

**CITY OF DUVALL, WA**

**ENVIRONMENTAL CHECKLIST**

**Big Rock Park Ball Field Renovation**

**August 2016**

*Project*

**Big Rock Park Ball Field Renovation**

*Applicant*

**City of Duvall**

**Attn.: Lara Thomas, City of Duvall Planning**

*Athletic Field Consultant*

**DA Hogan & Associates**

**August 2016**

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## **Appendices**

Appendix A – Legal Description



## ENVIRONMENTAL CHECKLIST

### *Purpose of checklist:*

The State Environmental Policy Act (SEPA), chapter 43.21C RCW, requires all governmental agencies to consider the environmental impacts of a proposal before making decisions. An environmental impact statement (EIS) must be prepared for all proposals with probable significant adverse impacts on the quality of the environment. The purpose of this checklist is to provide information to help you and the agency identify impacts from your proposal (and to reduce or avoid impacts from the proposal, if it can be done) and to help the agency decide whether an EIS is required.

### *Instructions for applicants:*

This environmental checklist asks you to describe some basic information about your proposal. Governmental agencies use this checklist to determine whether the environmental impacts of your proposal are significant, requiring preparation of an EIS. Answer the questions briefly, with the most precise information known, or give the best description you can.

You must answer each question accurately and carefully, to the best of your knowledge. In most cases, you should be able to answer the questions from your own observations or project plans without the need to hire experts. If you really do not know the answer, or if a question does not apply to your proposal, write "do not know" or "does not apply." Complete answers to the questions now may avoid unnecessary delays later.

Some questions ask about governmental regulations, such as zoning, shoreline, and landmark designations. Answer these questions if you can. If you have problems, the governmental agencies can assist you.

The checklist questions apply to all parts of your proposal, even if you plan to do them over a period of time or on different parcels of land. Attach any additional information that will help describe your proposal or its environmental effects. The agency to which you submit this checklist may ask you to explain your answers or provide additional information reasonably related to determining if there may be significant adverse impact.

### *Use of checklist for nonproject proposals:*

Complete this checklist for nonproject proposals, even though questions may be answered "does not apply." IN ADDITION, complete the SUPPLEMENTAL SHEET FOR NONPROJECT ACTIONS (part D).

For nonproject actions, the references in the checklist to the words "project," "applicant," and "property or site" should be read as "proposal," "proposer," and "affected geographic area," respectively.

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## A. BACKGROUND

- 1. Name of proposed project, if applicable:** Big Rock Park Ball Field Renovation
- 2. Name of applicant:** City of Duvall
- 3. Address and phone number of applicant and contact person:**

**Applicant:** City of Duvall  
**Contact Person:** Alana McCoy, Project Manager  
14701 Main Street NE  
Duvall, WA 98019  
**Phone:** (425) 788-3434  
**Email:** alana.mccoy@duvallwa.gov

**Prime Consultant:** DA Hogan & Associates  
**Contact Person:** Bob Harding, Principal  
**Mailing:** 119 1<sup>st</sup> South, Suite 110  
Seattle, Washington 98104  
**Phone:** 206-285-0400  
**Email:** [bobh@dahogan.com](mailto:bobh@dahogan.com)

4. **Date checklist prepared:** Checklist prepared August 17, 2016.
5. **Agency requesting checklist:** The City of Duvall (City) is the agency with land use permit authority. This document has been prepared by the city's Athletic Field Consultant, DA Hogan & Associates.
6. **Proposed timing or schedule (including phasing, if applicable):** The Big Rock Park Ball Field Renovations project is scheduled to start construction in the summer of 2017, upon issuance of the necessary permits, with anticipated completion in the fall of 2017.
7. **Do you have any plans for future additions, expansion, or further activity related to or connected with this proposal? If yes, explain.**

There are no future plans for additions, expansion, or further activity at this time.

8. **List any environmental information you know about that has been prepared, or will be prepared, directly related to this proposal.**

The following information was been prepared for this project and is incorporated within this environmental review by reference:

Site Layout Plan, Permit Set.....DA Hogan  
 Site Assessment of Existing Conditions (GeoTech), February 2016 ..... Associated Earth Sciences, Inc.  
 Stormwater Site Plan/Technical Information Report, July 2016..... LPD Engineering

Information in this checklist is based on the referenced material as well as information on the project from the applicant, consultants and researched items.

9. **Do you know whether applications are pending for governmental approvals of other proposals directly affecting the property covered by your proposal? If yes, explain.**

There are no other applications pending except as listed in #10 below.

10. **List any government approvals or permits that will be needed for your proposal, if known.**

The following permits/approvals have been identified as possible permits for this proposal:

SEPA Checklist/Determination/Compliance..... City of Duvall  
 Clearing and Grading Permit ..... City of Duvall  
 National Pollutant Discharge Elimination System (NPDES)  
 Permit Coverage (US EPA Clean Water Act) ..... Washington Dept. of Ecology (DOE)

Other permits may be identified during the review and permitting process, although none are expected.

11. **Give brief, complete description of your proposal, including the proposed uses and the size of the project and site. There are several questions later in this checklist that ask you to describe certain aspects of your proposal. You do not need to repeat those answers on this page.**

The proposal is for renovation of a portion of the existing fields at Big Rock Park. The property is currently developed as a community park that includes playground, parking lot, skate park, a sand based natural turf baseball field, a natural turf softball field, and natural turf soccer fields. The project area will encompass

the entirety of the park, parking and sports field lighting, conversion of the softball and soccer fields to a vertically drained infilled synthetic turf field totaling approximately 130,900 square feet, using a combination of an elastic layer pad with sand and coated SBR Rubber infill (or sand and cork infill), new vehicle parking and maintenance access, and pedestrian surfaces. The multipurpose field will host four soccer fields of various sizes and configurations.

The goal of the project is to improve an existing grass athletic field by replacing it with an infilled synthetic turf field utilizing a combination of an elastic layer pad with sand and coated SBR Rubber infill (or sand and cork infill), including a new subsurface drainage system. Improvements will occur throughout the park site, with specific improvements and disturbed area would be approximately 4.82 acres (209,959 SF). The total project footprint would be 9.75 acres (424,710 SF).

- 12. Location of the proposal. Give sufficient information for a person to understand the precise location of your proposed project, including a street address, if any, and section, township, and range, if known. If a proposal would occur over a range of area, provide the range or boundaries of the site(s). Provide a legal description, site plan, vicinity map, and topographic map, if reasonably available. While you should submit any plans required by the agency, you are not required to duplicate maps or detailed plans submitted with any permit applications related to this checklist.**

The Big Rock Park site is located at 28430NE Big Rock Road, within the Duvall city limits, in King County, Washington (see *Figure 1 – Vicinity Map*, *Figure 2 – Aerial Site Map*, *Figure 3 – Site Layout Plan* and *Appendix A – Legal Description*). The main access to the park is from Big Rock Road. The park consists of a single parcel (2129700250) totaling approximately 9.75 acres.



**Figure 2 – Aerial Site Map**



Source: King County iMap 2016

Figure 3 – Project Site Layout Plan

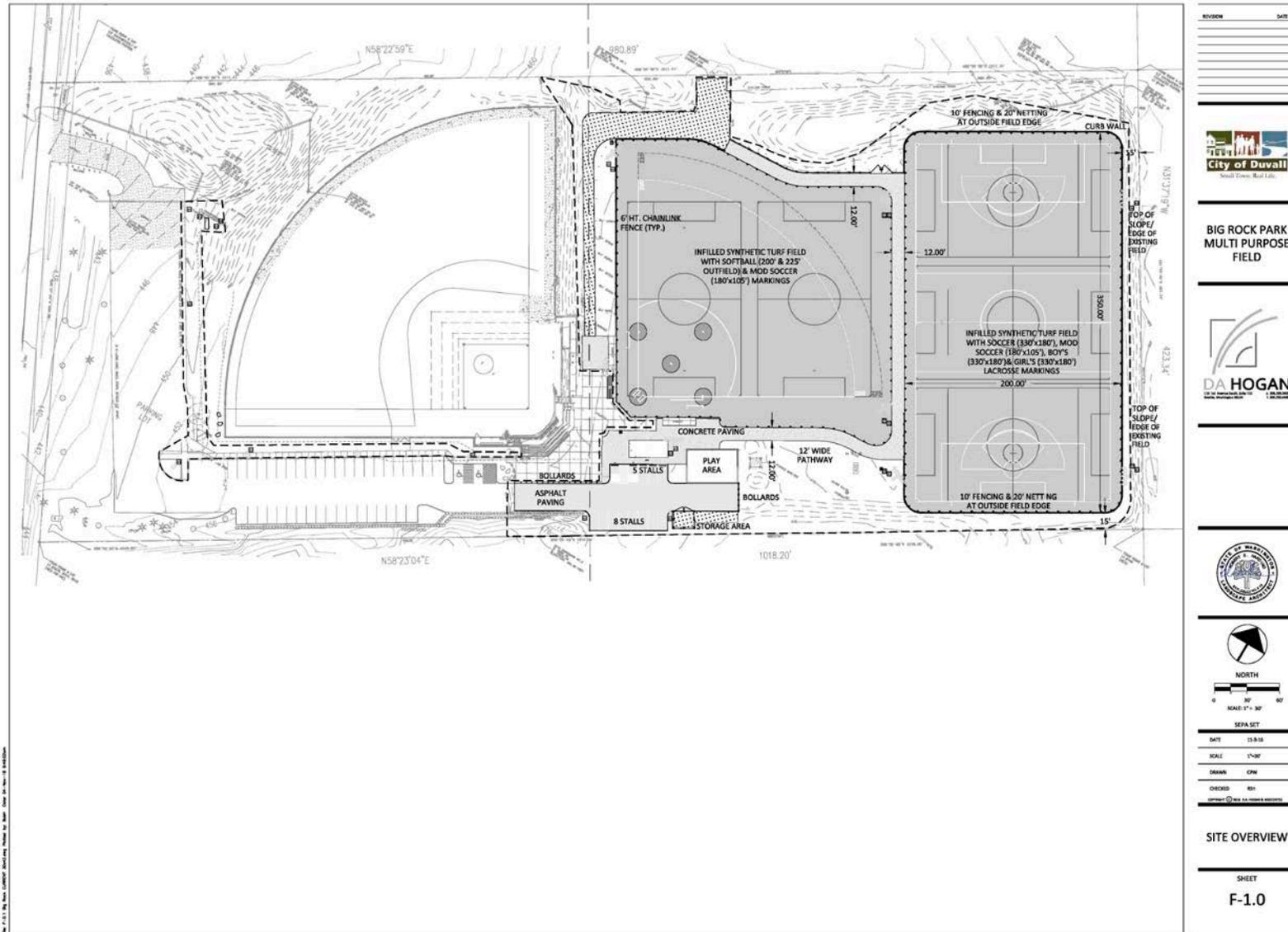


Figure 4 – Landscape Planting Plan

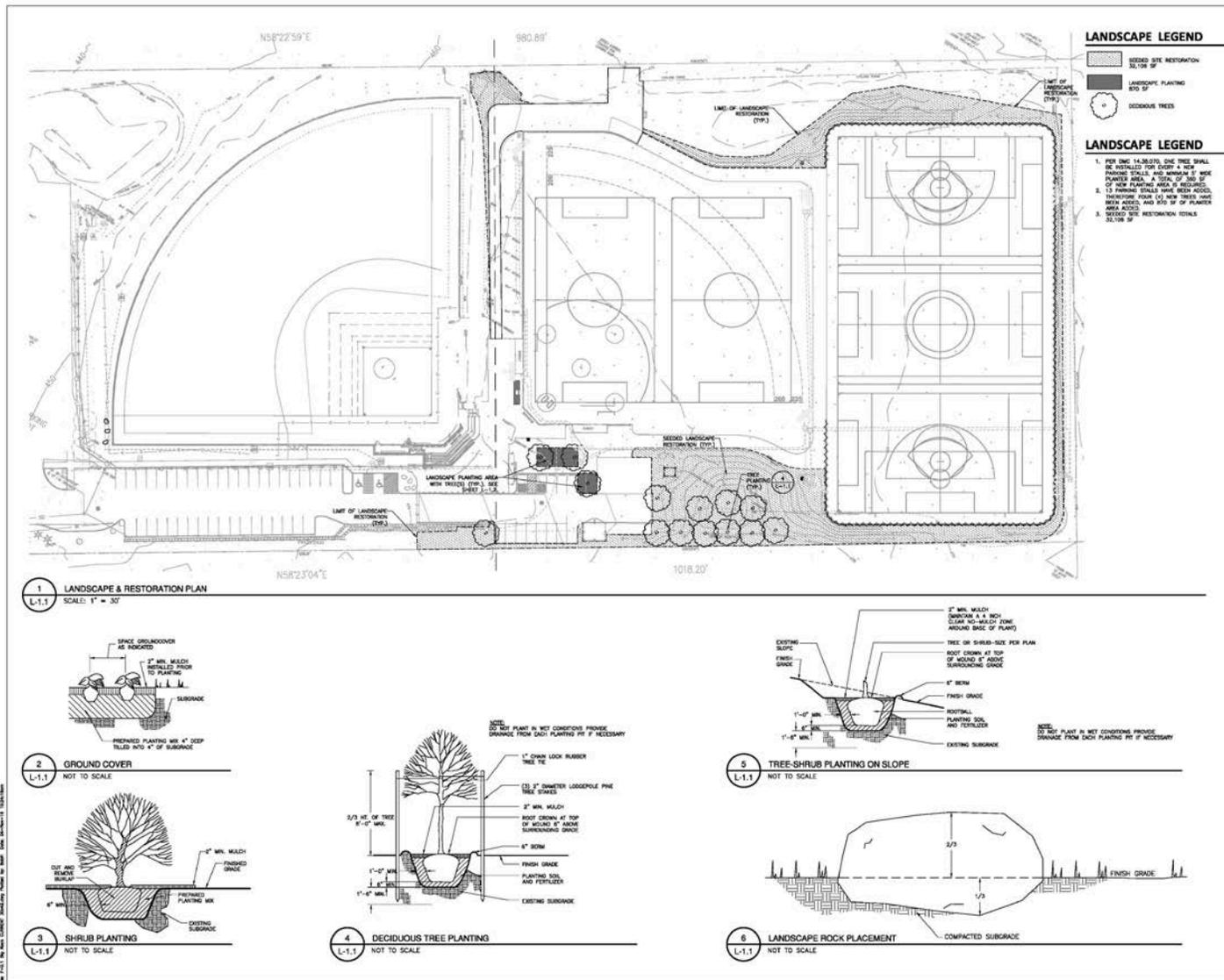
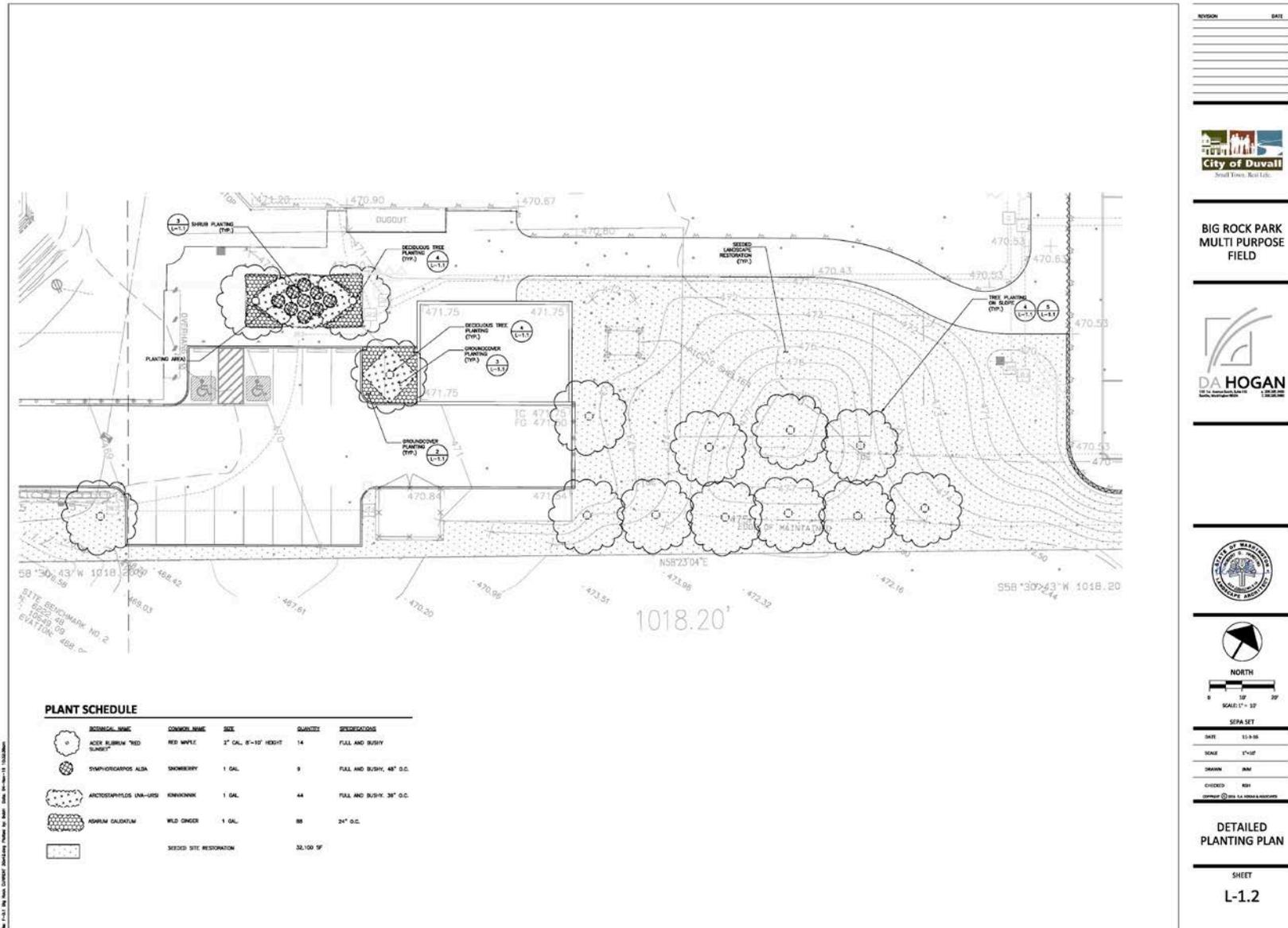


Figure 5 – Detailed Planting Plan



**B. ENVIRONMENTAL ELEMENTS**

- a. **General description of the site (circle one):**  Flat, rolling, hilly, steep slopes, mountainous, other.

The project site is developed as Big Rock Park. The project area is currently primarily a natural turf softball and soccer field. Existing tree cover occurs at the perimeter of the park site on the north, south and east perimeters. A developed natural turf baseball field occurs west of the softball and soccer field. Parking and vehicle access occur at the south west perimeters. Two existing stormwater ponds occur on the NW and SW site perimeters. The site is adjacent to Big Rock Road NE.

Surface grades are relatively flat with less than a few feet of elevation differential between opposite ends of the field. There is a terrace/grade transition of approximately 6 ft. between the softball/soccer fields and the baseball field, with an additional 6'-10' to the perimeter stormwater ponds.

- b. **What is the steepest slope on the site (approximate percent slope)?**

The topography of the existing field slopes from southwest to northeast, at an approximate slope of 0.6%. There is a 3:1 slope at the north and east edge of the field site which is incorporated into a storm drainage retention pond directing surface water to the North East corner of the site towards existing catch basins. At the West and South edge of the site there is also a 3:1 slope from the field edge and the new parking area for a 5 foot elevation difference to match surrounding grades of the adjacent undeveloped properties.

- c. **What general types of soils are found on the site (for example, clay, sand, gravel, peat, muck)? If you know the classification of agricultural soils, specify them and note any agricultural land of long-term commercial significance and whether the proposal results in removing any of these soils.**

Based on information from the site assessment, the site soils are mapped as Vashon Lodgement Till. Exploration borings that fully penetrated existing fill encountered dense to very dense sand with silt and gravel interpreted as lodgement till sediments. Lodgement till was deposited at the base of an active continental glacier and was subsequently compacted by the weight of the overly glacial ice. Lodgement till typically possess high-strength and low-compressibility attributes that are favorable for support of athletic fields and light pole foundation. Lodgement till is silty and moisture-sensitive. In the presence of moisture content above the optimum moisture content for compaction purposes, lodgement till can be easily disturbed by vehicle and earthwork equipment. Reuse of excavated lodgement till sediments in structural fill applications is feasible if such reuse is explicitly allowed by project specifications, and if the material is dried to achieve a moisture condition such that it can be compacted to a firm and unyielding condition at the specified level of compaction.

No agricultural uses are present.

- d. **Are there surface indications or history of unstable soils in the immediate vicinity? If so, describe.**

There are no indications or history of unstable soils in the field area, or on the site in general.

- e. **Describe the purpose, type, total area, and approximate quantities and total affected area of any filling, excavation, and grading proposed. Indicate source of fill.**

Generally, the substrate required to develop a proper foundation for the surfaces proposed requires removal of the existing organic/topsoil material within the field. The existing sod and organic materials would be disposed off-site, as well as any unsuitable soils, and import of highly permeable structural fill consisting of sands and aggregates will be required for the field construction. The following are approximate quantities (cubic yards/C.Y.):

Excavation and off-site disposal of organic and unsuitable soils:	1,500 C.Y.
Earthwork with on-site cut and fill suitable soils:	3,800 C.Y.
Import of fill and aggregate base materials:	6,000 C.Y.

Fill would be provided from an approved source. (See *Figure 4 – Field Grading and Drainage Plan* for additional details.)

**f. Could erosion occur as a result of clearing, construction, or use? If so, generally describe.**

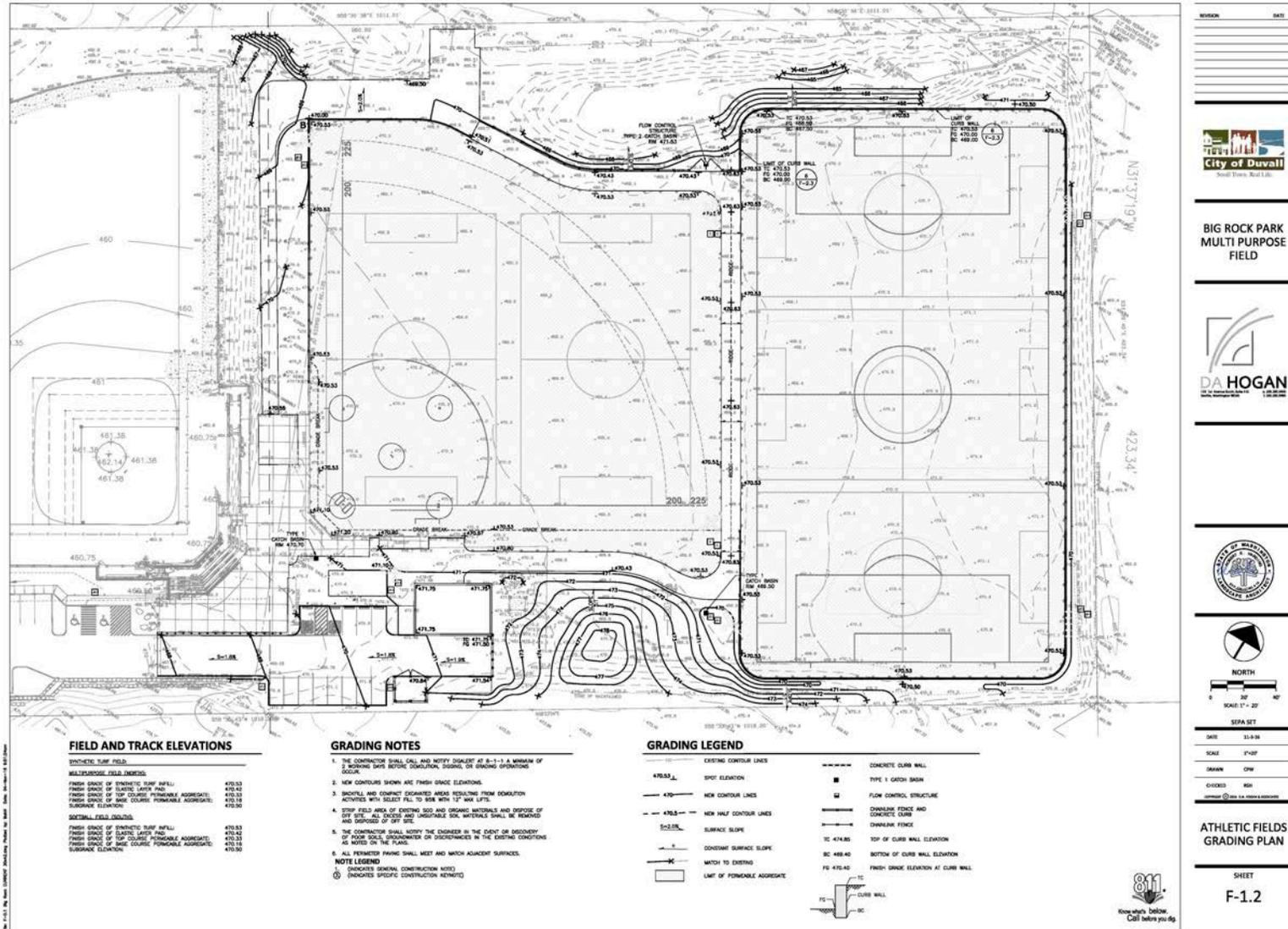
Surface erosion may occur as a result of clearing and grading operations; however, due to the flat slopes on-site and the location of the limit of site disturbance proposed, this is expected to be minor as the project site is composed primarily of slopes under 2%. Minor localized erosion could occur as a result of construction activities; however, it would not extend outside the project limits.

Temporary erosion control facilities would be installed prior to any construction activities. Erosion control best management practices (BMPs) would include but not be limited to silt fencing, straw wattles, temporary construction entrance, catch basin inlet protection, and other standard construction erosion control practices, and seasonal limitations of construction would control potential on-site erosion. There is the potential for erosion to occur during the removal of the grass, clearing and grading process; however, BMPs and Storm water Pollution Prevention Plan (SWPPP) requirements would be incorporated into the site disturbance activities prior to any clearing or earthwork activities minimizing erosion potential.

**g. About what percent of the site will be covered with impervious surfaces after project construction (for example, asphalt or buildings)?**

After the completion of the project the site will consist of approximately 20.7% impervious surface coverage. The project consists mainly of the replacement of the existing natural grass field with a pervious synthetic turf surfacing. The synthetic turf surface would be more pervious than the existing natural grass surface in the outfield. Refer to the *Technical Information Report* for a detailed description of the project areas. New asphaltic concrete surfaces totaling 7,395 SF are constructed in lieu of existing crushed rock surfacing. There is new concrete surfacing totaling 10,730 SF.

Figure 6 – Field Grading Plan

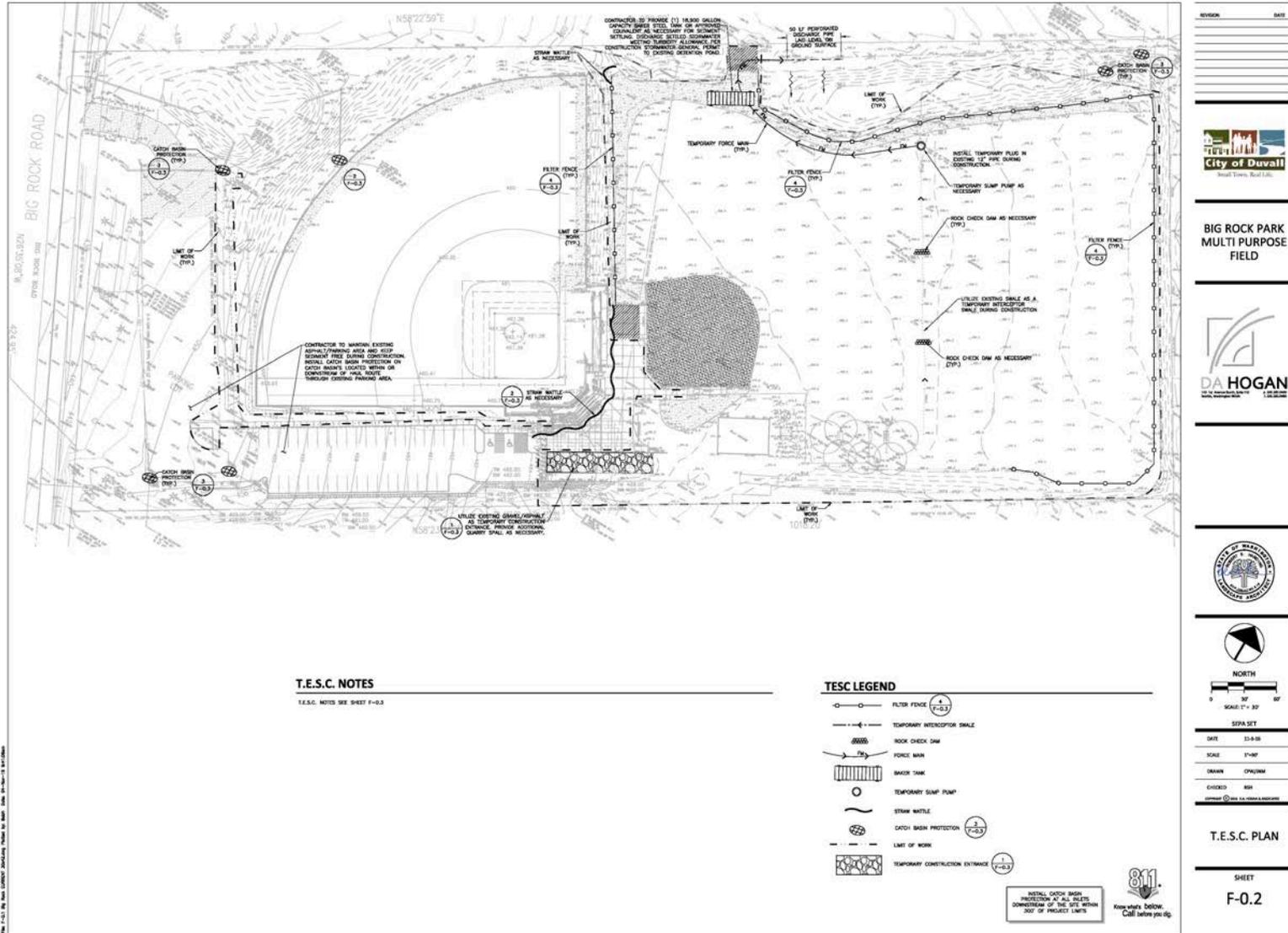




**h. Proposed measures to reduce or control erosion, or other impacts to the earth, if any:**

To the extent possible the disturbed area of the project site would be limited to minimize erosion potential. *Best Management Practices* (BMPs) would be incorporated into grading activity. A Temporary Erosion and Sedimentation Control plan (TESC) would be implemented and will incorporate erosion control measures. To reduce erosion, some or all of the following vegetative cover practices may be implemented as site conditions dictate: seeding, mulching and matting, and/or clear plastic covering. Structural practices to control erosion include a stabilized construction entrance, filter fabric fence for perimeter siltation control, and a temporary sediment settling tank. All catch basins in the vicinity of the work would have erosion protection throughout the construction period. All work would be performed in compliance with local and state code and permitting requirements. See Figures 8 and 9.

Figure 8 – Temporary Erosion Control Plan





## 2. AIR

a. What types of emissions to the air would result from the proposal during construction, operation, and maintenance when the project is completed? If any, generally describe and give approximate quantities if known.

The Puget Sound Clean Air Agency, in connection with the Washington State Department of Ecology (DOE), conducts air quality monitoring at numerous sites around Puget Sound. According to the 2012 Air Quality Data Summary (the most recent available) from the Puget Sound Clean Air Agency (PSCAA), over the last two decades, many pollutant levels have declined and air quality has improved within the region. Achieving significant reductions in particulate matter is a top priority of the Agency. Auto/diesel emissions and wood burning smoke continue to be the focus for reduction by the Puget Sound Air Pollution Control Agency and DOE.

Construction would result in temporary, localized increases in pollutant emissions from construction activities and equipment. Dust from excavation and grading could contribute to ambient concentrations of suspended particulate matter. Emissions related to construction would be short-term and should not generate any significant air quality impacts.

Once the project is completed, the primary emissions sources would be from the existing surrounding uses and vehicles on the road system. There could be an increase in vehicles to the site due to improved playing conditions, and the sports field lighting system. On-going maintenance of the proposed improvement area would have little to no impact to the existing air quality and would be related to the use of various field equipment to maintain the synthetic turf and other perimeter areas of the project. The type and levels of those emissions would not be significant and would not produce significant greenhouse gas (GHG) emissions. The type and level of maintenance for a synthetic turf field is significantly less than required for a natural turf field.

**b. Are there any off-site sources of emissions or odor that may affect your proposal? If so, generally describe.**

Off-site sources of emissions or odor are mainly related to vehicular traffic on the adjacent roadways and uses in the vicinity. Overall traffic levels would remain consistent with the current use. Existing emissions levels would not affect the proposal.

**c. Proposed measures to reduce or control emissions or other impacts to air, if any:**

Contractor(s) would be required to take all reasonable precautions to avoid or minimize fugitive dust emissions during construction. All work will be performed in compliance with local and state code and permitting requirements. The use of watering trucks would be employed during construction to keep dust to a minimum. Construction equipment would be kept in good operating condition to minimize exhaust. With the required control measures in place, the potential from on-site construction air quality impacts is minimal.

### 3. WATER

#### a. Surface:

- 1) **Is there any surface water body on or in the immediate vicinity of the site (including year-round and seasonal streams, saltwater, lakes, ponds, wetlands)? If yes, describe type and provide names. If appropriate, state what stream or river it flows into.**

There are no surface water bodies in the immediate area of the project.

- 2) **Will the project require any work over, in, or adjacent to (within 200 feet) the described waters? If yes, please describe and attach available plans.**

No work or disturbance would take place within any critical areas. The proposal would take place within the existing park boundary, generally within the limits of the existing maintained natural turf field and work would not extend beyond that boundary.

- 3) **Estimate the amount of fill and dredge material that would be placed in or removed from surface water or wetlands and indicate the area of the site that would be affected. Indicate the source of fill material.**

There would be no fill or dredging within any wetland or stream area.

- 4) **Will the proposal require surface water withdrawals or diversions? Give general description, purpose, and approximate quantities if known.**

The proposed project would not involve new surface water withdrawals or diversions.

- 5) **Does the proposal lie within a 100-year floodplain? If so, note location on the site plan.**

This property does not lie within a 100-year floodplain.

- 6) **Does the proposal involve any discharges of waste materials to surface waters? If so, describe the type of waste and anticipated volume of discharge.**

There would be no discharge of waste materials to surface waters.

**b. Ground:**

- 1) Will ground water be withdrawn from a well for drinking water, or other purposes? If so, give general description of the well, proposed uses and approximate quantities withdrawn from the well. Will water be discharged to ground water? Give general description, purpose, and approximate quantities if known.**

Groundwater would not be withdrawn as part of this project. The drainage from the vertically draining field would be collected via a subsurface drainage system and routed into the existing storm water collection system. Before it reaches the subsurface drainage system, as the water is moving through the permeable aggregate and sand materials, some water could enter the groundwater system via infiltration. It is expected that infiltration through the subgrade would be limited due to the relatively impermeable nature of the field subgrade.

- 2) Describe waste material that will be discharged into the ground from septic tanks or other sources, if any (for example: Domestic sewage; industrial, containing the following chemicals...; agricultural; etc.). Describe the general size of the system, the number of such systems, the number of houses to be served (if applicable), or the number of animals or humans the system(s) are expected to serve.**

No domestic waste materials would be discharged into the ground as a result of this project.

**c. Water Runoff (including storm water):**

- 1) Describe the source of runoff (including storm water) and method of collection and disposal, if any (include quantities, if known). Where will this water flow? Will this water flow into other waters? If so, describe.**

The primary source of runoff is rainfall landing on the surface. Rain falling upon the pervious field surfaces will drain vertically through the base materials and be collected within underdrain system. The underdrain system will flow to the north and discharge into the existing stormwater pond in the northeast portion of the site. Rain falling upon the parking and backstop improvements will sheet flow south and west into the existing drainage system, which drains to an existing stormwater pond in the northwest portion of the site. The discharges from the two existing detention ponds combine within a quarter mile downstream of the project site, and the combined flows ultimately tributary to the Snoqualmie River.

- 2) Could waste materials enter ground or surface waters? If so, generally describe.**

It is not anticipated that waste materials would enter surface or ground waters. None of the proposed impervious surfaces would be subject to pollutant generators. No fertilizers would be necessary or used on the synthetic turf field. The field drainage section has a permeable aggregate layer below the synthetic

turf. Runoff from the field would infiltrate through this aggregate layer prior to collection in the subsurface drainage system.

*Best Management Practices* (BMPs) and the requirements of the approved SWPPP would be incorporated into construction to minimize waste materials and/or construction materials entering groundwater.

**3) Does the proposal alter or otherwise affect drainage patterns in the vicinity of the site? If so, describe.**

Drainage patterns on the site or the vicinity will not be altered. The existing drainage systems will also not be altered as part of this project and therefore the discharge points would remain the same in the proposed conditions.

**d. Proposed measures to reduce or control surface, ground, runoff water, and drainage pattern impacts, if any:**

The project does not anticipate a significant increase in storm water surface runoff or flows, as the project consists mainly of the replacement of the existing natural grass field with a pervious synthetic turf surfacing. The synthetic turf surface will be more pervious than the existing natural grass surface. The proposed underdrain system is designed to attenuate flows from the proposed improvements to match the existing drainage patterns in the proposed conditions.

The *Technical Information Report* addresses the requirements of the 2009 King County Surface Water Design Manual (KCSWDM), as adopted by the City of Duvall. Also, a Storm water Pollution Prevention Plan (SWPPP) will be prepared for the project. The SWPPP would be compliant with the minimum requirements of EPA's 2012 Construction General Permit. The SWPPP would address erosion, sedimentation and provide pollution controls. The project does propose new pollution generating impervious surfaces, which water quality treatment will be provided by the existing grass biofiltration swale on the north east portion of the site.

**4. PLANTS**

**a. Check the types of vegetation found on the site:**

- Deciduous tree: Alder, maple, aspen, other: \_\_\_\_\_
- Evergreen tree: Fir, cedar, pine, other: \_\_\_\_\_
- Shrubs
- Grass
- Pasture
- Crop or grain
- Orchards, vineyards or other permanent crops
- Wet soil plants: Cattail, buttercup, bullrush, skunk cabbage, other: \_\_\_\_\_
- Water plants: Water lily, eelgrass, milfoil, other: \_\_\_\_\_
- other types of vegetation

The park site contains the above vegetation. Within the project site proposed limit of disturbance, all vegetation is maintained grass, or herbaceous perennial and annual weeds. Other vegetation “checked” above is found immediately adjacent, but outside, the limit of disturbance. The limits of the work area are shown on **Figure 3 – Field Site Layout Plan**.

**b. What kind and amount of vegetation will be removed or altered?**

Vegetation to be removed is limited to the existing maintained grass surface totaling about 183,405 square feet, and several existing deciduous trees of poor quality and health.

**c. List threatened and endangered species known to be on or near the site:**

According to the Washington State Department of Fisheries and Wildlife’s *Priority Habitats and Species on the Web* database, there were no threatened or endangered vegetation species identified on or known to exist adjacent to the site.

**d. Proposed landscaping, use of native plants, or other measures to preserve or enhance vegetation on the site, if any:**

Areas disturbed during construction, which are not receiving surfaces as previously described, would be restored with erosion control hydroseeding or new landscaping. New landscape planting will be installed related to and meeting code requirements for parking stalls, including one (1) new tree for each 4 parking stalls. Due to slope limitations, the trees will be adjacent to the parking stalls.

**e. List all noxious weeds and invasive species known to be on or near the site.**

Although not catalogued, it is highly likely that the existing grass areas include common lawn weeds including dandelion, annual ryegrass (poa), knotweed, etc. These would be removed with the field construction.

**5. ANIMALS**

**a. List any birds and other animals which have been observed on or near the site or are known to be on or near the site. Examples include:**

birds: hawk, heron, eagle, songbirds, other: ravens/crows, songbirds  
mammals: deer, bear, elk, beaver, other: small rodents (i.e., squirrels)  
fish: bass, salmon, trout, herring, shellfish, other: \_\_\_\_\_

There are habitat areas on the park site in the treed and landscaped areas where various birds and small rodents could be found. The project area does not provide habitat for wildlife due to the developed nature and high level of utilization.

**b. List any threatened and endangered species known to be on or near the site.**

According to the Washington State Department of Fisheries and Wildlife's *Priority Habitats and Species On the Web* database, there were no threatened or endangered animal species identified on or known to exist adjacent to the site.

**c. Is the site part of a migration route? If so, explain.**

The project site is located along the Pacific Flyway, which includes Alaska, Arizona, California, Idaho, Nevada, Oregon, Utah, Washington, and those portions of Colorado, Montana, New Mexico, and Wyoming west of the Continental Divide. Every year, migratory birds travel some or all of this distance both in spring and in fall, following food sources, heading to breeding grounds, or travelling to overwintering sites. There is no evidence that the site is of any specific value to migrating birds.

**d. Proposed measures to preserve or enhance wildlife, if any:**

There is limited use or potential of use for wildlife on the project area due to the lack of habitat and high use of the area. Nearby treed areas would not be impacted by the project and would continue to provide habitat for species more tolerate of urban activities.

**e. List any invasive animal species known to be on or near the site.**

It is likely that within the entire park site area there are rats, mice, feral cats, etc. present on portions of the site; however, no specific species have been observed or documented in this particular part of the site. The highly used fields discourage use by invasive species.

## **6. ENERGY AND NATURAL RESOURCES**

**a. What kinds of energy (electric, natural gas, oil, wood stove, solar) will be used to meet the completed project's energy needs? Describe whether it will be used for heating, manufacturing, etc.**

Energy use will consist of electric power served from local utility for operation of the athletic field lights, parking lot lights and miscellaneous convenience outlets. There also will be the occasional operation of gasoline powered maintenance equipment. All lighting systems will utilize LED light technologies to minimize power use requirements.

**b. Would your project affect the potential use of solar energy by adjacent properties? If so, generally describe.**

There would be no impact to adjacent properties' potential for solar energy use due to this project.

- c. **What kinds of energy conservation features are included in the plans of this proposal? List of other proposed measures to reduce or control energy impacts, if any:**

Projects of this nature (replacing grass athletic surfaces with artificial) are generally understood to produce a measureable reduction in the use of gasoline or diesel powered maintenance equipment, water, and chemical additives in the form of pesticides and herbicides.

To the extent practical, the proposed sports field lighting system will utilize LED lighting technology, which will utilize significantly less electrical power than traditional Metal Halide type fixtures. A lighting control system will be used that is fully programmable with remote access to ensure lights are not operated when the fields are not in use. It is anticipated the field light system controls will allow scheduled operation from approximately 8:00 AM to 10:00 PM. Full field operational lights will be prohibited after 10:00 PM, and safety/egress lights will operate from 10:00-10:15, allowing users to exit the field areas. There will not be adequate light cast from the egress lighting to facilitate any level of recreational play or use of the field.

## **7. ENVIRONMENTAL HEALTH**

- a. **Are there any environmental health hazards, including exposure to toxic chemicals, risk of fire and explosion, spill, or hazardous waste, that could occur as a result of this proposal? If so describe.**

There are certain opportunities for hazards during construction. These are limited by the requirements for the general contractor and subcontractors that would be conducting the work. All State and federal requirements for construction safety would be met. The completed project would not generate any environmental hazards; however, due to the public nature of the facility, the City of Duvall does facilitate a field use/employee safety program and other functions to maintain a high level of environmental safety.

- 1) **Describe any known or possible contamination at the site from present or past uses.**

None; the existing field use of the site has not generated contamination.

- 2) **Describe existing hazardous chemicals/conditions that might affect project development and design. This includes underground hazardous liquid and gas transmission pipelines located within the project area and in the vicinity.**

None; there are no known hazardous conditions on or underground in the project area. Any chemicals that were used on the existing fields were consistent with best management practices and allowed per State and local regulations.

- 3) **Describe any toxic or hazardous chemicals that might be stored, used, or produced during the project's development or construction, or at any time during the operating life of the project.**

None, biodegradable weed and moss killers may be used on the site as needed. The synthetic field would be maintained as instructed by the manufacturer's guidelines. This would include cleaning and stain removing products that are safe for the environment.

- 4) **Describe special emergency services that might be required.**

Special emergency services would not be required for this proposal. The proposed project could increase the potential utilization of the baseball field; however, the sport use for the City of Duvall would remain at the current level.

The area is served by the City of Duvall Fire/E.M.S. and Police Departments. Additional emergency services would not be required for the proposal.

- 5) **Proposed measures to reduce or control environmental health hazards, if any:**

Proper safety function and access is the best mechanism to secure proper control of health hazards at the site. The improved turf surface would increase safety for users.

**b. Noise**

- 1) **What types of noise exist in the area which may affect your project (for example: traffic, equipment, operation, aircraft, other)?**

Existing noise generators are mainly those associated with nearby traffic, residential uses and activities associated with the existing park. The field would remain as currently exists on the site; however, an incremental increase in the intensity and duration of noise could reasonably be anticipated as a result of the increased use of the improved area by the community. Generally, the project intent is to increase the reliability of the field surfaces, which should result in more use than is currently experienced, particularly during wetter times of year.

- 2) **What types and levels of noise would be created by or associated with the project on a short-term or a long-term basis (for example: traffic, construction, operation, other)? Indicate what hours noise would come from the site.**

Noise generated by site activities is regulated by the City Noise Regulations, DMC Chapter 6.04.060 - Construction activity.

It is unlawful for any person to cause, or for any person owning property to allow to originate from the property sounds created by necessary construction

activity, including but not limited to sounds created by special construction equipment [such being any vehicle, tool or other implement which is designed and used primarily for grading, paving, earthmoving, and other construction work] emanating from temporary construction sites. Provided, however, that such construction sounds shall be exempt from the provisions of this ordinance on all days between the hours of seven a.m. and six p.m. except for Sundays and holidays when such construction sounds shall not be permitted at any time. Traffic and construction related noises (equipment and vehicles) are exempt if in compliance with permits issued by the City. Work on the site would be within the construction time limits as listed below:

<b>Monday through Friday</b>	<b>Saturday</b>	<b>Sunday and Holidays</b>
7:00 a.m. to 6:00 p.m.	7:00 a.m. to 6:00 p.m.	Prohibited

The short-term increase and duration of noise levels would depend on the type of construction equipment being used and the amount of time it is in steady use. For example purposes, at 200 feet from the area of construction, the equivalent sound level (Leq, a measure of long-term average noise exposure) for activities and equipment would be approximately the following:

<u>Activity</u>	<u>Range of Hourly Leq (in decibels*)</u>
Clearing	71
Grading	63-76
<u>Types of Equipment</u>	<u>Range of Noise Levels</u>
Bulldozer	65-84
Dump Truck	70-82

\* Decibels - The **decibel** (abbreviated **dB**) is the unit used to measure the intensity of a sound.

Levels would vary due to the type and usage of the equipment. Construction noises are only generated during those times of use and are usually of short duration for each activity.

Long-term Noise: While the use of the site would continue to be for park and recreational uses, as well as community use of the facilities, a minor increase in the intensity and duration of noise could reasonably be anticipated as a result of the increased use of the improved area. The potential times for utilization would not change, with the exception of lighting, which will extend use hours during fall, winter and spring.

**3) Proposed measures to reduce or control noise impacts, if any:**

Construction noise impacts would be limited to hours of construction as regulated by the City. Impacts would be limited to construction and would be of short duration. Noise generated by the completed project would be consistent with the existing uses. Due to the existing area activity, and distance from nearby residential uses, there should be minimal increase of noise within the area related to the proposal.

## 8. LAND AND SHORELINE USE

- a. **What is the current use of the site and adjacent properties? Will the proposal affect current land uses on nearby or adjacent properties? If so, describe.**

The actual project site use is and would remain a public park, the property is bounded by sparse residential development to the north, and east of the site. The fields have a parking to the south west.

- b. **Has the project site been used as working farmlands or working forest lands? If so, describe. How much agricultural or forest land of long-term commercial significance will be converted to other uses as a result of the proposal, if any? If resource lands have not been designated, how many acres in farmland or forest land tax status will be converted to nonfarm or no forest use?**

The property has no known agricultural or history of managed forestry other than the clearing that would have taken place upon granting of the original park development.

- 1) **Will the proposal affect or be affected by surrounding working farm or forest land normal business operations, such as oversize equipment access, the application of pesticides, tilling, and harvesting? If so, how:.**

No; there are no working farm or forest land uses in the vicinity.

- c. **Describe any structures on the site.**

Structures will consist of athletic field light poles and parking lot light poles. There is a concrete skate board park and play equipment on site.

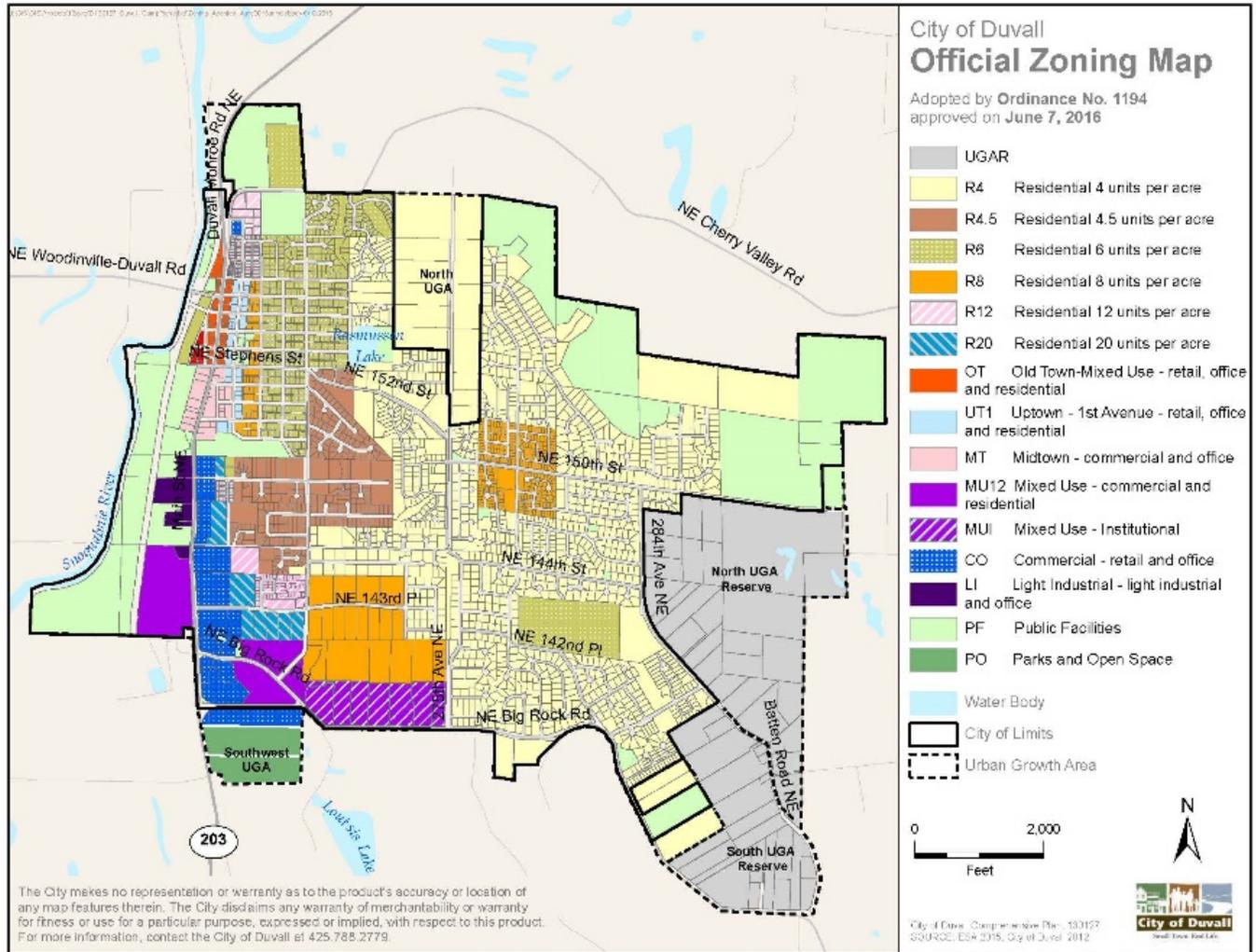
- d. **Will any structures be demolished? If so, what?**

There are no structures that would be demolished.

- e. **What is the current zoning classification of the site?**

The Big Rock Park campus site is zoned Public Facility by the City of Duvall. See *Figure 10-Zoning Map*

Figure 10 – Zoning Map





**g. If applicable, what is the current shoreline master program designation of the site?**

Not applicable; there are no shoreline related overlays or designations on the site.

**h. Has any part of the site been classified as a critical area by the city or county? If so, specify.**

There are no environmentally sensitive areas in the project site area.

**i. Approximately how many people would reside or work in the completed project?**

The completed project would not generate an increase in staffing.

**j. Approximately how many people would the completed project displace?**

The only displacement would be associated with the fields being unavailable for use during construction.

**k. Proposed measures to avoid or reduce displacement impacts, if any:**

The improved field would be available for community use upon project completion, consistent with community use policies.

**l. Proposed measures to ensure the proposal is compatible with existing and projected land uses and plans, if any:**

The land use would remain unchanged. The site is currently used as a public park, with various community recreational uses. The project consists of the renovation of an existing athletic facility.

Compatibility with zoning and permit requirements would be required.

SEPA compliance is the responsibility of the District and would be conducted consistent with SEPA Rules, WAC 197-11 and SEPA, RCW 43.21C and the City of Duvall Policy on SEPA.

The project is consistent with the City of Duvall comprehensive plan designation, policies and code requirements. The proposal is consistent with the land use policies related to public services, parks and open space, critical area preservation, storm water and capital facilities. The infrastructure is available to the site and there would be no impacts to traffic, utilities or other governmental services.

The *Technical Information Report* addresses the requirements of the 2009 King County Surface Water Design Manual (KCSWDM), as adopted by the City of Duvall. Also, a Storm water Pollution Prevention Plan (SWPPP) will be prepared for the

project that addresses the minimum requirements of EPA's 2012 Construction General Permit.

**m. Proposed measures to ensure the proposal is compatible with nearby agricultural and forest lands of long-term commercial significance, if any:**

There are no nearby agricultural or forest lands; therefore, no measures are proposed.

**9. HOUSING**

**a. Approximately how many units would be provided, if any? Indicate whether high, middle, or low-income housing.**

Housing would not be included.

**b. Approximately how many units, if any, would be eliminated? Indicate whether high, middle, or low-income housing.**

There are no housing structures on the site.

**c. Proposed measures to reduce or control housing impacts, if any:**

The proposal does not generate any housing impacts.

**10. AESTHETICS**

**a. What is the tallest height of any proposed structure(s), not including antennas; what is the principal exterior building material(s) proposed?**

The tallest structure will be the athletic field light poles at a height of 60' and 70' above grade. Poles will be galvanized steel. Parking lot poles will be 25' above grade. Poles will be powder coat painted steel.

**b. What views in the immediate vicinity would be altered or obstructed?**

Project site surrounded by trees on three sides. Minor alteration of view from Big Rock Road right of way due to placement of parking lot poles and athletic field poles.

**c. Proposed measures to reduce or control aesthetic impacts, if any:**

Poles will be designed to minimize bulk. There are no aesthetic impacts associated with the proposal.

## 11. LIGHT AND GLARE

### a. What type of light or glare will the proposal produce? What time of day would it mainly occur?

The new lighting system will increase the overall light and glare from the site. Lighting would be used afternoons and evenings from dusk to 10:00 PM as needed.

The proposed lighting system for the athletic fields will consist of shielded floodlights mounted to galvanized steel poles. The poles will be located surrounding the baseball field and on two sides of the lacrosse\soccer field. Poles will be 60' and 70' in length with floodlights mounted at the tops of the poles. Floodlights will be aimed down to the playing fields inside the boundaries of the fields. Lighting levels provided will be at a class IV level for safe play as prescribed by the Illumination Engineering Society of 50 foot-candles for the baseball infield and 30 foot-candles for the outfield and lacrosse\soccer field.

Egress lighting would also be provided at the sports fields. This lighting system would supply a low lighting level to allow for egress from the fields after the field lighting has been turned off. The egress lighting would consist of full cutoff luminaires mounted at a height of 25' on the sports field poles (to avoid the need to install additional poles specifically for the egress lights). The egress lights would operate for a short period of time (15 minutes) following the completion of scheduled field use each evening.

Parking lot poles and lights lighting will also be provided at the site. The lighting will supply minimum lighting levels for safety for evening users of the athletic fields. The parking lot lights egress lighting would consist of full cutoff LED luminaires mounted on 17' poles located on the perimeter of the lot.

The lighting systems would be operated by an automatic programmable lighting control system. The lights for the field would be operated separately so that they could be turned off when the field is not in use.

The floodlights utilized have been developed specifically for sports lighting providing additional shielding to reduce impacts of light trespass and glare. The light source will be LED which are more efficient in delivering light to the field and provide better control of light to reduce environmental impacts. The external shielding limits direct views of the floodlight LED's and reflectors.

The type of glare produced will be direct glare and reflected glare. It will be primarily attributed to the athletic field lighting system. Direct glare will be visible with direct views of the floodlight LED's and reflectors. The shielding provided will minimize direct glare as compared to unshielded and minimally shielded floodlights. Reflected glare will consist of light reflecting off of the athletic fields, floodlights and poles. The reflected glare from the light reflecting off of the synthetic field and pavement surfaces will be mostly limited within the site. The reflected glare visible reflected off of the floodlights and poles will be minimal. The majority of the associated impacts from the lighting system will be contained within the park site. The existing tree buffer that surrounds the site will limit the impacts of direct and reflected glare into the surrounding community. There will be some "sky glow" visible immediately

surrounding the fields when atmospheric conditions of low cloud cover or fog are present. The Athletic Field lighting system is designed to provide minimum horizontal light spill at the property line, consisting of .3fc or less within 15' of the property lines on the south and east perimeters. The Parking Lot lighting system provides for a minimum of .2fc at the parking stalls, with 0fc spill light at the property line. Parking lot lighting systems may operate from dusk to dawn, seasonally or as coordinated between City of Duvall agencies.

- b. Could light or glare from the finished project be a safety hazard or interfere with views?

Although the illumination system will be visible it would not pose a safety hazard or interfere with views from off-site locations.

- c. What existing off-site sources of light or glare may affect your proposal?

None.

- d. Proposed measures to reduce or control light and glare impacts, if any:

Use of LED floodlights that are specifically designed to reduce negative light impacts associated with athletic field lighting systems provides the highest level of light control available. System also uses ½ the light required as compared to metal halide systems. Light fixtures are aggressively shielded and are mounted at heights that allow for a very high beam angle measured from horizontal. These factors combine to limit off-site impacts to the highest extent practical. The light fixtures and lighting levels proposed for Big Rock Park follow good lighting design principles for sports lighting and are designed to minimize light and glare impacts.

## 12. RECREATION

- a. **What designated and informal recreational opportunities are in the immediate vicinity?**

The City of Duvall allows both scheduled and drop-in use of its facilities for community recreational purposes. These facilities are used for city programs and athletics, and are available after per the community use policies.

- b. **Would the proposed project displace any existing recreational uses? If so, describe.**

The field area would not be available for community use until completion of the project. It is anticipated that the project would be completed by fall 2017.

- c. **Proposed measures to reduce or control impacts on recreation, including recreation opportunities to be provided by the project or applicant, if any:**

Impacts to recreation are limited to the unavailability of the field during construction. The renovation of the field would benefit the community users of the facilities. The

project is expected to enhance the availability of recreational space by making the playing surfaces resistant to the effects of foul weather and increase the safety of users. The project would expand the use of the fields through improved wet-weather reliability, providing expanded teaching opportunities for educational use, opportunities for practice and competition by organized interscholastic and youth recreational users, as well as the general public.

The proposed infilled synthetic turf surfacing will consist of synthetic turf fibers, tufted into a permeable backing, and infilled with various products to mimic the use, visual aesthetics and playability of a natural turf surface. Several options will be considered, including a combination of sand and coated SBR rubber or sand and natural Cork. The coated SBR rubber consists of traditional SBR infill material that has been coated with a colorant and encapsulated with a polyurethane coating. The cork infill consists of a sustainably harvested cork bark in a granulated form which provides an organic option without the need for supplemental irrigation. Regardless of infill option selected, the field will be underlain by a supplemental/shock absorbing pad for long term impact attenuation.

### **13. HISTORIC AND CULTURAL PRESERVATION**

- a. Are there any buildings, structures, or sites located on or near the site that are over 45 years old listed in or eligible for listing in national, state, or local preservation registers located on or near the site? If so, specifically describe:**

There are no on-site structures, objects or places listed on or proposed for a historic or cultural register.

- b. Are there any landmarks or evidence of Indian or historic use or occupation? This may include human burials or old cemeteries. Are there any material evidence, artifacts, or areas of cultural importance on or near the site? Please list any professional studies conducted at the site to identify such resources.**

None known

- c. Describe the methods used to assess the potential impacts to cultural and historic resources on or near the project site. Examples include consultation with tribes and the Department of Archeology and Historic Preservation, archaeological surveys, historic maps, GIS data, etc.**

Research was conducted on the web using the Washington Information System for Architectural and Archaeological Records Data (WISAARD) and City of Duvall records.

- d. Proposed measures to avoid, minimize, or compensate for loss, changes to, and disturbance to resources. Please include plans for the above and any permits that may be required.**

There are no impacts that would require mitigation measures.

#### 14. TRANSPORTATION

- a. **Identify public streets and highways serving the site or geographic area, and describe proposed access to the existing street system. Show on-site plans, if any.**

The Big Rock Park site is located at 28430 Big Rock Road NE in Duvall (see *Figure 2 – Aerial Site Map*). The main access to the site is from Big Rock Road. The project area is located within the northwest portion of the site and construction access would be directly from Big Rock Road NE (see *Figure 7 – Project Construction Access Map*). The project would create a temporary increase in construction vehicles traveling to and from the site accessing via the northern-most site access roadway from Big Rock Road NE.



**Figure 12 – Project Construction Access Map**

- b. **Is the site or affected geographic area currently served by public transit? If so, generally describe. If not, what is the approximate distance to the nearest transit stop?**

There is no public transportation services to this site

- c. **How many additional parking spaces would the completed project or non-project proposal have? How many would the project or proposal eliminate?**

Parking would be increased by 11 stalls in this proposal.

- d. **Will the proposal require any new improvements to existing roads, streets, pedestrian, bicycle or state transportation facilities, not including driveways? If so, generally describe (indicate whether public or private).**

Streets or driveways would not be impacted by the proposal.

- e. **Will the project or proposal use (or occur in the immediate vicinity of) water, rail, or air transportation? If so, generally describe.**

No; the project would not use any of these methods of transportation.

- f. **How many vehicular trips per day would be generated by the completed project or proposal? If known, indicate when peak volumes would occur and what percentage of the volume would be trucks (such as commercial and non-passenger vehicles). What data or transportation models were used to make these estimates?**

To address the traffic generated by usage of the field for the city. Those levels of use would not be exceeded by the renovation of the fields. Increased use is anticipated as a result of the sports field lighting system, however that use would be during non peak hours.

- g. **Will the proposal interfere with, affect or be affected by the movement of agricultural and forest products on roads or streets in the area? If so, generally describe.**

There are no agricultural or forest uses or production of products in the vicinity of the proposal.

- h. **Proposed measures to reduce or control transportation impacts, if any:**

The transportation impacts related to construction would be minimal. The contractor would be responsible for the safe access and parking of construction vehicles within staging areas. Haul route requirements would be provided as required by the City. There would be no long-term transportation impacts associated with the proposal.

## 15. PUBLIC SERVICES

- a. **Would the project result in an increased need for public services (for example: fire protection, police protection, public transit, health care, schools, other)? If so, generally describe:**

The site is served by the Duvall Police and Fire Departments, which includes emergency medical response services (EMS). Overall additional demand for services to the site is not anticipated as a result of this proposal.

- b. **Proposed measures to reduce or control direct impacts on public services, if any.**

There are no direct impacts to public services associated with the proposal.

**16. UTILITIES**

- a. **Circle utilities currently available at the site:**  electricity,  natural gas,  water,  refuse service,  telephone, sanitary sewer , septic system, other: cable.

The site is fully served by area utility providers.

- b. **Describe the utilities that are proposed for the project, the utility providing the service, and the general construction activities on the site or in the immediate vicinity which might be needed.**

No additional utilities would be required for the proposed project. Prior to construction, existing utilities would be located on site. Fence posts locations would be coordinated to avoid existing utilities.

**C. SIGNATURE**

**The above answers are true and complete to the best of my knowledge. I understand that the lead agency is relying on them to make its decision.**

Signature:   
Robert Harding  
Principal

Date submitted: August 17, 2016

# Appendix A

## Legal Description

### Big Rock Park

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#### PARCEL DATA

<b>Parcel</b>	212970-0250	<b>Jurisdiction</b>	DUVALL
<b>Name</b>	DUVALL CITY OF	<b>Levy Code</b>	1155
<b>Site Address</b>		<b>Property Type</b>	R
<b>Residential Area</b>	070-002 (NE Appraisal District)	<b>Plat Block / Building Number</b>	
<b>Property Name</b>		<b>Plat Lot / Unit Number</b>	25
		<b>Quarter-Section-Township-Range</b>	SE-19-26-7

#### Legal Description

DUVALL BERRY FARMS ADD  
 PLat Block:  
 Plat Lot: 25

*Source: King County Assessor's Website, June 2016*