of Commerce
  - Joan Burlingame, Friends of Rock Creek
  - Scott Serpa, Maple Valley Soccer Association
  - Tony Davis, Tahoma School District
  - Patrick Seiver, Unincorporated Area Council
  - Exequiel Soltero, La Liga Hispana
  - Julia Larson, King County Rural Services
  - T.J. Davis, King County Parks Department
- Permitting and Regulatory Agency—King County Department of Development and Environmental Services
- Design Team—Jones & Jones Architects and Landscape Architects, Ltd. (lead design and planning), Tilghman Group (traffic analysis), Shannon & Wilson (environmental analysis)

The Design Committee meets during each phase of the process to discuss programming, alternatives, and the design of the park. The committee represents some of the diverse viewpoints and interests found in the rural community of Rock Creek Valley. In addition, a meeting will present the draft alternatives to the wider public to increase the available feedback time and ensure people have a chance to respond to the design ideas. By the end of the master plan process, the community will have had the opportunity to comprehensively review all of the design ideas and shape the ultimate design solution.

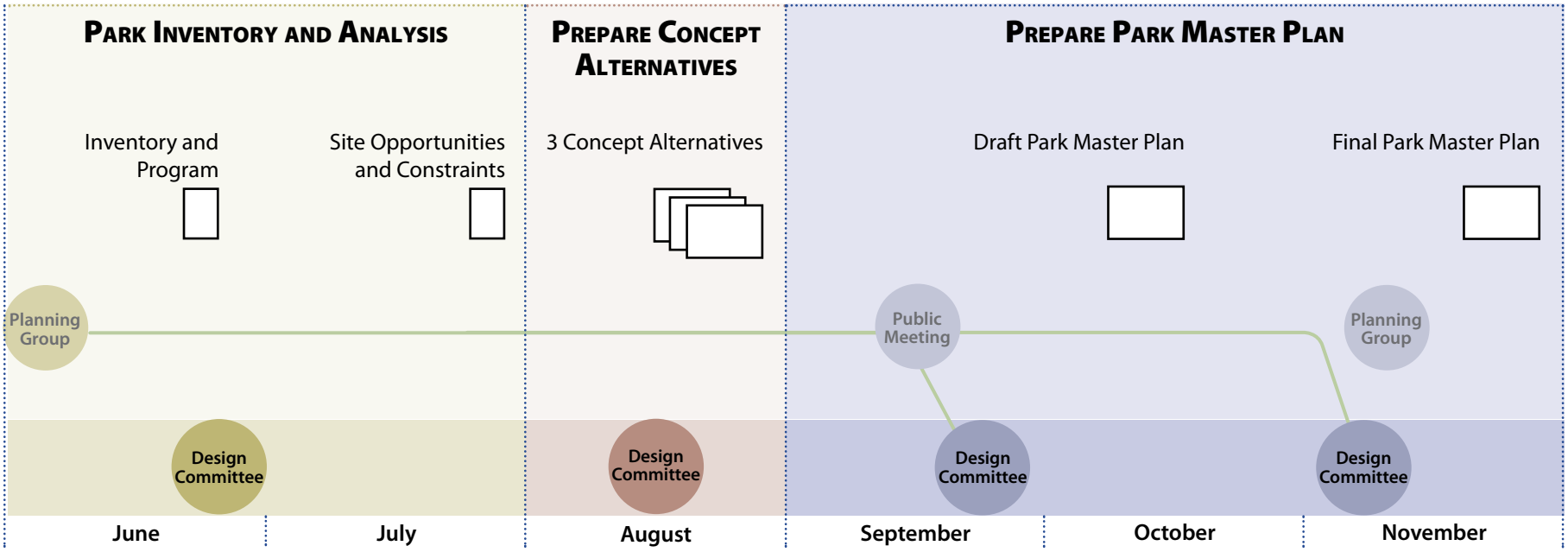


Figure 2. Ravensdale Park Master Plan Timeframe

Design and Construction

After the Master Plan process, there are three more stages to the design and construction of the park (Fig. 3). The Design Development stage will refine the master plan ideas, while choosing materials and styles that blend with the rural community. After the Design Development stage, depending on funding, Construction Documents are produced that show a contractor exactly how to construct the new park facilities. If construction will be phased, then only facilities in the first phase will have construction documents developed. In this project, contracting may be completed by a combination of public bids and private donations, so the construction documents and the general contractor should be flexible enough to accommodate different sources and funds for the installation.

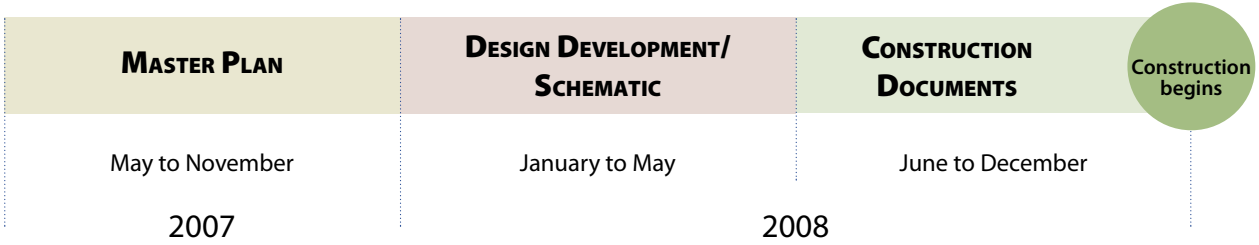


Figure 3. Ravensdale Park Timeframe

Park Context

Land Use/Population

We start by examining a place's context to determine with the best available information how a site's surroundings influence a place. Whether traffic, wildlife, water, or electricity, the flow of energy into and out of a place affects the environment in dramatic ways. This is certainly true of a park, a center of recreation for people, a connecting network of trails and open space, and a refuge for wildlife.

Residence in Ravensdale, a mining company town from the 1900s.

The boundaries of the broader Ravensdale Park's context include Rock Creek Valley and the City of Maple Valley. Once, the two areas were very similar: small patches of residential and agricultural development and mining operations surrounded by forest. Yet, in the last 30 years, the population of Maple Valley has grown rapidly as people disperse from the Seattle metropolitan area in search of larger homes, quieter neighborhoods, and more affordable housing. Today, Maple Valley has very little open space left, while the Rock Creek Valley has maintained much of its rural character. The lack of buildable space in the municipalities increases development pressures on the rural areas of south King County. Commercial forestry is converted to residential homes. Churches, gas stations, and mini-marts are built along the major roads. Yet many people living in the rural communities resent the encroachment of density and development.

Currently, forested preserves, commercial tracts, and water district lands compose a large

Ranch-style residential development in rural area.

Recent residential development on Henry's Ridge.

percentage of the land in Rock Creek Valley. While trails meander through, providing forest access to hikers, equestrians, and bikers, these forests act primarily as a buffer and a backdrop. The forest lands buffer the Rock Creek area from the influence of Maple Valley development. And the forests provide a scenic backdrop as people move through the landscape. The other predominant land use is residential, either the older style of small mining company houses in a row (e.g., Ravensdale), the sprawling ranch-type home and stables, or the newer, more compact housing developments. There is a small amount of commercial development centered around Georgetown, but most residents drive in to Maple Valley or other cities for purchases. Finally, mining of sand and aggregate occupies several areas visible from Ravensdale Way.

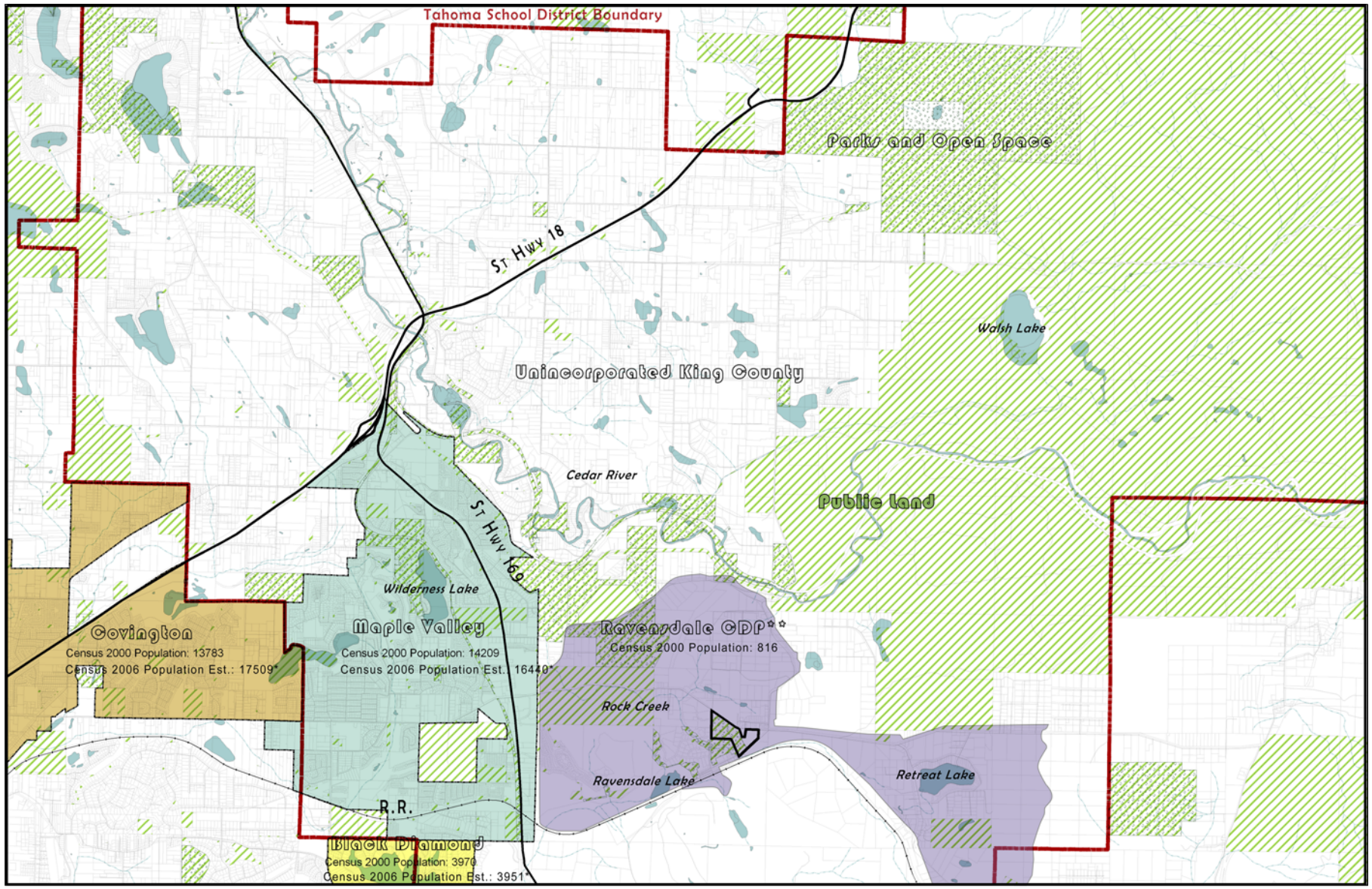


Figure 4. Context: Land Use

Environment

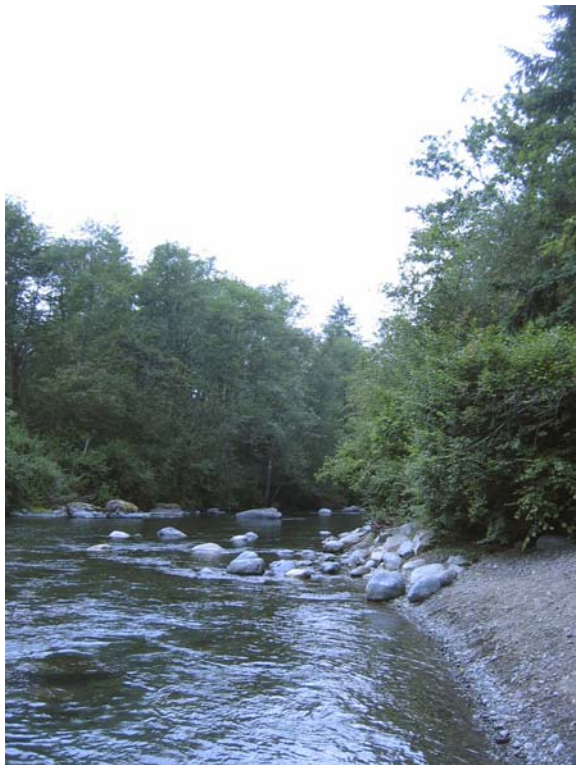
The Rock Creek Valley maintains some of the most extensive forests in the lowlands of King County. The forests provides important ecological functions, such as wildlife habitat, treatment of water quality, attenuations of storm events and flooding, and retention of soils. Riparian forests along Rock Creek, the Cedar River, and the Green River shade the water, contributing to cooler water temperatures, ideal conditions for salmon. The forest also provides important cultural functions, such as commercial wood products, trail networks and scenery. Ravensdale Ridge, which contains a large percentage of the forests in the valley, is currently owned by commercial timber companies. They have long-term plans to sell the land, most likely to residential development (Friends of Rock Creek, 2004).

Trees in Cemetery Reach Nature Area.

Rock Creek's dry creek bed near the Gracie Hansen building.

The waterways of the Cedar and Green Rivers provide important habitat for salmon and other aquatic organisms. The rivers also provide Seattle with drinking water, so conservation of these rivers is critical. Rock Creek, as a tributary of the Cedar River, is great spawning habitat for Coho salmon. The creek also provides much of Kent's water supply as it flows through land just east of Maple Valley. Farther upstream at Ravensdale Park, the creek runs dry much of the year due to aquifer draw down and removal of water by the water districts. Even in its dry state, the creek is a natural corridor for wildlife and habitat for rich diversity of plants. Threats to the valley's waterways come mainly from the extraction of water by municipalities, districts, and private wells.

In addition to rivers and streams, the Rock Creek area also contains lakes and wetlands that are ecological as well as recreational resources. Two of the lakes, Retreat Lake and Lake 12, have developed edges of residences and docks. They have historically served as retreats and camps for the Seattle metropolis. Wetlands contribute to the valley's good water quality through bio-filtration and storage.



Cedar River at Landsburg Park.

Figure 5. Context: Environment

Circulation

Traffic

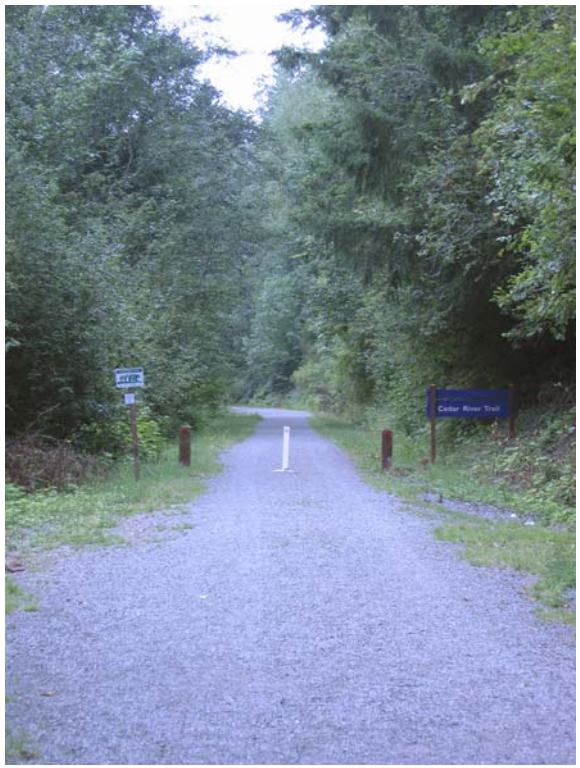
The Rock Creek Valley does not have major state highways; the closest highways are Highway 18 running east-west north of Maple Valley and Highway 169 running north to Renton. Kent-Kangley Road, Ravensdale Way, and Landsburg Road are designated by King County as minor arterials. Each of those roads is a two-lane road with posted speed limits of 35 m.p.h. in the vicinity of the park.

Traffic patterns in the area, based on several site visits, are not heavy. Kent-Kangley Road from the Maple Valley four-corners intersection to Georgetown is the most heavily traveled, with a fairly constant stream of cars, but no delays. Ravensdale Way has light traffic, but a higher percentage of trucks carrying sand and gravel. The road to Landsburg has a medium amount of traffic. Increasingly, residents are using the road through Landsburg and Hobart to access Highway 18 and Interstate 90, avoiding the increasing traffic in and around Maple Valley and Highway 169. As the population expands and more people move into the area, the valley will see increased residential and commuter traffic.

Trails

Hikers, mountain bicyclists, and equestrians have developed an extensive trail network centered around the Cedar River and Maple Valley/Rock Creek urban buffer. Currently, the public lands have trails or proposed trails. Private lands owned by commercial timber companies allow non-motorized use of their lands for hiking and horseback riding. Mountain bikers and equestrians tend to use specific portions of the trail network, minimizing conflict with other trail users. A regional trail from Renton to Mount Rainier has been proposed, with large segments already in place. This regional trail will run to the west of Ravensdale Park. Ravensdale Park, located at the convergence of the valley's major roads, also has the potential to be a convergence of trails connecting western and northern trail networks with those to the east and south.

Kent-Kangley Road provides a direct route into Maple Valley for cars and trucks.



Trailhead for the Cedar River Trail at Landsburg.

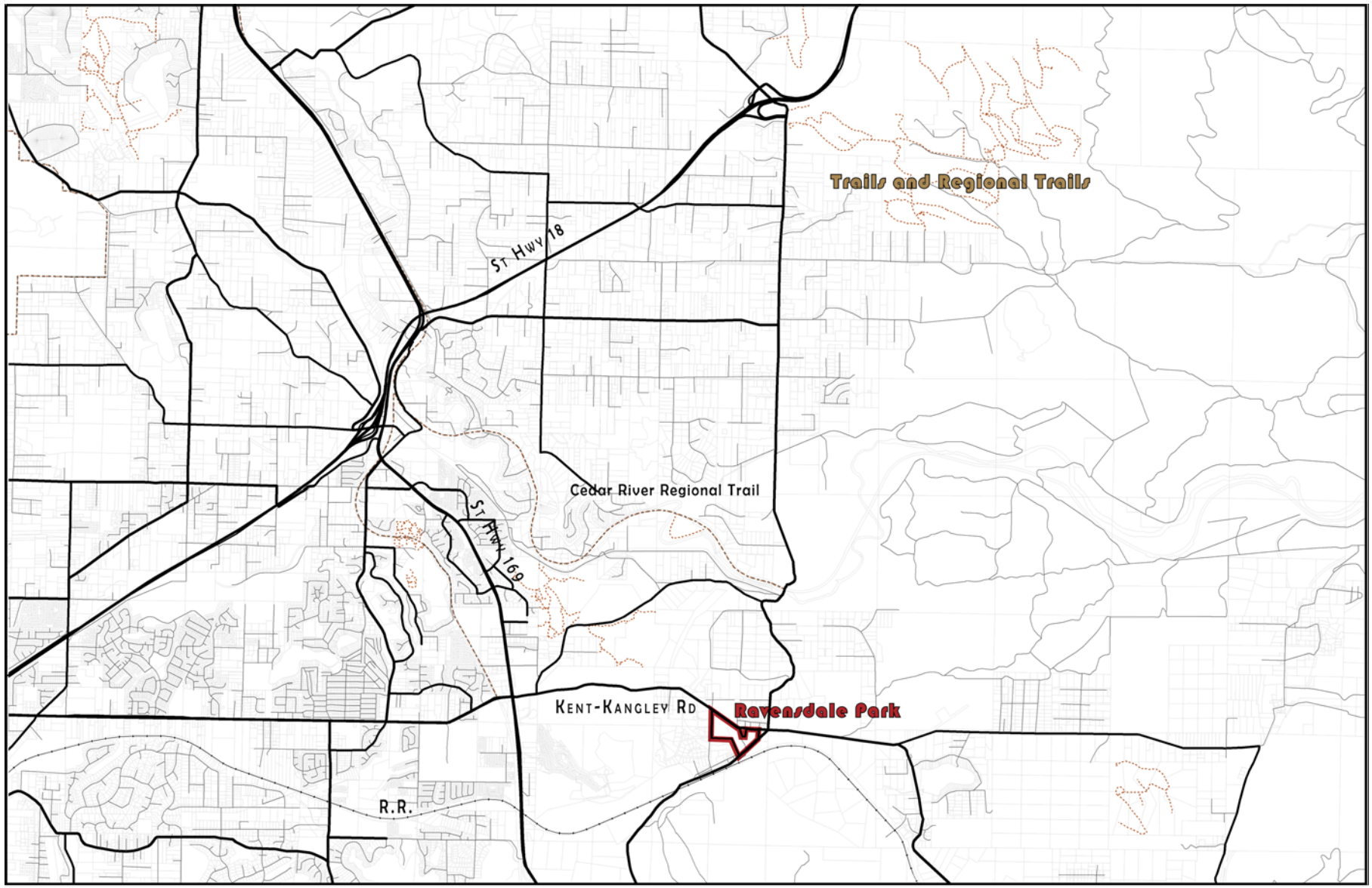


Figure 6. Context: Circulation

Athletic Fields

Although the development of public parks has lagged, school construction has kept pace with the rapid urban growth of the Maple Valley/ Ravensdale area. As a result, park athletic fields are in short supply and a heavy demand has been placed upon school athletic fields by youth baseball, soccer, and lacrosse leagues. The Tahoma School District maintains baseball, soccer, and football fields at several primary, middle, and high schools throughout the Maple Valley/Ravensdale area. These fields range in size and condition and accommodate a variety of age groups and field sports; however, many fields are deficient for the type and frequency of league play they receive.

Worn field at Tahoma Middle School.

Students playing flag football at Cedar River Middle School.

Due to the greater number of elementary schools, there are a large number of multi-purpose fields for younger age children. When young athletes reach middle school age, they have fewer options because there are fewer secondary schools and fields are not available.

King County Parks also maintains a few small baseball fields scattered throughout the area. Taken together, the school district's athletic fields and the King County facilities still fall far short of meeting the demand generated by local youth baseball and soccer leagues and by adult softball and soccer leagues.

Levdansky Park, King CountY.

An example of a multi-use area for smaller children at Rock Creek Elementary School.

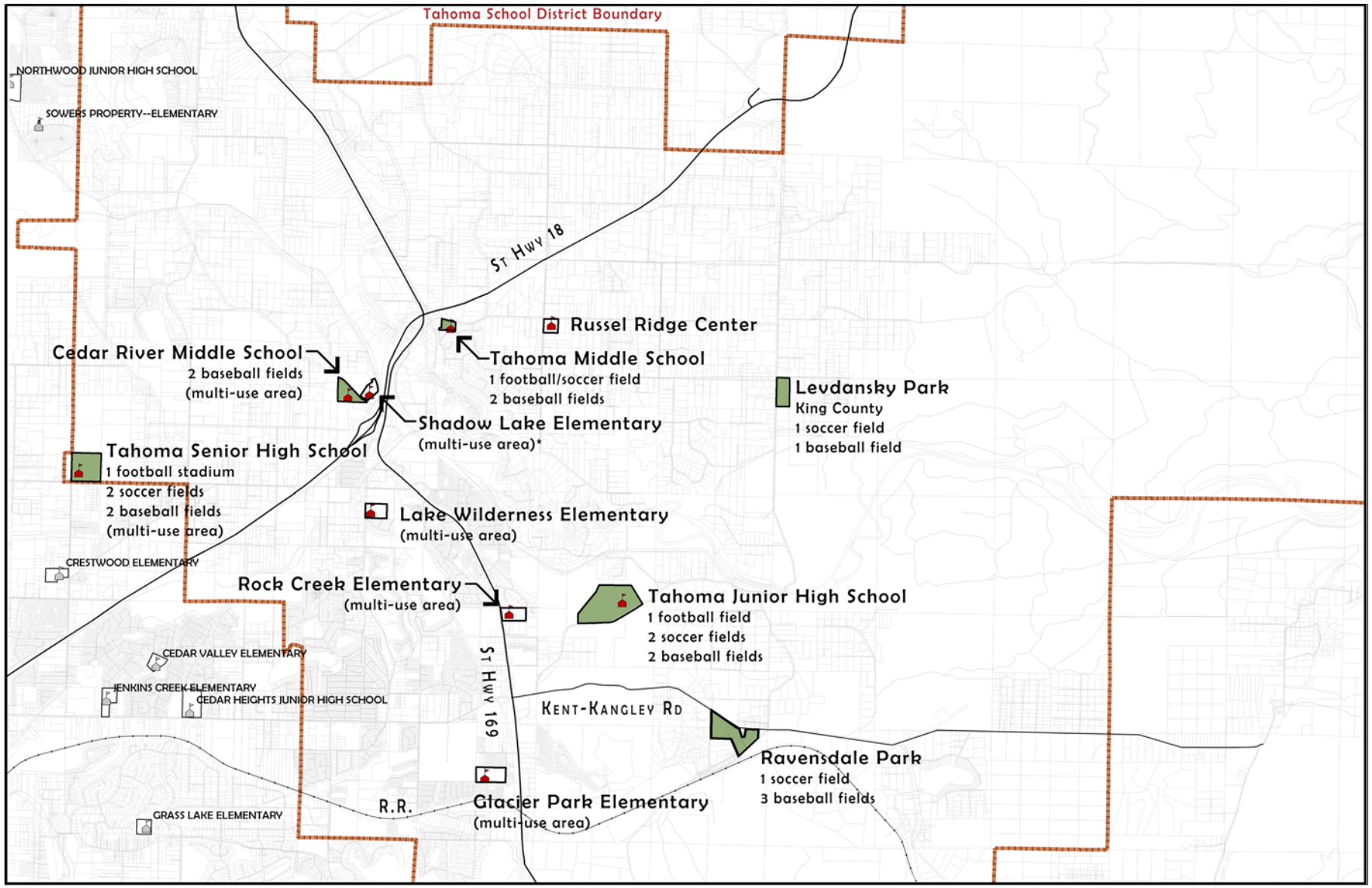


Figure 7. Context: Athletic Fields

Aesthetics

Landscape Character

The visual character of the landscape is closely related to the environmental setting previously described. Residents and visitors describe the Rock Creek valley area as forested, given the 65 to 70% forest canopy cover in the valley (see Figure 5). A forested landscape character is one in which development (parking lots, buildings, roads, etc.) are seen as "cut" from the forest. The forest is the backdrop. A landscape with a more developed character would be the reverse: the development is the backdrop for small stands of forest. The critical component to the forested landscape character of the valley is the presence of the forested hillsides, since the hillsides can be seen from multiple places.

Landscape appears to be completely forested even when development is nearby.

Forested hillside behind open fields on the valley bottom.

Retreat Lake.

Rural character

Development in Rock Creek Valley tends to have a rural visual quality. We define rural as a spacious pattern of development with buildings and roads set in a large context of open space. Landscapes with a rural character are often associated with agricultural buildings (barns, sheds, horse and cattle fencing) and long distances between communities.

While the key concept of rural character is the spaciousness of the landscape or, in the case of forested landscapes, a lack of development, there is also a rural character to the built elements themselves. Building elements are more rustic, using basic materials such as wood and stone, rather than more refined materials, such as concrete and metal.

Residences with a rural character are set back from the road and surrounded by open space.

Barn near Cedar River and Highway 169.

Wood picnic shelter at Kanaskat-Palmer State Park.

Gravel private driveway north of Ravensdale Park.

Wood fence to the west of Ravensdale Park.

Open pasture and fields near private residence.

Main lodge at Lake Retreat Camp and Conference Center.

Viewsheds

The park's viewshed was analyzed for the surrounding landscape using a Geographic Information Systems program. This mapping tool revealed patterns that could then be verified on the ground. Ravensdale Park is nestled in a valley bottom, and this setting is accentuated by views of the nearby wooded hillsides of Georgetown Ridge to the north/northwest and Ravensdale Ridge to the south/southwest. The most picturesque and distant views that occur up-valley are eastward to the foothills. As highlighted in Figure 8, Sugarloaf, McDonald, and Taylor Mountain can be seen from the park wherever there is open space uninterrupted by trees (e.g., on the west side of open fields looking east).

From the older baseball fields, visitors can see the foothills of the Cascades.

From the western edge of the park, the eastern view of the foothills is seen between the trees.

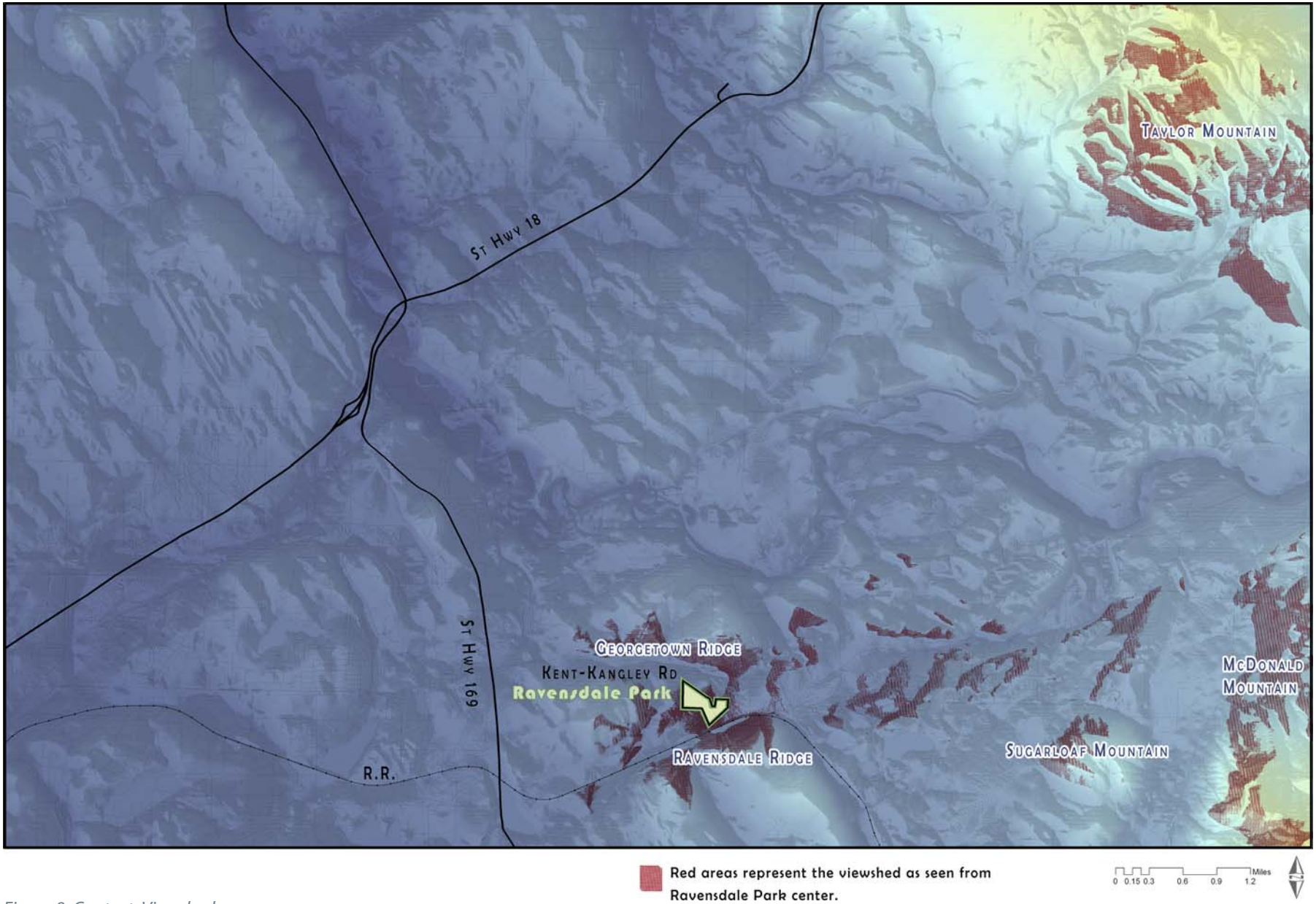


Figure 8. Context: Viewshed

Infrastructure

From the viewpoint of the park's context, the regional infrastructure has less of an effect on the final park design. With the exception of water availability, all of the utilities necessary to make a functioning park are readily available in the Rock Creek Valley. Power is available from eastern Washington through the large regional power lines that run through the valley north and south of the site. The region also receives power from localized sources, as well. Sewer systems in the valley tend to be private septic systems adapted to each site. While septic systems are not ideal for larger facilities, the presence of lots of open space and their low costs make them the most viable alternative. Stormwater drainage in the rural area is a more recent requirement. Stormwater treatment often requires large areas to be effective, and Rock Creek Valley has open space.

Regional power lines from east of the Cascades.

Cedar River water supplies the City of Seattle with drinking water.

It is only water that has limited availability in the valley. As already discussed in the Environment discussion, several municipalities (Seattle, Tacoma, and Kent) tap into the Cedar River, Green River, and Rock Creek for their drinking water. The withdrawal of surface water from these streams also depletes the groundwater aquifers. In the Rock Creek Valley, there is a direct connection between Rock Creek and the layers of aquifers found in the recessional outwash below the surface. Private wells and wells for the Covington Water District draw water from these aquifers.

Site Analysis

Land Use

Historic land use

Early settlement and growth of the Ravensdale area was tied to logging, farming, and most importantly coal mining. Sited next to a Northern Pacific Railroad line, the town of Ravensdale was built as a company town to provide housing for coal miners and their families. The Northwest Improvement Co. operated the town as a subsidiary of Northern Pacific Railroad. The miners worked in nearby mine shafts and tunnels carved into the Ravensdale coal seam discovered in the late 1800s. In 1910, coal mining peaked and the town of Ravensdale contained 816 residents. Mining was difficult work. The first union of miners was organized in 1903, but they still worked ten to twelve hour days, six days a week.

The town of Ravensdale in the 1900s (Dan Kerlee).

Ravensdale Hotel, 1914 .

Miners from Ravensdale at the McKay Mine in 1935.

Renton coal mine, north of Ravensdale, 1919.

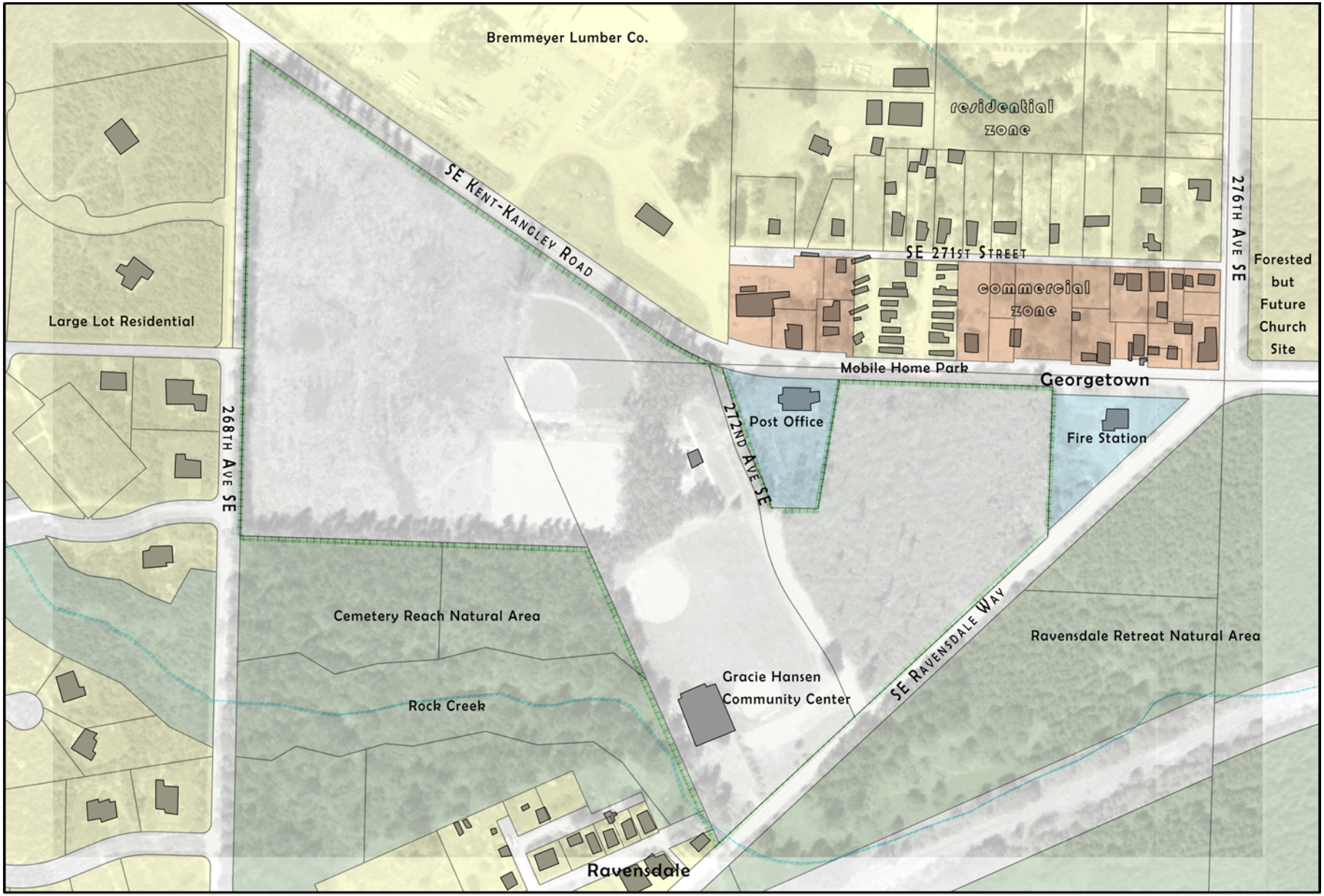
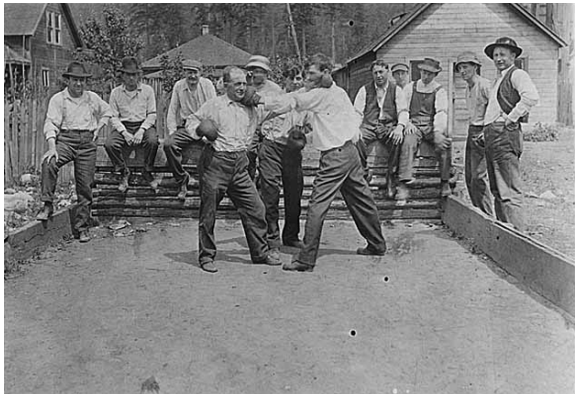


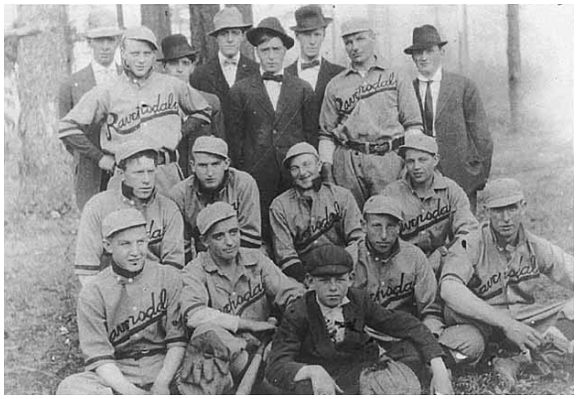
Figure 9. Site Analysis: Existing Land Use

Despite the long hours, the miners and their families found plenty of time to recreate. They hunted, visited surrounding lakes, and played sports. Baseball was a favorite pastime among the community. The game was rougher: no batting helmets, and more contact. Each mining company or community sponsored a local team: Black Diamond, the Renton Merchants, the Ravensdale Miners. According to Johnny Lazor, who went on to play for the Red Sox, "if you could play ball, you could get a job anywhere with the mines or companies that sponsored a team" (Nilson, 2004). The Ravensdale town team played in an empty lot across Landsburg Road from Ravensdale Market for awhile, before moving to the school site at the present day Ravensdale Park. A new school was built in 1934 by the Works Progress Administration (WPA). The school's gymnasium acted as the park's community center for many years after that, until it was torn down in the early 1960s.

The historic school buildings in Ravensdale, 1914.



An amateur boxing exhibition at Bocci Ball alley in Ravensdale, 1920.



The Ravensdale baseball team in 1912.

The Ravensdale baseball team in 1919.

The boom period for mining coal was short. In 1915 an explosion on the third-level of the Ravensdale mine collapsed the main access shaft, and 31 miners died. Afterward, the town languished and disincorporated in the 1920s. Residents of the mining towns and their families stayed in the area, finding work elsewhere, and continued to meet at the school and engage in community activities. Vestiges of the boom days can be found throughout the valley, but especially in Ravensdale, where many of the town's original houses still remain in a cluster of occupied, well-maintained, and architecturally similar dwellings.

Adjacent land use

The surrounding land use of the park can be divided into three categories: commercial, residential, and public/preserve. This land use does not necessarily align with King County zoning (e.g., Bremmeyer Lumber Company operates a commercial business on a residential zoned lot). Georgetown, north of the site across Kent-Kangley road, is mostly residential, with an intermittent strip of commercial stores along the road. Ravensdale to the southwest of the site is residential, as is most of the area to the west of the site. The residential character of Georgetown differs greatly from Ravensdale and from the large lot zoning west of the park. Along Rock Creek and to the south of the site, riparian and upland forests have been preserved on County lands and the acquisition of conservation easements.

Sand and gravel are still mined from the Ravensdale area.

The town of Ravensdale still maintains its historic architecture and integrity.

Environment

The natural setting of Ravensdale Park draws many visitors throughout the year, providing a pleasant backdrop for the active recreation and picnicking on the site. For park designers, the natural setting provides a rich context for development, as long as that development is done sensitively and critical areas of habitat and wetlands are avoided. Shannon & Wilson reviewed the site and its immediate vicinity for critical areas, such as wetlands and streams. During their site reconnaissance, no wetlands were identified on-site and no potential wetland areas were observed within 300 feet of the site.

Trailer park north of the park.

Sporadic commercial development north of the park.

Ravensdale Retreat Natural Area, King County land south of the park.

Figure 10. Site Analysis: Environment

Geology and Soils

Soil composition is predominantly sandy gravels and very rapidly draining. The underlying geology of the valley bottom is 30–40-foot-deep recessional contained by slopes of Vashon till (see Fig. 4). The site includes areas from two different USDA soil surveys—the King County Area Soil Survey and the Snoqualmie Pass Area Soil Survey. Portions of the site within King County's soil survey are identified as Everett gravelly sandy loam, 0–5% slopes, while portions of the site within the Snoqualmie Pass survey are identified as Barneston gravelly, coarse, sandy loam, 0–6% slopes. Soils throughout the western undeveloped area were dry and included very dark, grayish brown (10YR3/2), gravelly loam. Soils in the eastern half of the site were also dry within the upper 18 inches and generally included very dark, grayish brown (10YR3/2), gravelly loam.

Everett gravelly sand loam, 0–5% slopes, is considered a somewhat excessively drained soil. Permeability of this soil is considered rapid. Barneston gravelly, coarse, sandy loam, 0–6% slopes, is also considered somewhat excessively drained. Permeability within the upper part of the strata is considered moderately rapid with a very rapid substratum. Neither of these soils is considered hydric, according to their respective soil survey's hydric soils list.

Cemetery Reach Natural Area immediately to the southeast of the site.

Surface Drainage and Groundwater

Rock Creek flows from southeast to northwest under Southeast Ravensdale Way through two steel culverts From here, Rock Creek touches the southwestern corner of the site, southwest of the Gracie Hansen Community Center, and flows through a narrow and disturbed riparian corridor dominated by Himalayan blackberry (*Rubus discolor*). Rock Creek then enters the King County Rock Creek Natural Area. From here, Rock Creek generally flows through a forested riparian corridor interrupted by road crossings until it reaches its confluence with the Cedar River.

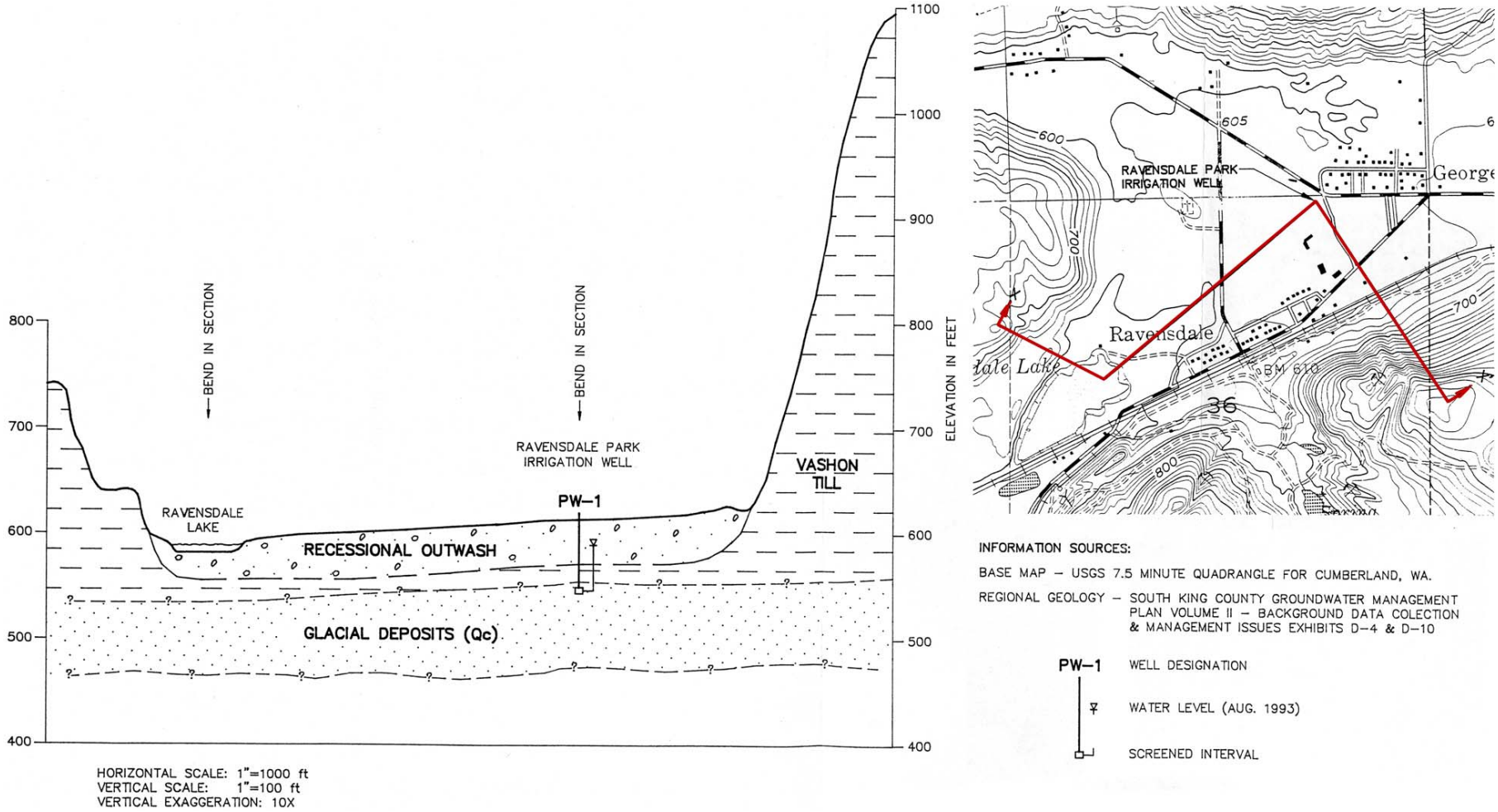


Figure 11. Recessional outwash at Ravensdale Park (HongWest, 1993)

Rock Creek at the southeast corner of the park.

Drainage swale adjacent to the central parking lot.

The on-site reach of Rock Creek is located within the upper limits of the Rock Creek watershed and contains seasonal flow. The WDNR FPARS mapping system identifies the on-site reach as a Type F stream. Type F streams are generally defined as seasonal or permanent streams used by fish. The WDFW SalmonScape website classifies the on-site reach as Coho salmon-rearing habitat.

The east-to-west ditch, located on the eastern undeveloped area and Rock Creek Natural Area, appears to have been abandoned and no longer supports surface flows throughout the year, except perhaps during heavy rain events. As previously described, it appears that this ditch is entirely artificially created and was used historically to either irrigate the site or drain the site. Given the presumed past land use of the eastern undeveloped area (e.g., timber harvesting) and the fact that upland vegetation dominates the ditch, we believe this ditch was created to drain the site.

According to a 1997 stormwater report, groundwater levels occur 16 to 20 feet below the surface (Hong West, 1997). The shallow groundwater moves through the recessional outwash, while a deeper aquifer in the underlying Vashon outwash is confined.

Wind and Climate

Winter winds from the east, down the Rock Creek Valley, range from mild to 16 m.p.h. Summer winds blow from the southwest and are dissipated by the forest before reaching the site.

Winter winds blow down the valley from the Cascade foothills to the east.

Exposure

The site is predominately level open ground, creating a high degree of summer sun exposure. The tall Douglas fir trees currently shade portions of the site.

The west field is bordered by a thin row of Douglas fir to the north.

West Open Field

The western undeveloped area appears to have been cleared in the last few years. This area is dominated by undulating topography vegetated by Scotch broom (*Cytisus scoparius*), bracken fern (*Pteridium aquilinum*), Himalayan blackberry (*Rubus discolor*), trailing blackberry (*Rubus ursinus*), currant (*Ribes* spp.), thistle (*Cirsium* spp.), dandelion (*Taraxacum officinale*), common velvetgrass (*Holcus lanatus*), and bentgrass (*Agrostis* spp.). Willow (*Salix* spp.), red alder (*Alnus rubra*), and black cottonwood (*Populus trichocarpa*) saplings are abundant along the southern perimeter, adjacent to the forested Rock Creek Natural Area.

- Large, open field (±15 acres) bordered by Kent-Kangley Road, 268th Avenue Southeast, and Cemetery Reach Natural Area.
- Mostly pasture grass and scotch broom vegetation cover.
- Relatively level, even ground with high ground-water table.
- Outward views contained by perimeter trees and wooded hillsides to north, west, and south.
- Flat, open terrain allows high degree of exposure to sun and wind.
- Some noticeable traffic noise from Kent-Kangley Road.

Fir Tree Grove

- Beautiful grove of tall Douglas firs, 10 to 16 inches in diameter, 60 to 100 feet tall.
- Dense understory of mostly native shrubs and herbaceous plants.
- Creates good spatial separation between east and west areas of park site.
- Provides critical summer shade, wind buffer, and visual relief to largely open areas of park site.
- Tree trunks frame eastward up-valley views of foothills.

West open field with invasive Scotch Broom.

Tall Douglas firs growing in the middle of the park.

Grove of Douglas firs acts as a wall, separating the two halves of the park.

East Open Field

The eastern undeveloped area appears to have been recently harvested for timber. This harvest likely occurred before August 28, 2006, the date that tax records indicate King County purchased the property from Plum Creek Land Company. Few second- or third-growth Douglas fir remain standing on the site. The predominant vegetation consists of a dense understory of upland species, such as trailing blackberry (*Rubus ursinus*), bracken fern (*Pteridium aquilinum*), salal (*Gaultheria shallon*), vine maple (*Acer circinatum*), and evergreen blackberry (*Rubus laciniatus*). Down logs and tree stumps also remain on site. A dry ditch approximately 3 feet deep and dominated by upland vegetation runs east to west through the center of the eastern undeveloped area. We presume that this ditch was used historically for either irrigation or to drain the site to Rock Creek. This presumption is based on locating another ditch west of the ball fields, which appears to have historically been connected to the on-site ditch and extends to Rock Creek.

- Open, undeveloped parcel (±9 acres) bordered by Kent-Kangley Road, Southeast Ravensdale, and the extension of 272nd Avenue Southeast.
- Mostly flat, level ground with dirt piles and small pits left from logging operations.
- Vegetation consists of heavy undergrowth of saplings, small trees, shrubs, and invasive plants, with a few scattered tall firs.
- Good views occur along west edge of parcel, looking up-valley/eastward toward foothills.
- Some traffic noise is noticeable from Kent-Kangley Road.

Eastern portion of the site from across Kent-Kangley Road.

Fir Tree Perimeter

- Line of tall Douglas Firs along west and north sides of Open Field.
- Provides visual buffering of views into site from residential development on 268th Avenue Southeast and to west, and from Kent-Kangley Road to north.
- Trees were formerly part of woods which were logged; without protection of other trees, these remaining trees may be more susceptible to blow-down during high winds.

The perimeter of the park is lined with Douglas fir trees.

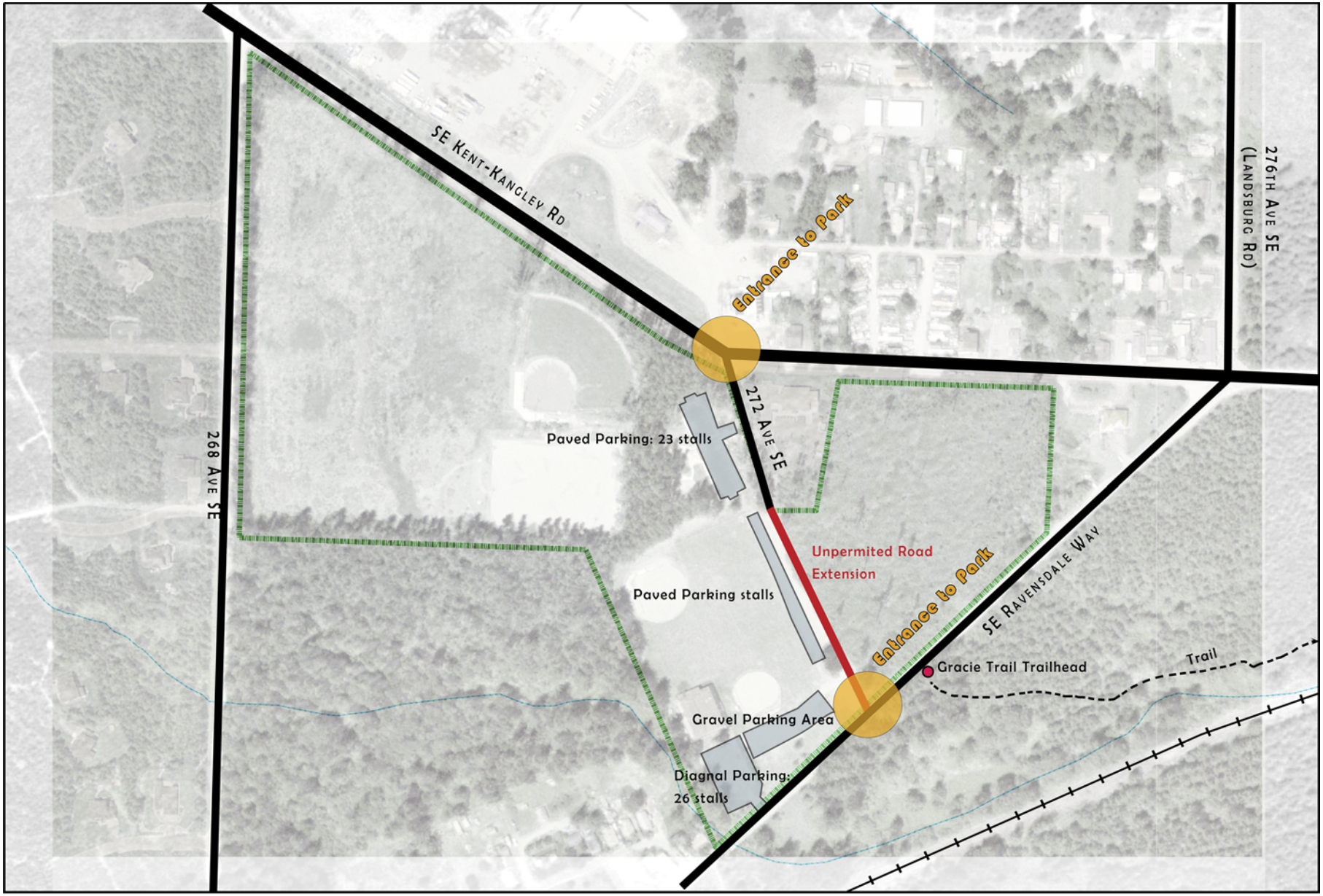


Figure 11. Site Analysis: Circulation

Circulation

The park is bounded on its west side by 268th Avenue Southeast, a two-lane road providing access to adjacent single-family neighborhoods. Vehicular access to the park occurs at 272nd Avenue Southeast, which runs between Kent-Kangley Road and Ravensdale Way. This access road has a variable width asphalt pavement ranging from approximately 20 feet wide at its narrowest near its intersection with Ravensdale Way, to approximately 30 feet wide near its intersection with Kent-Kangley Road. Traffic exiting the park is controlled by stop signs at each intersection. Stop signs also control traffic on Ravensdale Way and Landsburg Road at their intersection with Kent-Kangley Road. A Post Office on the north side of the park shares access from 272nd Avenue Southeast immediately south of Kent-Kangley Road.

View of 272nd Ave. SE where it joins the unpermitted driveway (looking north).

Traffic Volumes & Operations

Figure 12 shows traffic counts taken within the park from Wednesday, July 18th, through Saturday, July 21st, 2007, on the north and south ends of 272nd Avenue Southeast. These counts recorded inbound and outbound traffic for each hour of the day.

Much of the traffic entering the park is not related to activities in the park. The Post Office generates a sizeable portion of the traffic entering from and exiting to Kent-Kangley Road. Observations during an early evening hour in July (6:45 p.m. to 7:30 p.m.) found that 40% of vehicles entering drove to the Post Office and then departed, continuing their trips on Kent-Kangley Road. Additionally, area traffic cuts through the park, including heavy dump trucks that were observed cutting through the park in both north and south directions. This asphalt road is unpermitted and does not occupy designated right-of-way.

Cut-through traffic may be due to drivers looking to see what activities are occurring in the park, and may attract drivers who want to modify their approach to the Kent-Kangley/ Landsburg Road intersection, where they could make a left-turn to head north rather than attempt to cross two-lanes of traffic if they approached on Ravensdale Way. Otherwise, this cut-through route does not provide any special convenience or alternative to area streets.

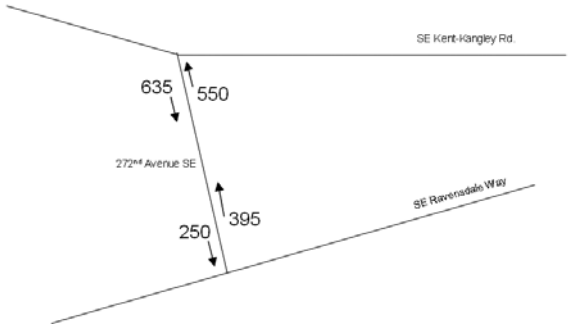


Figure 12. Average Daily Traffic in Ravensdale Park, July 2007

Daily volumes on other area roads were most recently counted by King County in October, 2005, and afternoon peak hour volumes were also counted in October, 2005, as part of a traffic study for a proposed church at the intersection of Landsburg Road/Kent-Kangley Road. Figure 13 shows the 2005 volumes.

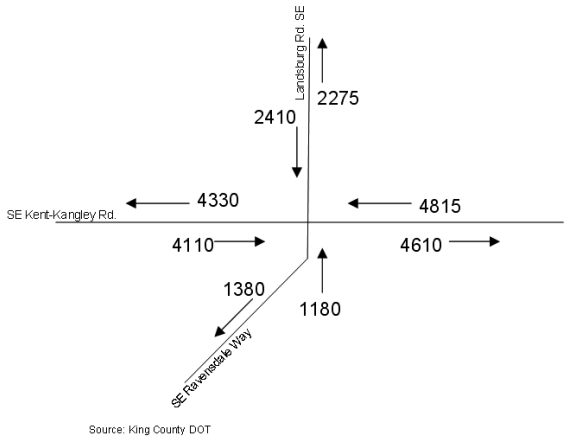


Figure 13. Average Daily Traffic near Ravensdale Park (Year 2005)

Parking

Parking is provided in a series of four lots. These lots include:

Lot Location	General Spaces	Accessible Spaces	Total Spaces
Central Parking/Picnic Shelter	44	2	46
West side of 272nd Ave.	38	2	40
South of Small Baseball Field	35	0	35
Community Center	24	2	26
Totals	**141**	**6**	**147**

Additionally, it is reported that vehicles park along 272nd Avenue at busy times. It is estimated that up to 26 vehicles can park along the street within the park without encroaching on approaches to intersections and driveways.

Anecdotally, parking is generally adequate for all but the busiest days when sports tournaments occur. Even with games scheduled simultaneously on three baseball fields and one soccer field, parking demand is estimated to be approximately 104 vehicles at one time, leaving 37 spaces for other users. Parking could fall short of demand if overlaps occur between arriving and departing participants for back-to-back games.

The Post Office is also reportedly used for parking on weekends during the busiest times. It has 36 spaces plus 2 accessible spaces. However, the Post Office provides access to mailboxes in its lobby 24 hours per day, so its parking lot is dedicated for the exclusive use of Postal Service customers.

Central Parking Area

- Asphalt parking area with concrete wheel stops, no curbs.
- Entrance off of 272nd Avenue Southeast.
- Approximately 44 stalls and 2 ADA-accessible stalls.
- Conveniently located to Picnic/Play Area, Ballfield #1, and Soccer Field.

The central parking lot is located between the post office and the picnic area/restrooms.

Community Center Parking Area

- Asphalt parking area with striped spaces, curbs.
- Entrance off of Ravensdale Way.
- Approximately 24 stalls and 2 ADA-accessible stalls.
- Located adjacent to the Gracie Hansen Community Center and close to a small baseball field.

Southeast parking lot from the Gracie Hansen Community Center.

Equestrian crossing sign at Kent-Kangley Road.

Pedestrian, Bicycle, and Equestrian Access

A crossing for equestrian riders exists at the northwest corner of the park to cross Kent-Kangley Road at 268th Avenue Southeast. Signs are posted notifying drivers of this equestrian crossing. No other crossing locations are marked for pedestrians or equestrians. Observations during the day revealed that pedestrians from nearby residences cross Kent-Kangley Road to reach the Post Office.

Within the park, sidewalks exist only at the paved parking lot adjacent to the picnic area. No sidewalks exist along the perimeter, from the perimeter to the park's interior, or along the access road.

Bicycles share the road with general traffic on all roads serving the park. Wide, paved shoulders on Kent-Kangley Road offer some separation for bicycles from motorized traffic. The Cedar River Trail, approximately 1.5 miles north of the park, is the nearest dedicated bicycle facility.

Hikers, bikers, and horses all use the regional trail network in the valley. The only direct connection with this network at the park is the Gracie Trail. Its trailhead begins just south of the unpermitted driveway along Ravensdale Way and moves mostly east through the Ravensdale Natural Area approximately 3 miles.

Entrance to the Gracie Trail.

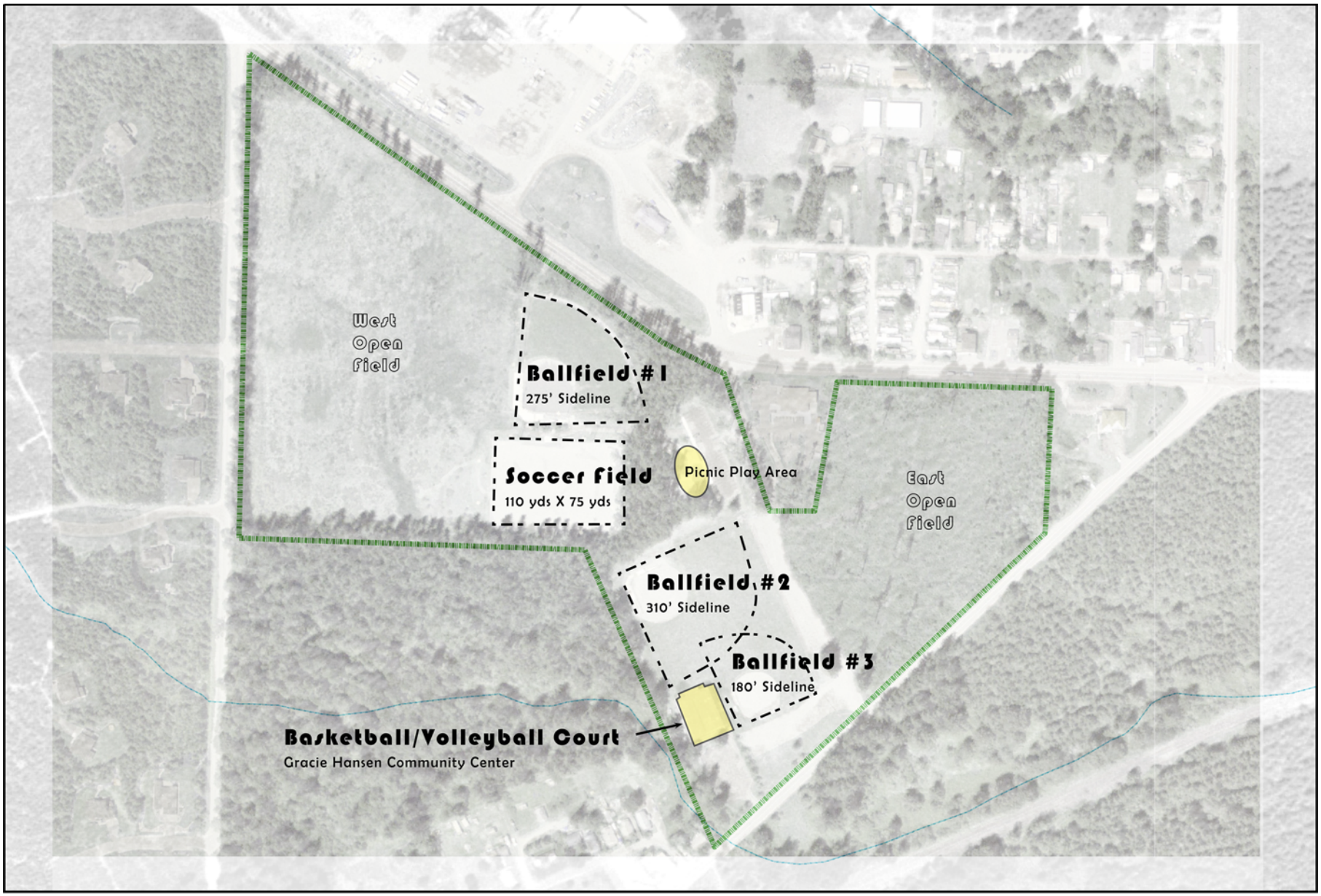


Figure 16. Site Analysis: Athletic Fields

Athletic Fields

[Needs analysis data coming soon]

Park Visitation

Visitation to the park is driven by availability of fields and access to picnic facilities, community center and open space. A variety of activities are scheduled throughout the park on most days of the year. King County provided records of scheduled events for all of 2006. These records provide the scheduled times for events and the estimated maximum number of participants for each event. Figure 14 illustrates the scheduled attendance by day of week for each month of the year. It is possible that somewhat fewer people participated on any given day.

August is the busiest month, followed by July and June. Weekdays generally exceeded weekend use due to the many exercise classes scheduled for weekdays. On the busiest weekdays, the hour of maximum use accounted for 20% of daily participants and occurred mid-morning between 9:30 a.m. and 10:30 a.m. At those times, approximately 110 persons were present for scheduled activities.

Figure 15 ranks attendance in order from the highest day to the lowest day of the year. It shows a peak day with 1,200 persons attending events (due in part to a large bicycle club visiting the park in the morning and again in the afternoon) and the lowest days with zero participants and no scheduled events. In 2006, 31 days had no scheduled events. The median figure for daily participants was 240 persons per day, while the 10th highest day amounted to 580 persons. The 10th highest day involved multiple exercise classes, youth day camps, and evening soccer games.

Use of the athletic fields accounted for 34% of all persons participating in scheduled events.

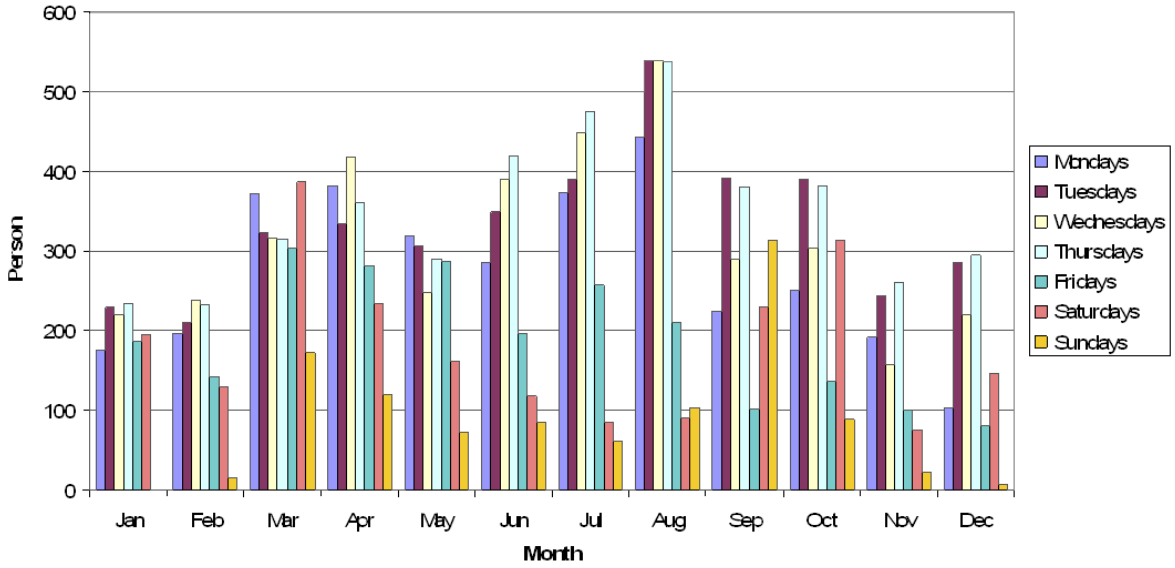


Figure 14. Ravensdale Park Daily Attendance by Month—2006

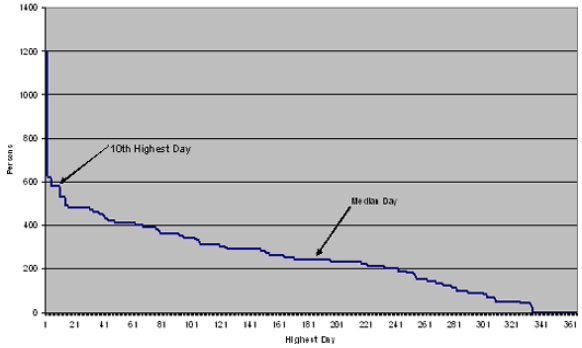


Figure 15. 2006 Bookings Estimated Attendance

Ballfield #1 Field Conditions

- Newer field (1993, remodeled in 1998) with underdrain and irrigation systems.
- Skinned infield and grass outfield, both in good condition.
- Backstop fencing, dugout fencing, sideline and outfield fencing—all in good condition; roofed dugouts.
- Plate to outfield fence distance = 275'; northeast orientation.
- Paved bleacher/spectator area.
- Fairly convenient location from parking area.

Baseball field #1 with lights.

Ballfield #2 Field Conditions

- Older established baseball field with irrigation system.
- Skinned infield and grass outfield in satisfactory condition.
- Backstop and dugout fencing in good condition; no sideline or outfield fencing.
- Outfield distance = ±270'; south-southeast orientation.
- Unpaved bleacher/spectator area.

Baseball field #2 backstop and bleachers.

Ballfield #3 Field Conditions

- Older established baseball/softball field with irrigation system.
- Skinned infield and grass outfield in satisfactory condition.
- Backstop and dugout fencing in good condition; no sideline or outfield fencing.
- Outfield fence distance = ±180'; north-northeast orientation.
- Unpaved bleacher/spectator area.

Baseball field #3.

Soccer Field Field Conditions

- Newer reconditioned field (1998) with underdrain and irrigation systems.
- All-weather (soil) playing surface in satisfactory/poor condition—many weeds and overly compacted.
- High mast, "cut-off" light fixtures around field perimeter.
- Approximately 110 yds. by 75 yds.; east-west orientation.
- Concrete paving under two sideline bleachers.
- Fairly convenient location from parking area.

All-weather soccer field with lights.

Picnic/Play Area

- Newer picnic shelter (1998) with concrete masonry posts, metal roof, and concrete slab; 6 tables; good condition.
- Newer tot play structure (1998) with climbing ladders, platform, slide, woodchip surface and concrete surround; good condition.
- Newer restroom building with concrete masonry walls and metal roof; fully plumbed (flush toilets, lavatories) in good condition.
- Eight picnic tables (2 ADA-accessible) on concrete pads.
- Concrete walks and lawn in good condition.
- Bordered by grove of tall fir trees which provides good afternoon shade.
- Terrific views eastward up-valley to foothills.

Restroom building, play structure, and picnic shelter.

Horseshoe pits at the picnic play/area.

Aesthetics

Existing Visual Character of the Landscape

The existing flat landscape of the park fits within the surrounding valley because of its forested edge, its large spaces, and its small development footprint.

- The forested edge around the perimeter creates a sense of rooms for the visitor. The edge blends with the background where the background is forested (to the south and west). When the forested edge narrows to one row of sporadic trees, the visual buffer is less successful at tying the park to its setting.
- The large spaces necessary for active recreation enhance the feeling of rooms as people move through the space, although if visitors stand in the middle of the fields, the largest expanse of lawn can be overwhelming. The large flat plane of ballfields #2 and #3 is out of scale compared to more comfortable spaces for people (see photo at right).
- Overall, the site's open spaces and built facilities do not define the visual character of the site, because the site is comparatively large. The park still feels wild and undeveloped, given the unmanicured vegetation on the western and eastern portions of the property.

The tree-lined perimeter creates a sense of large rooms on the site.

Large expanse of lawn necessary for ballfields.

Edge of unmanicured vegetation along the east field perimeter.

The picnic/play area is enhanced by the grove of Douglas fir trees.

Existing visual character of facilities

The facilities that have been constructed by King County share a functional visual theme. Park benches and tables, curbs, wheel stops, picnic shelters, and the restroom, all have an unfinished concrete surface. The light gray surface contrasts with the rest of the park's forested and lawn vegetation. Because the facilities are so small compared to the landscape, this contrast is not jarring. The facilities look permanent and well-built. (See **Infrastructure** section for discussion of the Gracie Hansen Community Center).

Existing park architecture uses simple concrete or concrete block facades.

Figure 17. Site Analysis: Aesthetics

Gracie Hansen Community Center

The Gracie Hansen Building surplused from the Seattle World's Fair of 1962 was relocated by King County Parks to Ravensdale Park, where it remained largely unoccupied for several years. Eventually, the building was renovated and has since been in use as a valuable indoor field house facility.

Gracie Hansen building at the World's Fair.

The 90-by-110-foot building is a large clear span steel frame structure with mostly precast concrete infill and cladding. The interior is divided into a basketball-court-size gymnasium that uses the full height space and an open mezzanine under which is an office, a meeting room with a small kitchen, locker rooms, toilets, and an electrical room. The mezzanine is supported by the steel structure at the perimeter and interior masonry walls. A wood-framed 16-by-60-foot storage area has been added to the rear to support program storage needs.

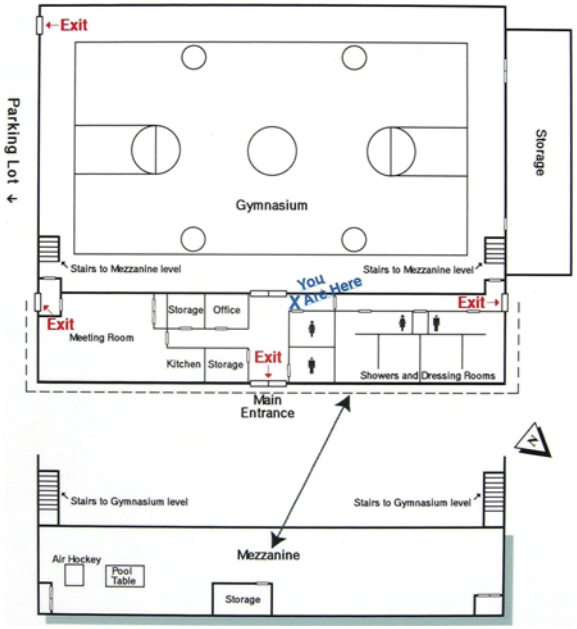
Gracie Hansen Community Center at Ravensdale Park.

Although basic in construction and appearance, the overall condition of the building interior is good. The gym has a good quality wood floor that is well maintained. The locker rooms appear to be little-used and currently provide needed storage for cleaning equipment and supplies. The toilets are clean but showing some wear, as are the kitchen and meeting room. Heating and ventilating equipment is at the rear of the building. The mechanical equipment appears to be functional but was not fully assessed.

The building does not appear to have much in the way of insulation, although the concrete mass likely helps to keep it cooler in the summer than it might otherwise be. Daylight is adequate and is particularly good at the mezzanine due to some windows that look as if they were added in the recent renovation. The exterior of the building is also in good shape, although in at least one place the concrete has spalled, exposing the reinforcing steel.

The main floor access is universally accessible. The mezzanine, however, is not. The toilets will also need to be upgraded to meet current ADA standards. Waste water systems will require attention, especially if the demand is increased. A detailed seismic structural analysis was not undertaken. Such an assessment will surely play a part in any future renovation or expansion.

Gracie Hansen interior gymnasium (note steel trusses).



Plan layout of the interior of the Gracie Hansen Community Center.

Mezzanine level of Gracie Hansen.

The Gracie Hansen Building accommodates:

- Basketball and some other compatible court sports such as volleyball.
- Jazzercise and similar group fitness programs.
- Meetings, birthday parties, and like events.
- Select after-school programs.
- Summer camp programs.
- Toddler tumbling, gymnastics, and play.
- Seasonal and annual events such as the Model Train Show.

Utilities

The support infrastructure for the park and its facilities is an important component of development because the park is located in a rural environment. The use of water, power, storm drainage, and sewer become more costly and difficult as one moves away from the urban centers.

- Water for irrigation currently comes from an on-site well that draws 75 gpm to water the fields over the four- to five-month dry season. The well taps into the confined till aquifer, approximately 70 feet deep. It is located near the north side of the central parking lot. The source of water for the restrooms is unclear. It is assumed the water for Gracie Hansen Community Center comes from the Covington Water District's line routed parallel to Ravensdale Way. The Covington Water District has recently installed an 8" ductile iron pipe line along Ravensdale Way, making future water procurement less costly.
- Power for the site comes from overhead lines that run along the south side of Kent-Kangley road. These lines power the ballfield lights and the restroom area. Power for Gracie Hansen comes from overhead power lines from the southeast along Ravensdale Way.

Overhead power lines run along Kent-Kangley Road.

- Storm drainage for the site has been installed for baseball field #1 and the central parking lot. The water drains off the fields into a grassy swale and ultimately into infiltration trenches. Water must be treated in swales or by other means before infiltrating, because of the high porosity, excessively draining soils. It could not be determined that any of the other fields or parking facilities have storm drainage.
- Sewer facilities exist for the restrooms at the central parking area and the community center.

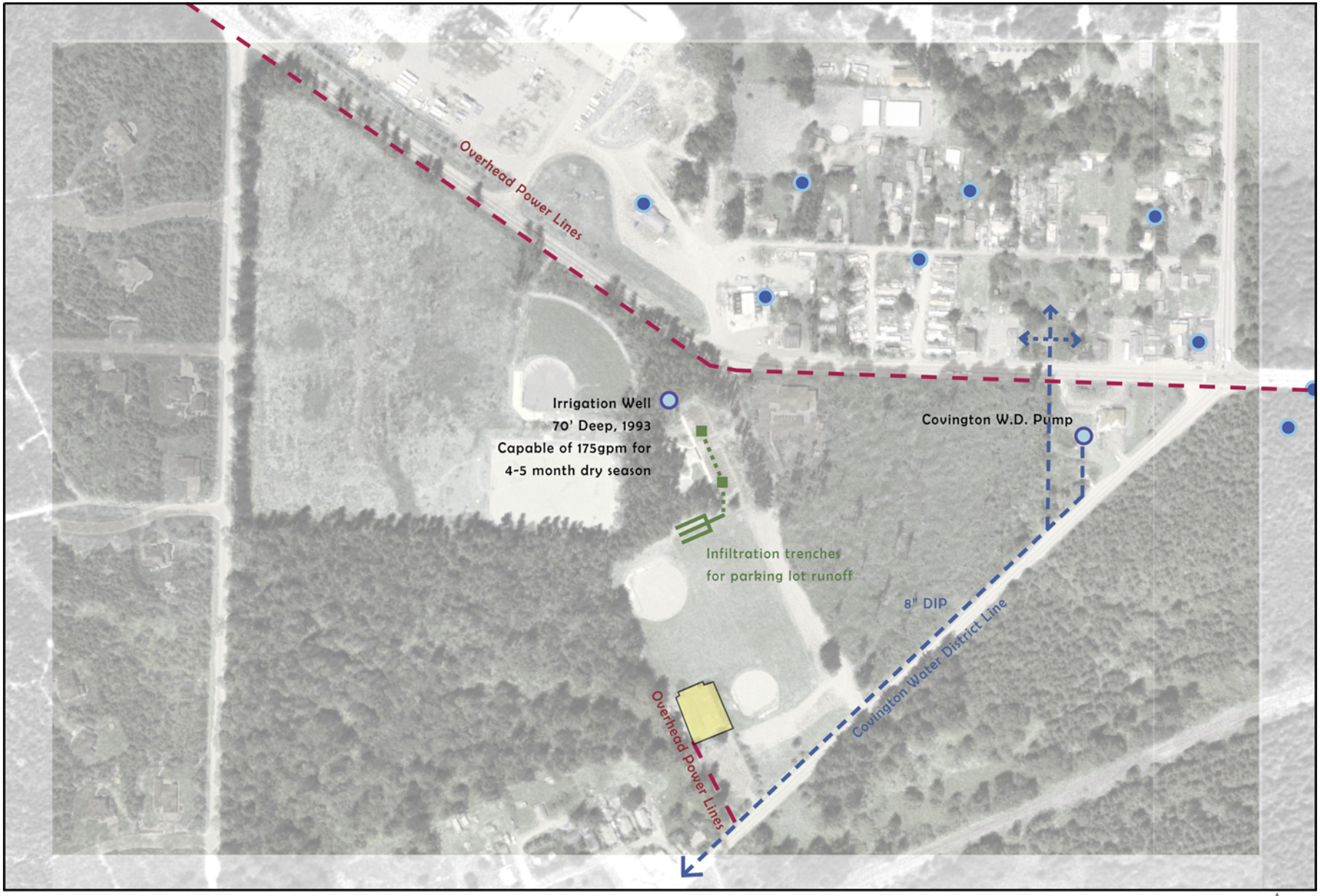


Figure 18. Site Analysis: Infrastructure

Opportunities & Constraints

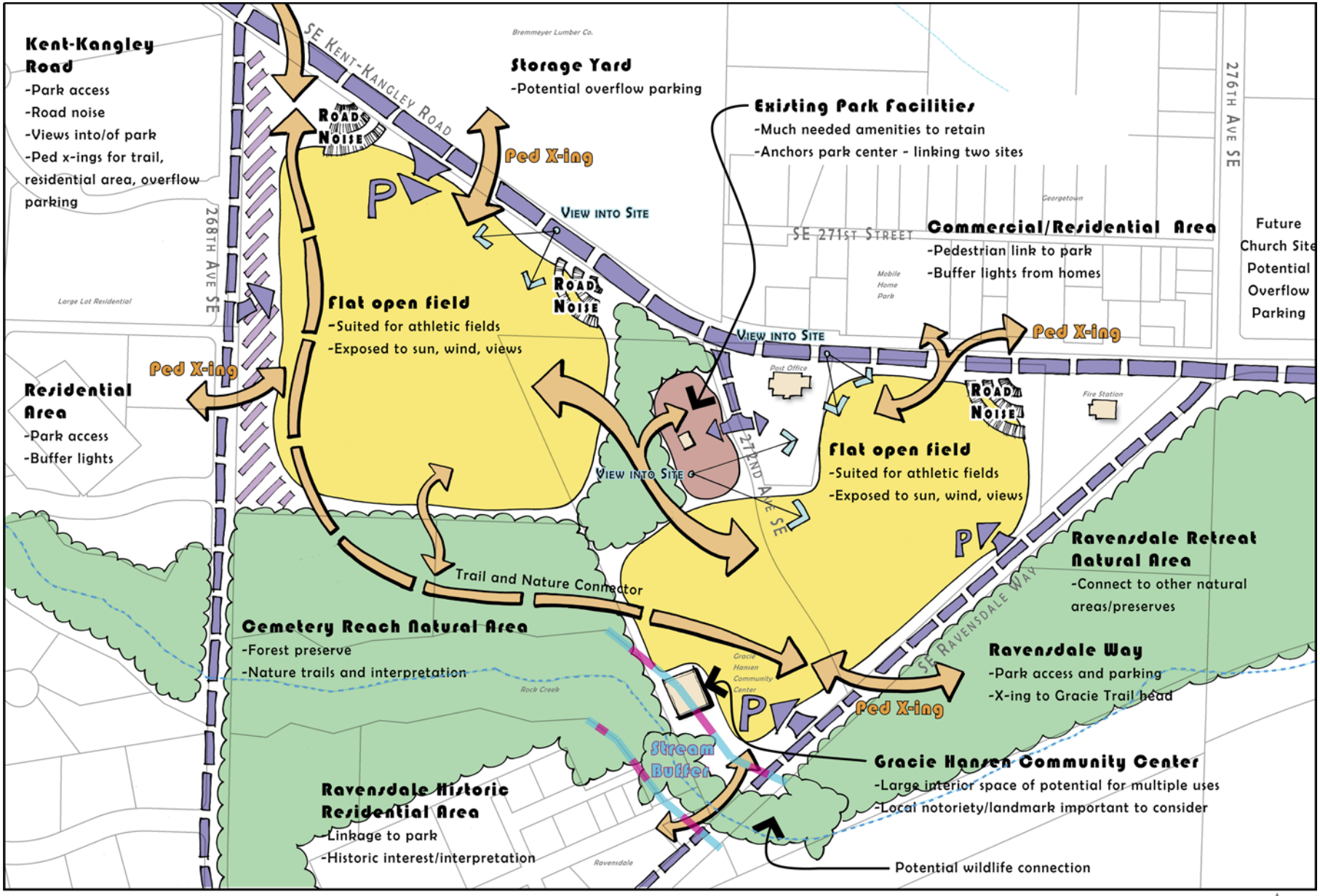


Figure 19. Opportunities and Constraints Map

Opportunities

- Flat sites ideal for athletic fields and circulation.
- Multiple opportunities to connect wildlife corridors across the park.
- Opportunity to allow people to experience walking through a Natural Area.
- Clean (treated) water used in irrigation of athletic fields can be returned to the shallow aquifer through infiltration.
- The section of Rock Creek near the Gracie Hansen building can be restored.

Constraints

- Shallow water aquifers and Rock Creek system are overdrawn.
- Rock Creek requires a buffer (see below).

Regulatory Issues

Rock Creek has been classified as a Type F stream by the WDNR FPARS mapping system. Based on Shannon & Wilson's site visit and information provided by the WDFW SalmonScape mapping website, we believe stream conditions support this Type F stream type. Under the Section 21A.24.358 of the King County Code (KCC), Type F streams outside the King County UGA require a standard buffer of 165 feet. This standard buffer would extend across the southwestern corner of the site, and be limited to Parcel No. 2522069019.

Based on existing site conditions, the standard buffer for Rock Creek extends onto the south parking lot, through the Gracie Hansen Community Center and along the southernmost ball field. These park facilities are considered existing non-conforming uses within the buffer. If significant modifications are proposed for these facilities, the County would likely require (1) facilities located outside of the buffer, or (2) a buffer averaging. Buffer averaging is allowed by the County, provided that the total buffer area does not change, the buffer is not reduced more than 30 percent of the standard buffer, and the existing buffer is enhanced. Therefore, buffer averaging could reduce the buffer width to 115.5 feet, provided the total buffer area did not change and buffer mitigation occurred through buffer enhancement.

The east-to-west ditch identified on the eastern undeveloped area and within the off-site Rock Creek Natural Area appears to have been entirely artificially created. It no longer appears to sustain surface flows except perhaps during heavy rain events. Therefore, this ditch does not meet the definition of an "aquatic area," a "stream," or "wetland" as defined within KCC 21A.06. Therefore, this relict feature is not believed to be a regulated critical area.

Circulation

Opportunities

- Easy access and entrance to park from arterial (Kent-Kangley Road).
- Possible pedestrian connections to communities of Ravensdale and Georgetown.
- Overflow parking opportunities on adjacent lands.
- Existing parking infrastructure, some of which can be retained.
- Connections to regional trail networks.
- Parking can also be use for trailheads.

Constraints

- Noisy traffic along Kent-Kangley Road.
- Current, truck traffic cutting through 272nd Ave SE unpermitted driveway.
- Internal park circulation of cars, pedestrians, and bikes not always compatible.
- Parking for peak days/tournaments means much of the site is paved.

Access & Circulation Strategies

Considerations for vehicular access include:

- The majority of vehicles will arrive from and depart to the west of the park on Kent-Kangley Road, based on the distribution of population. This means that many departing vehicles will need to make a left turn, which typically takes more time than a right turn. Accordingly, multiple points of access will spread the traffic load and minimize delays and queues. An additional driveway on Kent-Kangley Road to new parking areas would assist in distributing traffic.
- New driveways also provide opportunities to create new pedestrian crossings.
- Modify 272nd Avenue Southeast from Ravensdale Way as a driveway for access to parking only, so that it is no longer a through road bisecting the park. Its present access at Kent-Kangley Road should remain as is to provide access to the Post Office and picnic shelter. It could also provide connections to new parking areas, if needed.

Parking Strategies

King County does not specify a parking requirement in its zoning code, instead leaving the decision on the appropriate amount of parking to the director of development services. The recommended amount of parking for each type of field in this analysis is derived from the number of people involved in the game, and their likely means of travel to the park. In general, sports such as baseball, soccer, lacrosse, and football have fairly similar numbers of people present, and so will have common parking demands.

Key points in planning for parking include:

- For planning purposes, it is recommended that 25 spaces per field be provided.
- In the event that back-to-back games are scheduled, causing an overlap between the participants of two games, an additional 20 spaces will be needed per field. Staggering starting times between multiple fields by just 15 minutes can be an effective tool to minimize parking and traffic peaks.
- To maintain a park atmosphere, it is suggested that lots be limited to no more than 75 spaces, enough to serve 3 fields. This means that lots would be no larger than about twice the size of the current picnic shelter lot, or about 0.55 acres.
- Additional parking for peak times can be provided along access roads and on grass or other permeable surfaces. Access roads should be designed with adequate space to allow for parking on at least one side of the road. Such areas should be for occasional use on the busiest days.
- Parking should be reasonably proximate to the fields being served so that participants can arrive at the appropriate field without hunting elsewhere in the park for parking.

	Players	*Coaches*	*Referees*	*Independent Spectators*	***Totals***
Baseball	28	4	2	4	**38**
% Auto	95%	100%	100%	50%	
Persons per Vehicle	1.5	1	1	1	
Vehicles Parking	18	4	2	2	**26**
Soccer	24	2	3	4	**33**
% Auto	95%	100%	100%	50%	
Persons per Vehicle	1.5	1	1	1	
Vehicles Parking	15	2	3	2	**22**

Figure 15. Parking Demands for Athletic Fields

Athletic Fields

Opportunities

- Four existing ballfields to use during project phasing.
- Flat topography conducive to athletic field development.
- Sandy gravel soils conducive to athletic field development.
- Central location in Rock Creek Valley next to major arterials.
- Natural forested divider between two flat open areas, break-up severe nature of multi-field sports park.

Constraints

- Athletic fields somewhat exposed to wind and sun, must be oriented sensitively.
- Post office and Gracie Hansen building create pinch point in middle of the site, reduce site's flexibility in layout.
- Multiple athletic fields and facilities can appear urban, not fitting with the rural character.
- Lighting of athletic fields can spill over into nearby residential areas if not carefully designed.

Aesthetics

Opportunities

- Views of nearby forested hills and far-off Cascade foothills.
- Natural areas adjacent to the property provide good backdrop for views and for seeing fly balls.
- Potential to create park with rural character that blends into the rural community.
- Existing Douglas fir forest has tall tree canopy with short undergrowth people appreciate.

Constraints

- Limited materials palette by retaining rural character in new park development.
- Rural character influences field layout; may reduce the number of new fields by one.

Infrastructure

Opportunities

- Power and sewer, and possibly water, are readily available to add new facilities.

Constraints

- Increase irrigation may mean higher water costs or new, difficult-to-permit wells.

Programming

Soccer Fields (incl. Football & Lacrosse)

Number

- 4 dedicated soccer fields (minimum), 5 if possible, plus practice areas.
- 2 fields lined for soccer only.
- 1 field lined for soccer and football.
- 1 field lined for soccer and lacrosse.
- 1 to 2 additional/practice fields for limited play could occupy baseball outfield(s) or large, grassy open space.

Dimensions

- 70 x 110 yards (64 x 100 m) to accommodate adult league and high school play.
- Youth teams play on smaller fields; adjustable goals can be positioned closer together for youth play.
- 4 yard wide safety zone is required around field perimeter.

Usage

- Fields will be used year-round.
- Fields will be in heavy demand by adult leagues and youth teams of all ages for regular season games and practices.
- Fields may be used for local soccer tournaments.

Orientation

- Long axis oriented north-south is preferred.
- East-west orientation can work if west setting sun is screened by tall trees near field.

Lights

- Night lighting will be required for 4 primary fields.
- Provide shielded light source to reduce glare that would be visible from nearby homes and off-site areas.

Fencing

- Field complex will require perimeter fencing—4 ft.-high chain link.

Playing Surface

(the following options require further consideration and discussion)

- Synthetic grass (with rubber particle infill) has become preferred playing surface for fields used year-round; synthetic grass withstands frequent play in wet weather, needing only to be occasionally dragged and chemically treated, and does not require re-lining. Initial construction cost is typically higher than other options.
- Natural grass may be appropriate for practice soccer fields or areas receiving limited play; grass requires mowing and irrigation.
- All-weather soil is a common playing surface on many fields, but it requires frequent maintenance including dragging and lining between games, weed removal, irrigation during dry weather. Initial cost is lower than synthetic grass.

Support Facilities

- Parking: See **Circulation**.
- Restrooms: Fully enclosed and plumbed restrooms (with flush toilets, lavatories) are preferred; allow 1 men's and 1 women's toilet per field.
- Sideline benches for players are desirable.
- Portable bleacher seats for parents and spectators are also preferred.

Other Considerations

- Soccer facilities should be designed to accommodate tournaments with area for concessions, vendors, team waiting and gathering.
- Other recreational areas/activities should be provided for children while parents or siblings play (see Other Facilities, Activities, and Features).
- Picnic areas are also appropriate nearby to accommodate soccer families, waiting teams, etc.

All-weather soccer field with lights.

Large amateur soccer complex with lights in Texas.

Combined soccer/baseball fields at a new park in Renton.

Fields #3 and 4 at Starfire in Tukwila.

Soccer field with synthetic turf in a more urban park.

Picnic shelter adjacent to soccer fields.

Baseball/Softball Fields

Number

- 3 dedicated baseball fields suitable for junior high and possibly high school play and tournaments.
- 1 to 2 added fields (desirable) for younger baseball players, girls' fastpitch, and adult softball (these fields could be in addition to those above, or above fields can be adaptable to accommodate different ages and game types).

Dimensions

- Primary School Baseball (ages 9–12):
  - Baseline distance = 60' L.L., 70' PONY.
  - Foul line distance = 200'.
  - Centerfield pocket = 250'.
  - Backstop to home plate = 30'.
- Junior High Baseball (ages 13–14):
  - Baseline distance = 90' L.L., 80' PONY.
  - Foul line distance = 250'.
  - Centerfield pocket = 300'.
  - Backstop to home plate = 40'.
- High School Baseball (ages 15 and up):
  - Baseline distance = 90'.
  - Foul line distance = 300' PONY, 325' L.L.
  - Centerfield pocket = 350' PONY, 400' L.L.
  - Backstop to home plate = 50'.
- Girls' Fastpitch:
  - Baseline distance = 60'.
  - Foul line distance = 200' for 15 and under; 250' for 16 and older.
  - Centerfield pocket = same as foul line distance.
  - Backstop to home plate = 25' minimum.
- Adult Softball:
  - Baseline distance = 55'.
  - Foul line distance = 250'.
  - Centerfield pocket = same as foul line distance.
  - Backstop to home plate = 25' minimum.
- Fields with adjustable bases and portable pitching mounds are desirable to accommodate various ages and types of play—baseball, fastpitch, and softball.

Orientation

- Batter faces east-northeast (optimal) not facing the sun.
- Pitcher throws across the sun (optimal).

Usage

- For regular season PONY and L.L. baseball, field demand is highest for the 9–12 year old age group. Practice starts March 1st and the season runs April 1 to mid-June. Games and practices are usually scheduled weekday evenings from 5:00–8:00 p.m. and on weekends.
- For ages 13–14, PONY and L.L. participation declines as kids stop playing or switch over to select baseball teams. Select teams, although fewer, seek good quality fields.
- Girls' fastpitch season generally coincides with PONY and L.L.
- Adult softball occurs late spring through summer.
- Youth league baseball tournaments run through the summer

Lights

- Lights generally are not required for regular season PONY and L.L. (kids have school, homework).
- Lights are desirable for tournaments but not essential (most play occurs during daylight hours on weekends).
- Lights are desirable for adult softball but not essential (evenings stay light through summer).

Fencing

- Backstops and dugout fencing are required for all baseball and softball fields.
- Sideline and outfield fencing is not essential for fields that are used mostly for primary school and junior high baseball and girls' fastpitch.
- Sideline and outfield fencing is typically provided on fields used for high school baseball and tournaments.

Playing Surface

(the following options require further consideration and discussion)

- If used only for baseball and softball, natural grass is suitable for outfield areas; grass requires mowing and irrigation.
- Skinned (dirt) infield is suitable for primary school baseball, girls' fastpitch, and adult softball; skinned infield may be better suited for adjustable bases. Skinned surface requires dragging, lining, and watering during dry weather.
- For junior high, high school, and tournament fields, sports mat has become the preferred infield surface although skinned infields are still very common. Sports mat has higher up-front construction cost than skinned infield.
- Synthetic grass is not commonly used for infields; synthetic grass may be appropriate for outfields that are also used for soccer. Synthetic grass does not require mowing or irrigation, but has higher initial construction cost than natural grass.

Miscellaneous Accessories and Components

- Dugouts: 2 fenced dugout areas must be provided for each field; dugout surface should be same elevation as infield, not recessed; though not essential, a roof covering over dugouts is desirable to provide shade and rain protection.
- Bleachers: Portable bleachers should be provided adjacent to infield behind backstop for parents and spectators.
- Foul Line Pole: Helpful, but not essential.
- Moveable Bases: Will allow greater flexibility to use fields for different age groups and types of play.
- Moveable Pitching Mound: Allows more flexibility in field usage.
- Scoreboard: Desirable for tournament facilities.
- Warm-Up Area for Pitchers: Designated areas improve safety.

Plan of a popular cloverleaf layout in Tennessee.

Baseball players warming up at Sea-Tac Park.

Natural grass outfield, skinned infield at large baseball field, City of Sammamish.

Synthetic turf baseball field at Rainier Beach High School.

Baseball infrastructure at Sea-Tac Park: backstops, fencing, bleachers, and dugout.

Other Park Facilities, Activities, and Features

Picnic Area(s)

- For individual families or for groups, with 8 or more tables and grills.
- Shelter building(s) desirable.
- Located near parking and in vicinity of play structure and open turf area.
- With tree canopy for shade, or roof canopy over some tables.

Large picnic shelter at Kanaskat-Palmer State Park.

Park walkways range from wide paths that accommodate multiple uses.…

Restroom facility at Newhalem Campground in the Cascades.

Restrooms

- Conveniently located close to athletic fields, picnic, and play areas.
- Enclosed, plumbed building(s) with flush toilets and lavatories desirable; ADA-accessible.
- Size of building/number of fixtures based on potential demand (see discussion for Soccer and Baseball Fields—Support Facilities).
- Building architecture should fit rural setting and character.

Pedestrian Circulation and Trails

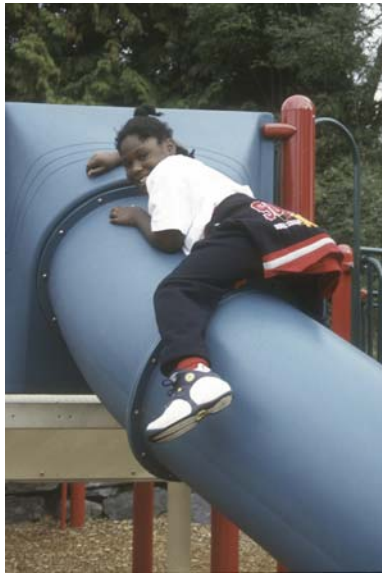
- Park Paths and Walks:
  - To provide access between parking, athletic fields, picnic, and play areas.
  - For pedestrians, small kids on bikes, occasional joggers, maintenance vehicles.
  - Surface: Asphalt or concrete.

… to smaller paths that connect small open spaces.

- Connector Trail:
  - Provides linkage between existing trail networks north and south of park.
  - Primarily for bicyclists, equestrians, joggers.
  - Surface: Crushed stone is preferable for horses and satisfactory for bicyclists and joggers.
  - Route should not cause mixing of "park-only" circulation with "thru-traffic" circulation on connector trail.
  - Trail head parking should be provided.

Trails should connect to external trail network, Gracie Trail.

- Nature/Interpretive Trail:
  - To experience some of the plants (and animals) of the Rock Creek Valley and to learn about the conservation efforts to protect the natural heritage of the valley.
  - Trail route may include Cemetery Reach Natural Area south of park and planted areas within park.
  - Surface: Crushed stone, compacted earth, or wood chips.



North SeaTac Park, SeaTac

Playground/Play Structure

- For ages 5–10: Pre-manufactured climbing structure with ladders, monkey bars, slides, poles, rings, etc.
- For ages 2–4 (tot lot): Spring riders, tot swings, sand area, water play.
- Located near picnic areas.
- Resilient "fall zone" surface.
- ADA accessible.

Other Play/Recreation Facilities (Optional)

- Basketball Court: Half-court with goal, asphalt paving, no lights or fence.
- Volleyball Court: Sand surface, permanent net posts, no lights or fence.

Community Gathering and Multi-Purpose Open Space Area

- For community events such as fairs and festivals (food, music, dance, theater, holiday) open-air markets (arts & crafts, farmer's market) sports jamborees and tournaments (registration, concessions, vendors).
- Area should be sized to accommodate large groups.
- Surface can be some combination of paved and grass area.
- Location should be convenient to parking and restrooms.

Oxbow Park, Seattle

Kiosk at El Centro de la Raza, Seattle

Landscape/Planting

- To screen and buffer views of athletic fields from nearby roads and homes.
- To reduce openness of sports field complex and maintain rural character.
- To attenuate light spill and glare form sports field lighting.
- To create spatial definition, visual interest, and scenic quality.
- To improve playability of sports fields: buffer cross-winds, shield west setting sun, and provide dark, neutral backdrop around fields.

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