CITY OF KIRKLAND
CITY COUNCIL

Vision Statement
Kirkland is an attractive, vibrant and inviting place to live, work and visit.
Our lakefront community is a destination for residents, employees and visitors.
Kirkland is a community with a small-town feel, retaining its sense of history, while adjusting gracefully to changes in the twenty-first century.

123 Fifth Avenue • Kirkland, Washington 98033-6189 • 425.587.3000 • www.kirklandwa.gov

AGENDA
KIRKLAND CITY COUNCIL SPECIAL MEETING
City Council Chamber
Wednesday, August 6, 2014
6:00 p.m. – Study Session
7:30 p.m. – Special Meeting

COUNCIL AGENDA materials are available on the City of Kirkland website www.kirklandwa.gov. Information regarding specific agenda topics may also be obtained from the City Clerk's Office on the Friday preceding the Council meeting. You are encouraged to call the City Clerk's Office (425-587-3190) or the City Manager's Office (425-587-3001) if you have any questions concerning City Council meetings, City services, or other municipal matters. The City of Kirkland strives to accommodate people with disabilities. Please contact the City Clerk's Office at 425-587-3190. If you should experience difficulty hearing the proceedings, please bring this to the attention of the Council by raising your hand.

EXECUTIVE SESSIONS may be held by the City Council only for the purposes specified in RCW 42.30.110. These include buying and selling real property, certain personnel issues, and litigation. The Council is permitted by law to have a closed meeting to discuss labor negotiations, including strategy discussions.

ITEMS FROM THE AUDIENCE provides an opportunity for members of the public to address the Council on any subject which is not of a quasi-judicial nature or scheduled for a public hearing. (Items which may not be addressed under Items from the Audience are indicated by an asterisk*.) The Council will receive comments on other issues, whether the matter is otherwise on the agenda for the same meeting or not. Speaker's remarks will be limited to three minutes apiece. No more than three speakers may address the Council on any one subject. However, if both proponents and opponents wish to speak, then up to three proponents and up to three opponents of the matter may address the Council.

1. *CALL TO ORDER*
2. *ROLL CALL*
3. *STUDY SESSION*
   - *a.* Finn Hill Station Siting Update
4. *EXECUTIVE SESSION*
5. *HONORS AND PROCLAMATIONS*
   - *a.* Payroll Week Proclamation
6. *COMMUNICATIONS*
   - *a. Announcements*
   - *b. Items from the Audience*
   - *c. Petitions*
7. *SPECIAL PRESENTATIONS*
8. *CONSENT CALENDAR*
   - *a. Approval of Minutes:* July 15, 2014

QUASI-JUDICIAL MATTERS Public comments are not taken on quasi-judicial matters, where the Council acts in the role of judges. The Council is legally required to decide the issue based solely upon information contained in the public record and obtained at special public hearings before the Council. The public record for quasi-judicial matters is developed from testimony at earlier public hearings held before a Hearing Examiner, the Houghton Community Council, or a city board or commission, as well as from written correspondence submitted within certain legal time frames. There are special guidelines for these public hearings and written submittals.

ORDINANCES are legislative acts or local laws. They are the most permanent and binding form of Council action, and may be changed or repealed only by a subsequent ordinance. Ordinances normally become effective five days after the ordinance is published in the City's official newspaper.

RESOLUTIONS are adopted to express the policy of the Council, or to direct certain types of administrative action. A resolution may be changed by adoption of a subsequent resolution.

PUBLIC HEARINGS are held to receive public comment on important matters before the Council. You are welcome to offer your comments after being recognized by the Mayor. After all persons have spoken, the hearing is closed to public comment and the Council proceeds with its deliberation and decision making.

NEW BUSINESS consists of items which have not previously been reviewed by the Council, and which may require discussion and policy direction from the Council.

b. Audit of Accounts:

Payroll $

Bills $

c. General Correspondence

d. Claims

e. Award of Bids

(1) 5th Avenue South, 6th Street and 7th Avenue South Utility Projects, Kar-Vel Construction, Renton, Washington

f. Acceptance of Public Improvements and Establishing Lien Period

g. Approval of Agreements

h. Other Items of Business

(1) 2013 Annual Transportation and Park Impact Fees Report

(2) Report on Procurement Activities

9. PUBLIC HEARINGS

10. UNFINISHED BUSINESS

a. Resolution R-5066, Adopting the Juanita Drive Corridor Study.

b. Ordinance O-4449 and its Summary, Relating to Land Use, Approving a Preliminary (and Final) Planned Unit Development and Preliminary Subdivision Applied for by Quadrant Homes in Department of Planning and Community Development File No. SUB13-01508, and Setting Forth Conditions of Approval.

11. NEW BUSINESS

a. Development Fee Introduction

b. City Council Chamber Remodel

c. 2014 Urban Forestry Annual Report

12. REPORTS

a. City Council Reports

(1) Finance and Administration Committee

(2) Planning, and Economic Development Committee

ITEMS FROM THE AUDIENCE Unless it is 10:00 p.m. or later, speakers may continue to address the Council during an additional Items from the Audience period; provided, that the total amount of time allotted for the additional Items from the Audience period shall not exceed 15 minutes. A speaker who addressed the Council during the earlier Items from the Audience period may speak again, and on the same subject, however, speakers who have not yet addressed the Council will be given priority. All other limitations as to time, number of speakers, quasi-judicial matters, and public hearings discussed above shall apply.

(3) Public Safety Committee

(4) Public Works, Parks and Human Services Committee

(5) Tourism Development Committee

(6) Regional Issues

b. City Manager Reports

(1) Calendar Report

13. ITEMS FROM THE AUDIENCE

14. ADJOURNMENT

CITY OF KIRKLAND
Fire & Building Department
123 Fifth Avenue, Kirkland, WA 98033 425.587.3650
www.kirklandwa.gov

MEMORANDUM

To: Kurt Triplett, City Manager

From: J. Kevin Nalder, Director of Fire and Building Services

Date: July 24, 2014

Subject: Finn Hill Station Siting Analysis

RECOMMENDATION

City Council receives the *"Finn Hill Fire Station Siting Analysis"* final report prepared by TCA Architecture (Attachment A) and provides feedback and direction to staff based on the information provided in the report.

TCA lead consultant Brian Harris will provide a presentation on the report during the August 6, 2014 Council Study Session.

BACKGROUND INFORMATION:

Fire District 41 and the Consolidated Finn Hill Fire Station

In May of 2011 the City Council approved an Interlocal Agreement (ILA) with Fire District 41 shortly before the District was dissolved due to annexation of the Finn Hill, Juanita and Kingsgate areas. The staff report, resolution and copy of the ILA are included as Attachment E to this memo. Under the ILA, all assets of the District were transferred to the City of Kirkland and the City became responsible for providing all fire and emergency medical services to the area previously served by the District. On June 1st, 2011 the Kirkland City Council became the District's board of commissioners for the purpose of official actions needed to dissolve the District.

The ILA also provided for the City to assume responsibility for several unfinished projects and programs that the District Commissioners wanted completed, including a $70,000 contribution towards the Fire Strategic Plan. The largest project was the continuation of the Fire Station Consolidation Project to combine two existing stations (Stations 24 and 25) into one central new station located on Finn Hill to improve service to a larger area.

The Station Consolidation Project is being funded from approximately $1.2 million of District cash reserves and $4,000,000 in limited general obligation debt that the District issued prior to the annexation effective date. This action by the District allows the County Assessor to continue to levy taxes for the payment of principal and interest on the outstanding debt after the District no longer provides services. The ability to levy taxes on behalf of the District continues until the bonds are paid off.

The ILA also requires that the City will use all District financial assets for the benefit of the District taxpayers to support fire and emergency medical services, to use any remaining assets for the Finn Hill fire station consolidation project or a Finn Hill fire station renovation project and to retire the District's debt if the consolidation project is determined not to be necessary. In this scenario, the cash reserves could be used to help renovate Station 25 and Station 27 as both stations were District 41 stations.

The ILA specifies that if Station 24 and/or 25 are sold, the proceeds can only be applied to reducing the debt service on the bond. After completion of the new station, if the City chooses to retain one or both properties, the City must make a contribution of the fair market value of the properties to reduce the debt payments.

The City initiated a siting process for a consolidated Finn Hill fire station in 2011 and 20 potential sites were initially identified. In 2012, the City suspended the siting process until the completion of the Fire Strategic Plan in 2013. The Strategic Plan identified several response time gaps, including in North Finn Hill. The City then proceeded in the fall of 2013 with a standards of coverage study to identify options to close the response time gaps. One option identified was the construction and staffing of a new Station 24 coupled with leaving Station 25 open and operating. In 2013 the station siting process was restarted to include evaluation of both the consolidated "Single Station" option and the "Dual Station" option identified by the standards of coverage study.

<u>Fire Strategic Plan, Standards of Coverage and Finn Hill Station Analysis</u>

In a June 2014 study session, City Council received an update on the progress of the *"Finn Hill Fire Station Siting Analysis".* The staff report identified as next steps that staff would be bringing the full report to Council for discussion in August. The memo provided details of the public outreach process, timelines, analysis parameters and interconnectivity of the fire department *"Organizational Evaluation, Future Planning, Feasibility of Cooperative Service Deliver and Organizational Strategic Plan" and "Standards of Coverage and Deployment Plan"* and "*Finn Hill Fire Station Siting Analysis"*.

The details of the memo as well as the work performed by TCA consulting team of architects, engineers, GIS analyst, property brokers and cost estimators are included in the *"Finn Hill Fire Station Siting Analysis"* final report (Attachment A). The Executive Summary may be found on pages 2 through 7 of the report. The report explains the process used to narrow the initial 20 sites down to 3 options for the consolidated station, and two new sites (21 and 22) were identified for the dual station option. The

final five sites were analyzed in much more detail and property owners have been notified about the City's potential interest in the properties.

The analysis included looking at dual station location options or consolidated single station location options. The current configuration has Station 24 and Station 25 both located on Finn Hill (a dual station configuration). The consolidated station option being considered replaces Stations 24 and 25 with a single station located between the two stations. The dual station option being considered moves Station 24 from its current location to either Site 21 or Site 22 in the *"Finn Hill Fire Station Siting Analysis"* and Station 25 remains in its current location.

A short summary of the location, size and estimated cost of the final five sites in included below. Costs estimates include land acquisition, site development and station design and construction. More detail on each site in included in the Executive Summary and the body of the final report.

Site Number	Address	Area	Cost
Site 11 (1)	12637 & 12619 84th Ave NE	1.74 acres	$9,064,217
Site 12 (1)	8527 NE 127th St	2.76 acres	$6,916,369
Site 20 (1)	13012 & 13022 84th Ave NE	1.54 acres	$6,857,618
Site 21 (2)	9950 NE 132nd St	0.58 acres	$6,778,068
Site 22 (2)	10007 NE 132nd St	1.40 acres	$7,766,123

(1) Single Station Model
(2) Dual Station Model

The key challenge presented by the report is that the cost of any option is significantly more than the $5.2 million available for a new station from District 41. Options to address this gap are presented at the end of the memo.

The analysis provided by TCA does not address staffing, response time and emergency response call volume, so information on these topics in included in the memo.

Staffing

Station 24 is currently not staffed with professional firefighters. Station 24 is staffed with volunteer Emergency Medical Technicians (EMT's) between the hours of 7:00pm and 05:30am. The Memorandum of Understanding with the IAFF that allows volunteers to staff Station 24 expires on December 31, 2014 and extending the use of volunteers requires the agreement of the union.

Station 25 is normally staffed with three firefighters that either respond on an Aid Unit to medical emergencies or a Fire Engine for all other emergency calls for service. As a temporary remedy to provide improved service to Finn Hill residents until the siting analysis was completed, Council approved a temporary budget during the 2013-2014 budget period to staff Station 25 with a fourth firefighter on duty 24 hours a day. The

improved service is realized as two of the firefighter/EMT's respond to a medical call on Finn Hill leaving two firefighters available to respond to a concurrent call for service on Finn Hill rather than firefighters responding from stations outside of the Finn Hill area which increases the time of arrival of the first emergency responders. A discussion of whether to continue funding the fourth firefighter will be included as part of the 2015/2016 Budget process.

The consolidated station option consists of placing a single station on Finn Hill located between the current Station 24 and Station 25. This option would not require increasing the number of firefighters on duty each day as the firefighters assigned to Station 25 would relocate to the consolidated station. The results of the evaluation show that a consolidated station will provide better coverage and service to a majority of Finn Hill residents, but that areas around Holmes Point (which has low call volumes) will see reduced response times. The consolidated station does not improve coverage in other parts of the City.

The dual station option consists of leaving Station 25 in in its current location and relocating Station 24 to site 21 or site 22 identified in the *"Finn Hill Fire Station Siting Analysis".* The *"Standards of Coverage and Deployment Plan"* recommends this dual station option stating that it provides for improved service to North Finn Hill while maintaining the current service to South Finn Hill and provides better emergency service to the Totem Lake and Juanita areas in the City of Kirkland with the highest call volume.

If this option were selected, the fire department has developed a plan to reconfigure resources allowing each of the six stations to be staffed without an increase to the current number of firefighters on duty each day. Currently there are six firefighters staffing Station 27, along with two aid cars, an engine and the ladder truck. Three firefighters, an engine and an aid car would be redeployed from 27 to the new Station 24. The reconfiguration is outlined in Attachment B. The preliminary evaluation by the department shows that this reconfiguration would provide better coverage and response times to Finn Hill as well as high call volume areas in Juanita Village and Totem Lake.

Costs of Retaining Station 25

If the dual station option is selected, the City would need to pay down the debt service on the $4 million bond by an amount equivalent to the fair market value of the property. In addition, Station 25 has significant maintenance needs that have been deferred with the assumption that the station would be closed when the new station opened. If the City keeps Station 25 operating, the cost of retaining and improving Station 25 would need to be developed and included in the funding gap analysis. Station 27 also has maintenance needs (both stations are over 40 years old) and so Council may want to consider a larger capital strategy for multiple fire stations.

Response Time

Important in determining the best location of a fire station is the amount of time the second-in response unit can arrive on scene. Whether the second-in unit is responding because the first-in unit is on another call or it is the second-in unit on a large incident requiring multiple units to mitigate the emergency, placing fire stations strategically in order to minimize delayed initial response or reducing travel time for a full effective response force to arrive is paramount to the desired outcomes of saving lives and reducing property loss. Response time gaps exist between Station 27 (Responded to over 3,800 emergency calls in 2013) and the adjacent stations that reciprocally rely on each other as second-in response units; Station 21,Station 24, Station 25 and Station 26. These gaps were identified in both the *"Organizational Evaluation, Future Planning, Feasibility of Cooperative Service Deliver and Organizational Strategic Plan"* (2012) and *"Standards of Coverage and Deployment Plan"* (2014).

Emergency Response Call Volume

Equally important in determining the best location of a fire station is population density and number of emergency responses in a given geographic area. Future population density and corollary emergency response call volume should also be considered. The current emergency response call volume is identified in Attachments C and D. Attachment C places the single consolidated Station 25 option on the current emergency response call volume map along with existing Station 21, 22, 26 and 27 and eliminates Station 24. Attachment D places the relocated Station 24 along with existing Station 21, 22, 25, 26 and 27 as recommended in the *"Standards of Coverage and Deployment Plan"* (2014).

Based on the maps in Attachments C and D, relocating Station 24 places that station at the epicenter of high emergency response call volume. The department forecasts that the relocation of Station 24 will make the new station one of the most strategic in Kirkland, not only because of the call volume of its first-in response area, it additionally will be second-in to three adjacent stations. The other five stations will be second-in to two adjacent fire stations. *Note: The maps also show the staffing at each station identified in Attachment B maintaining current staffing levels.*

Funding Gap

The options identified in the report have preliminary cost estimates ranging from $6.8 million to $9.1 million dollars. As previously mentioned, the City currently has $5.2 million set aside toward the Finn Hill station project, comprised of $4 million of bond proceeds and $1.2 million in cash received from Fire District 41 upon annexation. The use of these funds is governed by the ILA entered into by the City and the District prior to annexation that provides, in part, that any proceeds from selling either of the fire station properties formerly owned by Fire District 41 must be used to pay down the outstanding debt.

There are a variety of approaches that can be considered to close the potential $1.6 million to $3.9 million new station funding gap as well as the unknown costs of retaining and renovating Station 25. An explanation of each approach along the potential consequences follows:

- The General Capital Contingency is projected to have a balance at the end of 2014 of just under $4 million. A portion of this reserve could be used toward the unfunded costs, however, that would slow the replenishment of General Purpose reserves and potentially provide less flexibility to address unforeseen needs in other capital projects.

- REET reserves in excess of budgeted levels. REET revenues have been coming in stronger than budgeted due to the high volume of real estate transactions occurring within the City, resulting in an undesignated REET balance of at least of $3 million. These funds have not been programmed in anticipation of the Capital Improvement Program process that is planned for 2015 to incorporate the capital needs identified through the Kirkland 2035 process and master plan updates. If these funds are used toward the fire station project, they will not be available to be programmed based on the emerging needs from that process.

- Councilmanic (non-voted) bonds could be issued to fund the shortfall, with debt service being paid using General Fund resources. The on-going debt service would then become a required priority of general fund revenues.

- Voted bonds (an excess levy) could be placed on the ballot for public safety needs that could include this shortfall and other capital needs using 20-year bonds. An excess levy requires a 60% affirmative vote and validation.

- A levy lid lift could be placed on the ballot for public safety needs, requiring a 50%+1 majority, which could be used to support 9-year bonds for the project shortfall and station renovations.

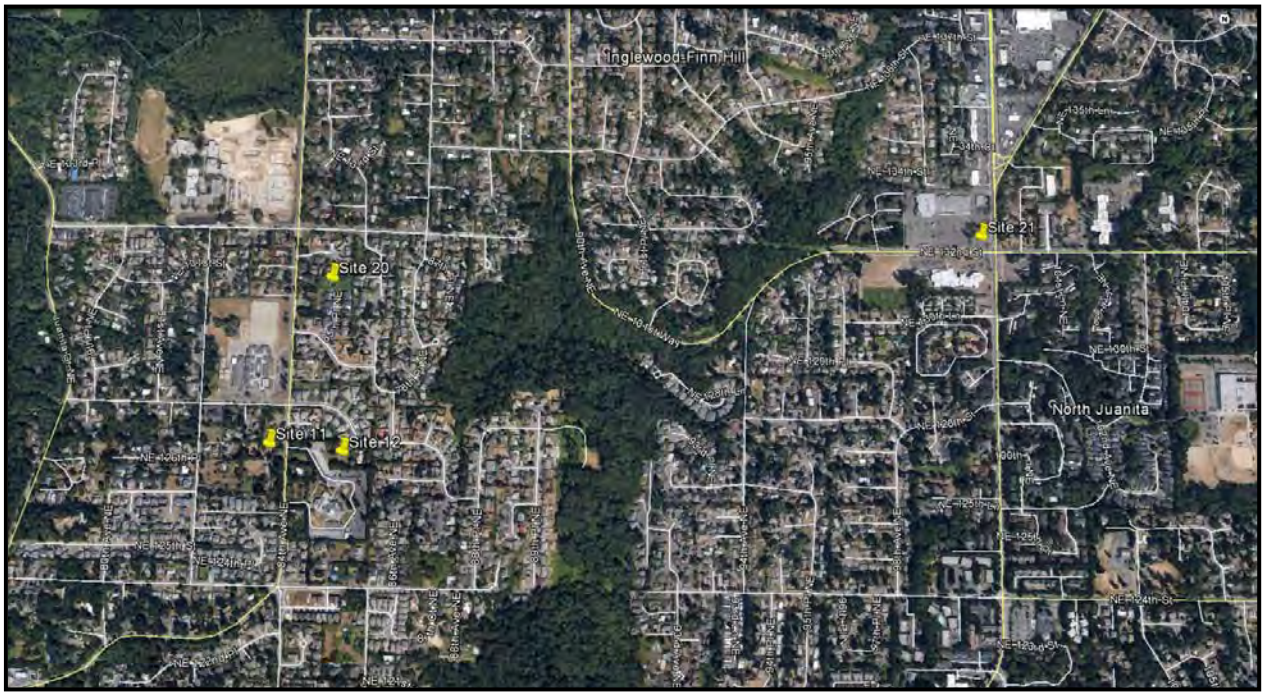
- If one-time funds are available at the end of the current biennium, a portion of the gap could be addressed with some of these revenues.

Staff does not yet have a recommendation on a preferred option. A combination of approaches is most likely appropriate and staff will evaluate these alternatives and bring back options for the Council's future consideration.

<u>Direction Needed</u>

Staff is looking for Council direction on next steps. Options include pursuing the single station option, the dual station option, or retiring the debt and not proceeding with a new station at this time while using District fund balance to renovate Station 25. Staff wants to hear what additional information the Council needs to help make that decision.

FINN HILL FIRE STATION SITING ANALYSIS



FINAL REPORT

July 24, 2014

Kirkland, Washington

Contents

Participants

The consolidated fire station site analysis is based on the work and support of many people representing the community, City and the consultant team.

COMMUNITY

Finn Hill Neighborhood Alliance
Jon Pascal
Bill Blanchard
Scott Morris

CITY OF KIRKLAND

Kurt Triplett, City Manager
Marilynne Beard, Assistant City Manager
Kevin Nalder, Fire Chief
Dave Snider, Capital Projects Manager
Kari Page, Neighborhood Outreach Coordinator
Marie Stake, Communications Program Manager
Joe Sanford, Battalion Chief
Hobart Hani, Captain
Mark Buenting, Captain

CONSULTANT TEAM

Brian Harris, TCA Architecture • Planning, Inc
Sue Murray, TCA Architecture • Planning, Inc
Myles Huddart, TCA Architecture • Planning, Inc
Mike Price, Entrada/San Juan
Peter Folkins, New Ventures
Sharon Kennedy, The Robinson Company
Jesse Birchman, Transpo Group
Tom Jones, KPFF Consulting Engineers
Hugh Mortenson, The Watershed Company
Jeffry Lam, Associated Earth Science

Executive Summary

HISTORY PRIOR TO JUNE 1, 2011

- King County Fire District 41 (FD 41) was responsible for providing fire and emergency medical services to the Finn Hill area.
- FD 41 contracted with the City of Kirkland Fire Department to provide fire and emergency medical services and operated out of two FD41 facilities: Holmes Point Station #25 (FS-25) built and financed by FD 41 in 1974 and Finn Hill Fire Station #24 (FS-24) built and financed by FD 41 in 1993.
- In 2004, FD 41 identified the need to consolidate FS-24 and FS-25. Fire District 41 began a process to find a site to build a new consolidated fire station on Finn Hill. Property owned by Lake Washington School District was considered early in the process but was deemed unsuitable. Later in the siting process, a portion of Big Finn Park was considered.
- As part of the consolidation strategy, FD 41 set up the following three-pronged funding approach: the use of cash reserves, proceeds from the sale of FS-24 and FS-25 and the use of limited general obligation debt that FD 41 issued prior to annexation taking effect (property tax levy for Finn Hill property owners beginning in 2012).
- After the annexation took effect on June 1, 2011, the governance of fire protection and emergency medical services was transferred from Fire District 41 to the City of Kirkland. The City of Kirkland assumed responsibility for the proposed Finn Hill fire station project initiated by Fire District 41.
- Currently, the Holmes Point Fire Station (#25), a fully staffed station, and the Finn Hill Fire Station (#24), a station staffed on a limited basis by volunteer EMTs, are located in the Finn Hill Neighborhood.

SITE LOCATION STUDY

In November 2011, TCA Architecture • Planning was selected to study site alternatives and host outreach meetings so that residents could receive information and comment on potential siting issues and concerns. In 2012 the City and consultant team attended a Finn Hill Neighborhood community meeting to hear from residents what would make the siting of a new fire station in the Finn Hill Neighborhood a successful process. (See Appendix exhibits)

CONCURRENT STANDARD OF COVERAGE & DEPLOYMENT PLAN STUDY

In 2012 the "Organizational Evaluation, Future Planning, Feasibility of Cooperative Service Delivery and Organizational Strategic Plan" was initiated and the City agreed to postpone the siting of a new Finn Hill fire station until the Strategic Plan was completed. The plan identified three response coverage gaps. One of those gaps was service to North Finn Hill.

To address the three gaps, the City of Kirkland initiated a "Standard of Coverage and Deployment Plan Study" (SOCDP) in the Fall of 2013. The SOCDP was conducted to provide an in-depth analysis of fire department resources currently deployed and the fire department abilities to meet the current set of response standards and what resources would be required to meet adopted response standards. The results of the SOCDP have an integral relationship to the Finn Hill Station Siting Study. Based on the SOCDP, two additional sites were added to the list of potential sites to be considered to better serve North Finn Hill.

RECOMMENCEMENT OF SITE STUDY

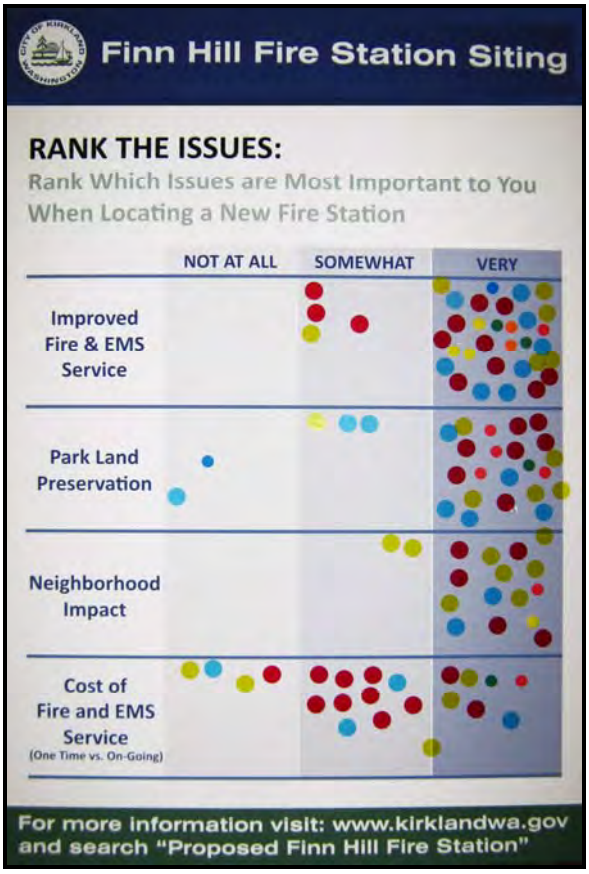
Following a project kick-off at the 2013 DennyFest on October 7, 2013, the Fire Department in conjunction with the consultant team, provided the community an opportunity to review and discuss the current status of the Finn Hill Fire Station site selection process at the Finn Hill Neighborhood Association meeting.

In an open house format, group presentation and question and answer session, the fire chief and consultant team provided a project overview and discussed what was heard during the 2012 public outreach meeting and the DennyFest. During the public meeting, the City's goal was to listen to the community and obtain feedback on four distinct GIS based response options which were presented as follows:

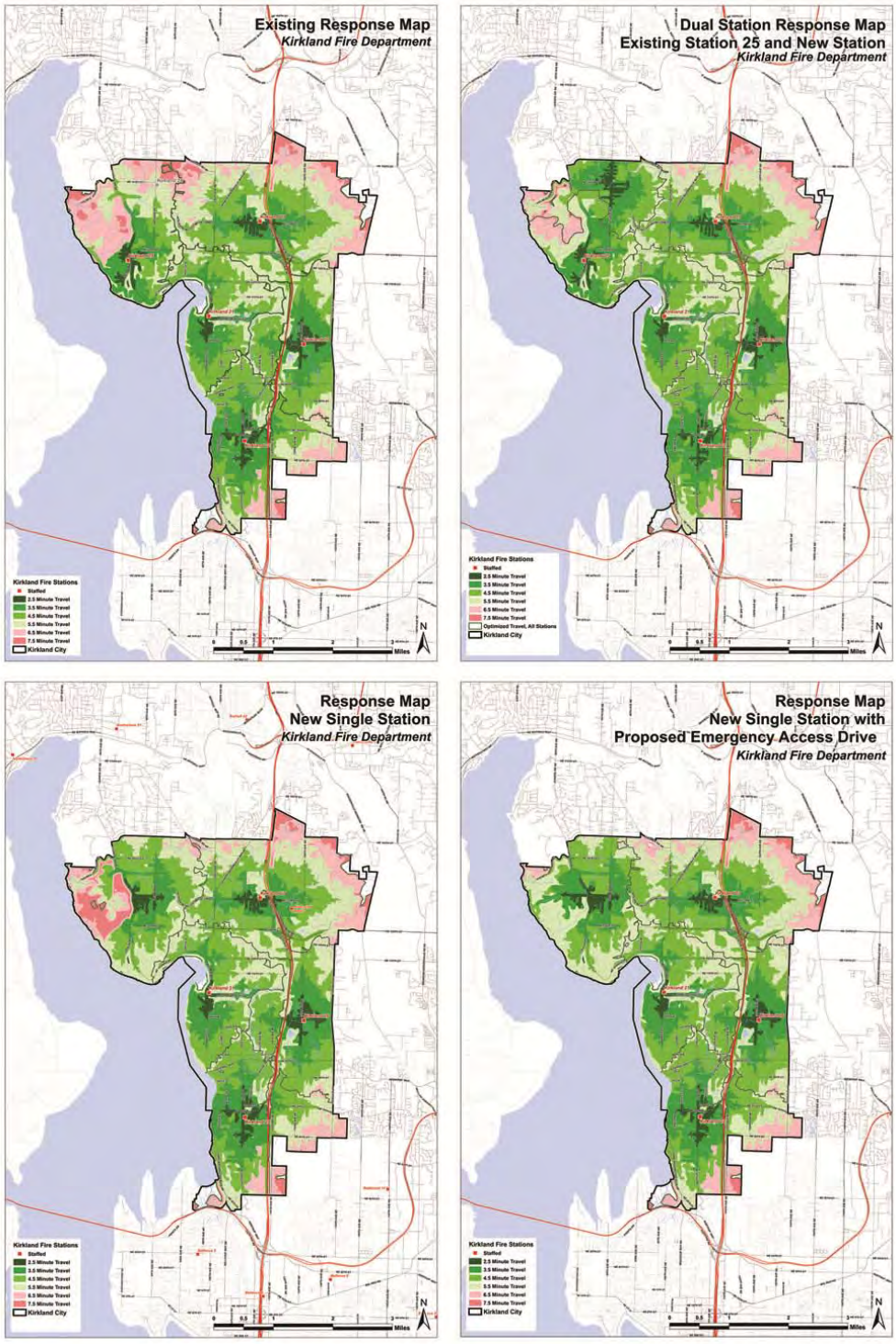
1. Status Quo: maintain existing response and upgrade Fire Station 25 only.
2. Dual Station: maintain Fire Station 25 at its current location and locate a new fire station in the northwest area of the city.
3. Single Station: relocate Fire Station 25 and provide a single fire station in the northwest area of the city.
4. Single Station with New Emergency Access Drive: relocate Fire Station 25 and provide a single fire station in the northwest area of the city. Add a new emergency access drive to the Holmes Point neighborhood. This provides enhanced responses to the "Single Station Model."

During the community discussion various response time maps were presented. The City staff and consultants posed several questions and listened to feedback as to what issues were most important to the community when locating a fire station.

RANK THE ISSUES FINDINGS



RESPONSE MAPPING



On January 14, 2014 during the Finn Hill Neighborhood Alliance meeting, Chief Nalder provided an update regarding the development of a long-list of potential sites under consideration in the Finn Hill study area.

- Twenty-one potential sites were identified based on GIS base response data and the Standard of Coverage and Deployment Plan Study.
- Site ranking criteria was developed based on community feedback.

Site selection criteria was ranked and weighted by an appointed committee formed from selected members of the Neighborhood Alliance, City staff and members of the consultant team.

- Site selection criteria identified by the community was weighted by the committee
- A shortlist of sites was identified by the committee based on the ranked criteria (See Exhibit)

Following the development and review of GIS based site options, a fire station space needs program was reviewed with the fire department in order to establish test-to-fit building footprints when determining site area requirements.

On March 12, 2014 during the Finn Hill Neighborhood Alliance meeting, Chief Nalder provided an update on the committee work and how the Standard of Coverage Study preliminary draft report had identified a new station location option that would provide improved service to Finn Hill and the City as a whole if Fire Station 25 was also maintained and staffed.

Based on the draft Standard of Cover report findings, two additional sites further east near 100th Ave NE and 132nd NE Street were added to the short-listed sites 21 and 22. Of the five distinct GIS based response options, these two additional sites are included in option 2 - Dual Station - maintain Fire Station 25 at its current location and locate a new fire station in the northwest area of the city.

April 2014 an engineering review and analysis of short-listed sites was prepared by consultant team.

BROKERAGE AGREEMENT

In May 2014, the City prepared and entered in to a brokerage agreement with New Ventures to contact short-listed site property owners. Owners are currently being contacted.

SHORT-LIST SITES

The site investigations focus on the five sites listed below. The sites investigated and the total area of each site are comprised of one or more tax lots based on the King County Assessor's data.

SITE SUMMARY

Site Number	Address	Area
Site 11	12637 & 12619 84th Ave NE	1.74 acres
Site 12	8527 NE 127th St	2.76 acres
Site 20	13012 and 13022 84th Ave NE	1.54 acres
Site 21	9950 NE 132nd St	0.58 acres
Site 22	10007 NE 132 St.	1.40 acres

SITE 11	see page 15 for details	
LOCATION	12637 & 12619 84th Ave NE	1.74 acres
PARCEL MAKEUP	Comprised of 2 parcels	
STATION RESPONSE MODEL	"Single Station Response" (see page 3)	
DESCRIPTION	Parcels are located south of Sandburg Elementary School	
STATION 2 STORY	(single story at apparatus bay)	
PROS	• Located well for "Single Station Model" • Located on primary arterial for response • Good site lines • Site controlled by developer • Residential properties on three sides but site allows for substantial buffering.	
CONS	• Slopes significantly to the west • Extensive retaining required to allow for drive-through bays • Currently being platted for (8) new residential units • Timing of purchase may be problematic due to current redevelopment planning.	
SITE DEV/ROW COST	$2,030,487	
BUILDING COST	$4,233,730	
LAND ACQUISITION COST	Cost TBD- Approximate fair market value is $2,800,000 (see page 95)	
** Does not include soft costs which are typically 45-50% of construction costs not including land purchase*		

SITE 12	see page 22 for details	
LOCATION	8527 NE 127th St	2.76 acres
PARCEL MAKEUP	Comprised of 2 parcels	
STATION RESPONSE MODEL	"Single Station Model" (see page 3)	
DESCRIPTION	Parcels consist of the Vianney church site access and overflow parking and a single family residence south of Sandburg Elementary School.	
STATION 2 STORY	1 Story throughout with (3) drive-through bays	
PROS	• Located well for "Single Station Model" • Located on primary arterial for response • Good site lines • Site is relatively flat for development • Residential properties on 2 sides only	
CONS	• Access easement required for church access • Existing church parking would need to be replaced • Traffic congestion could occur during church events and on Sundays	
SITE DEV/ROW COST	$1,719,349	
BUILDING COST	$3,697,020	
LAND ACQUISITION COST	Cost TBD- Approximate fair market value is $1,500,000 (see page 95)	
** Does not include soft costs which are typically 45-50% of construction costs not including land purchase*		

SITE 20	see page 29 for details	
LOCATION	13012 and 13022 84th Ave NE	1.54 acres
PARCEL MAKEUP	Comprised of 3 parcels	
STATION RESPONSE MODEL	"Single Station Model" (see page 3)	
DESCRIPTION	The site is a "L" shape configuration which allows for a drive-through bay and is located across the street from Sandburg Elementary School.	
STATION 2 STORY	2 story crew area, single story at apparatus bays with (3) drive-through bays	
PROS	• Located well for "Single Station Model" • Located on primary arterial for response • Good site lines • Site is fairly flat • Sites are controlled by a developer	
CONS	• School traffic congestion may be challenging during certain times of the day • The depth of the parcel on 84th Ave NE is shallow requiring an apparatus return through a neighborhood • The site is surrounded on 3 sides by residential properties and impacts the most residences	
SITE DEV/ROW COST	$1,423,888	
BUILDING COST	$4,233,730	
LAND ACQUISITION COST	Cost TBD- Approximate fair market value is $1,200,000 (see page 95)	
** Does not include soft costs which are typically 45-50% of construction costs not including land purchase*		

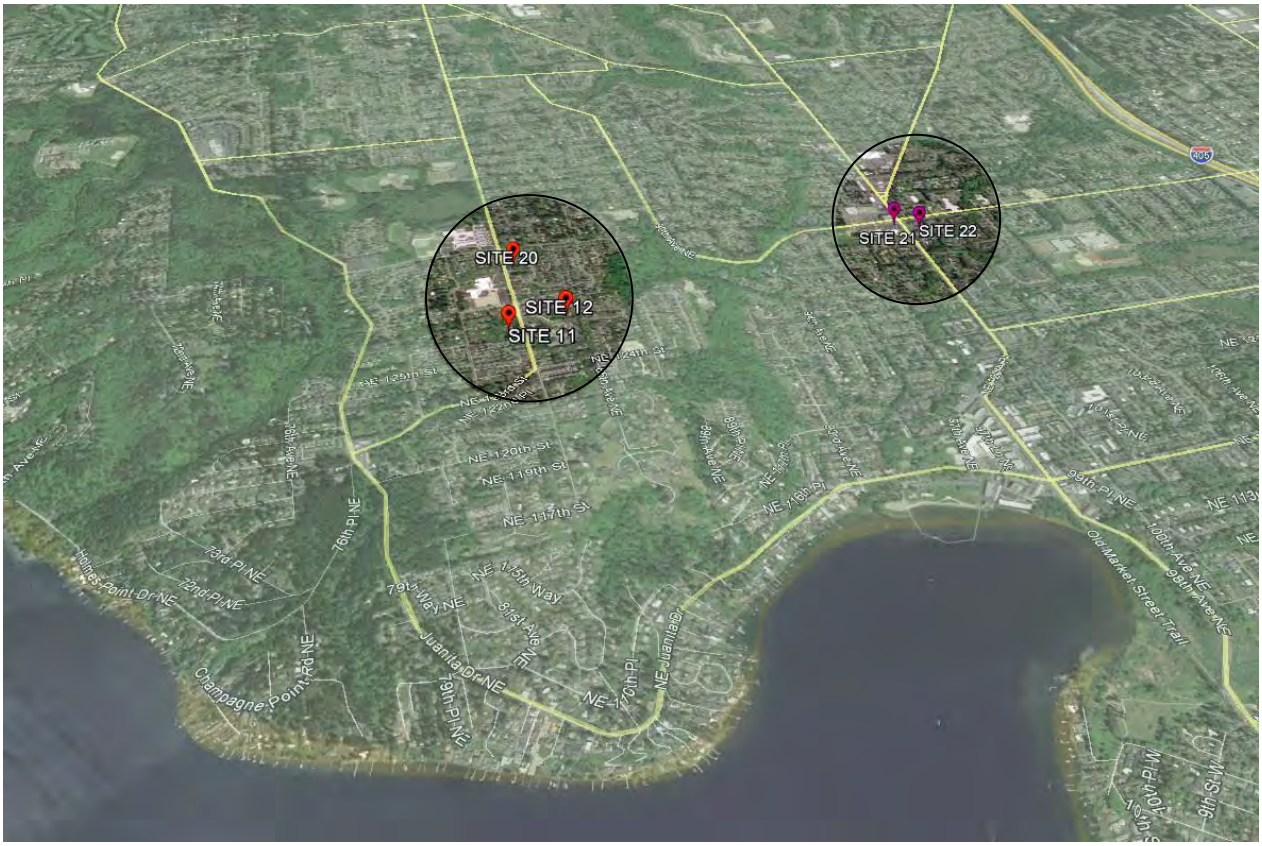
SITE 21	see page 36 for details	
LOCATION	9950 NE 132nd St	0.58 acres +
PARCEL MAKEUP	Comprised of 1 parcel plus a portion of a parcel to the north is needed	
STATION RESPONSE MODEL	"Dual Station Model" (see page 3)	
DESCRIPTION	Previous gas station location which has been demolished. Site is a corner parcel with retaining to the north and west sides.	
STATION 2 STORY	2 Story crew area, single story at apparatus bays, 3 drive-through bays	
PROS	• Located well for "Dual Station Model" • Site does not impact residential neighbors • Site location provides improved response per Standard of Coverage Study • Site has 2 means of egress in and out of site	
CONS	• Environmental studies will need to occur to determine if the soil is contaminated from its previous use • Site is at major intersection, signal preemption may be required	
SITE DEV/ROW COST	$1,344,338 (soil mediation not included)	
BUILDING COST	$4,233,730	
LAND ACQUISITION COST	Cost TBD- Approximate fair market value is $1,200,000 (see page 95)	
** Does not include soft costs which are typically 45-50% of construction costs not including land purchase*		

SITE 22	see page 44 for details	
LOCATION	10007 NE 132 St.	1.40 acres
PARCEL MAKEUP	Comprised of 2 parcels	
STATION RESPONSE MODEL	"Dual Station Model" (see page 3)	
DESCRIPTION	The corner parcels have a community church and associated residence	
STATION 2 STORY	2 story crew area, single story at apparatus bays, 3 drive-through bays	
PROS	• Located well for "Dual Station Model" • Residences located to south and east however site size allows for significant buffering • Site location provides improved response per Standard of Coverage Study • Site has 2 means of egress in and out of site	
CONS	• Site is not flat- the grade slopes southeast • Due to traffic queueing and turn lanes, the points of ingress and egress will need to be located at the southwest and northeast corners of the site • Site is at a major intersection, signal preemption may be required • Church would need to relocate	
SITE DEV/ROW COST	$1,532,393	
BUILDING COST	$4,233,730	
LAND ACQUISITION COST	Cost TBD- Approximate fair market value is $2,000,000 (see page 95)	

** Does not include soft costs which are typically 45-50% of construction costs not including land purchase*

SITE ANALYSIS

LOCATION



Vicinity Map

SITE DESCRIPTIONS, CHARACTERISTICS AND TOPOGRAPHY

SITE 11 (SINGLE STATION MODEL)

DESCRIPTION AND CHARACTERISTICS

Site 11 is located west of 84th Ave NE, it includes two parcels. The project site contains existing structures both occupied and non-occupied. The site slopes from 85th Ave NE to the west. 84th Ave NE is a public roadway that includes an asphalt paving, sidewalks, underground utilities, and storm water conveyance.

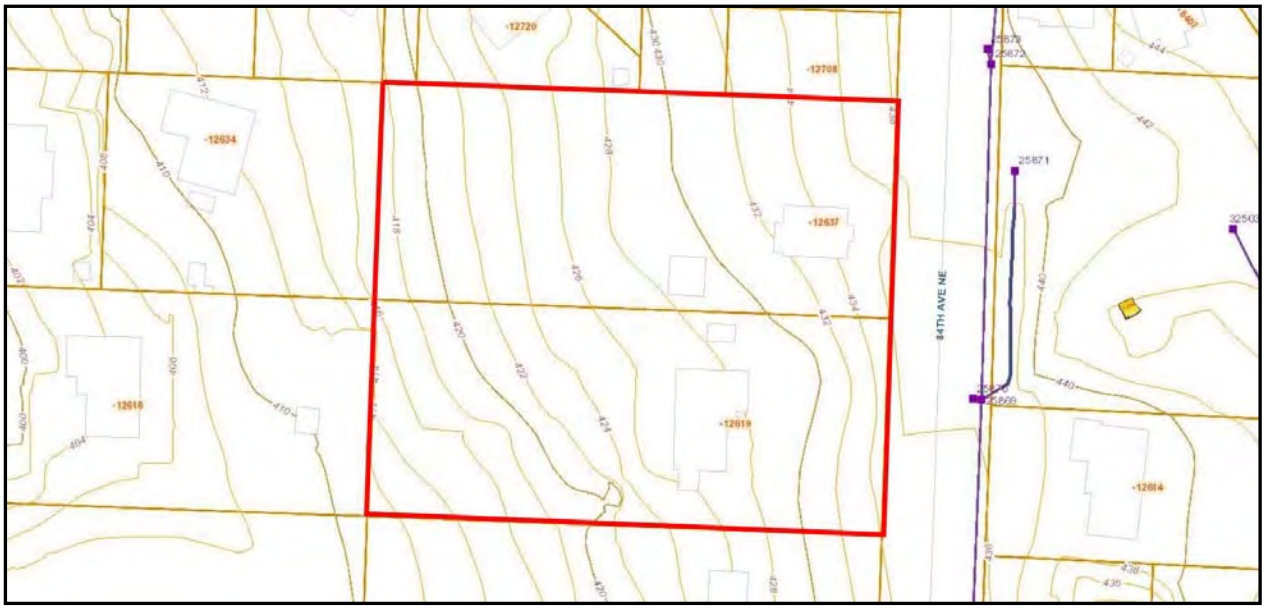
Portion of King County Assessor's Map with May 2013 Aerial Image

SITE 11 SUMMARY

Parcel numbers and area based on King County Assessor data

Parcel Number / Address	Area
3840700460	0.87 acres
3840700465	0.87 acres
Total Area	1.74 acres

EXISTING TOPOGRAPHY



Portion of City of Kirkland GIS Map

The existing site 11 topography relief has approximately 27 feet of elevation change from the high elevation of 438 feet at the Northeast parcel property corner at 84th Ave NE to the low point elevation of 411 feet at the Southwest parcel corner. The site generally slopes east to west / southwest.

SITE PHOTOS

Existing Site 11 facing Southwest

Existing Site 11 facing West

SITE PHOTOS

Existing Site 11 facing East from West property boundary

Existing Site 11 facing West toward West lot boundary

SITE ACCESS

The entrance to site 11 is along the east side of 84th Ave NE. 84th Ave NE is classified as a Collector Arterial roadway. Frontage improvements most likely will be required and will be determined during City of Kirkland Pre-Application Submittal.

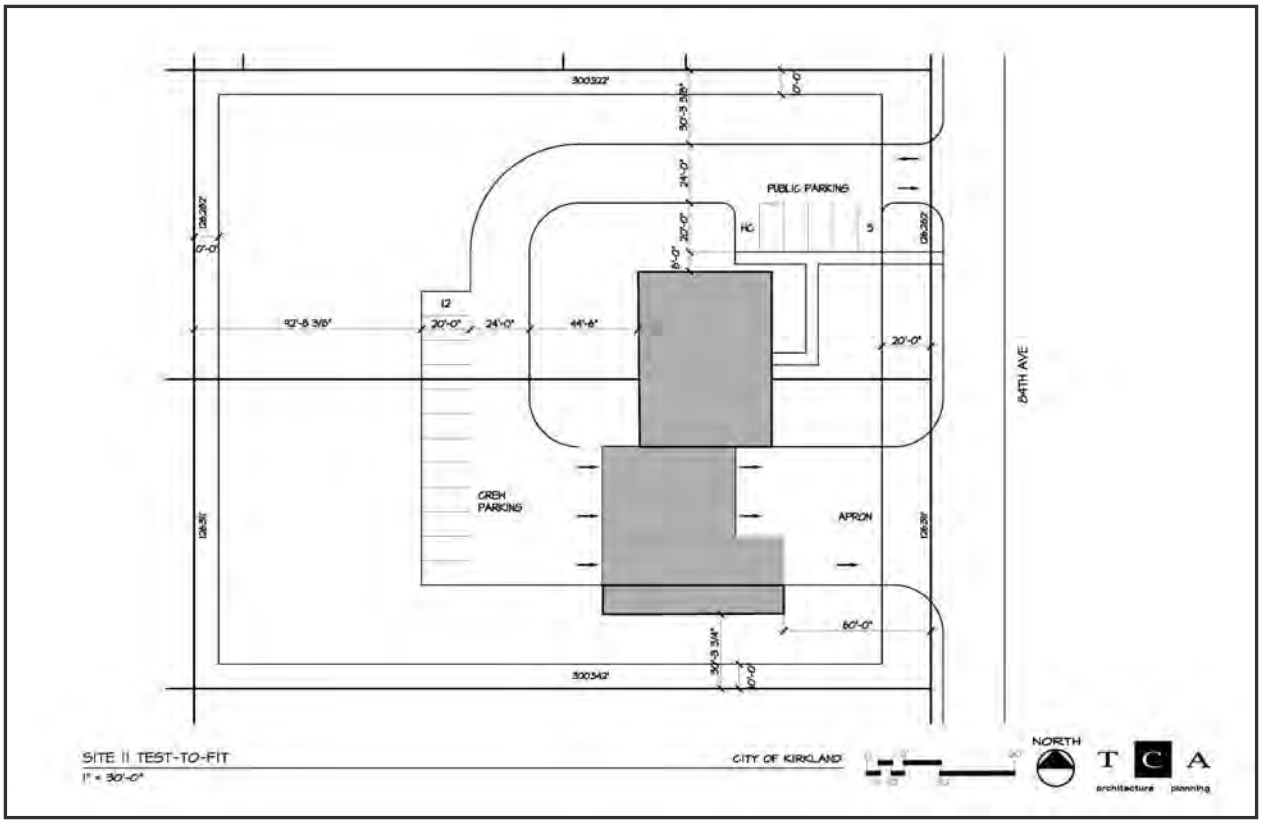
Site 11 is anticipated to be required to provide the following frontage improvements to 84th Ave NE:

- New curb, gutter, sidewalk, bike lane, planter strip, street trees and street lighting.
- Potential roadway widening and bus pullout and/or half street roadway improvements may be required (TBD at future City of Kirkland Pre-Application Submittal).

The above improvement information is provided courtesy of City of Kirkland Public Works.

Site 11 entry from 84th Ave NE (facing North) from SE property corner

SITE TEST TO FIT



Site 11 Test to Fit Site Plan

This potential station site is located in the target response area for a "Single Station Model" located on Finn Hill. Station 25 would be relocated to this site providing a single station in the northwest area of the city. The site area accommodates a new fire station however due to a substantial grade differential in a East/West direction, significant retaining would be required to allow for drive-through bays. The site can accommodate a 3 bay fire station with apparatus support space and a crew living area for 6. To reduce the grade impact/building footprint, a 2 story configuration would be most cost effective.

Land Status:

- Requires purchase of 2 parcels due to single parcel width
- 8 single homes currently planned for redevelopment

Traffic Analysis/Transportation Review – Site 11 (by Transpo Group)	
LOCATION	12637 84TH AVE NE 12619 84TH AVE NE
CONNECTIVITY & CIRCULATION	• Located along collector. • Good connectivity to surrounding residential neighborhoods. • Driveways could be aligned with opposing driveways.
SIGHT DISTANCE	• Good sight distance along 84th Ave NE
FIRE SIGNAL NEED/FEASIBILITY	• Fire signal is feasible if necessary. • Installation of signal would need to be coordinated with adjacent driveways.
TRAFFIC OPERATIONS	• Good operations within site vicinity. • Access point unlikely to be impacted by queues from nearby uses. • Potential concentrated traffic flows from nearby church on Sunday mornings.

SITE 12 (SINGLE STATION MODEL)

DESCRIPTION AND CHARACTERISTICS

Site 12 is located west of 84th Ave NE, it includes two parcels. The project site contains existing structures both occupied and non-occupied. The site slopes from 85th Ave NE to the west. 84th Ave NE is a public roadway that includes an asphalt paving, sidewalks, underground utilities, and storm water conveyance.

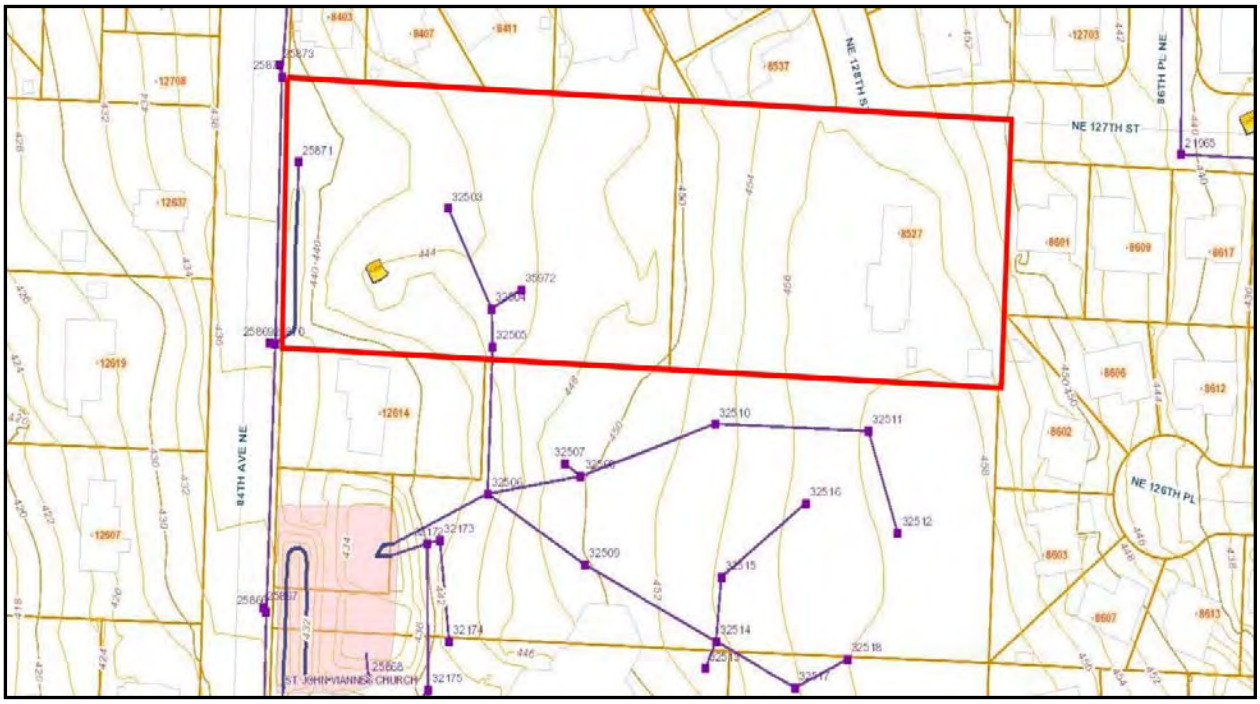
Portion of King County Assessor's Map with May 2013 Aerial Image

SITE 12 SUMMARY

Parcel numbers and area based on King County Assessor data

Parcel Number	Area
3026059283	1.28 acres
3026059205	1.48 acres
Total Area	2.76 acres

EXISTING TOPOGRAPHY



Portion of City of Kirkland GIS Map

The existing site 12 topography relief has approximately 21 feet of elevation change from the high elevation of 458 feet at the Southeast parcel property corner to the low point elevation of 437 feet at the Southwest parcel corner and 84th Ave NE. The site generally slopes east to west.

SITE PHOTOS

Site 12 facing East from 84th Ave NE entry drive

Site 12 facing East at site boundary

SITE PHOTOS

Site 12 facing East, fence is beginning of eastern most parcel with existing residence

Site 12 facing West looking at entry drive and 84th Ave NE

SITE ACCESS

The entrance to site 12 is along the east side of 84th Ave NE. 84th Ave NE is classified as a Collector Arterial roadway. Frontage improvements most likely will be required and will be determined during City of Kirkland Pre-Application Submittal.

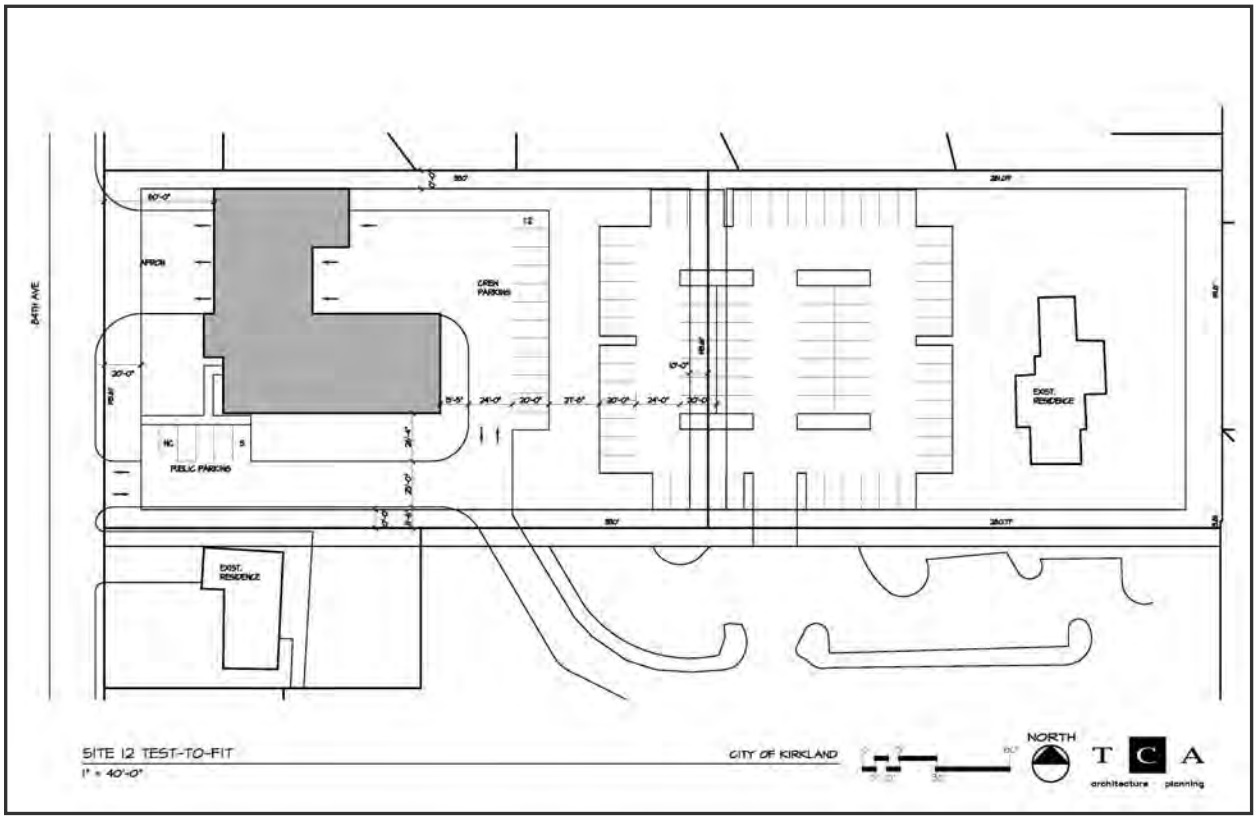
Site 12 is anticipated to be required to provide the following frontage improvements to 84th Ave NE:

- New curb, gutter, sidewalk, bike lane, planter strip, street trees and street lighting.
- Potential roadway widening and bus pullout and/or half street roadway improvements may be required (TBD at future City of Kirkland Pre-Application Submittal).

The above improvement information is provided courtesy of City of Kirkland Public Works.

Site 12 entry from 84th Ave NE (facing South) from existing entry drive

SITE TEST TO FIT



Site 12 Test to Fit Site Plan

This potential site is located in the target response area for a single station option located on Finn Hill. Station 25 would be relocated to this site providing a "Single Station Model" in the northwest area of the city. The site area accommodates a single story station however an underdeveloped church parking lot would be needed to be relocated to the east and an access easement would be necessary for the church. This site/additionally would be impacted during church events and Sunday service due to call volumes could be managed.

Land Status

- Requires the purchase of two parcels
- Church- site access/parking area
- Single family home
- Property owners have been contacted
- Combined properties are larger than needed for project but necessary for parking accommodations.

Traffic Analysis/Transportation Review – Site 12 (by Transpo Group)	
LOCATION	12558 84TH AVE NE 8527 NE 127TH ST
CONNECTIVITY & CIRCULATION	• Located along collector. • Good connectivity to surrounding residential neighborhoods. • Shared driveway with adjacent church
SIGHT DISTANCE	• Good sight distance along 84th Ave NE
FIRE SIGNAL NEED/FEASIBILITY	• Fire signal is feasible if necessary. • Installation of signal would need to be coordinated with adjacent driveways.
TRAFFIC OPERATIONS	• Good operations within site vicinity. • Access point unlikely to be impacted by queues from nearby uses. Potential concentrated traffic flows from nearby church on Sunday mornings.

SITE 20 (SINGLE STATION MODEL)

DESCRIPTION AND CHARACTERISTICS

Site 20 is located west of 84th Ave NE, it includes two parcels. The project site contains existing structures both occupied and non-occupied. The site slopes from 85th Ave NE to the west. 84th Ave NE is a public roadway that includes an asphalt paving, sidewalks, underground utilities, and storm water conveyance.

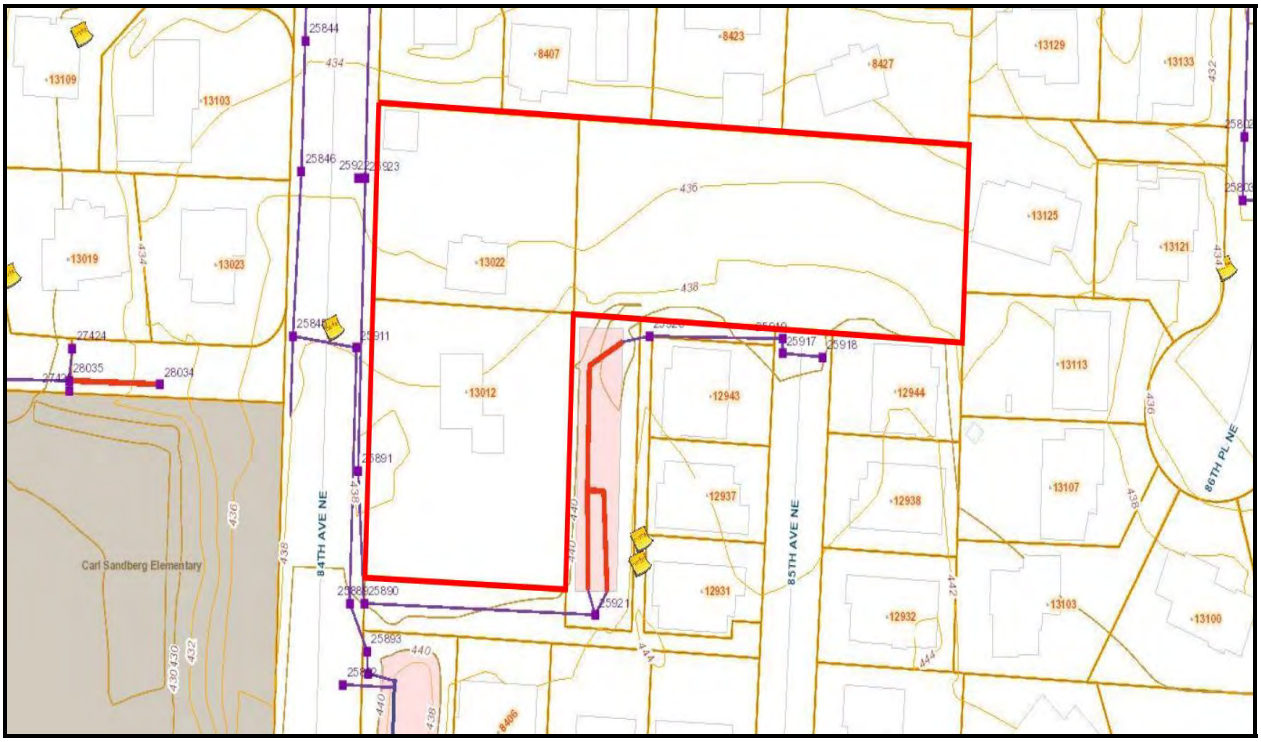
Portion of King County Assessor's Map with May 2013 Aerial Image

Site 20 Summary

Parcel numbers and area based on King County Assessor data

Parcel Number	Area
3026059130	0.68 acres
3026059189	0.35 acres
3026059060	0.50 acres
Total Area	1.54 acres

EXISTING TOPOGRAPHY



Portion of City of Kirkland GIS Map

The existing site 20 topography relief has approximately 6 feet of elevation change from the high elevation of 440 feet at the South parcel property line to the low point elevation of 434 feet at the Northwest parcel corner and 84th Ave NE. The site generally slopes southeast to northwest.

SITE PHOTOS

Site 20 facing North looking down 85th Pl NE, providing back assess through the residential neighborhood.

Site 20 facing East from 84th Ave NE

SITE PHOTOS

Site 20 facing East from 84th Ave NE

Site 20 from NW property corner facing Southeast from 84th Ave NE

SITE ACCESS

The entrance to site 20 is along the east side of 84th Ave NE. with a potential back ingress/egress via 85th Pl NE. 84th Ave NE is classified as a Collector Arterial roadway. 85th Pl NE is a local arterial. Frontage improvements along 84th Ave NE most likely will be required and will be determined during City of Kirkland Pre-Application Submittal.

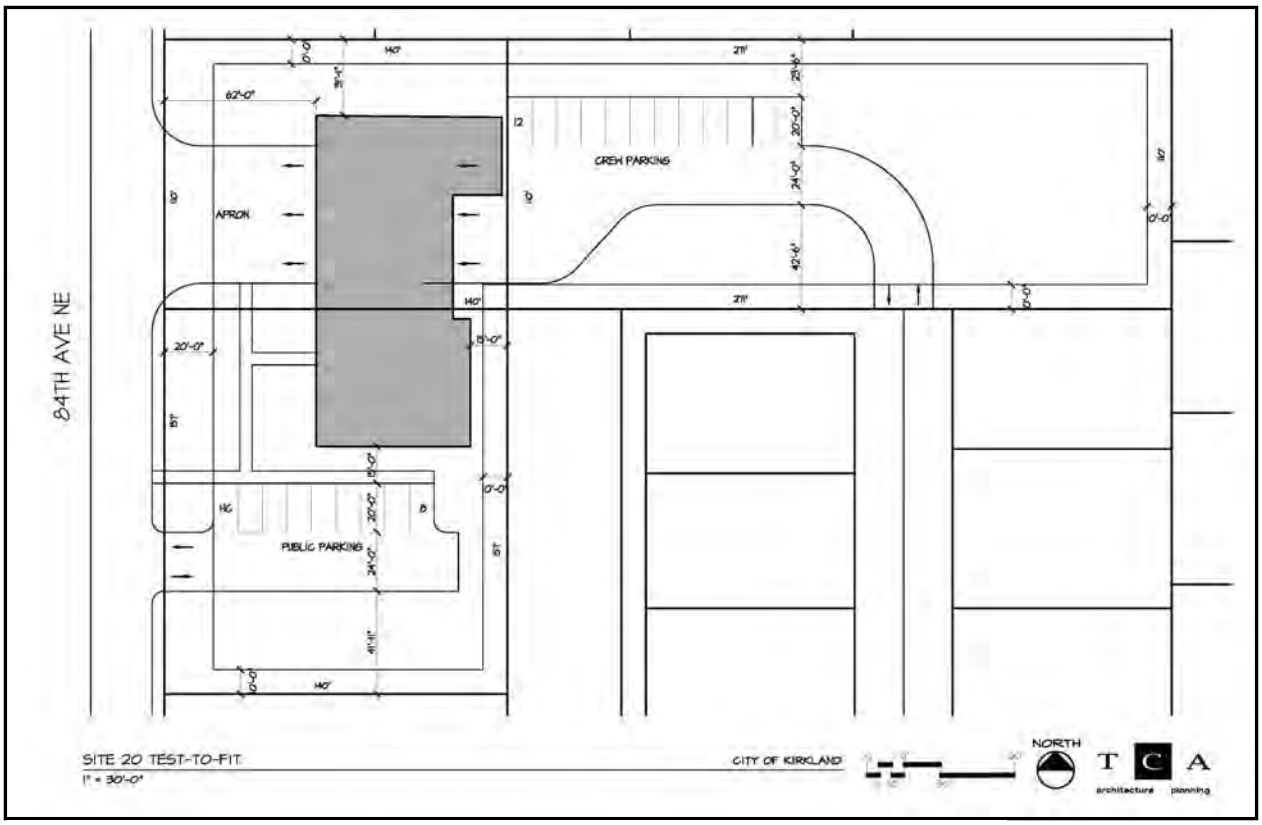
Site 20 is anticipated to be required to provide the following frontage improvements to 84th Ave NE:

- New curb, gutter, sidewalk, and planter strip.
- Potential roadway widening and bus pullout and/or half street roadway improvements may be required (TBD at future City of Kirkland Pre-Application Submittal.
- New curb, gutter, sidewalk, and planter strip, street trees and street lighting.

The above improvement information is provided courtesy of City of Kirkland Public Works.

Site 20 entry from 84th Ave NE (facing South)

SITE TEST TO FIT



Site 20 Test to Fit Site Plan

This potential station site is located in the target response area for a "Single Station Model" located on Finn Hill. Station 25 would be relocated to this site providing a single station in the northwest area of the city.

The site area can accommodate a new fire station however due to the shallowness of the southwest parcel, the station would need to be a 2-story facility. Additionally in order to provide drive through bays, apparatus would need to drive through a quiet residential street (85th Place NE) to the east side of the property due to the "L" shaped property assemblage. This would be a significant neighborhood impact.

Land Status:

- Requires the purchase of three parcels

Traffic Analysis/Transportation Review – Site 20 (by Transpo Group)	
LOCATION	13022 84TH AVE NE 13012 84TH AVE NE *parcel at northern end of 85th Ave NE
CONNECTIVITY & CIRCULATION	• Located along collector. • Good connectivity to surrounding residential neighborhoods. • Driveways can be aligned with opposing driveways. • Fire truck and crew access would occur via local access street, but is unlikely to notably increase traffic volumes.
SIGHT DISTANCE	• Good sight distance along 84th Ave NE
FIRE SIGNAL NEED/FEASIBILITY	• Fire signal is feasible if necessary. • Installation of signal would need to be coordinated with adjacent driveways.
TRAFFIC OPERATIONS	• Good operations within site vicinity. • Adjacent school pick-up/ drop-off traffic could result in moderate congestion or queues with immediate vicinity of the site

Based on the draft standard of Cover report findings, two additional sites further east near 100th Avenue NE and 132nd NE Street were added to the short-listed sites 21 and 22. Of the four distinct GIS based response options, these two additional sites are included in option 2 - Dual Station - maintain Fire Station 25 at its current location and locate a new fire station in the northwest area of the City.

SITE 21 (DUAL STATION MODEL)

DESCRIPTION AND CHARACTERISTICS

Site 21 is located west of 84th Ave NE, it includes two parcels. The project site contains existing structures both occupied and non-occupied. The site slopes from 85th Ave NE to the west. 84th Ave NE is a public roadway that includes an asphalt paving, sidewalks, underground utilities, and storm water conveyance.

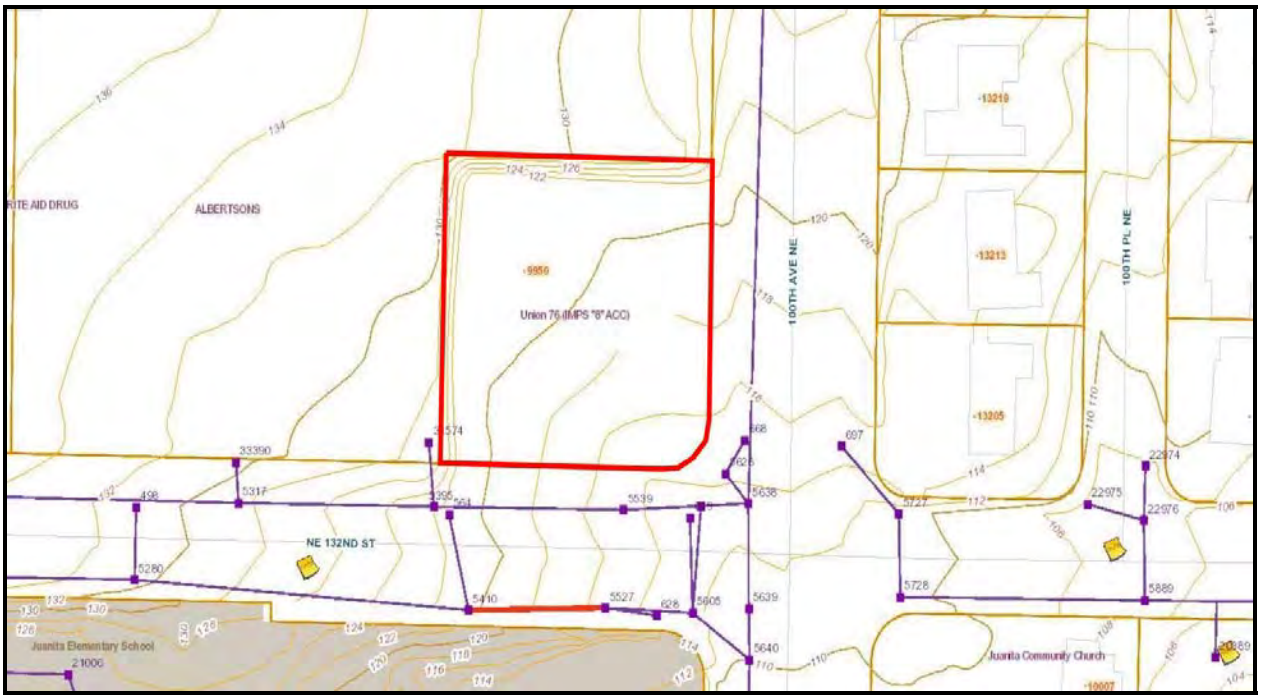
May 2013 Portion of King County Assessor's Map with May 2013 Aerial Image

Site 21 Summary

Parcel numbers and area based on King County Assessor data

Parcel Number	Area
1926059157	0.58 acres
Total Area	0.58 acres

EXISTING TOPOGRAPHY



Portion of City of Kirkland GIS Map

The existing site 21 topography relief has approximately 15 feet of elevation change from the high elevation of 130 feet at the Northwest parcel property corner to the low point elevation of 115 feet at the Southeast parcel corner at the intersection of 100th Ave NE and NE 132nd St. The site generally slopes northwest to southeast. Most of the grade change on the subject site occurs at the existing rockery walls located along the west and north property lines.

SITE PHOTOS

Site 21 facing Northwest from the intersection of NE 132nd St and 100th Ave NE

Site 21 facing West from 100th Ave NE

SITE PHOTOS

Site 21 facing Southeast from the North property line above the rockery

Site 21 facing Northwest looking through site towards the existing rockery at the North and West property lines

SITE ACCESS

The entrance to site 21 is along the north side of NE 132nd St and the west side of 100th Ave NE. Both streets are classified as Principal Arterial roadways. Frontage improvements most likely will be required and will be determined during City of Kirkland Pre-Application Submittal.

Site 21 is anticipated to be required to provide the following frontage improvements to 100th Ave NE and NE 132nd St:

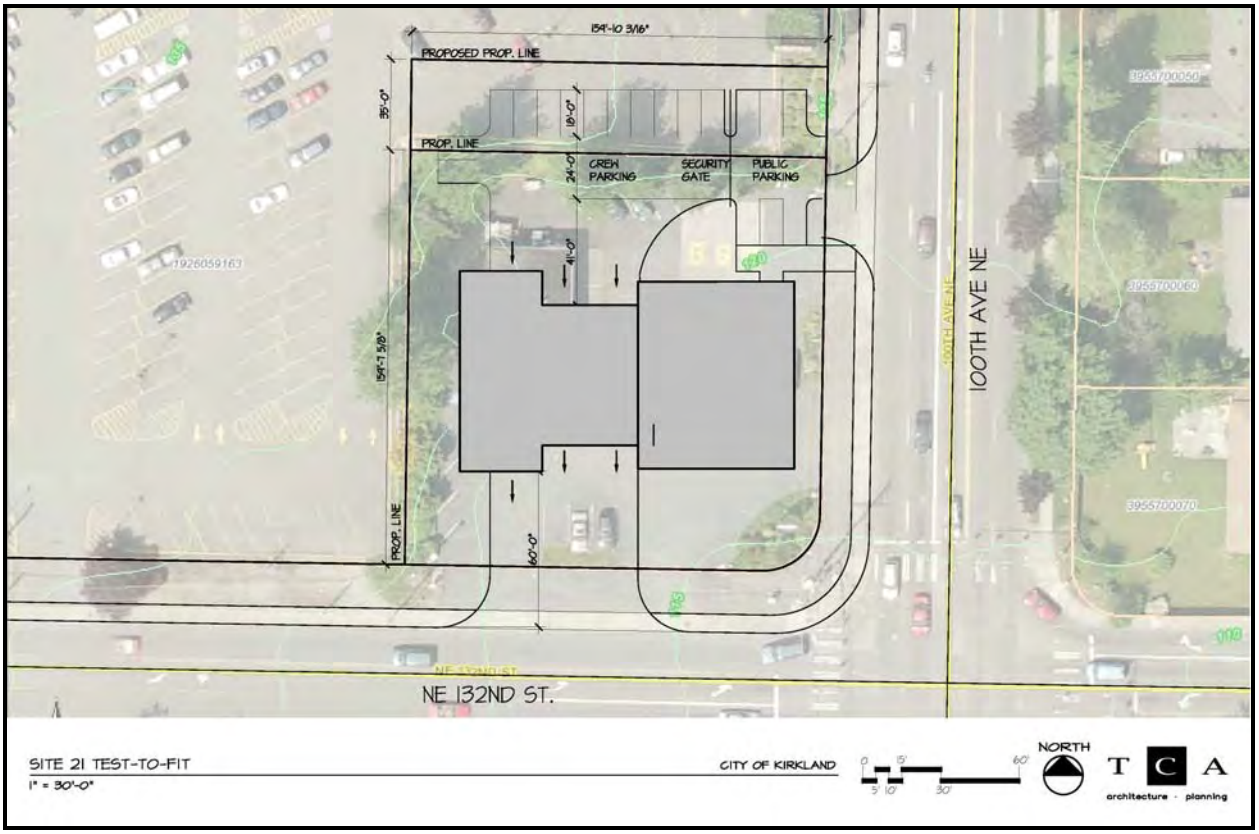
- New curb, gutter, sidewalk, and planter strip.
- Potential roadway widening and bus pullout and/or half street roadway improvements may be required (TBD at future City of Kirkland Pre-Application Submittal).
- New curb, gutter, sidewalk, and planter strip, street trees and street lighting.

The above improvement information is provided courtesy of City of Kirkland Public Works.

Site 21 entry from 100th Ave NE (facing South)

Site 21 entry from 100th Ave NE (facing South)

SITE TEST TO FIT



Site 21 Test to Fit Site Plan

This potential station site is located east of the Finn Hill study area and is based on the Standard of Coverage Study "Dual Station Model." Per the Standard of Coverage Study, this location provides improved service to Finn Hill and the city as a whole if Fire Station 25 is maintained and staffed.

The site can accommodate a new fire station if additional property were acquired to the north. This site sits in a previously excavated corner location and as a result, significant cut and retaining would need to occur to accommodate the facility in a northern direction given the adjacent uses (retail - currently vacant) neighborhood impacts would be minimal.

Land Status:
The site was the former location of a service station location and is expected to have some level of contamination. Site testing is necessary to understand the extent of mitigation required to make this a useable parcel.

Traffic Analysis/Transportation Review – Site 21 (by Transpo Group)	
LOCATION	NW corner of 100th Ave NE / NE 132nd St intersection
CONNECTIVITY & CIRCULATION	• Located at intersection of two arterials. • Arterial traffic and adjacent signalized intersection limits connectivity. • Proximity to arterial intersection likely requires right-in/ right-out access on 100th Ave NE; no northbound left-turns into the site. This would limit inbound access for returning fire trucks.
SIGHT DISTANCE	• Good sight distance along 84th Ave NE & NE 132nd St.
FIRE SIGNAL NEED/FEASIBILITY	• Fire signal is feasible but would be challenging to implement. • Would require additional emergency preemption integration with adjacent traffic signal.
TRAFFIC OPERATIONS	• Poor traffic operations at adjacent intersection during peak commute periods. • Queues regularly form on NE 132nd Street that would regularly block the driveway during peak and off-peak periods. • Fire signal and intersection signal preemption could mitigate blocking queues. • Intersection signal preemption could result in worsened congestion at adjacent signalized intersection.

SITE 22 (DUAL STATION MODEL)

DESCRIPTION AND CHARACTERISTICS

Site 22 is located at the southeast corner of 100th Ave NE and NE 132nd St. The site includes two parcels which contain two existing structures. The site slopes from the NW corner of the site to the SE corner of the site. 100th Ave NE and NE 132nd St are public roadways that include an asphalt paving, sidewalks, underground utilities, and storm water conveyance.

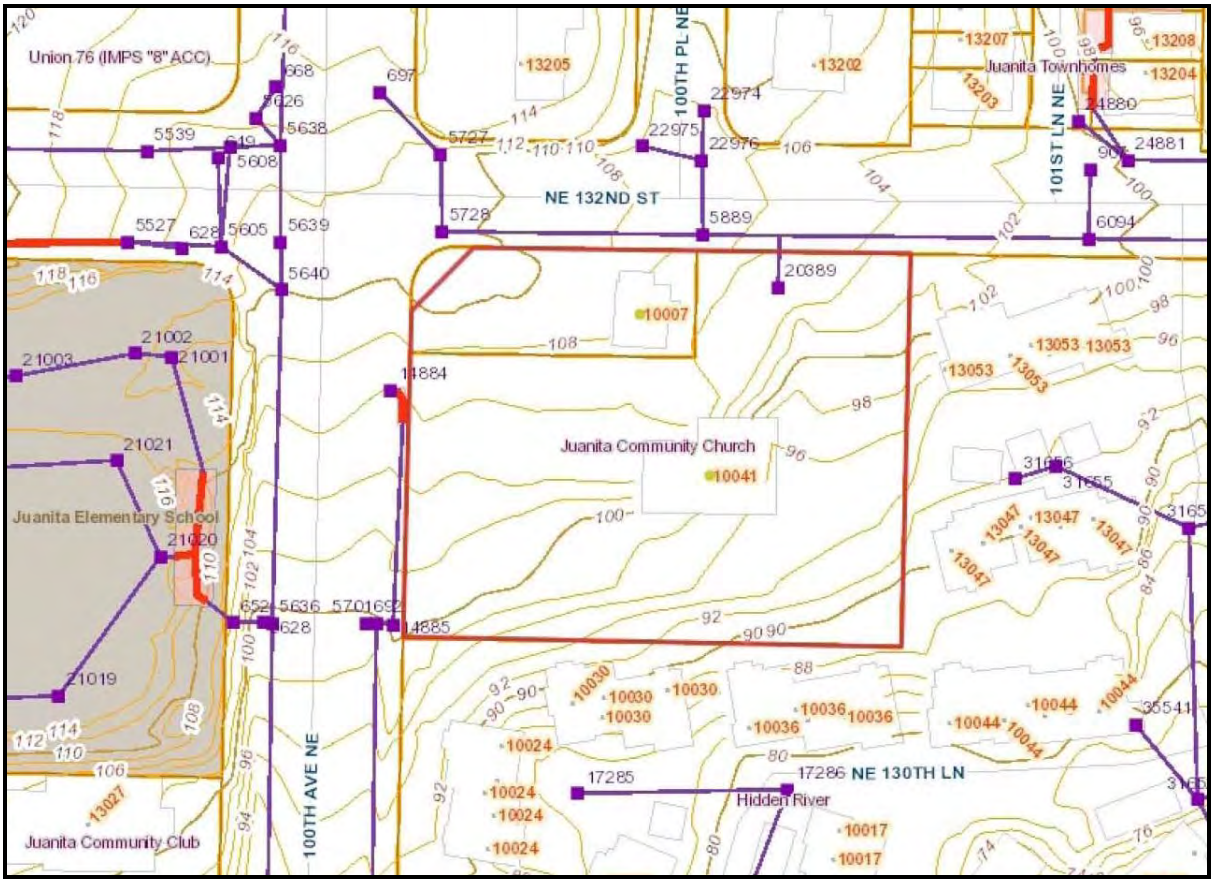
May 2013 Portion of King County Assessor's Map with May 2013 Aerial

Site 22 Summary

Parcel numbers and area based on King County Assessor data

Parcel Number	Area
2926059157	1.19 acres
2926059013	0.21 acres
Total Area	1.40 acres

EXISTING TOPOGRAPHY



Portion of City of Kirkland GIS Map

The existing site 22 topography relief has approximately 20 feet of elevation change from the high elevation of 110 feet at the Northwest parcel property corner (intersection of 100th Ave NE and NE 132nd St) to the low point elevation of 90 feet at the Southeast parcel corner. The site generally slopes northwest to southeast. Most of the grade change on the subject site occurs at edge of existing pavement and south side of existing structure.

SITE PHOTOS

Site 22 facing Southwest from the intersection of NE 132nd St and 100th Ave NE

Site 22 facing Southeast from NE 132nd St looking at existing church structure

SITE PHOTOS

Site 22 facing West from the Northeast property corner looking at existing accessory structure

Site 22 entrance from 100th Ave NE facing East looking at existing church structure

SITE ACCESS

The entrances to site 22 occur along the south side of NE 132nd St and the east side of 100th Ave NE. Both streets are classified as Principal Arterial roadways. Frontage improvements most likely will be required and will be determined during City of Kirkland Pre-Application Submittal.

Site 22 is anticipated to be required to provide the following frontage improvements to 100th Ave NE and NE 132nd St:

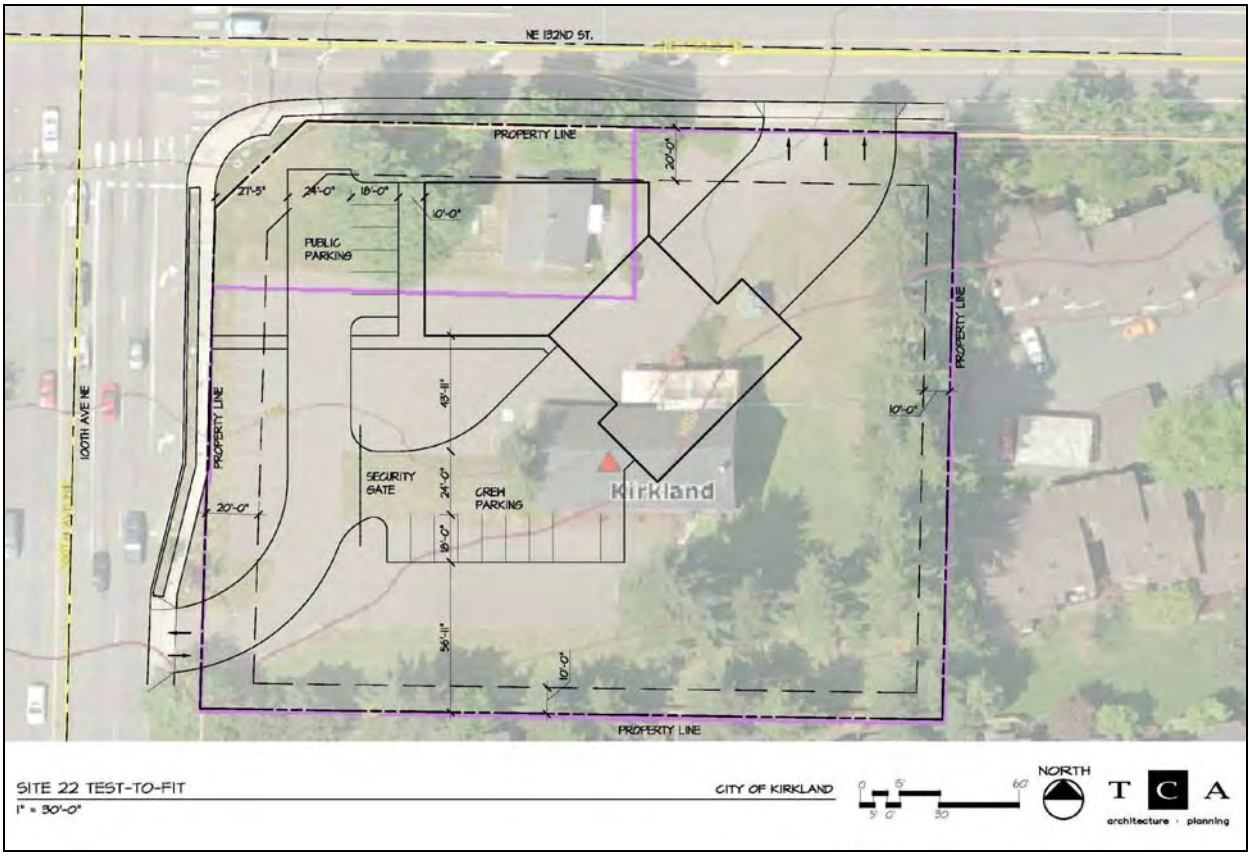
- New curb, gutter, sidewalk, and planter strip, street trees and street lighting.
- Potential roadway widening and bus pullout and/or half street roadway improvements may be required (TBD at future City of Kirkland Pre-Application Submittal).

The above improvement information is provided courtesy of City of Kirkland Public Works.

Site 22 entry from NE 132st (facing west)

Site 22 entry from 100th Ave NE (facing North)

SITE TEST TO FIT



Site 22 Test to Fit Site Plan

This potential site is located east of the Finn Hill study area and is based on the Standard of Coverage Study "Dual Station Model." Per the Standard of Coverage Study this location provides improved service to Finn Hill and the city as a whole if Fire Station 25 is maintained and staffed.

The site can accommodate a new fire station however due to site grades and ingress/egress points as result of turn lanes and intersection proximity the station would need to be two story with site access points to the southwest and northeast. In order to minimize on-site retaining and additional cost the bays would be skewed to provide drive through access and a clear response to points of ingress/egress.

Land status:

- The current location of a church would required the purchase of two parcels and the potential relocation of the church.

Traffic Analysis/Transportation Review – Site 22 (by Transpo Group)	
LOCATION	SE corner of 100th Ave NE / NE 132nd St intersection
CONNECTIVITY & CIRCULATION	• Located at intersection of two arterials. • Arterial traffic and adjacent signalized intersection limits connectivity. • Proximity to arterial intersection likely requires right-in/ right-out access on 100th Ave NE; no northbound left-turns into the site. This would limit inbound access for returning fire trucks.
SIGHT DISTANCE	• Good sight distance along 100th Ave NE & NE 132nd St.
FIRE SIGNAL NEED/FEASIBILITY	• Fire signal is feasible but would be challenging to implement. • Would require additional emergency preemption integration with adjacent traffic signal.
TRAFFIC OPERATIONS	• Poor traffic operations at adjacent intersection during peak commute periods. • Queues regularly form on NE 132nd Street that would regularly block the driveway during peak and off-peak periods. • Fire signal and intersection signal preemption could mitigate blocking queues. • Intersection signal preemption could result in worsened congestion at adjacent signalized intersection.

Stormwater Thresholds / Requirements (All Sites)

Kirkland adopted the 2009 King County Surface Water Design Manual (KCSWDM) effective January 1, 2010. For Kirkland specific items, Public Works Pre-Approved Plans, and City of Kirkland Addendum to the 2009 KCSWDM (Public Works Policy D-10) will apply to this project.

Stormwater requirements depend on the level of drainage review. Kirkland has four types of drainage reviews.

A Stormwater Technical Information Report, also called a Drainage Report, is required for most projects:

- Full Project TIR

FLOW CONTROL REQUIREMENTS

There are two levels of flow control used in Kirkland; basic flow control (level 1) and conservation flow control (level 2). The level is determined by the project site location and its proximity to sensitive areas. When determining detention volumes, projects in level 1 areas can use existing site conditions for pre-developed modeling but projects in level 2 areas must use historic "forested" conditions for pre-developed modeling.

WATER QUALITY TREATMENT REQUIREMENTS

There are two levels of water quality treatment required in Kirkland:

- Basic water quality treatment (removal of suspended solids)
- Enhanced basic water quality treatment (removal of metals like zinc in addition to removal of suspended solids).

Single family residential subdivisions of any size with at least 5,000ft^2 pollution generating impervious surface are required to implement basic water quality treatment.

Industrial, commercial, and multi-family projects one acre or greater are required to use Enhanced basic water quality treatment if they create or replace 5,000ft^2 pollution generating impervious **surface area.** Unless it can be shown as not feasible, industrial, commercial, and multi-family projects smaller than one acre should also use Enhanced basic water quality treatment.

Utility and Service Providers – All Sites

The proposed sites are served by a number of different utility providers from various public and private entities. Utility and service providers serving the site are summarized in the table below.

UTILITY SERVICE PROVIDERS

Utility or Service	Provider
Sanitary Sewer	Northshore Utility District
Water	Northshore Utility District
Storm Drainage	City of Kirkland
Electric Power	Puget Sound Energy
Natural Gas	Puget Sound Energy
Telecommunications	Qwest and Comcast
Solid Waste	Waste Management North Sound

SANITARY SEWER

Sanitary sewer service is available to all subject sites and is provided by Northshore Utility District by way of existing public sewer mains located within the public right of way.

WATER

Water service is available to all subject sites and is provided by Northshore Utility District by way of existing public water mains located within the public right of way.

The City of Kirkland provides drinking water purchased from Seattle Public Utilities (SPU) through Cascade Water Alliance, an association of regional water districts and cities. The water typically comes from the South Fork Tolt River Watershed in the Cascade Mountains. SPU performs most of the sampling and treatment for Kirkland's drinking water; however, the Kirkland Water Division operates and maintains the City's water infrastructure. Water is managed through the Northshore Utility District. Water is available through existing mains located in the adjacent street right of way.

ELECTRIC POWER

Electric power service is provided by PSE and is available within the adjacent street frontage to each property. Existing overhead power will be allowed to remain, i.e. overhead power will NOT be required to be converted to an underground system.

NATURAL GAS

Natural gas service is provided by PSE and is available within the adjacent street frontage to each property.

SOLID WASTE

Waste Management North Sound provides solid waste service within the service area of the proposed sites within this report. Kirkland Environmental Services is a division of the City of Kirkland's Public Works Department and focuses on pollution prevention, surface water management, and recycling and waste reduction for Kirkland residents.

Geologic Review

AESI has completed a geologic literature review for each of the fire station sites based upon review of the published geologic mapping and available past subsurface explorations. The published geologic and soils literature reviewed during this phase of our study includes the following:

Geologic Map of the Kirkland Quadrangle, Washington, by James Minard
(U.S. Geological Survey MF-1543, scale 1:24,000, 1983)

Geologic Map of the City of Kirkland, Washington, by Troost and Wisher (2010)

"Geotechnical Report – Lambson Property," Terra Associates, Inc.
(Terra Associates), February 8, 1999

"Soils Investigation for Parcels A, B, C1, C2, C3, C4, C5, D,"
Cascade Geotechnical, August 8, 1988

"Northeast 132nd Street Road Widening Project,"
King County Division of Roads and Engineering (King County), May 23, 1990

Review of the regional geologic map titled Geologic Map of the Kirkland Quadrangle, Washington (J.P. Minard, 1983) indicates that the area of Sites 11, 12, and 20 is underlain by Vashon lodgement till (Qvt), and the area of Site 21 is underlain by Vashon recessional outwash (Qvr). Review of the regional geologic map titled Geologic Map of the City of Kirkland, Washington, by Troost and Wisher (2010) indicates that Site 21, which lies across 132nd Street from the coverage of the map, is likely underlain by Vashon recessional lacustrine (Qvrl) deposits. Presented below is a brief discussion of each soil type and ground water conditions likely to be encountered at the potential fire station sites. A discussion of geologic hazards and construction impacts to development of each fire station site is presented in a subsequent section.

FILL SOILS

Fill soils (those not naturally placed) are expected to be present at Sites 11, 12 & 20 adjacent to existing foundations, retaining walls, around buried utilities, and in landscape areas.

Fill soils are expected to be present in Site 21, as we understand that the currently vacant lot once included a gas station and that, during demolition activities, the underground storage tanks were removed and the resulting voids backfilled. As such, fill soils are expected to be deeper and more extensive on this site.

Composition and texture of fill materials will likely vary widely due to differing sources of fill material and could range from sand, gravelly sand, silty sand, silt, organic debris, and other materials. Fill soils range from low to high strength, depending primarily on the composition, and degree of compaction. Undocumented fill is generally not considered suitable for foundation support.

VASHON RECESSIONAL (LACUSTRINE) DEPOSITS

Sediments encountered in B-3 of the 1990 exploration by King County along NE 132nd Street (across the street from Site 21) generally encountered medium dense fine to medium sand with silt, consistent with the lacustrine sediments shown on published geologic maps. Based on the lacustrine deposits mapped in the area, we anticipate that silt beds may be present within the sand, as well as significant variability in the consistency, moisture content, and organic content within recessional lacustrine deposits. Undisturbed lacustrine sediments are generally suitable for support of lightly-loaded conventional foundations.

VASHON LODGEMENT TILL

Sediments encountered by the 1999 Terra Associates study near Site 20, along with sediments encountered by the 1988 Cascade Geotechnical study near Sites 11 and 12, appear to be representative of Vashon lodgement till. The Vashon lodgement till was deposited directly from basal, debris-laden glacial ice during the Vashon Stade of the Fraser Glaciation approximately 12,500 to 15,000 years ago. The high relative density of the unweathered till is due to its consolidation by the massive weight of the glacial ice from which it was deposited. Undisturbed till is generally suitable for support of light to heavily-loaded conventional foundations.

HYDROLOGY

The 1990 exploration by King County, near to Site 21 & 22, did not encounter ground water to 10.5 feet, although an increase in moisture with depth was noted. A well installed to the north of Site 21 recorded a water level at 20 feet below the ground surface.

We expect ground water seepage across much of Sites 11, 12, and 20 to be limited to interflow. Interflow occurs when surface water percolates down through the surficial weathered or higher-permeability sediments and becomes perched atop underlying, lower-permeability sediments. The

occurrence and level of ground water seepage at the site may vary in response to such factors as changes in season, precipitation, and site use.

DISCUSSION AND RECOMMENDATIONS

Our geologic review of the fire station sites indicates that two general geologic environments are present. Each geologic environment contains soil conditions that will affect site design and construction. A site-specific geotechnical analysis will be required to develop geologic hazard mitigation measures, if needed, and site construction recommendations. Presented below is a summary of geologic hazards and construction issues followed by preliminary mitigation and development recommendations.

FIRE STATION SITES 11, 12, AND 20

Our review of the regional geologic map and available past explorations in the area of Sites 11, 12, and 20 suggests that these locations are underlain by Vashon lodgment till. Due to the relatively gentle slopes found at these locations and the high relative density typically attributed to Vashon lodgment till, we expect the risk of landsliding or seismic liquefaction to be low for these sites.

The foundation bearing stratum is relatively shallow on lodgment till sites, and conventional spread footing foundations will likely be feasible for new structures. We anticipate that, due to previous construction activities, areas of existing fill may be encountered during the preparation for the proposed building, parking lot, and associated improvements. Fill thicknesses can vary significantly over short distances, particularly in the vicinity of existing foundations, buried utilities, and landscape areas. Existing fill is generally not suitable for support of new foundations, and warrants remedial preparation where it occurs below paving and similar lightly-loaded structures. We recommend site-specific exploration and analysis to confirm the presence of Vashon lodgment till, and to explore the possible depth and extent of fill material underlying the chosen site.

Vashon lodgment till typically contain substantial amounts of silt, rendering the material highly moisture-sensitive when excavated and used as fill materials. Also, due to this high silt content, along with the high in-situ density of the soil, Vashon lodgment till is typically not conducive to storm water infiltration.

FIRE STATION SITE 21 & 22

Fire Station Site 21 is interpreted to be located on Vashon recessional or recessional lacustrine outwash, as described in the referenced geologic maps. Due to the flat-lying topography found at this location, we expect the risk of landsliding to be low, and limited to the rockery-faced slopes along the north and west sides leading up to the adjacent parking area. Due to the recessional lacustrine outwash mapped in the area and the fine-grained deposits encountered nearby, we anticipate that a risk of seismic liquefaction may be present, and recommend a site-specific exploration and analysis.

The foundation bearing stratum can be relatively shallow at sites underlain be recessional deposits. However, loose or organic soils, including peat deposits, may be present within recessional outwash, particularly in lacustrine deposits. Also, the previous construction and demolition activities associated with the former gas station on Site 21 likely created a significant quantity of fill/disturbed soils.

Disturbed soil associated with underground storage tank removal from gas station sites typically extends to depths greater than 10 feet. Deep fill that is not suitably compacted and tested may require removal and replacement or deep foundations for support of new construction. Site-specific exploration and analysis would be required to determine the extent and thickness of loose or organic-laden recessional outwash deposits, as well as to evaluate the depth and condition of the existing fill.

The infiltration of storm water into Vashon recessional outwash soils has been feasible at many sites, based on AESI's previous project experience. However, based on the recessional lacustrine deposits shown on the nearby Troost and Wisher (2010) mapped area, and the silty soils described in the 1990 King County exploration, we anticipate that the underlying material may contain substantial amounts of silt, which in turn may preclude storm water infiltration. Also, should the underlying material contain significant amount of silt, it should be considered moisture-sensitive when excavated and used as fill materials.

Environmental Review

Preliminary analysis of five potential fire station sites in the City of Kirkland, Finn Hill neighborhood, publicly available wetland and stream maps were reviewed. Specifically, interactive GIS maps were viewed from the following sources: Kirkland Maps, U.S. Fish and Wildlife Service National Wetland Inventory (NWI), and King County iMAP. Each site review is summarized in the table below.

Site	Parcel Number(s)	Critical area mapped on-site?	Critical area mapped adjacent?
11	3840700460, 3840700465	No	No
12	3026059283, 3026059205	No	No
20	3026059130, 3026059189, 3026059060	No	No
21	1926059157	No	Yes
22	1926059157, 2926059013	No	Yes

Sites 21 and 22 are in close proximity to each other. These site are near Juanita Creek, a salmon-bearing stream. According to the City of Kirkland Property Information Reports, both parcels 1926059157 and 2926059013 are within 100 feet of a stream shown on GIS; but the nearest stream segments are piped and not likely to be regulated. As measured on King County iMAP, Juanita Creek is approximately 430 feet from parcel 2926059013 at its nearest point.

Please be aware, the sources referenced may not capture all stream or wetland areas on or near the subject properties. The publicly-available maps are based on broad-scale mapping efforts and they do not capture site-specific details. For example, small wetlands and tributary streams are often not mapped. Additional on-site analysis is needed to confirm these preliminary findings. In particular, the vegetation visible in the aerial photos for Site 20, appear consistent with marginal wetland vegetation. We are also aware of areas needing further investigation on and near Site 12. Once a site has been selected, additional due diligence on-site investigations should commence prior to acquisition.

APPENDIX Environmental Review- Site Maps

APPENDIX **Environmental Mapping**

City of Kirkland
Property Information Report

Date: July 22,2014

Information Provided by King County Assessor's Office
Parcel (PIN): 3840700460
Lot Size(sq.ft.): 37800
Year Built: 1934
Present Use: 2
Building Size(gross sq.ft.):
Land value: $313,000.00
Improvement value: $99,000.00
Grid: K7
Quarter Section-Section-Township-Range: NE-S25-T26-R4

Information Provided by the City of Kirkland
Site Address: 12629 84TH AVE NE
Zoning: RSA 8,Low Density Residential Neighborhood: Finn Hill
Located Within Houghton Community Council Disapproval Jurisdiction: No
Seattle City Light Easement: No
Design District:
Overlay:
Sewer District - verify that you are a current customer of: Northshore Utility District
Water District - verify that you are a current customer of: Northshore Utility Dist

Wind Exposure: B
Information Provided by the City of Kirkland regarding MAPPED Environmental Areas
Drainage Basin: Champagne Creek,Primary Basin Is this property within 125 feet of wetland shown on GIS? No Is this property within 100 feet of a stream shown on GIS? No Is this property within shoreline jurisdiction and within 250 feet of a wetland shown on GIS? No
Shoreline Environment: NA
Landslide: NA
Seismic: No
Floodplain: No
Bald Eagle Protection Area: No

The information above is from the City of Kirkland's geographic information system (GIS), which has been developed from a wide variety of sources including King County Department of Assessments property records. For the property described in this report, a site visit or more detailed technical review by city staff may reveal conditions not shown in the city GIS.

APPENDIX Environmental Mapping

City of Kirkland
Property Information Report

Date: July 22,2014

Information Provided by King County Assessor's Office
Parcel (PIN): 3840700465
Lot Size(sq.ft.): 37800
Year Built: 1976
Present Use: 2
Building Size(gross sq.ft.):
Land value: $313,000.00
Improvement value: $75,000.00
Grid: K7
Quarter Section-Section-Township-Range: NE-S25-T26-R4

Information Provided by the City of Kirkland
Site Address: 12619 84TH AVE NE
Zoning: RSA 8,Low Density Residential Neighborhood: Finn Hill
Located Within Houghton Community Council Disapproval Jurisdiction: No
Seattle City Light Easement: No
Design District:
Overlay:
Sewer District - verify that you are a current customer of: Northshore Utility District
Water District - verify that you are a current customer of: Northshore Utility Dist

Wind Exposure: B
Information Provided by the City of Kirkland regarding MAPPED Environmental Areas
Drainage Basin: Champagne Creek,Primary Basin Is this property within 125 feet of wetland shown on GIS? No Is this property within 100 feet of a stream shown on GIS? No Is this property within shoreline jurisdiction and within 250 feet of a wetland shown on GIS? No
Shoreline Environment: NA
Landslide: NA
Seismic: No
Floodplain: No
Bald Eagle Protection Area: No

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APPENDIX **Environmental Mapping**

APPENDIX **Environmental Mapping**

City of Kirkland
Property Information Report

Date: July 22,2014

Information Provided by King County Assessor's Office
Parcel (PIN): 3026059283
Lot Size(sq.ft.): 55756
Year Built: 1931
Present Use: 2
Building Size(gross sq.ft.):
Land value: $372,000.00
Improvement value: $106,000.00
Grid: K6
Quarter Section-Section-Township-Range: NW-S30-T26-R5

Information Provided by the City of Kirkland
Site Address: 8527 NE 127TH ST
Zoning: RSA 4,Low Density Residential Neighborhood: Finn Hill
Located Within Houghton Community Council Disapproval Jurisdiction: No
Seattle City Light Easement: No
Design District:
Overlay:
Sewer District - verify that you are a current customer of: Northshore Utility District
Water District - verify that you are a current customer of: Northshore Utility Dist

Wind Exposure: B
Information Provided by the City of Kirkland regarding MAPPED Environmental Areas
Drainage Basin: Champagne Creek,Primary Basin Is this property within 125 feet of wetland shown on GIS? No Is this property within 100 feet of a stream shown on GIS? No Is this property within shoreline jurisdiction and within 250 feet of a wetland shown on GIS? No
Shoreline Environment: NA
Landslide: NA
Seismic: No
Floodplain: No
Bald Eagle Protection Area: No

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APPENDIX Environmental Mapping

City of Kirkland
Property Information Report

Date: July 22,2014

Information Provided by King County Assessor's Office
Parcel (PIN): 3026059205
Lot Size(sq.ft.): 64468
Year Built:
Present Use: 159
Building Size(gross sq.ft.):
Land value: $580,200.00
Improvement value: $0.00
Grid: K6
Quarter Section-Section-Township-Range: NW-S30-T26-R5

Information Provided by the City of Kirkland
Site Address:
Zoning: RSA 4,Low Density Residential Neighborhood: Finn Hill
Located Within Houghton Community Council Disapproval Jurisdiction: No
Seattle City Light Easement: No
Design District:
Overlay:
Sewer District - verify that you are a current customer of: Northshore Utility District
Water District - verify that you are a current customer of: Northshore Utility Dist

Wind Exposure: B
Information Provided by the City of Kirkland regarding MAPPED Environmental Areas
Drainage Basin: Champagne Creek,Primary Basin Is this property within 125 feet of wetland shown on GIS? No Is this property within 100 feet of a stream shown on GIS? No Is this property within shoreline jurisdiction and within 250 feet of a wetland shown on GIS? No
Shoreline Environment: NA
Landslide: NA
Seismic: No
Floodplain: No
Bald Eagle Protection Area: No

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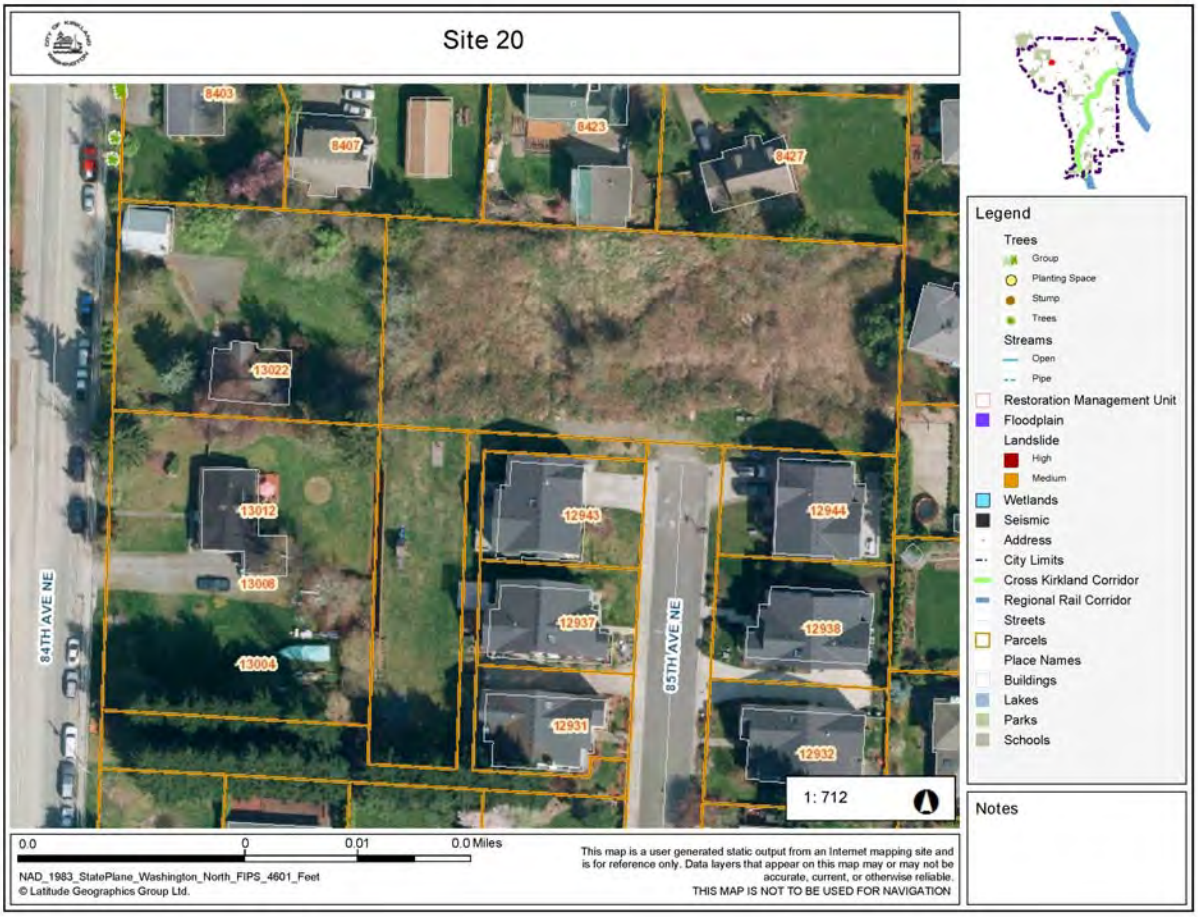
APPENDIX **Environmental Mapping**



APPENDIX Environmental Mapping

City of Kirkland
Property Information Report

Date: July 22,2014

Information Provided by King County Assessor's Office
Parcel (PIN): 3026059130
Lot Size(sq.ft.): 29810
Year Built:
Present Use: 300
Building Size(gross sq.ft.):
Land value: $300,000.00
Improvement value: $0.00
Grid: K6
Quarter Section-Section-Township-Range: NW-S30-T26-R5

Information Provided by the City of Kirkland
Site Address:
Zoning: RSA 4,Low Density Residential Neighborhood: Finn Hill
Located Within Houghton Community Council Disapproval Jurisdiction: No
Seattle City Light Easement: No
Design District:
Overlay:
Sewer District - verify that you are a current customer of: Northshore Utility District
Water District - verify that you are a current customer of: Northshore Utility Dist

Wind Exposure: B
Information Provided by the City of Kirkland regarding MAPPED Environmental Areas
Drainage Basin: Denny Creek,Primary Basin Is this property within 125 feet of wetland shown on GIS? No Is this property within 100 feet of a stream shown on GIS? No Is this property within shoreline jurisdiction and within 250 feet of a wetland shown on GIS? No
Shoreline Environment: NA
Landslide: NA
Seismic: No
Floodplain: No
Bald Eagle Protection Area: No

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APPENDIX **Environmental Mapping**

City of Kirkland
Property Information Report

Date: July 22,2014

Information Provided by King County Assessor's Office
Parcel (PIN): 3026059189
Lot Size(sq.ft.): 15400
Year Built: 1938
Present Use: 2
Building Size(gross sq.ft.):
Land value: $194,000.00
Improvement value: $31,000.00
Grid: K6
Quarter Section-Section-Township-Range: NW-S30-T26-R5

Information Provided by the City of Kirkland
Site Address: 13022 84TH AVE NE
Zoning: RSA 4,Low Density Residential Neighborhood: Finn Hill
Located Within Houghton Community Council Disapproval Jurisdiction: No
Seattle City Light Easement: No
Design District:
Overlay:
Sewer District - verify that you are a current customer of: Northshore Utility District
Water District - verify that you are a current customer of: Northshore Utility Dist

Wind Exposure: B
Information Provided by the City of Kirkland regarding MAPPED Environmental Areas
Drainage Basin: Denny Creek,Primary Basin Is this property within 125 feet of wetland shown on GIS? No Is this property within 100 feet of a stream shown on GIS? No Is this property within shoreline jurisdiction and within 250 feet of a wetland shown on GIS? No
Shoreline Environment: NA
Landslide: NA
Seismic: No
Floodplain: No
Bald Eagle Protection Area: No

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APPENDIX Environmental Mapping

City of Kirkland
Property Information Report

Date: July 22,2014

Information Provided by King County Assessor's Office
Parcel (PIN): 3026059060
Lot Size(sq.ft.): 21980
Year Built: 1955
Present Use: 2
Building Size(gross sq.ft.):
Land value: $226,000.00
Improvement value: $1,000.00
Grid: K6
Quarter Section-Section-Township-Range: NW-S30-T26-R5

Information Provided by the City of Kirkland
Site Address: 13012 84TH AVE NE
Zoning: RSA 4,Low Density Residential Neighborhood: Finn Hill
Located Within Houghton Community Council Disapproval Jurisdiction: No
Seattle City Light Easement: No
Design District:
Overlay:
Sewer District - verify that you are a current customer of: Northshore Utility District
Water District - verify that you are a current customer of: Northshore Utility Dist

Wind Exposure: B
Information Provided by the City of Kirkland regarding MAPPED Environmental Areas
Drainage Basin: Denny Creek,Primary Basin Is this property within 125 feet of wetland shown on GIS? No Is this property within 100 feet of a stream shown on GIS? No Is this property within shoreline jurisdiction and within 250 feet of a wetland shown on GIS? No
Shoreline Environment: NA
Landslide: NA
Seismic: No
Floodplain: No
Bald Eagle Protection Area: No

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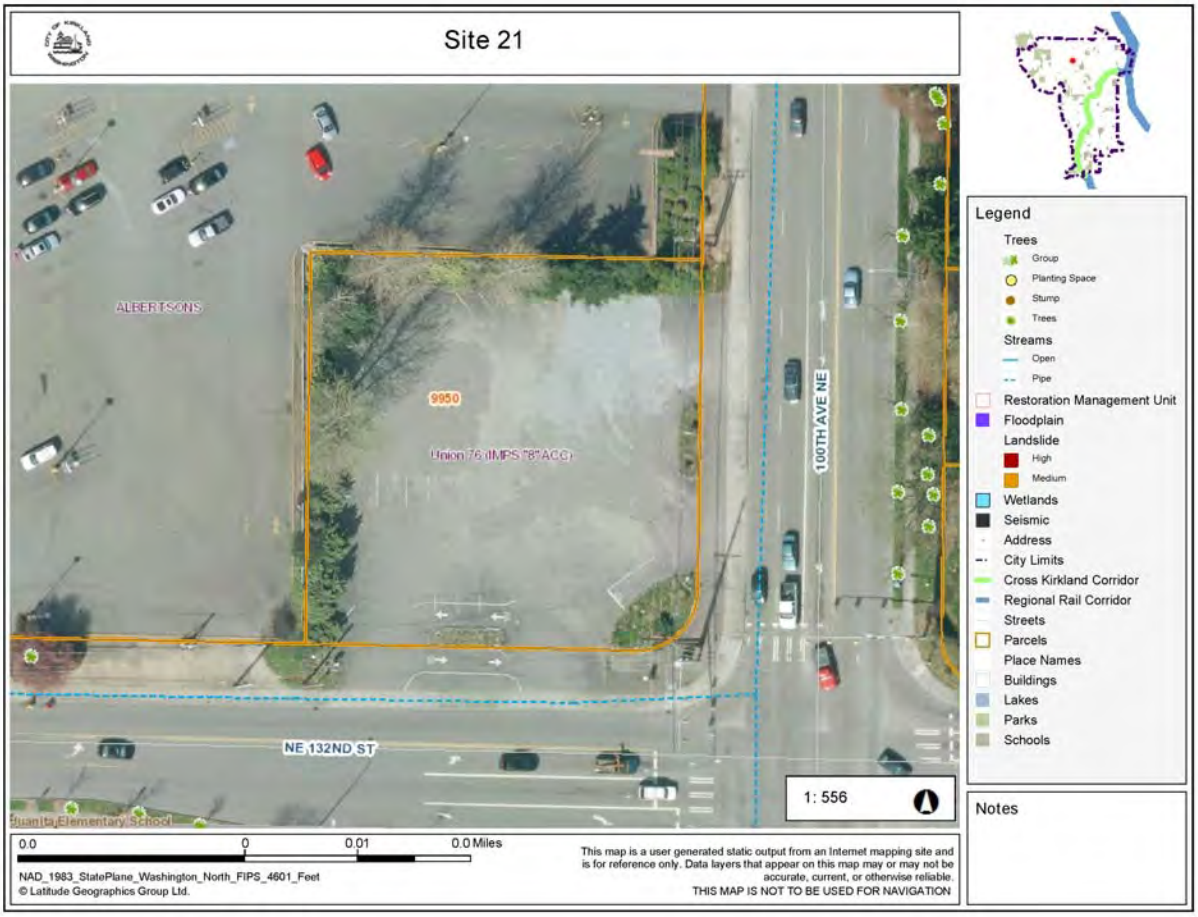
APPENDIX **Environmental Mapping**



APPENDIX Environmental Mapping

City of Kirkland
Property Information Report

Date: July 22,2014

Information Provided by King County Assessor's Office
Parcel (PIN): 1926059157
Lot Size(sq.ft.): 25466
Year Built:
Present Use: 309
Building Size(gross sq.ft.):
Land value: $636,600.00
Improvement value: $0.00
Grid: L5
Quarter Section-Section-Township-Range: SE-S19-T26-R5

Information Provided by the City of Kirkland
Site Address: 9950 NE 132ND ST
Zoning: BC 1,Commercial Neighborhood: North Juanita
Located Within Houghton Community Council Disapproval Jurisdiction: No
Seattle City Light Easement: No
Design District:
Overlay:
Sewer District - verify that you are a current customer of: Northshore Utility District
Water District - verify that you are a current customer of: Northshore Utility Dist

Wind Exposure: B
Information Provided by the City of Kirkland regarding MAPPED Environmental Areas
Drainage Basin: Juanita Creek,Primary Basin Is this property within 125 feet of wetland shown on GIS? No Is this property within 100 feet of a stream shown on GIS? Yes Is this property within shoreline jurisdiction and within 250 feet of a wetland shown on GIS? No
Shoreline Environment: NA
Landslide: NA
Seismic: No
Floodplain: No
Bald Eagle Protection Area: No

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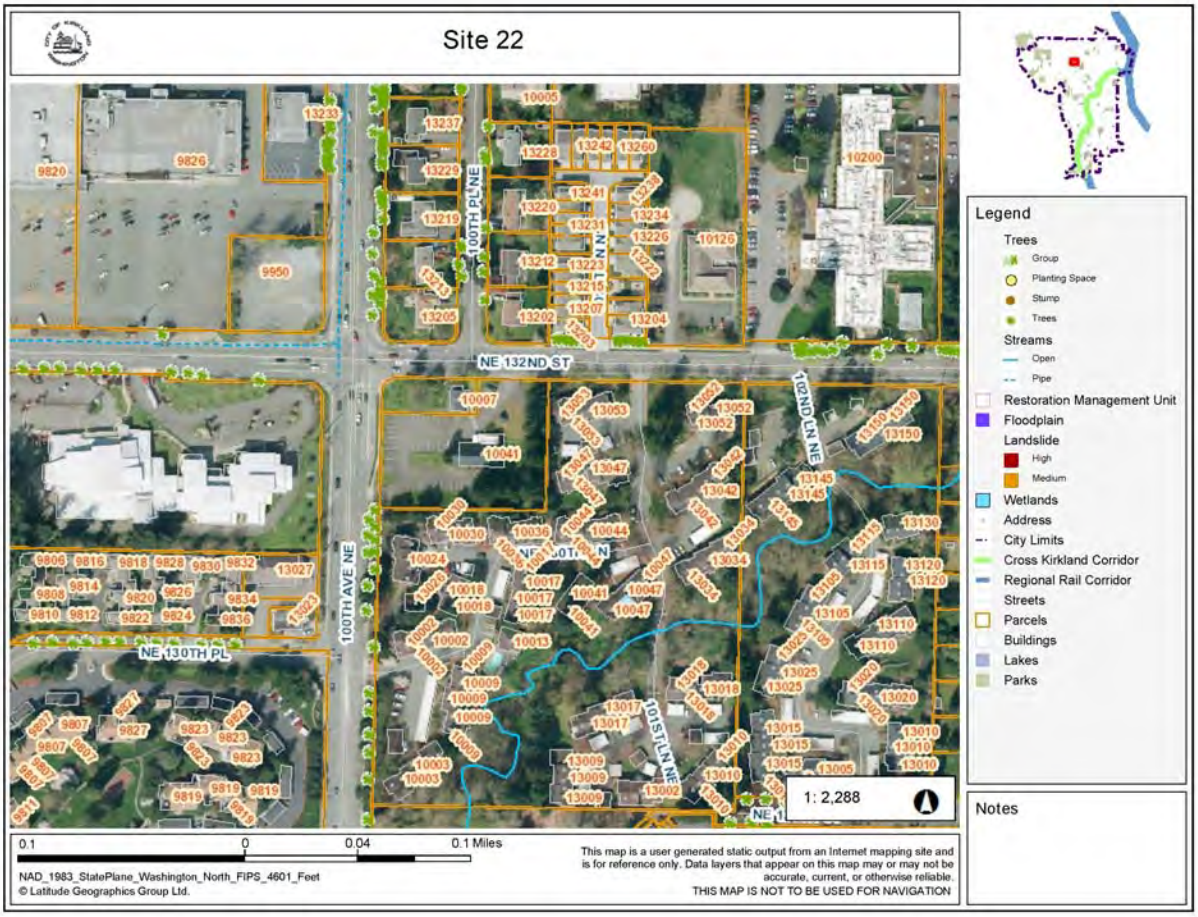
APPENDIX Environmental Mapping



APPENDIX Environmental Mapping

City of Kirkland
Property Information Report

Date: July 22,2014

Information Provided by King County Assessor's Office
Parcel (PIN): 2926059013
Lot Size(sq.ft.): 8946
Year Built: 1924
Present Use: 165
Building Size(gross sq.ft.): 800
Land value: $214,700.00
Improvement value: $52,300.00
Grid: K4
Quarter Section-Section-Township-Range: NW-S29-T26-R5

Information Provided by the City of Kirkland	
Site Address: 10007 NE 132ND ST	
Zoning: PR 3.6 (2),Office	Neighborhood: North Juanita
Located Within Houghton Community Council Disapproval Jurisdiction: No	
Seattle City Light Easement: No	
Design District:	
Overlay:	
Sewer District - verify that you are a current customer of: Northshore Utility District	
Water District - verify that you are a current customer of: Northshore Utility Dist	

Wind Exposure: B
Information Provided by the City of Kirkland regarding MAPPED Environmental Areas
Drainage Basin: Juanita Creek,Primary Basin Is this property within 125 feet of wetland shown on GIS? No Is this property within 100 feet of a stream shown on GIS? Yes Is this property within shoreline jurisdiction and within 250 feet of a wetland shown on GIS? No
Shoreline Environment: NA
Landslide: NA
Seismic: Yes
Floodplain: No
Bald Eagle Protection Area: No

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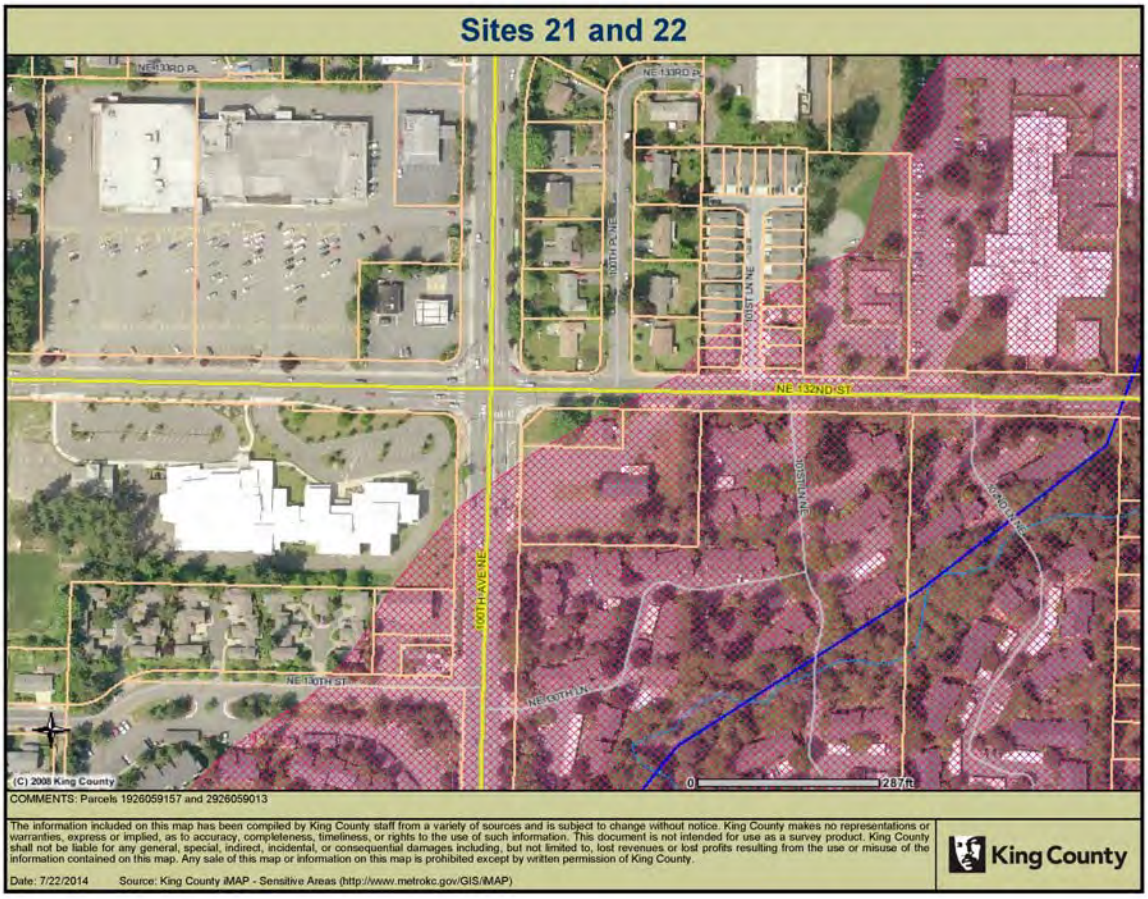
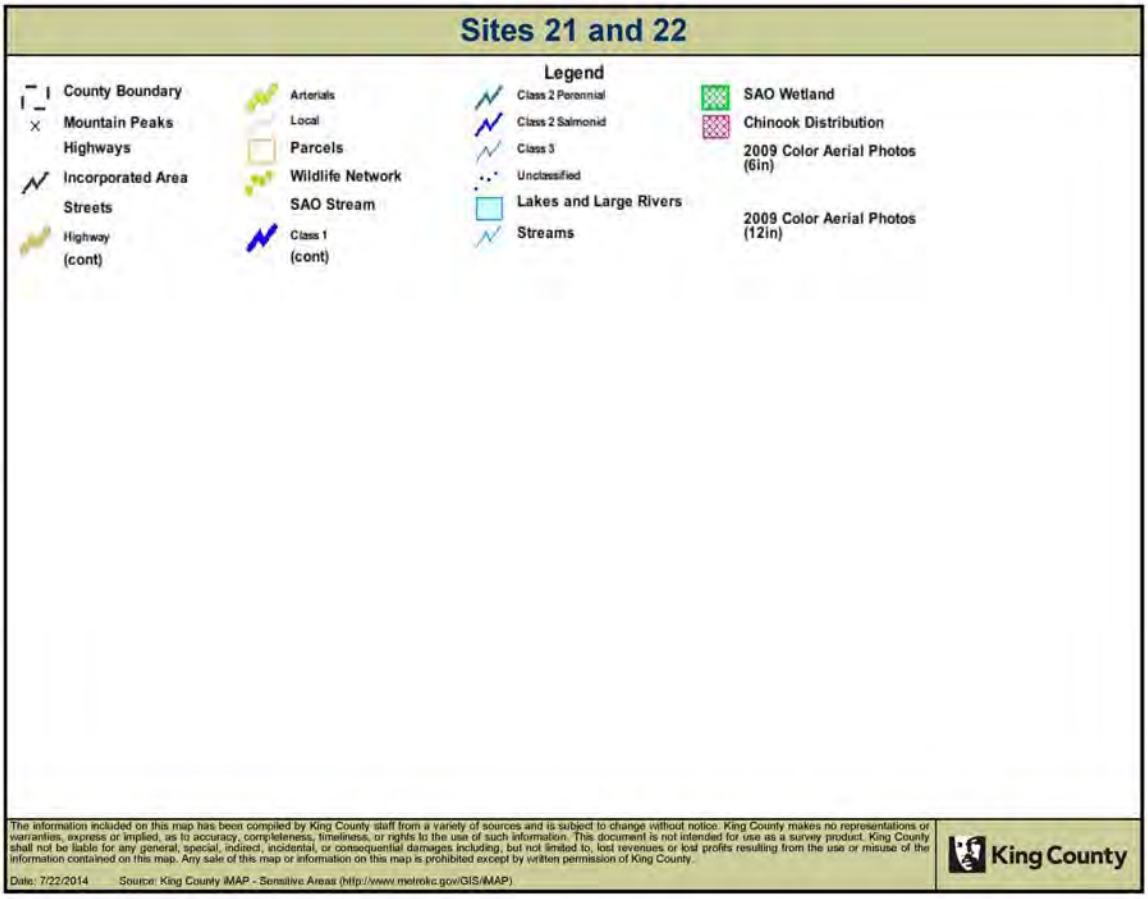
APPENDIX Environmental Mapping



APPENDIX Environmental Mapping



APPENDIX February 8, 2012 Community Outreach Meeting

Finn Hill Fire Station Siting Open House: February 8, 2012
For more information go to: www.kirklandwa.gov and search Proposed Finn Hill Fire Station

Agenda

7:00-7:30	Open House
7:30-7:35	Introductions and goals for tonight - *Marilynne Beard, Assistant City Manager*
7:35-7:45	Overview and History - *Kurt Triplett, City Manager*
	Status update on Fire Station 24
	Fire District 41 efforts
	Fire and Building Department Strategic Plan
	Finn Hill Fire Station Siting Study
7:45-7:55	Response Times and Definition of Study Area - *Kevin Nalder, Fire Chief*
	Current Station Locations
	Fire and EMS Call Concentrations
	Current Ability to Meet Response Standards
	Response Arterials
7:55-8:05	Draft Site Ranking Consideration - *Peter Folkins, New Ventures and Brian Harris, TCA*
8:05-9:00	Public input: What would make this process successful? - *Marilynne Beard, Assistant City Manager*

APPENDIX February 8, 2012 Community Outreach Meeting

Finn Hill Fire Station Siting Open House: February 8, 2012
For more information go to: www.kirklandwa.gov and search Proposed Finn Hill Fire Station

Community Feedback

Citizen comments from March 8, 2011 Community Meeting with Fire District 41 and recent stakeholder interviews and communications to the City.

Process

- Look at other sites – don't focus on just two identified by Fire District 41 (FD 41)
- Make sure the process is transparent and involves the public
- Explain the need for a Fire Station and how the community will benefit
- Explain how we can afford a new station in this economic condition
- Determine how to pay for a new station if Fire Station 24 (FS-24) and Fire Station 25 (FS-25) can't be sold in today's market
- Make clear why the City needs to do this now
- Define the study area and include regional gaps and opportunities
- Investigate including a public meeting space in any new or remodeled facility
- Ensure that the Fire and Building Strategic Plan is coordinated with this study
- Investigate partnering with Bothell and Northshore
- Explain why it is cost effective to build a new station when FS-24 and 25 are only one mile apart

Fire Station-24 Finn Hill Fire Station

- Determine if FS-24 can be upgraded to current standards and made fully operational
- Explain why FS-24 has to close if FS-25 is relocated or upgraded

Fire Station-25 Holmes Point Fire Station

- Determine if FS-25 can be upgraded to current standards
- Consider negative impacts to expensive waterfront properties if FS-25 moves north
- Investigate keeping FS-25 building as a community facility if the station relocates

Big Finn Hill Park Site

- Denny Creek Neighborhood Alliance is opposed to using any of Big Finn Hill Park for a new fire station
- There are major traffic problems with this site especially during winter conditions
- Do not take trees down to build a parking lot – preserve open spaces
- State Environmental Policy Act (SEPA) should apply if considering any of the park land
- Do not sacrifice remaining woods and wetlands in the park
- There is a cost to using park land – regardless if King County offers it for "free"

APPENDIX February 8, 2012 Community Outreach Meeting

Finn Hill Fire Station Siting Open House: February 8, 2012
For more information go to: www.kirklandwa.gov and search Proposed Finn Hill Fire Station

Draft Site Ranking Considerations

Baseline Considerations

- Target response times
- Program (facility) size

Ranking Considerations

Operations/Response

- Delivery of Service- Short & Long Term (up to 20 year planning horizon)
- Traffic Congestion
- Traffic Safety
- Pedestrian Traffic Which Could Inhibit Response (Pedestrian Safety)
- Location Relative to Increased Growth
- Street Configuration/Response Related Accessibility
- Multiple Response Ingress/Egress Points from Site
- Signalization Control
- Ability to Accommodate Drive-thru Bays

Community

- Impact on Local Amenities such as Parks
- Operational Impact (noise)
- Seismic Vulnerability
- Relocation of Existing Use

Land Use/Code

- Permissible Use
- Property Utilization
- Height Limit
- Parking Accommodation
- Allowable Area
- Allowable Impervious Surface

Environmental

- Habitat
- Wetland
- Park Land

Site

- Dimensions
- Size/ Ability to Accommodate Building Program
- Street Frontage
- Topography
- Street Slope
- Difficulty of Assemblage
- Site Orientation

Design/Construction

- Demolition Requirements
- Groundwater/Soils Issues
- Environmental Remediation Requirements

Financial

- Development Cost
- Site Acquisition Costs
- Project Timeline/Cost Escalation

APPENDIX February 8, 2012 Community Outreach Meeting

Finn Hill Fire Station Siting Open House: February 8, 2012
For more information go to: www.kirklandwa.gov and search Proposed Finn Hill Fire Station

History

King County Fire Protection District #41 (prior to June 1, 2011)

- Fire District 41 (FD 41) was responsible for providing fire and emergency medical services to the Finn Hill area.
- FD 41 contracted with the City of Kirkland Fire Department to provide fire and emergency medical services.
- Holmes Point Station #25 (FS-25) was built and financed by FD 41 in 1974.
- Finn Hill Fire Station #24 (FS-24) was built and financed by FD 41 in 1993.
- As early as 2004, FD 41 identified the need to consolidate FS-24 and FS-25.
- During its fire station siting study, FD 41 identified two possible sites:
  - Finn Hill Junior High School (studied in 2004)
  - 1.8 acre of Big Finn Hill Park (evaluated in 2010)
- FD 41 set up the following funding for a consolidated fire station:
  - cash reserves,
  - proceeds from the sale of FS-24 and FS-25
  - limited general obligation debt that FD 41 issued prior to annexation taking effect (property tax levy for Finn Hill property owners begins 2012).
- FD 41 held a community meeting on March 8, 2011.

City of Kirkland (post June 1, 2011)

- City of Kirkland signs agreement with FD 41 to transfer limited general obligation debt to City of Kirkland to pursue Fire Station Consolidation.
- Upon annexation, the governance of fire protection and emergency medical services and all assets were transferred from FD 41 to the City of Kirkland.
- In December 2011, the City hired TCA Architecture-Planning Inc. to conduct a search for potential sites for a new fire station.
- New Citywide Fire and Building Department Strategic Plan has begun and will work in tandem with the siting study.

APPENDIX February 8, 2012 Community Outreach Meeting

Finn Hill Fire Station Siting Open House: February 8, 2012
For more information go to: www.kirklandwa.gov and search Proposed Finn Hill Fire Station

Siting Process

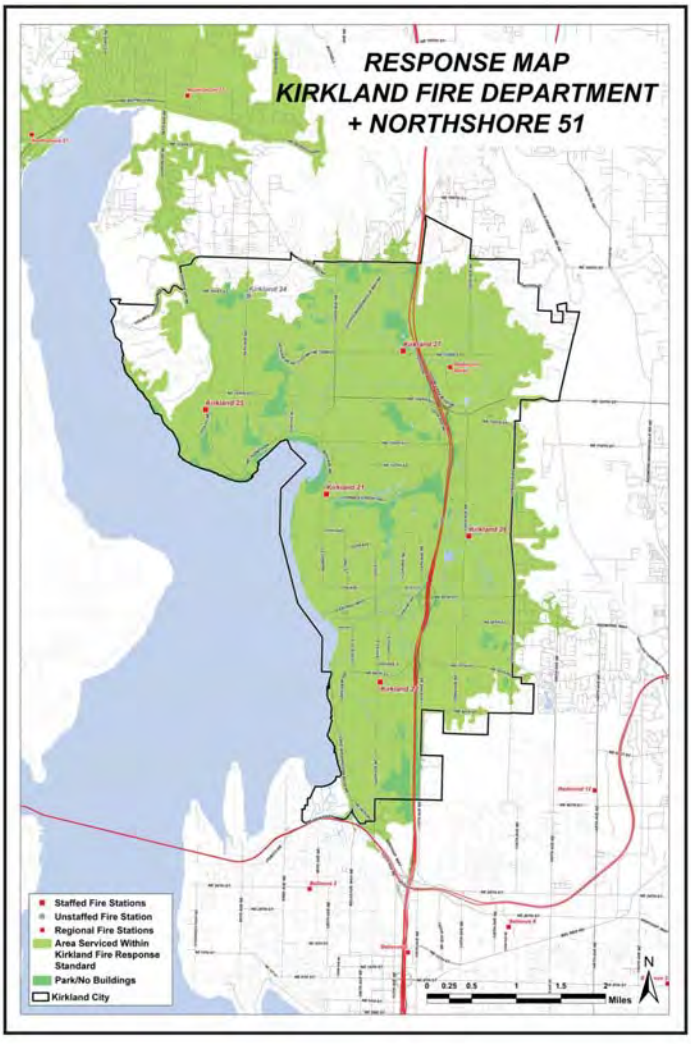
1. **Project Planning**
   - Draft ideal conceptual site plan
   - Develop site consideration and evaluation matrix
   - Develop public involvement and communication plan
   - We are here → 1st Public Involvement Opportunity (February 8, 2012)
2. **Fire and Building Department Strategic Plan**
3. **Identification of study area**
   - Define study area with associated response times working with Fire Department and results of Fire and Building Department Strategic Plan
4. **Develop and analyze list of all potential sites**
   - Develop list of all potential sites
   - Test list against detailed site evaluation considerations
5. **Develop and analyze short list of potential sites**
   - Develop short list of potential sites
   - Detailed analysis of short list of sites
   - 2nd Public Involvement Opportunity (if necessary)
6. **Develop recommendation for City Council consideration**
   - 3rd Public Involvement Opportunity
   - Present recommendation to City Council

APPENDIX **2013 DennyFest Exhibits**

Finn Hill Fire Station Siting

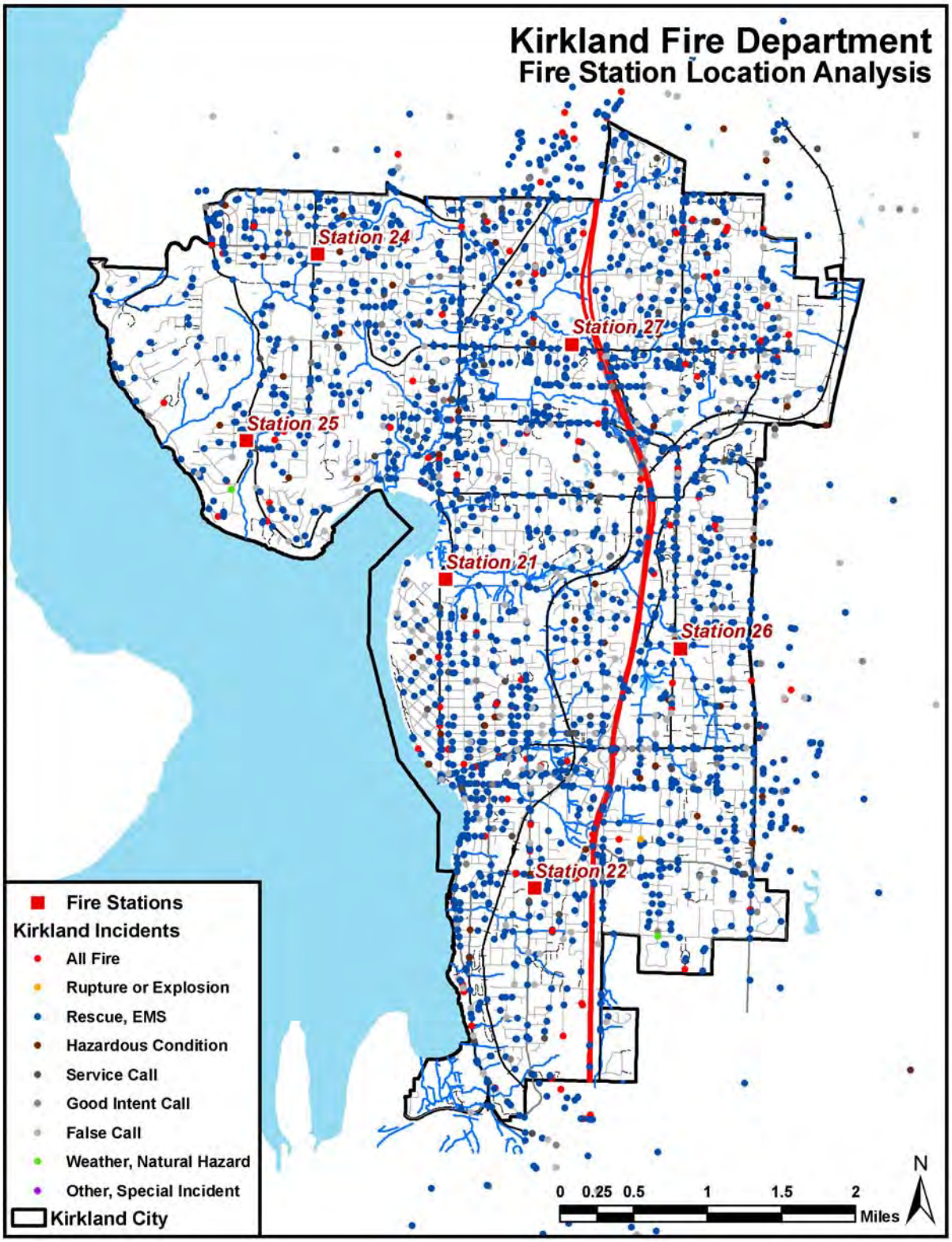
FIRE STATION NEEDS ANALYSIS

Based on Response Times



For more information visit: www.kirklandwa.gov and search "Proposed Finn Hill Fire Station"

APPENDIX **2013 DennyFest Exhibits**



APPENDIX 2013 DennyFest Exhibits

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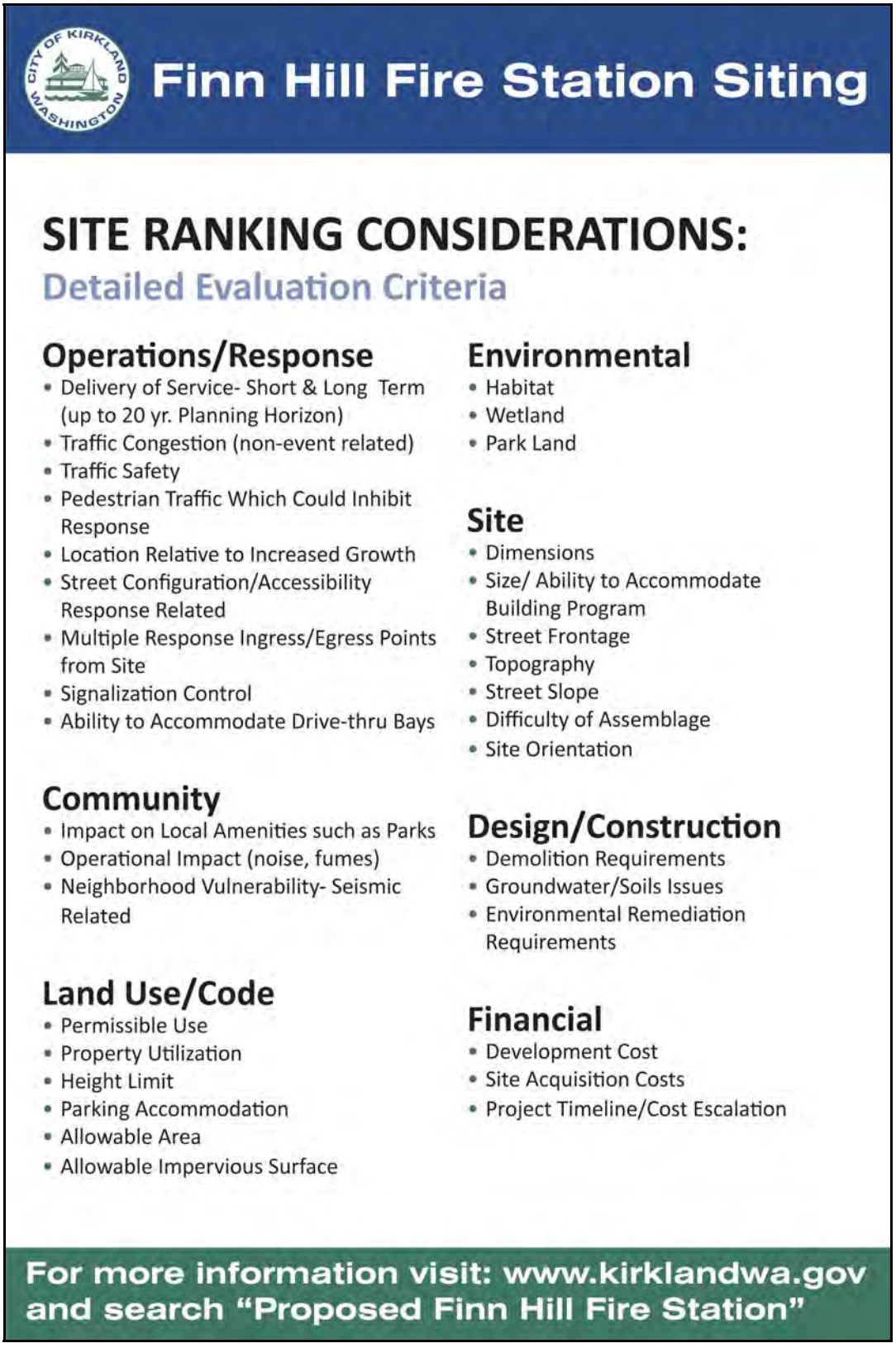


Finn Hill Fire Station Siting

SITE RANKING CONSIDERATIONS:

Detailed Evaluation Criteria

Operations/Response
- Delivery of Service- Short & Long Term (up to 20 yr. Planning Horizon)
- Traffic Congestion (non-event related)
- Traffic Safety
- Pedestrian Traffic Which Could Inhibit Response
- Location Relative to Increased Growth
- Street Configuration/Accessibility Response Related
- Multiple Response Ingress/Egress Points from Site
- Signalization Control
- Ability to Accommodate Drive-thru Bays

Community
- Impact on Local Amenities such as Parks
- Operational Impact (noise, fumes)
- Neighborhood Vulnerability- Seismic Related

Land Use/Code
- Permissible Use
- Property Utilization
- Height Limit
- Parking Accommodation
- Allowable Area
- Allowable Impervious Surface

Environmental
- Habitat
- Wetland
- Park Land

Site
- Dimensions
- Size/ Ability to Accommodate Building Program
- Street Frontage
- Topography
- Street Slope
- Difficulty of Assemblage
- Site Orientation

Design/Construction
- Demolition Requirements
- Groundwater/Soils Issues
- Environmental Remediation Requirements

Financial
- Development Cost
- Site Acquisition Costs
- Project Timeline/Cost Escalation

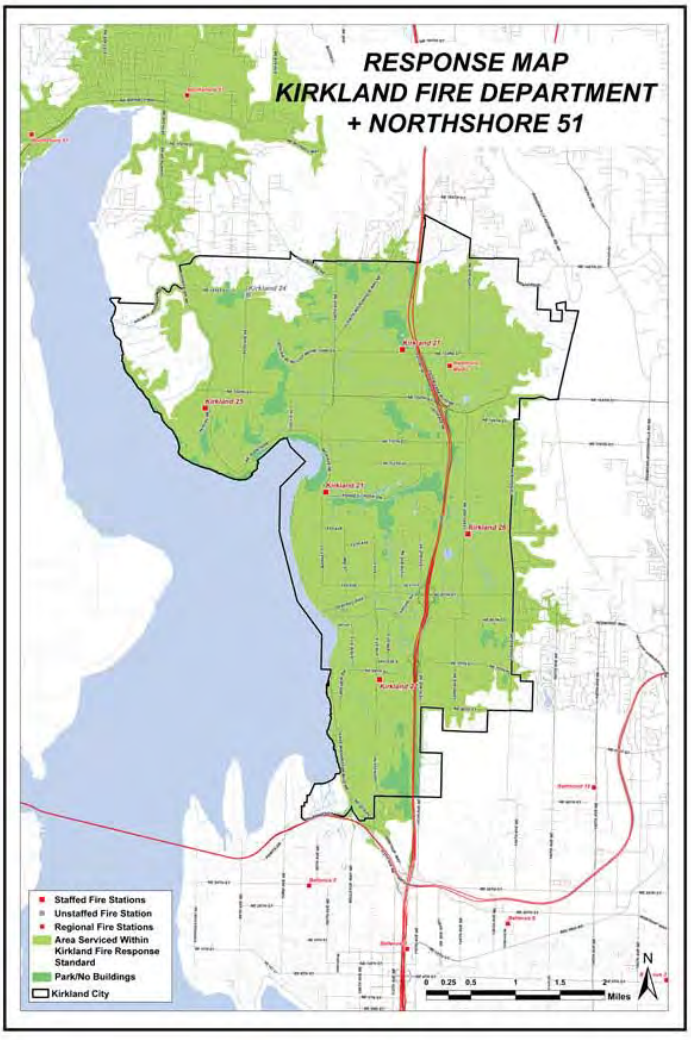
For more information visit: www.kirklandwa.gov and search "Proposed Finn Hill Fire Station"

APPENDIX **2013 DennyFest Exhibits**

Finn Hill Fire Station Siting

FIRE STATION NEEDS ANALYSIS

Based on Response Times



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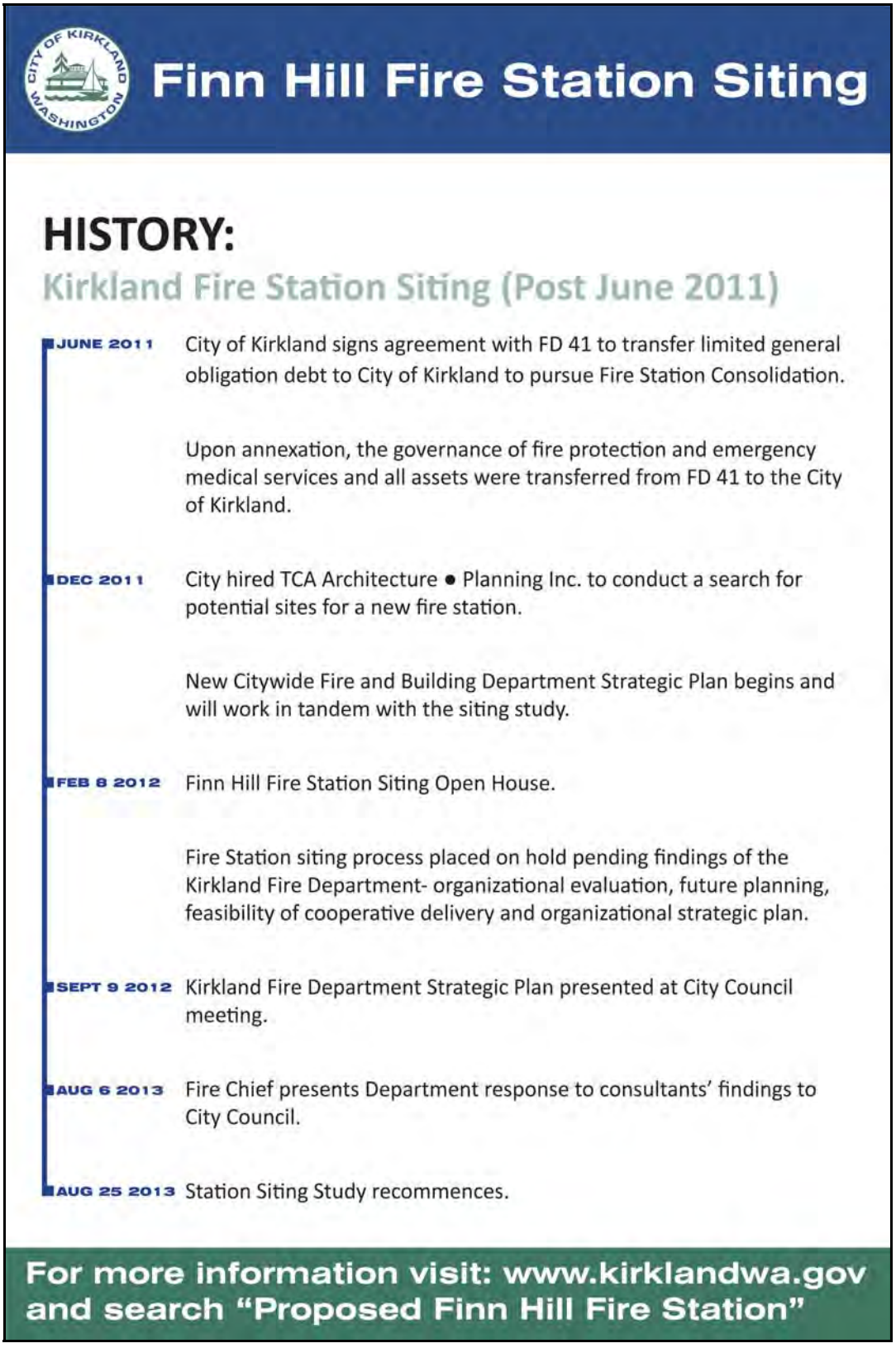
APPENDIX **2013 DennyFest Exhibits**



Finn Hill Fire Station Siting

HISTORY:

Kirkland Fire Station Siting (Post June 2011)

JUNE 2011 City of Kirkland signs agreement with FD 41 to transfer limited general obligation debt to City of Kirkland to pursue Fire Station Consolidation.

Upon annexation, the governance of fire protection and emergency medical services and all assets were transferred from FD 41 to the City of Kirkland.

DEC 2011 City hired TCA Architecture • Planning Inc. to conduct a search for potential sites for a new fire station.

New Citywide Fire and Building Department Strategic Plan begins and will work in tandem with the siting study.

FEB 8 2012 Finn Hill Fire Station Siting Open House.

Fire Station siting process placed on hold pending findings of the Kirkland Fire Department- organizational evaluation, future planning, feasibility of cooperative delivery and organizational strategic plan.

SEPT 9 2012 Kirkland Fire Department Strategic Plan presented at City Council meeting.

AUG 6 2013 Fire Chief presents Department response to consultants' findings to City Council.

AUG 25 2013 Station Siting Study recommences.

For more information visit: www.kirklandwa.gov and search "Proposed Finn Hill Fire Station"

APPENDIX **2013 DennyFest Exhibits**

Finn Hill Fire Station Siting

HISTORY:

King Co. Fire District 41 (Prior to June 1, 2011)

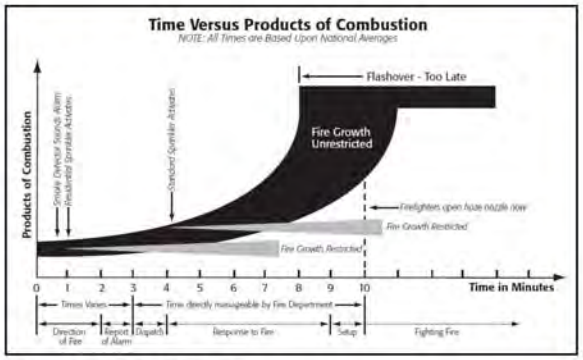
- Fire District (FD) 41 was responsible for providing fire and emergency medical services to the Finn Hill area.
- FD 41 contracted with the City of Kirkland Fire Department to provide fire and emergency medical services.
- Holmes Point Station #25 (FS-25) was built and financed by FD 41 in 1974.
- Finn Hill Fire Station #24 (FS-24) was built and financed by FD 41 in 1993.
- As early as 2004, FD 41 identified the need to consolidate FS-24 and FS-25.
- During its fire station siting study, FD 41 identified two possible sites:
  - 1.8 acre of Big Finn Park (evaluated in 2010)
  - Finn Hill Junior High (evaluated in 2004)
- FD 41 set up the following funding for a consolidated fire station:
  - cash reserves,
  - anticipated proceeds from the possible sale of FS-24 and FS-25 should they be decommissioned, and
  - limited general obligation debt that FS 41 issued prior to annexation taking effect.
- FD 41 held a community meeting on March 8, 2011

For more information visit: www.kirklandwa.gov and search "Proposed Finn Hill Fire Station"

APPENDIX **2013 DennyFest Exhibits**

Finn Hill Fire Station Siting

DID YOU KNOW?



Fire Growth

Brain death and permanent death start to occur in just 4 to 6 minutes after someone experiences cardiac arrest.

- American Heart Association

A victim's chances of survival are reduced by 7-10 % with every minute that passes without CPR and defibrillation. Few attempts at resuscitation succeed after 10 minutes.

For more information visit: www.kirklandwa.gov and search "Proposed Finn Hill Fire Station"

APPENDIX **2013 DennyFest Exhibits**

Finn Hill Fire Station Siting

DennyFest 09.08.13

QUESTIONNAIRE

1. Did you attend the Finn Hill Station Siting Open House February 8, 2012?
   - ___ YES
   - ___ NO
2. Do you understand why we are doing a Finn Hill Fire Station Siting?
   - ___ YES
   - ___ NO
3. What information can we provide you about the siting process?

4. Is siting a new fire station an important topic for you?
   - ___ VERY
   - ___ SOMEWHAT
   - ___ NOT AT ALL
   - ___ NOT ENOUGH INFORMATION
5. What concerns do you have?

6. Do you have a preference about where the new fire station will be located? Are there any locations you would suggest?

7. What issues or information would you like to be discussed or provided at the Finn Hill Neighborhood Association Meeting on October 7, 2013?

For more information visit: www.kirklandwa.gov and search "Proposed Finn Hill Fire Station"

APPENDIX Facility Space Needs Summary

City of Kirkland Satellite Fire Station
1 vs 2 Story SF Comparison
6/27/2014

TCA architecture • planning

	Space Type	Comments	Quantity	2-Story	Quantity	1-Story
1.0	CREW ADMIN AREA					
1.2	Public Lobby	Station security point	1	150	1	150
1.3	Public Restroom	ADA accessible. Directly adjacent to Lobby	1	60	1	60
1.4	Company Officer Office		1	120	1	120
1.6	Conf/Resource/Pub Mtg	Sized for 10	1	300	0	300
1.7	Firefighter Work Area	(6) work stations, file drawers for each station. Report writing, shift work, on-line training	1	250	1	250
1.8	Copy Room	Copy/workarea	1	70	1	70
				950		950
2.0	APPARATUS AREA		Quantity	2-Story	Quantity	1-Story
2.1	Apparatus Bays	Allows for side acting doors front and back	3 21'x52' 21'x77' 18'x52'	3,845	3 21'x52' 21'x77' 18'x52'	3,845
2.2	EMS Storage	EMS equipment supply and storage. Lockable meds storage	1	90	1	90
2.3	General Storage	Apparatus Equipment	1	250	1	250
2.4	Bunker Gear Storage/Drying	Bunker Gear to support staffing of 6 x 4 shifts. (space for spare/future- 30 total)	1 30 sets	324	1	324 30 sets
2.5	Custodial	Storage of cleaning equipment and supplies. Provide in laundry room	1	30	1	30
2.6	Decon/Disinfecting	Separate cleaning and disinfecting. Space to disinfect equipment and gear. separate area for cleaning structural firefighting gear	1	200	1	200
2.7	Maintenance/Work Area	Daily equipment checks, tool repair and maintenance	1	120	1	120
2.9	Compressor Room	House air compressor/ SCBA Compressor	1	120	0	120
2.10	Battery/Charging Alcove	Battery bank and counter for equipment charging	1	10	1	10
2.11	Hose Storage Alcove	3x 8 rack	1	32	1	32
2.12	Wash Alcove	Alocove in bay for apparatus/ bay wash equipment to prevent cross contamination with Decon and Station janitorial supplies	1	20	0	20
2.13	Disaster Supplies	Water, MRE, Misc supplies- replaces conex storage at typ station	1	120	0	120
				4,961		4,961
3.0	CREW AREA		Quantity	2-Story	Quantity	1-Story
3.1	Kitchen/Dining	Accommodate crew of 6	1	450	1	450
3.2	Dayroom	Accommodate crew of 6. Rehab area	1	450	1	450
3.3	Exercise Room	Area for mandated personal training	1	500	1	500
3.4	Restroom- Men/Women	Separate indivdual toilet/shower rooms	4 1 add'l @ 2nd flr	324	3 3 at 81 sf	243
3.5	Laundry/Utility		1	100	1	100
3.6	Sleeping Room	Dedicated rooms with (4) wardrobe lockers in each.	6	720	6	720
				2,544		2,463
4.0	SYSTEMS & CIRCULATION		Quantity	2-Story	Quantity	1-Story
4.1	Mechanical Room	Sized to support facility.	1	250		250
4.2	Tele/Server Room	Separate heat, cooling, humidity control. Can be in Electrical room	1	80	1	80
4.2	Elec		1	80	1	80
4.3	Elevator		1	90	0	0
4.4	Elevator equipment	Separate cooling	1	70	0	0
4.5	Stairs	2 sets	1	550	0	0
4.6	Terrace/Patio	Second floor	1	200	0	0
				1320		410

1.0	ADMINISTRATION AREA:		950		950
2.0	APPARATUS AREA;		4,961		4,961
3.0	CREW AREA:		2,544		2,463
4.0	SYSTEMS & CIRCULATION:		1320		410
	SUBTOTAL NET SQUARE FEET		9,775		8,784
	CIRCULATION/WALLS (NSF GROSSING FACTOR %)	0.22	2,151	0.22	1,932
	TOTAL GROSS SQUARE FEET		**11,926**		**10,716**

APPENDIX Site Selection Committee Exhibits - Scoring Criteria

Real Estate Development Consulting

NEW VENTURES GROUP

500 Union Street, Suite 900, Seattle, WA 98101
206/682-2699 Fax: 682-2892

Kirkland Fire Department – Finn Hill Project
Suggested Site Selection Criteria

CRITERIA	Weight %
Improved Fire & EMS Service – This is a rating of each site's centrality in the study area. The evaluation begins with a GIS study that identifies an ideal location based on response. Each site is then evaluated in terms of its proximity to the ideal location.	_____
Low Impact on Owners, Neighborhood - Preference is given to sites that have the least potential for resident dislocation. Ideally, the sites are vacant and have willing sellers. Otherwise, considerations such as renting versus owning, length of inhabitation, condition of improvements, percentage of property that is vacant, and related criteria are considered.	_____
Site Characteristics - This criterion considers physical characteristics including topography, size, configuration, street frontage, wetlands and other environmental concerns and utility availability.	_____
Neighborhood Compatibility – Like "Low Impact on Owners, Neighborhood" above, this is a measure of neighborhood impact. However, this category scores sites based on the compatibility of the facility with adjacent uses and zoning. Sites may receive improved scores where mitigation of neighborhood impacts is possible. (e.g. if the site has potential for a berm or other buffer its compatibility improves)	_____
Arterial Access, Ingress/Egress – This is a scoring of the relative efficiency and safety of the sites from a transportation standpoint. Ingress/Egress is often an important criterion for firefighters.	_____
Total	**100%**

APPENDIX Site Selection Committee Exhibits - Site Long-List

SITE #	ACRES	OWNER	ADDRESS	PHONE	ZONING	PARCEL #	NOTES
2	1.03	Desert Dogs LLC	NE 141st St		RMA 3.6	3579800549	Vacant. Considerable topo
3	1.5+/-	Presbyterian Church + Adjacent	7718 NE 141st		RSA 4	2426049077	Property east of stream and probably (including two houses. Stream setback unknown at this time. Sight lines OK
4	0.80	76th Pl NE Assembled 4 Houses	7807 NE 141st Pl		RSA 6	6599500210, 200, 220, 230	Four houses. Drive through possible with access on NE 141st Place. Sight lines OK
5	1.15+	81st Pl to 82nd Pl Assembled 6 Houses	14102 81st Pl NE		RSA 6	1112700010	Six houses assembled street to street. Sight lines OK. Close to existing station site
6	3.00	Buckner	8421 NE 142nd		RSA 6	6675500230	Large lot with a significant low wetland or lake. Would be a station / park. Close to existing station
7	1.10	Expanded Existing Station	8411 NE 141st St. Facing 84th Ave NE		RSA 6	6675500210	Three assembled houses (or fewer) Well located. Good access and topo
8	Placeholder						
9	Placeholder						
10	1.5 +/-	LW School District LDS Church	7910 132nd St and adjacent		RSA 4	2426049034	Excess school property. Not surplussed. Lease only. Considerable topo and land loss
11	1.74 +/-	Check; Walker, Stump. Large lots S of Sandburg	12637 84th Ave NE		RSA 8	3840700460	Assemble 2 houses. Large lots S of Sandburg Elementary. Reasonably flat. Kirkland land use permit posted
12	1.28 +	O'Dell - Possibly with adjacent church property	8527NE 127th St		RSA 4	3026059283	House set back behind Vianney Church's N driveway. Would require access reconfiguration. Ample land
13	0.70	Thompson	12520 84th Ave NE		RSA 8	3026059008	Lot fronting 84th in front of the S driveway to Vianney Church Possibility of additional parking behind if agreement with church
14	.86+	Roach, Richardson	8205 NE 128th St		RSA 6	3840700502, 507	House across from Sandburg Elementary with vacant lot behind. 1.7 Ac if assemble the properties east to 83rd Ct
15	6+/-	Kosalos, Van Engle	Juanita Dr N of NE 133rd Pl		RSA 4	2426049033, 9032, 9152,	Low undeveloped property east of Juanita Dr. Stream runs from the NE to SW where it enters a culvert (obscured visual observation)
16	0.75	Lees	12634 Juanita Dr		RSA 8	3840700659, 0720	Property N of Radke. Juanita Drive. Fast moving traffic. Sight lines OK
17	1.2 +	Radke	12622 Juanita Dr		RSA 8	3840700665, 0735, 0658	Various possibilities with Radke properties. Fast moving traffic. Sight lines OK
18	1.56	Sears	12831 Juanita Dr		RSA 4	3840700290	Low property below street grade. Fast moving traffic. Sight lines OK
19	3.5+/-	Radke	12432 Juanita Dr		RSA 8	3840700755, 0758, 0685	Fast moving traffic. Sight lines OK
20	1.53	Seawest Investment LLC	13022084th Ave NE		Rsa 4	3026059189, 9060, 9130	King County land use sign (old). Under contract to a developer according to realtor. Across from Sandburg Elementary
21	0.58	Supervalu	9826NE 132nd St. (Albertsons)		BC 1	192605 9157	Albertson's sub-lease for an additional 16 years. This site will require additional land. Topo is a consideration
22	1.39	Juanita Community Church	10007 NE 132nd St		PR 3.6(2)	292605 9127	Church would move if there were an equal or better alternative. Includes church office house on corner. Topo is a consideration

APPENDIX Site Selection Committee Exhibits - Site Short-list

SITE #	ACRES	OWNER	ADDRESS	ZONING	EST. VALUE	Comments
11	2.21 +/-	Check, Walker, Stump. Large lots S of Sandburg	12637 84th Ave NE	RSA 8	$ 2,800,000	Check property is cleared and 5 houses are planned. Developer is Marektomandl@gmail.com. 1.5 acres cleared. Walker property is still single-family home. Likely to sell with owner behind for another 1.5 acre development. Value assumes purchase of Check and Walker properties Check $1.6MM; Rear .47 ac $400K. Walker $800K
12	1.28 +	O'Dell - Possibly with adjacent church property on 84th	8527NE 127th St	RSA 4	$ 1,500,000	Met with Father Ramon Santa Cruz at St. John Vianney (425) 823 0787. Judy Zacarria Facilities Council (425) 823 1688. Value assumes $1.2MM for O'Dell; $300K for parcel on 84th
20	1.53	Seawest Investment LLC	13022 84th Ave NE	Rsa 4	$ 1,200,000	Solution Partners Leslie Madsen (425) 691 7567. Broker has indicated that a sale to a major builder is pending feasibility. Bill Hegger Sr and Jr. selling. Combined large lot (1.03 ac) $840K; Additional .50 ac on 84th $360K
21	0.58	Supervalu	9826 NE 132nd St	BC1	$ 1,200,000	Corner property is not on the market. Holding off until the mall is anchored. Some topography to be addressed. $25 / sf approx. 1/2+ acres additional land needed
22	1.40	Juanita Community Church	10007 NE 132nd St	PR 3.6 (2)	$ 2,000,000	Church is in the center of the site. Square footage includes house on corner (church office) Pastor indicated that the church would likely move for an equal or better alternative. Tax assessment approx. $1.8MM

APPENDIX Site Selection Committee Exhibits- Scoring Sheets

Site Selection Criteria

SITE #
South -11

Criterion	Evaluate 0.0 - 5.0	Weighting %	Overall Rating
* A. Improved Fire & EMS Service	4.1	38.67%	1.59
** B. Low Impact on Owners, Neighborhood	4.3	14.56%	0.63
*** C. Site Physical Characterisitcs	4.3	17.78%	0.76
**** D. Neighborhood Compatibility	4.1	11.78%	0.48
***** E. Arterial Access, Ingress/Egress	4.3	17.22%	0.74
		100%	**4.20**
			5 Max

Note: If any Characteristic receives a grade of "0" , the site is disqualified from consideration

LEGEND

* Improvement in terms of Response Timing; Asset Protection,
** Consideration of such factors as owner dislocation, renters vs. owners, length of habitation, condition of improvements, percentage of property that is vacant, willing sellers
*** Topography, size, geometry, utilities, wetlands, etc
**** Compatibility with adjacent uses, zoning. Mitigation possibilities
***** Relative efficiency and safety of ingress and egress. Sight lines

APPENDIX Site Selection Committee Exhibits - Scoring Sheets

Site Selection Criteria

SITE #
South -12

Criterion	Evaluate 0.0 - 5.0	Weighting %	Overall Rating
* A. Improved Fire & EMS Service	4.00	38.67%	1.55
** B. Low Impact on Owners, Neighborhood	4.50	14.56%	0.66
*** C. Site Physical Characterisitcs	4.30	17.78%	0.76
**** D. Neighborhood Compatibility	4.20	11.78%	0.49
***** E. Arterial Access, Ingress/Egress	4.50	17.22%	0.77
		100%	**4.24**
			5 Max

Note: If any Characteristic receives a grade of "0", the site is disqualified from consideration

LEGEND

* Improvement in terms of Response Timing; Asset Protection,
** Consideration of such factors as owner dislocation, renters vs. owners, length of habitation, condition of improvements, percentage of property that is vacant, willing sellers
*** Topography, size, geometry, utilities, wetlands, etc
**** Compatibility with adjacent uses, zoning. Mitigation possibilities
***** Relative efficiency and safety of ingress and egress. Sight lines

APPENDIX Site Selection Committee Exhibits- Scoring Sheets

Site Selection Criteria

SITE #
South -20

Criterion	Evaluate 0.0 - 5.0	Weighting %	Overall Rating
* A. Improved Fire & EMS Service	4.70	38.67%	1.82
** B. Low Impact on Owners, Neighborhood	4.00	14.56%	0.58
*** C. Site Physical Characterisitcs	3.00	17.78%	0.53
**** D. Neighborhood Compatibility	4.00	11.78%	0.47
***** E. Arterial Access, Ingress/Egress	4.30	17.22%	0.74
		100%	**4.14** 5 Max

Note: If any Characteristic receives a grade of "0", the site is disqualified from consideration

LEGEND
* Improvement in terms of Response Timing; Asset Protection,
** Consideration of such factors as owner dislocation, renters vs. owners, length of habitation, condition of improvements, percentage of property that is vacant, willing sellers
*** Topography, size, geometry, utilities, wetlands, etc
**** Compatibility with adjacent uses, zoning. Mitigation possibilities
***** Relative efficiency and safety of ingress and egress. Sight lines

APPENDIX Cost Estimates

THE ROBINSON COMPANY

FINN HILL FIRE STATION
CONSOLIDATED FIRE STATION
SITE ANALYSIS
JULY 22, 2014

		SITE 11		SITE 12		SITE 20		SITE 21		SITE 22	
		Unit Cost	2 Story	Unit Cost	1 Story	Unit Cost	2 Story	Unit Cost	2 Story	Unit Cost	2 Story
New Building	11926 SF	355	$ 4,233,730		$ -	355	$ 4,233,730	355	$ 4,233,730	355	$ 4,233,730
New Building	10716 SF		$ -	345	$ 3,697,020		$ -		$ -		$ -
Site Development			$ 1,975,755		$ 1,675,513		$ 1,366,099		$ 1,256,220		$ 1,475,750
Off-Site/ROW Construction			$ 54,731		$ 43,836		$ 57,790		$ 88,118		$ 56,643
TOTAL CONSTRUCTION COST			$ 6,264,217		$ 5,416,369		$ 5,657,618		$ 5,578,068		$ 5,766,123

Estimates are escalated to start of construction 6/1/2015

Exclusions:

Washington State Sales Tax
Architect Engineering Fees
Owner Consultant Fees (Geotech, Survey)
Testing and Inspection
Permits
Construction Contingency
Toxic/Hazardous Soils Remediation
Piling/Special Foundations
Land Purchase and Real Estate Fees
Financing Costs
Furnishings/Loose Equipment except as noted
Moving/Relocation Costs

1

APPENDIX Cost Estimates

PROJECT: FINN HILL FIRE STATION SITE STUDY
LOCATION: KIRKLAND, WA
ESTIMATE: 2014142
EST TYPE: FEASIBILITY STUDY

ALT # 1
SITE 11 OFF-SITE

ITEM	DESCRIPTION		QUANTITY	UNIT	UNIT COST	TOTAL
01000	STREET USE PERMITS		1	LS	2,500	2,500
02000	DEMO EXISTING FRONTAGE IMPROVEMENTS		2,530	SF	2.00	5,060
		84TH ONLY				
02300	EARTHWORK GRADING-ALLOWANCE		2,530	SFA	1.50	3,795
02630	ADJUST STORM GRATES - NO NEW STORM		1	LS	2,500	2,500
02750	CONCRETE SIDEWALKS		1,518	SF	5.50	8,349
02750	CURBS		253	LF	20.00	5,060
02900	LANDSCAPING		1,012	SF	6.50	6,578
02900	STREET TREES		10	EA	900	9,108
16000	RELOCATE OVERHEAD POWER/POLES					
		EXCLUDED				
		ALTERNATE SUBTOTAL				42,950
		MARKUP @			27.4%	11,781
		TOTAL				**54,731**

ALT # 2
SITE 12 OFF-SITE

ITEM	DESCRIPTION		QUANTITY	UNIT	UNIT COST	TOTAL
01000	STREET USE PERMITS		1	LS	2,500	2,500
02000	DEMO EXISTING FRONTAGE IMPROVEMENTS		1,960	SF	2.00	3,920
		84TH ONLY				
02300	EARTHWORK GRADING-ALLOWANCE		1,960	SFA	1.50	2,940
02630	ADJUST STORM GRATES - NO NEW STORM		1	LS	2,500	2,500
02750	CONCRETE SIDEWALKS		1,176	SF	5.50	6,468
02750	CURBS		196	LF	20.00	3,920
02900	LANDSCAPING		784	SF	6.50	5,096
02900	STREET TREES		8	EA	900	7,056
16000	RELOCATE OVERHEAD POWER/POLES					
		EXCLUDED				
		ALTERNATE SUBTOTAL				34,400
		MARKUP @			27.4%	9,436
		TOTAL				**43,836**

ALT # 3
SITE 20 OFF-SITE

ITEM	DESCRIPTION		QUANTITY	UNIT	UNIT COST	TOTAL
01000	STREET USE PERMITS		1	LS	2,500	2,500
02000	DEMO EXISTING FRONTAGE IMPROVEMENTS		2,690	SF	2.00	5,380
		84TH ONLY				
02300	EARTHWORK GRADING-ALLOWANCE		2,690	SFA	1.50	4,035
02630	ADJUST STORM GRATES - NO NEW STORM		1	LS	2,500	2,500
02750	CONCRETE SIDEWALKS		1,614	SF	5.50	8,877
02750	CURBS		269	LF	20.00	5,380
02900	LANDSCAPING		1,076	SF	6.50	6,994
02900	STREET TREES		11	EA	900	9,684
16000	RELOCATE OVERHEAD POWER/POLES					

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APPENDIX Cost Estimates

		EXCLUDED			
			ALTERNATE SUBTOTAL		45,350
			MARKUP @	27.4%	12,440
			TOTAL		**57,790**

ALT # 4
SITE 21 OFF-SITE

ITEM	DESCRIPTION		QUANTITY	UNIT	UNIT COST	TOTAL
01000	STREET USE PERMITS		1	LS	5,000	5,000
02000	DEMO EXISTING FRONTAGE IMPROVEMENTS		4,110	SF	2.00	8,220
		132ND AND 100TH				
02300	EARTHWORK GRADING-ALLOWANCE		4,110	SFA	1.50	6,165
02630	ADJUST STORM GRATES - NO NEW STORM		1	LS	2,500	2,500
02750	CONCRETE SIDEWALKS		2,466	SF	5.50	13,563
02750	CURBS		411	LF	20.00	8,220
02900	LANDSCAPING		1,644	SF	6.50	10,686
02900	STREET TREES		16	EA	900	14,796
			ALTERNATE SUBTOTAL			69,150
			MARKUP @		27.4%	18,968
			TOTAL			**88,118**

ALT # 5
SITE 22 OFF-SITE

ITEM	DESCRIPTION		QUANTITY	UNIT	UNIT COST	TOTAL
01000	STREET USE PERMITS		1	LS	2,500	2,500
02000	DEMO EXISTING FRONTAGE IMPROVEMENTS		2,630	SF	2.00	5,260
		132ND ONLY				
02300	EARTHWORK GRADING-ALLOWANCE		2,630	SFA	1.50	3,945
02630	ADJUST STORM GRATES - NO NEW STORM		1	LS	2,500	2,500
02750	CONCRETE SIDEWALKS		1,578	SF	5.50	8,679
02750	CURBS		263	LF	20.00	5,260
02900	LANDSCAPING		1,052	SF	6.50	6,838
02900	STREET TREES		11	EA	900	9,468
			ALTERNATE SUBTOTAL			44,450
			MARKUP @		27.4%	12,193
			TOTAL			**56,643**

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APPENDIX **Cost Estimates**

THE ROBINSON COMPANY

PROJECT: FINN HILL FIRE STATION SITE STUDY - SITE 11
LOCATION: KIRKLAND, WA
BLDG SF:
ESTIMATE: 2014142
EST TYPE: FEASIBILITY STUDY

DIVISION	DESCRIPTION		TOTAL	$/SF
G10	SITE PREPARATION		668,847	
G20	SITE IMPROVEMENTS		592,041	
G30	SITE CIVIL / MECHANICAL UTILITIES		134,572	
G40	SITE ELECTRICAL UTILITIES		75,000	
Z10	GENERAL REQUIREMENTS		80,000	
	ESTIMATE SUBTOTAL		**1,550,460**	
	DESIGN CONTINGENCY @	15.00%	232,569	
	SUBTOTAL		1,783,029	
	GENERAL CONTRACTOR'S OH & P @	7.50%	133,727	
	SUBTOTAL		1,916,756	
	ESCALATION TO 01-JUN-15 (3.50%/YR) @	3.08%	58,999	
	TOTAL		**1,975,755**	

EXCLUSIONS:
SEE ESTIMATE SUMMARY

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APPENDIX Cost Estimates

PROJECT: FINN HILL FIRE STATION SITE STUDY - SITE 11
LOCATION: KIRKLAND, WA
BLDG SF:
ESTIMATE: 2014142
EST TYPE: FEASIBILITY STUDY

ITEM	DESCRIPTION	QUANTITY	UNIT	UNIT COST	TOTAL	$/SF
G10	**SITE PREPARATION**					
02220	ALLOW FOR POSIBLE UNDERGROUND TANK/SOIL MITIGATION	1	LS	7,500	7,500	
02220	SITE DEMOLITION/CLEARING	76,282	SF	1.75	133,494	
02300	EARTHWORK-FILL AT SITE	18,415	CY	26.00	478,783	
02300	GRADE SITE	76,282	SF	0.25	19,071	
02370	EROSION CONTROL	1	LS	15,000	15,000	
02700	ASBESTOS ABATEMENT ALLOWANCE		SF	5.00		
	EXCLUDED					
02700	DEMO EXISTING BUILDINGS/HOUSES	1	LS	15,000	15,000	
G10	**SITE PREPARATION**			**DIVISION TOTAL**	**668,847**	
G20	**SITE IMPROVEMENTS**					
02360	LANDSCAPE/IRRIGATION	28,296	SF	6.50	183,924	
02740	APPARATUS DRIVES-IMPERVIOUS	7,200	SF	10.00	72,000	
02740	VEHICULAR PAVING/PARKING-PERVIOUS	10,467	SF	16.00	167,472	
02775	CONCRETE WALKS/PADS	1,200	SF	12.00	14,400	
02870	SITE FURNISHINGS/FENCES/GATES/RAILINGS	1	LS	15,000	15,000	
02890	STRIPPING/CURBING/SIGNAGE	17,667	SFA	0.25	4,417	
03310	CONC RETAINING WALL	2,212	SF	34.00	75,208	
03310	CONC RETAINING WALL FOOTING	316	LF	70.00	22,120	
03310	NEW DRIVE ACCESS/CURB CUTS	1,000	SF	15.00	15,000	
04220	ALLOW FOR DUMPSTER/GEN SCREENWALL/BOLLARDS	1	LS	20,000	20,000	
10170	FLAGPOLE-ALLOW	1	EA	2,500	2,500	
G20	**SITE IMPROVEMENTS**			**DIVISION TOTAL**	**592,041**	
G30	**SITE CIVIL / MECHANICAL UTILITIES**					
02510	WATER DISTRIBUTION	1	LS	50,000	50,000	
02530	SANITARY SEWER SYSTEM	1	LS	10,000	10,000	
02630	STORM DRAINAGE SYSTEM	27,117	SFA	2.75	74,572	
G30	**SITE CIVIL / MECHANICAL UTILITIES**			**DIVISION TOTAL**	**134,572**	
G40	**SITE ELECTRICAL UTILITIES**					
16230	SITE ELECTRICAL/GENERATOR	1	LS	75,000	75,000	
G40	**SITE ELECTRICAL UTILITIES**			**DIVISION TOTAL**	**75,000**	
Z10	**GENERAL REQUIREMENTS**					
01000	GENERAL CONDITIONS-PRORATED	2	MO	40,000	80,000	
Z10	**GENERAL REQUIREMENTS**			**DIVISION TOTAL**	**80,000**	
				ESTIMATE SUBTOTAL	**1,550,460**	

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APPENDIX **Cost Estimates**

THE ROBINSON COMPANY

PROJECT: FINN HILL FIRE STATION SITE STUDY - SITE 12
LOCATION: KIRKLAND, WA
BLDG SF:
ESTIMATE: 2014142
EST TYPE: FEASIBILITY STUDY

DIVISION	DESCRIPTION		TOTAL	$/SF
G10	SITE PREPARATION		243,067	
G20	SITE IMPROVEMENTS		648,522	
G30	SITE CIVIL / MECHANICAL UTILITIES		244,258	
G40	SITE ELECTRICAL UTILITIES		99,000	
Z10	GENERAL REQUIREMENTS		80,000	
	ESTIMATE SUBTOTAL		**1,314,847**	
	DESIGN CONTINGENCY @	15.00%	197,227	
	SUBTOTAL		1,512,074	
	GENERAL CONTRACTOR'S OH & P @	7.50%	113,406	
	SUBTOTAL		1,625,480	
	ESCALATION TO 01-JUN-15 (3.50%/YR) @	3.08%	50,034	
	TOTAL		**1,675,513**	

EXCLUSIONS:
SEE ESTIMATE SUMMARY

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APPENDIX Cost Estimates

PROJECT: FINN HILL FIRE STATION SITE STUDY - SITE 12
LOCATION: KIRKLAND, WA
BLDG SF:
ESTIMATE: 2014142
EST TYPE: FEASIBILITY STUDY

ITEM	DESCRIPTION	QUANTITY	UNIT	UNIT COST	TOTAL	$/SF
G10	**SITE PREPARATION**					
02220	SITE DEMOLITION/CLEARING	94,415	SF	1.75	165,226	
02300	EARTHWORK-GRADING/FILL AT SITE	1,902	CY	18.00	34,237	
	BALANCE					
02300	GRADE SITE	94,415	SF	0.25	23,604	
02370	EROSION CONTROL	1	LS	20,000	20,000	
02700	ASBESTOS ABATEMENT ALLOWANCE		SF	5.00		
	EXCLUDED					
G10	**SITE PREPARATION**			**DIVISION TOTAL**	**243,067**	
G20	**SITE IMPROVEMENTS**					
02360	LANDSCAPE/IRRIGATION	27,412	SF	6.50	178,178	
02740	APPARATUS DRIVES-IMPERVIOUS	7,579	SF	10.00	75,790	
02740	ASPHALT PAVING - CHURCH PKG LOT	32,824	SF	3.25	106,678	
	IMPERVIOUS					
02740	VEHICULAR PAVING/PARKING-PERVIOUS	13,900	SF	16.00	222,400	
02775	CONCRETE WALKS/PADS	1,200	SF	12.00	14,400	
02870	SITE FURNISHINGS/FENCES/GATES/RAILINGS	1	LS	15,000	15,000	
02890	STRIPPING/CURBING/SIGNAGE	54,303	SFA	0.25	13,576	
04220	ALLOW FOR DUMPSTER/GEN SCREENWALL/BOLLARDS	1	LS	20,000	20,000	
10170	FLAGPOLE-ALLOW	1	EA	2,500	2,500	
G20	**SITE IMPROVEMENTS**			**DIVISION TOTAL**	**648,522**	
G30	**SITE CIVIL / MECHANICAL UTILITIES**					
02510	WATER DISTRIBUTION	1	LS	50,000	50,000	
02530	SANITARY SEWER SYSTEM	1	LS	10,000	10,000	
02630	STORM DRAINAGE SYSTEM	67,003	SFA	2.75	184,258	
G30	**SITE CIVIL / MECHANICAL UTILITIES**			**DIVISION TOTAL**	**244,258**	
G40	**SITE ELECTRICAL UTILITIES**					
16230	PARKING LOT LIGHTING	4	EA	3,500	14,000	
16230	SITE ELECTRICAL/GENERATOR	1	LS	85,000	85,000	
G40	**SITE ELECTRICAL UTILITIES**			**DIVISION TOTAL**	**99,000**	
Z10	**GENERAL REQUIREMENTS**					
01000	GENERAL CONDITIONS-PRORATED	2	MO	40,000	80,000	
Z10	**GENERAL REQUIREMENTS**			**DIVISION TOTAL**	**80,000**	
				ESTIMATE SUBTOTAL	**1,314,847**	

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APPENDIX **Cost Estimates**

THE ROBINSON COMPANY

PROJECT: FINN HILL FIRE STATION SITE STUDY - SITE 20
LOCATION: KIRKLAND, WA
BLDG SF:
ESTIMATE: 2014142
EST TYPE: FEASIBILITY STUDY

DIVISION	DESCRIPTION		TOTAL	$/SF
G10	SITE PREPARATION		280,298	
G20	SITE IMPROVEMENTS		499,092	
G30	SITE CIVIL / MECHANICAL UTILITIES		137,646	
G40	SITE ELECTRICAL UTILITIES		75,000	
Z10	GENERAL REQUIREMENTS		80,000	
	ESTIMATE SUBTOTAL		**1,072,036**	
	DESIGN CONTINGENCY @	15.00%	160,805	
	SUBTOTAL		1,232,841	
	GENERAL CONTRACTOR'S OH & P @	7.50%	92,463	
	SUBTOTAL		1,325,305	
	ESCALATION TO 01-JUN-15 (3.50%/YR) @	3.08%	40,794	
	TOTAL		**1,366,099**	

EXCLUSIONS:
SEE ESTIMATE SUMMARY

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APPENDIX Cost Estimates

PROJECT: FINN HILL FIRE STATION SITE STUDY - SITE 20
LOCATION: KIRKLAND, WA
BLDG SF:
ESTIMATE: 2014142
EST TYPE: FEASIBILITY STUDY

ITEM	DESCRIPTION	QUANTITY	UNIT	UNIT COST	TOTAL	$/SF
G10	**SITE PREPARATION**					
02220	ALLOW FOR POSIBLE UNDERGROUND TANK/SOIL MITIGATION	1	LS	7,500	7,500	
02220	SITE DEMOLITION/CLEARING	55,021	SF	1.75	96,287	
02300	EARTHWORK- GRADING/FILL AT SITE	5,298	CY	26.00	137,756	
	BALANCE					
02300	GRADE SITE	55,021	SF	0.25	13,755	
02370	EROSION CONTROL	1	LS	10,000	10,000	
02700	ASBESTOS ABATEMENT ALLOWANCE		SF	5.00		
	EXCLUDED					
02700	DEMO EXISTING BUILDINGS/HOUSES	1	LS	15,000	15,000	
G10	**SITE PREPARATION**			**DIVISION TOTAL**	**280,298**	
G20	**SITE IMPROVEMENTS**					
02360	LANDSCAPE/IRRIGATION	26,786	SF	6.50	174,109	
02740	APPARATUS DRIVES-IMPERVIOUS	6,760	SF	10.00	67,600	
02740	VEHICULAR PAVING/PARKING-PERVIOUS	11,618	SF	16.00	185,888	
02775	CONCRETE WALKS/PADS	1,200	SF	12.00	14,400	
02870	SITE FURNISHINGS/FENCES/GATES/RAILINGS	1	LS	15,000	15,000	
02890	STRIPPING/CURBING/SIGNAGE	18,378	SFA	0.25	4,595	
03310	NEW DRIVE ACCESS/CURB CUTS	1,000	SF	15.00	15,000	
04220	ALLOW FOR DUMPSTER/GEN SCREENWALL/BOLLARDS	1	LS	20,000	20,000	
10170	FLAGPOLE-ALLOW	1	EA	2,500	2,500	
G20	**SITE IMPROVEMENTS**			**DIVISION TOTAL**	**499,092**	
G30	**SITE CIVIL / MECHANICAL UTILITIES**					
02510	WATER DISTRIBUTION	1	LS	50,000	50,000	
02530	SANITARY SEWER SYSTEM	1	LS	10,000	10,000	
02630	STORM DRAINAGE SYSTEM	28,235	SFA	2.75	77,646	
G30	**SITE CIVIL / MECHANICAL UTILITIES**			**DIVISION TOTAL**	**137,646**	
G40	**SITE ELECTRICAL UTILITIES**					
16230	SITE ELECTRICAL/GENERATOR	1	LS	75,000	75,000	
G40	**SITE ELECTRICAL UTILITIES**			**DIVISION TOTAL**	**75,000**	
Z10	**GENERAL REQUIREMENTS**					
01000	GENERAL CONDITIONS-PRORATED	2	MO	40,000	80,000	
Z10	**GENERAL REQUIREMENTS**			**DIVISION TOTAL**	**80,000**	
				ESTIMATE SUBTOTAL	**1,072,036**	

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APPENDIX **Cost Estimates**

THE ROBINSON COMPANY

PROJECT: FINN HILL FIRE STATION SITE STUDY - SITE 21
LOCATION: KIRKLAND, WA
BLDG SF:
ESTIMATE: 2014142
EST TYPE: FEASIBILITY STUDY

DIVISION	DESCRIPTION		TOTAL	$/SF
G10	SITE PREPARATION		236,501	
G20	SITE IMPROVEMENTS		467,436	
G30	SITE CIVIL / MECHANICAL UTILITIES		116,873	
G40	SITE ELECTRICAL UTILITIES		85,000	
Z10	GENERAL REQUIREMENTS		80,000	
	ESTIMATE SUBTOTAL		**985,810**	
	DESIGN CONTINGENCY @	15.00%	147,871	
	SUBTOTAL		1,133,681	
	GENERAL CONTRACTOR'S OH & P @	7.50%	85,026	
	SUBTOTAL		1,218,707	
	ESCALATION TO 01-JUN-15 (3.50%/YR) @	3.08%	37,513	
	TOTAL		**1,256,220**	

EXCLUSIONS:
SEE ESTIMATE SUMMARY

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APPENDIX Cost Estimates

PROJECT: FINN HILL FIRE STATION SITE STUDY - SITE 21
LOCATION: KIRKLAND, WA
BLDG SF:
ESTIMATE: 2014142
EST TYPE: FEASIBILITY STUDY

ITEM	DESCRIPTION	QUANTITY	UNIT	UNIT COST	TOTAL	$/SF
G10	**SITE PREPARATION**					
02220	SITE DEMOLITION/CLEARING	62,794	SF	1.75	109,890	
02300	EARTHWORK- GRADING/FILL AT SITE	4,187	CY	26.00	108,866	
02300	GRADE SITE	30,982	SF	0.25	7,746	
02370	EROSION CONTROL	1	LS	10,000	10,000	
02700	ASBESTOS ABATEMENT ALLOWANCE		SF	5.00		
	EXCLUDED					
G10	**SITE PREPARATION**			**DIVISION TOTAL**	**236,501**	
G20	**SITE IMPROVEMENTS**					
02360	LANDSCAPE/IRRIGATION	10,301	SF	6.50	66,957	
02740	APPARATUS DRIVES-IMPERVIOUS	5,037	SF	10.00	50,370	
02740	VEHICULAR PAVING/PARKING-PERVIOUS	6,144	SF	16.00	98,304	
02775	CONCRETE WALKS/PADS	600	SF	12.00	7,200	
02870	SITE FURNISHINGS/FENCES/GATES/RAILINGS	1	LS	15,000	15,000	
02890	STRIPPING/CURBING/SIGNAGE	11,181	SFA	0.25	2,795	
03310	CONC RETAINING WALL	4,260	SF	34.00	144,840	
03310	CONC RETAINING WALL FOOTING	355	LF	70.00	24,850	
03310	NEW DRIVE ACCESS/CURB CUTS	1,808	SF	15.00	27,120	
04220	ALLOW FOR DUMPSTER/GEN SCREENWALL/BOLLARDS	1	LS	20,000	20,000	
04220	SIDEWALK/STEPS AT GRADE CHANGES	1	LS	7,500	7,500	
10170	FLAGPOLE-ALLOW	1	EA	2,500	2,500	
G20	**SITE IMPROVEMENTS**			**DIVISION TOTAL**	**467,436**	
G30	**SITE CIVIL / MECHANICAL UTILITIES**					
02510	WATER DISTRIBUTION	1	LS	50,000	50,000	
02530	SANITARY SEWER SYSTEM	1	LS	10,000	10,000	
02630	STORM DRAINAGE SYSTEM	20,681	SFA	2.75	56,873	
G30	**SITE CIVIL / MECHANICAL UTILITIES**			**DIVISION TOTAL**	**116,873**	
G40	**SITE ELECTRICAL UTILITIES**					
16230	MODIFY/ADD ALTERING TO STREET SIGNAL	1	LS	10,000	10,000	
	ALLOWANCE					
16230	OERHEAD POWER RELOCATION					
	EXCLUDED					
16230	SITE ELECTRICAL/GENERATOR	1	LS	75,000	75,000	
G40	**SITE ELECTRICAL UTILITIES**			**DIVISION TOTAL**	**85,000**	
Z10	**GENERAL REQUIREMENTS**					
01000	GENERAL CONDITIONS-PRORATED	2	MO	40,000	80,000	
Z10	**GENERAL REQUIREMENTS**			**DIVISION TOTAL**	**80,000**	

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APPENDIX Cost Estimates

ITEM	DESCRIPTION	QUANTITY	UNIT	UNIT COST	TOTAL	$/SF
				ESTIMATE SUBTOTAL	985,810	

APPENDIX **Cost Estimates**

THE ROBINSON COMPANY

PROJECT: FINN HILL FIRE STATION SITE STUDY - SITE 22
LOCATION: KIRKLAND, WA
BLDG SF:
ESTIMATE: 2014142
EST TYPE: FEASIBILITY STUDY

DIVISION	DESCRIPTION		TOTAL	$/SF
G10	SITE PREPARATION		325,306	
G20	SITE IMPROVEMENTS		534,651	
G30	SITE CIVIL / MECHANICAL UTILITIES		133,128	
G40	SITE ELECTRICAL UTILITIES		85,000	
Z10	GENERAL REQUIREMENTS		80,000	
	ESTIMATE SUBTOTAL		**1,158,084**	
	DESIGN CONTINGENCY @	15.00%	173,713	
	SUBTOTAL		1,331,797	
	GENERAL CONTRACTOR'S OH & P @	7.50%	99,885	
	SUBTOTAL		1,431,681	
	ESCALATION TO 01-JUN-15 (3.50%/YR) @	3.08%	44,068	
	TOTAL		**1,475,750**	

EXCLUSIONS:
SEE ESTIMATE SUMMARY

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APPENDIX Cost Estimates

PROJECT: FINN HILL FIRE STATION SITE STUDY - SITE 22
LOCATION: KIRKLAND, WA
BLDG SF:
ESTIMATE: 2014142
EST TYPE: FEASIBILITY STUDY

ITEM	DESCRIPTION	QUANTITY	UNIT	UNIT COST	TOTAL	$/SF
G10	**SITE PREPARATION**					
02220	ALLOW FOR POSIBLE UNDERGROUND TANK/SOIL MITIGATION	1	LS	7,500	7,500	
02220	SITE DEMOLITION/CLEARING	62,794	SF	1.75	109,890	
02300	EARTHWORK- GRADING/FILL AT SITE	6,047	CY	26.00	157,218	
	BALANCE					
02300	GRADE SITE	62,794	SF	0.25	15,699	
02370	EROSION CONTROL	1	LS	15,000	15,000	
02700	ASBESTOS ABATEMENT ALLOWANCE		SF	5.00		
	EXCLUDED					
02700	DEMO EXISTING BUILDINGS/HOUSES	1	LS	20,000	20,000	
G10	**SITE PREPARATION**			**DIVISION TOTAL**	**325,306**	
G20	**SITE IMPROVEMENTS**					
02360	LANDSCAPE/IRRIGATION	36,202	SF	6.50	235,313	
02740	APPARATUS DRIVES-IMPERVIOUS	6,300	SF	10.00	63,000	
02740	VEHICULAR PAVING/PARKING-PERVIOUS	10,330	SF	16.00	165,280	
02775	CONCRETE WALKS/PADS	1,200	SF	12.00	14,400	
02870	SITE FURNISHINGS/FENCES/GATES/RAILINGS	1	LS	15,000	15,000	
02890	STRIPPING/CURBING/SIGNAGE	16,630	SFA	0.25	4,158	
03310	NEW DRIVE ACCESS/CURB CUTS	1,000	SF	15.00	15,000	
04220	ALLOW FOR DUMPSTER/GEN SCREENWALL/BOLLARDS	1	LS	20,000	20,000	
10170	FLAGPOLE-ALLOW	1	EA	2,500	2,500	
G20	**SITE IMPROVEMENTS**			**DIVISION TOTAL**	**534,651**	
G30	**SITE CIVIL / MECHANICAL UTILITIES**					
02510	WATER DISTRIBUTION	1	LS	50,000	50,000	
02530	SANITARY SEWER SYSTEM	1	LS	10,000	10,000	
02630	STORM DRAINAGE SYSTEM	26,592	SFA	2.75	73,128	
G30	**SITE CIVIL / MECHANICAL UTILITIES**			**DIVISION TOTAL**	**133,128**	
G40	**SITE ELECTRICAL UTILITIES**					
16230	MODIFY/ADD ALTERING TO STREET SIGNAL	1	LS	10,000	10,000	
	ALLOWANCE					
16230	OERHEAD POWER RELOCATION					
	EXCLUDED					
16230	SITE ELECTRICAL/GENERATOR	1	LS	75,000	75,000	
G40	**SITE ELECTRICAL UTILITIES**			**DIVISION TOTAL**	**85,000**	
Z10	**GENERAL REQUIREMENTS**					
01000	GENERAL CONDITIONS-PRORATED	2	MO	40,000	80,000	
Z10	**GENERAL REQUIREMENTS**			**DIVISION TOTAL**	**80,000**	

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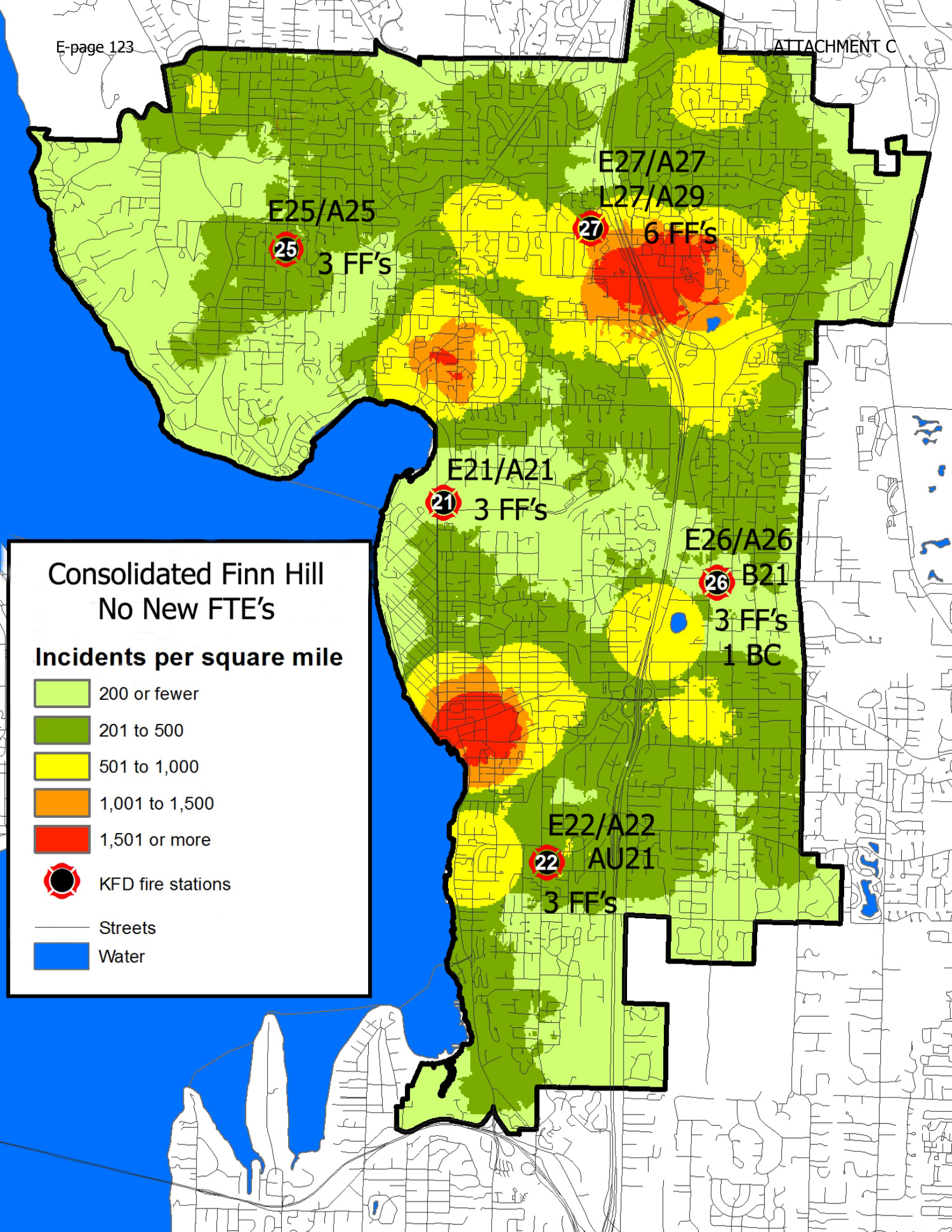
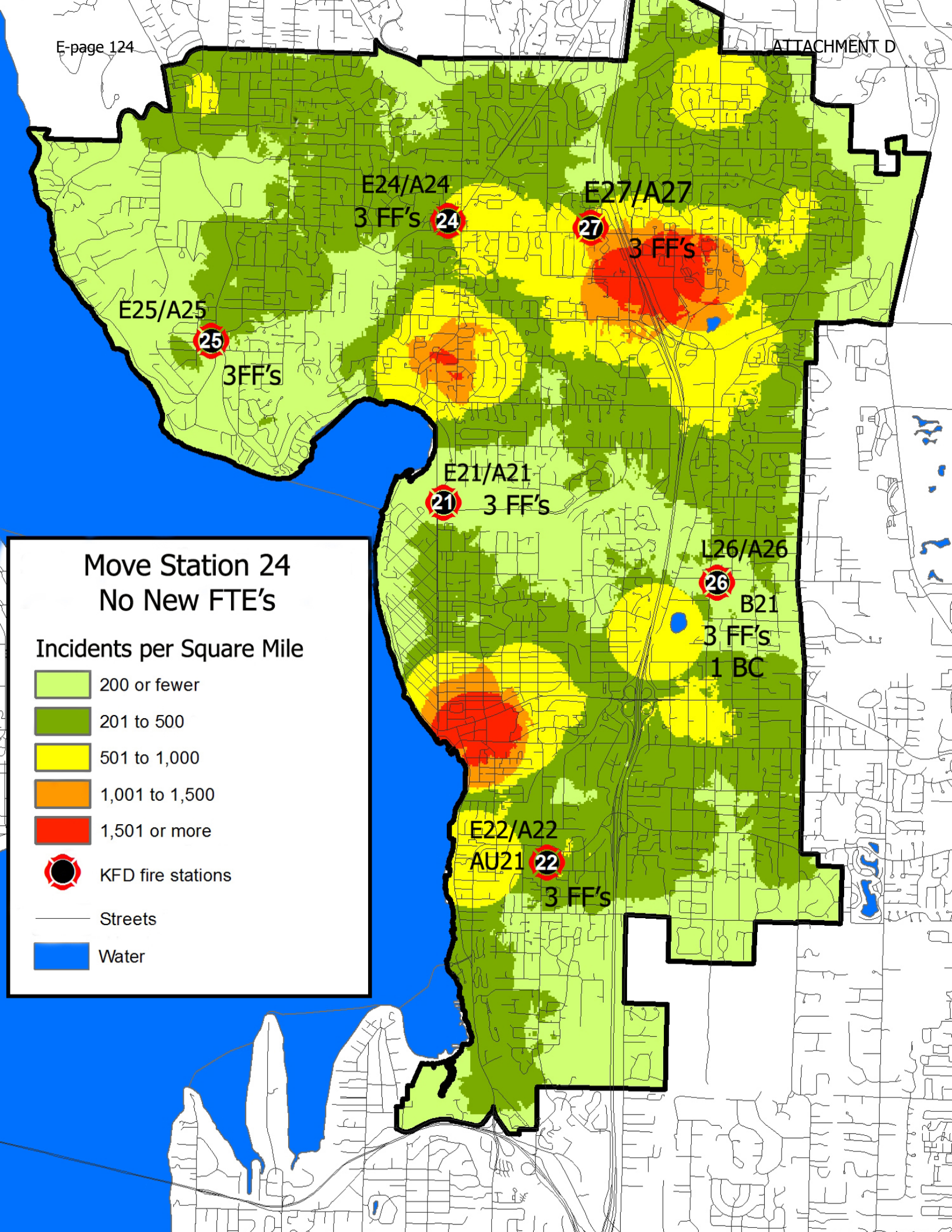
APPENDIX Cost Estimates

ITEM	DESCRIPTION	QUANTITY	UNIT	UNIT COST	TOTAL	$/SF
				ESTIMATE SUBTOTAL	1,158,084	

Current Daily Staffing	**Proposed Daily Staffing**
Station 21 – Cross Staffed	Station 21 – Cross Staffed
Engine – 3 Firefighters Aid Unit – 0	Engine – 3 Firefighters Aid Unit – 0
Station 22 – Cross Staffed	Station 22 – Cross Staffed
Engine – 3 Firefighters Aid Unit – 0 Air/Rehab/Lights Unit – 0	Engine – 3 Firefighters Aid Unit – 0 Air/Rehab/Lights Unit – 0
Station 24	Station 24 – Cross Staffed
Aid Unit – 0 2- Volunteer EMT 19:00 to 05:30	Engine – 3 Firefighters Aid Unit – 0
Station 25 – Cross Staffed	Station 25 – Cross Staffed
Engine – 3 Firefighters Aid Unit – 0 2013-2014 Temporary Staffing of 4 Firefighters	Engine – 3 Firefighters Aid Unit – 0
Station 26 – Cross Staffed	Station 26 – Cross Staffed
Engine – 3 Firefighters Aid Unit – 0 Battalion Chief – 1	Ladder Truck – 3 Firefighters Aid Unit – 0 Battalion Chief – 1
Station 27 – Cross Staffed	Station 27 – Cross Staffed
Engine – 3 Firefighters Aid Unit – 0 Ladder Truck- 3 Aid Unit – 0	Engine – 3 Firefighters Aid Unit – 0
Total 19	**Total 19**


E25/A25
25
3 FF's
E27/A27
L27/A29
27
6 FF's
E21/A21
21
3 FF's
E26/A26
26
B21
3 FF's
1 BC
E22/A22
22
AU21
3 FF's
Consolidated Finn Hill
No New FTE's
Incidents per square mile
200 or fewer
201 to 500
501 to 1,000
1,001 to 1,500
1,501 or more
KFD fire stations
Streets
Water


E24/A24
3 FF's
24
E27/A27
27
3 FF's
E25/A25
25
3FF's
E21/A21
21
3 FF's
L26/A26
26
B21
3 FF's
1 BC
E22/A22
AU21
22
3 FF's
Move Station 24
No New FTE's
Incidents per Square Mile
200 or fewer
201 to 500
501 to 1,000
1,001 to 1,500
1,501 or more
KFD fire stations
Streets
Water

CITY OF KIRKLAND
City Manager's Office
123 Fifth Avenue, Kirkland, WA 98033 425.587.3001
www.kirklandwa.gov

MEMORANDUM

To: Kurt Triplett, City Manager

From: Marilynne Beard, Assistant City Manager

Date: May 4, 2011

Subject: ANNEXATION INTERLOCAL AGREEMENTS BETWEEN THE CITY OF KIRKLAND AND KING COUNTY FIRE PROTECTION DISTRICTS

RECOMMENDATION:

Staff recommends that the City Council approves the attached resolution authorizing the City Manager to enter into an interlocal agreement with King Fire District #41 in a form substantially similar to that attached to the resolution and receive an update on the interlocal agreement with Woodinville Fire and Rescue.

BACKGROUND DISCUSSION:

The annexation of Juanita, Finn Hill and Kingsgate effective June 1, 2011 will incorporate the entirety of Fire District #41 and a portion of the Woodinville Fire and Rescue District. State law guides the process for transition of services and the transfer of assets. Separate interlocal agreements are needed to provide for the transition of services following annexation. This memo provides an update to previous staff reports.

Woodinville Fire and Rescue

The City Council adopted authorized an interlocal agreement (ILA) in November 2010 for the transfer of services and assets from the Woodinville Fire and Rescue District to the City of Kirkland. The annexation transfers about ten percent of the District's service area (based on assessed valuation) to the City of Kirkland. The adopted ILA follows the provisions of state law regarding the transfer of fire district employees and provides for negotiations between the two IAFF locals and between the City and IAFF regarding the details of the transfer. In recent months, staff had advised the City Council of a possible amendment needed to the ILA based on requests from the District and the City. Possible amendments included:

- A request from the District to change the timing of cash payments to the City,
- A request from the City for the District to compensate the City for accrued sick leave being transferred with employees as specified in the tentative agreement between the City and IAFF, and
- Clarification about the allocation of the 2011 benefit service charge revenue (City staff believe that the benefit service charge paid by the annexed properties for the second half of 2011 should be credited to the City in the same manner as property taxes are

apportioned. WFR disagrees with the City's analysis).

The District and the City were unable to reach agreement on the outstanding issues and so staff recommends that the existing ILA remain in place. The existing ILA provides for a smooth transition of fire and emergency medical services to the residents of the area. The District's employees are scheduled to transfer to City employment on May 16 and the memorandum of understanding (MOU) between IAFF and the City will need to be executed prior to the May 17 City Council meeting. The accrued sick leave negotiated in the MOU will transfer with the employees. The City will continue to pursue clarification of the proper distribution of the Benefit Service Charge revenue. No action is needed by the Council to implement this recommendation.

Fire District #41

Under state law, all assets of the District are transferred to the City of Kirkland. The City is then responsible for providing all fire and emergency medical services to the area previously served by the District. Effective June 1, the District will only exist to the extent that it needs to resolve any outstanding business matters (e.g. pay outstanding bills, prepare closing financial statements) and the Kirkland City Council becomes the District's board of commissioners for the purpose of any official action needed to dissolve the District.

The proposed interlocal agreement provides for the City to assume responsibility for several unfinished projects and programs that the District Commissioners would like to see completed. The largest project is continuation of the Fire Station Consolidation Project that will combine two existing stations into one central location on Finn Hill to improve service to a larger area. The Station Consolidation Project is being funded from District cash reserves, the anticipated proceeds from the eventual sale of the two decommissioned stations and limited general obligation debt that the District will issue prior to the annexation effective date. By completing the borrowing process prior to June 1, the District will assure that financing is in place for the Station Consolidation Project. It also allows the County Assessor to continue to levy taxes for the payment of principal and interest on the outstanding debt after the District no longer provides services. Although the City of Kirkland will be the service provider after June 1, the ability to levy taxes on behalf of the District continues until the bonds are paid off.

City staff has worked with the District staff, Commissioners, the District's Bond Counsel and the City's Bond Counsel and Financial Advisor to develop an interlocal agreement that meets both the policy and legal interests of the District and the City with regards to the transition of services and projects.

The interlocal agreement provides for:

- Agreement for the District to proceed with issuing $4,000,000 in general obligation debt for the purpose of the funding the station consolidation project in the Finn Hill area.

- Agreement that the City will use all District financial assets for the benefit of the District taxpayers to support fire and emergency medical services and payment of any outstanding liabilities of the District.

- Designation of a portion of the cash reserves to:

  - Continue firefighter reserve stipends through 2011 (up to $60,000 for the year 2011)
  - Continue funding for the District's administrative employee through 2011 (estimated cost up to $40,000)
  - Contribute towards a fire strategic and master plan (up to $70,000)

- Agreement to use any remaining assets for the Finn Hill fire station consolidation project or a Finn Hill fire station renovation project and to retire the District's debt (if the consolidation project is not determined to be necessary).

- Acknowledgement of the County Treasurer as the ex officio Treasurer for the District following June 1 with responsibility for dispersing tax revenue for the retirement of outstanding debt.

- Conditions under which the decommissioned fire stations would be sold and the proceeds applied to the Station Consolidation Project.

The District was originally considering borrowing based on an offer from Bank of America. Concern about the offered rate prompted a call for alternate offers. Bank of America provided a second offer and Capital One also prepared an offer. Capital One offered a substantially lower interest rate and will not require a financial guarantee from the City. Consequently, the City Council does not need to authorize the City Manager to execute a financial guarantee as presented in the prior staff memo.

The District Commissioners have expressed their desire that the interlocal agreement be approved by the City Council prior to their finalization of the debt issuance. The debt must be issued and proceeds deposited in the District's account at King County no later than May 31, 2011.

RESOLUTION R-4881

A RESOLUTION OF THE CITY COUNCIL OF THE CITY OF KIRKLAND APPROVING THE INTERLOCAL AGREEMENT BETWEEN THE CITY OF KIRKLAND AND KING COUNTY FIRE PROTECTION DISTRICT #41 REGARDING THE ANNEXATION OF THE JUANITA-FINN HILL-KINGSGATE AND WILD GLEN AREAS.

WHEREAS, the City of Kirkland ("City") has annexed the Juanita-Finn Hill-Kingsgate and Wild Glen areas, which will remove all of the territory served by King County Fire Protection District #41 District ("District") from its jurisdiction by operation of law as of June 1, 2011; and

WHEREAS, thereafter the City will be responsible for providing fire protection and emergency medical services for those areas and the District will be dissolved; and

WHEREAS, the District wants to ensure all District financial assets and future property taxes levied for the purpose of retiring District debt will be used solely for the purpose of providing fire and emergency medical services and facilities within the District's boundaries as they exist immediately prior to June 1, 2011 or costs attributable to the disposition of the District and retiring debt, respectively; and

WHEREAS, the parties have determined certain other matters need to be addressed and memorialized as authorized by Chapter 39.34 of the Revised Code of Washington,

NOW, THEREFORE, be it resolved by the City Council of the City of Kirkland as follows:

Section 1. The City Manager is hereby authorized and directed to execute on behalf of the City of Kirkland an interlocal agreement substantially similar to that attached as Attachment "A", which is entitled "Interlocal Agreement Between the City of Kirkland and King County Fire Protection District #41 Regarding the Annexation of District Territory by the City."

Passed by majority vote of the Kirkland City Council in open meeting this _____ day of _____, 2011.

Signed in authentication thereof this ____ day of _____, 2011.

_____
MAYOR

Attest:

_____
City Clerk

R-4881
ATTACHMENT A

INTERLOCAL AGREEMENT BETWEEN
THE CITY OF KIRKLAND
AND
KING COUNTY FIRE PROTECTION DISTRICT NO. 41
REGARDING THE ANNEXATION OF DISTRICT TERRITORY BY THE CITY

Pursuant to the Interlocal Cooperation Act, Chapter 39.34 of the Revised Code of Washington, the **City of Kirkland** ("City") and **King County Fire Protection District No. 41** ("District") do hereby enter into this Interlocal Agreement ("Agreement").

WHEREAS, the City has annexed the territory served by the District as described in the attached Exhibit "A" ("Annexation Area"), which will remove all of the territory served by the District from its jurisdiction by operation of law as of June 1, 2011; and

WHEREAS, as a result, the parties have determined certain matters need to be addressed and memorialized as authorized by Chapter 39.34 of the Revised Code of Washington;

NOW THEREFORE, in consideration of their mutual promises herein, the parties hereby agree as follows:

1. Purpose. The purpose of the Agreement is to provide for the financing and completion of certain projects and programs the District has undertaken, or with respect to which the District has engaged in substantial planning (collectively, the "Projects"), including the construction of a new fire station in the Finn Hill area of the District to replace Stations 24 and 25 which currently serve that area (the "Fire Station Consolidation Project"). This Agreement is entered into in anticipation that on June 1, 2011 ("Annexation Effective Date"), the entire territory of the District will be annexed into the City ("Annexation").

2. Projects And Programs To Be Completed. The District has undertaken or engaged in substantial planning for the following Projects which will not be completed prior to, or will continue after, the Annexation Effective Date.

a. Reserve Program Stipends. Due to budget constraints, the City eliminated stipends to volunteer firefighters in the City's reserve firefighter program from the operating budget of the joint fire and emergency medical services operated by the City and the District pursuant to their joint operating agreement. The District committed that in 2010 and 2011 it would contribute up to $60,000 per year to continue payment of the stipends to volunteer firefighters to assure continuance of the reserve program, which staffs Station 24 within the District.

b. Fire Station Consolidation Project. Since the passage of voter-approved initiatives has reduced revenues to the City and the District, the District

has undertaken planning for a new fire station in the Annexation Area, which would provide operational savings by replacing Stations 24 and 25, while providing acceptable response times to a larger portion of the District. The new station could be staffed by crews from Station 25 alone. The District developed plans for the fire station to be located on land to the west of the Finn Hill Junior High School buildings, which would be leased from Lake Washington School District ("Junior High Site"). When permit requirements unique to King County unduly increased the cost of a fire station at the Junior High Site, the District explored the feasibility of locating the fire station site on land within King County's Big Finn Hill Park at the southwest corner of Juanita Drive and Northeast 138th Place ("Park Site"). The District has determined that the fire station is technically feasible at the Park Site and has engaged in negotiations for an interlocal agreement with King County for the transfer of the Park Site in exchange for constructing and maintaining a parking lot on the Park Site to serve the park users. The District has developed a preliminary site plan and undertaken a community communication effort. The District has also updated cost estimates for a station at the Junior High Site to consider its permitting under the City's codes and current construction costs and explored locating a third site which is occupied by existing homes.

3. Issuance of Debt to Finance the Fire Station Consolidation Project. Prior to the Annexation Effective Date, the District will enter into agreements with and issue debt instruments to a financial institution of the District's choosing (the "Lender") to provide the District with approximately $4 million in funding for the District's Fire Station Consolidation Project ("Debt Proceeds"). The Debt Proceeds shall be deposited into a fund or account designated the "Fire Station Consolidation Project Account" within the District's expense fund and shall be invested in the King County Investment Pool, pending their transfer to the City for expenditure in accordance with this Agreement. Interest earned on Debt Proceeds shall be used only for the purposes that the Debt Proceeds may be used.

4. Continuation of Projects. After Annexation, the City agrees to:

a. Fire Station Consolidation Project. Take all steps necessary to complete the Fire Station Consolidation Project, including but not limited to, making the final site selection for a new fire station, acquiring or leasing land, designing the fire station and related improvements, obtaining necessary permits, constructing the station and all related improvements, commissioning the station and decommissioning and selling Stations 24 and 25, all in accordance with Exhibit B.

b. Reserve Program Stipends. Continue providing stipends to reserve firefighters through calendar year 2011.

5. Additional Commitments of the City and District.

a. The City will maintain the administrative employee provided in the 2011 Joint Operating Budget, which has been filled by Tracy Fitzgerald, through the end of calendar year 2011. The City will create a posting of an employment opportunity, consistent with current city policies and union agreement. Provided she emerges as the successful candidate, she will continue her employment as an employee of the City at a monthly salary equivalent to an existing City classification that pays no less than her current monthly salary until the earlier of December 31, 2011 or her employment is terminated by her resignation, acceptance of a different position within the City or termination by the City for cause.

b. The City will undertake and complete a Strategic and Master Plan for the Kirkland Fire Department.

6. Transfer and Use of District Assets and District Property.

a. Transfer of District Real and Personal Property. On the Annexation Effective Date, the District will convey all District real and personal property to the City by warranty deed and bills of sale, respectively, including but not limited to the three fire stations ("District Property").

b. Transfer of Cash, Investments, Tax Receivables and other District Financial Assets. On the Annexation Effective Date, the District will transfer its cash and investments held in the District's expense fund, and any other cash assets accrued through that date, including all Debt Proceeds, tax receivables and interest earnings (collectively, "District Financial Assets") to the City and shall take any and all actions necessary or convenient for the City to be able to take possession of this property.

c. Application of District Financial Assets. The City shall apply the District Financial Assets in the following order to the following purposes:

(1) District Financial Assets other than Tax Receivables and Debt Proceeds. The City shall apply amounts other than Tax Receivables and Debt Proceeds to the following purposes without regard to priority among these purposes:

(A) Payment of stipends for reserve firefighters up to a total of $60,000 in 2011, less amounts paid by the District before the Annexation Effective Date;

(B) Payment toward the cost of the Strategic and Master Plan in an amount not to exceed $70,000; and

(C) Payment of salary, benefits, and payroll taxes for Tracy Fitzgerald, so long as she remains in the administrative position within the Fire Department, provided that such payments shall not continue beyond December 31, 2011.

(D) Any other obligations of the District.

(E) Any funds remaining after payment of expenses as provided in Subsections (A) through (D) above shall be applied to payment of the District's debt and costs of the Fire Station Consolidation Project.

(2) Fire Station Consolidation Project Costs. The City shall apply all Debt Proceeds and the District Financial Assets remaining after the payments under subparagraph (1)(E), above, to the costs of the Fire Station Consolidation Project, including but not limited to, the cost of site selection, planning, land acquisition, construction drawings, permit, inspections, site clearing and preparation, and cost of construction, and as otherwise set forth in Exhibit B. Debt Proceeds remaining after all costs of the Fire Station Construction Project have been paid shall be used only for capital purposes for fire stations located within the boundaries of the District, including the purchase of fire and emergency medical aid equipment.

(3) Tax Receivables and other amounts other than Debt Proceeds. The City shall be entitled to all receivables and future receipts from *ad valorem* property taxes levied and collected by or on behalf of the District (collectively, "Tax Receivables") within the boundaries of the District as those boundaries exist immediately prior to the Annexation Effective Date (the "District Boundaries"). All Tax Receivables except for amounts collected in 2011 for operating costs shall be applied first to the timely payment of all amounts due and payable with respect to the outstanding District debt. Excess Tax Receivables shall be used to prepay outstanding District debt, including principal, interest and any prepayment penalty and other costs of such prepayment. After the outstanding District debt is fully defeased or retired, Tax Receivables and any other amounts remaining after the purposes in subsection (1) are satisfied, shall be applied to the purchase of fire and emergency medical aid equipment for fire stations located within the District Boundaries, or for fire and emergency medical services provided within the District Boundaries.

d. Use and Disposition of District Property. After completion of the new station constructed pursuant to the Fire Station Consolidation Project, (except as provided in this paragraph) the City shall sell Stations 24 and 25 and

use the net proceeds from those sales to prepay principal of and interest on the District's Fire Station Consolidation Project debt within the terms of the debt conditions and as further set forth in Exhibit B. Notwithstanding the foregoing, the City may elect to retain ownership of fire station 24 or 25, rather than selling either or both, only if the City has the fair market value of the property determined by an MAI certified appraiser and uses other funds of the City to apply to the District's debt service in an amount equal to the fair market value of the station it retains, less estimated costs of sale. In the event that the proceeds of a sale or transfer from the City as described in this paragraph exceed the amount necessary to repay the then outstanding indebtedness for the Fire Station Consolidation Project, then the City agrees to use such sale proceeds or excess funds for the purchase of fire and emergency medical aid equipment for fire stations located within the District Boundaries or for additional fire and emergency medical services provided to residents within the District Boundaries.

7. District Tax Levy. The City shall cooperate with the County Treasurer, as *ex officio* Treasurer of the District and other appropriate County officials to take all such actions as may be necessary or desirable to ensure that the regular property tax levy necessary for repayment of the District's outstanding indebtedness in accordance with RCW 35A.14.500 and 35A.14.801(5) is levied and collected within the District Boundaries until such debt is retired, all as further set forth in Exhibit B.

8. Abandonment of Fire Station Consolidation Project. If the City determines the Fire Station Consolidation Project is not feasible or necessary, the City may abandon the project. In such event, it shall use all remaining Debt Proceeds and other District Financial Assets, as necessary, to retire the District's outstanding debt as soon as is practicable. The City shall use Debt Proceeds and any other District Financial Assets remaining after retirement of the debt to upgrade one or more stations within the District Boundaries or, if such upgrades are not needed, then to purchase fire and emergency medical aid equipment for such stations or provide other capital improvements within the District Boundaries.

9. Term. The term of this Agreement shall be from the date signed by both parties, and continue until all obligations have been met.

10. Compliance with Laws. The Parties shall comply with all applicable rules and regulations pertaining to them in connection with the matters covered herein. However, to the extent allowed by law, the Parties agree the provisions of this Agreement shall supersede such provisions.

11. Assignment. The Parties shall not assign this Agreement or any interest, obligation or duty therein without the express written consent of the other Parties.

12. Notices. All notices given prior to the Annexation Effective Date may be hand delivered or mailed. If mailed, they shall be sent to the following respective addresses:

To the City:	To the District:
City of Kirkland 123 Fifth Avenue Kirkland, WA 98033 Attn: Kurt Triplett	Ken Davidson, District Secretary 520 Kirkland Way Suite 400 Kirkland, WA 98034

or to such other respective addresses as the Parties hereafter from time to time designate in writing. All notices and payments mailed by regular post (including first class) shall be deemed to have been given on the third business day following the date of mailing, if properly mailed and addressed. Notices and payments sent by certified or registered mail shall be deemed to have been given on the day next following the date of mailing, if properly mailed and addressed. For all types of mail, the postmark affixed by the United States Postal Service shall be conclusive evidence of the date of mailing.

13. Miscellaneous.

a. All of the terms in this Agreement shall extend to and bind the legal successors and assigns of the Parties.

b. This Agreement is made and shall be construed in accordance with the laws of the State of Washington. Jurisdiction and venue for any action arising out of this Agreement shall be in King County, Washington.

c. No separate legal entity is hereby created.

d. Except as expressly provided herein, nothing in this Agreement shall be construed to permit anyone other than the Parties and their successors and assigns to rely upon the terms herein contained nor to give any such third party a cause of action on account of any nonperformance hereunder.

e. No joint oversight and administration board is created hereby.

f. If any term or provision of this Agreement or the application thereof to any person or circumstance shall, to any extent, be held to be invalid or unenforceable by a final decision of any court having jurisdiction on the matter, the remainder of this Agreement or the application of such term or provision to persons or circumstances other than those as to which it is held invalid or unenforceable shall not be affected thereby and shall continue in full force and effect, unless either party determines that such invalidity or unenforceability materially interferes with or defeats the purposes hereof, at

which time the Parties shall substitute a provision that most closely approximates that which was invalidated without being invalid itself.

g. This Agreement constitutes the final and completely integrated agreement between the Parties on its subject matter.

h. No modifications or amendments of this Agreement shall be valid or effective unless evidenced by an agreement in writing signed by all Parties.

i. Copies of this Agreement shall be filed with the King County Auditor's Office by the City.

j. Each party has had the opportunity to consult with counsel in connection with this Agreement. Each of the provisions of this Agreement represents the combined work product of all Parties. Therefore, no presumption or other rules of construction which would interpret the provisions of this Agreement in favor of or against the party preparing the same will apply in connection with the construction or interpretation of any of the provisions of this Agreement.

k. This Agreement may be executed simultaneously in two or more counterparts, each of which shall be deemed an original but all of which together shall constitute the same instrument.

IN WITNESS WHEREOF the Parties hereto have executed this Agreement as of the dates set forth below.

CITY OF KIRKLAND	KING COUNTY FIRE PROTECTION DISTRICT NO. 41
By: _____ Kurt Triplett, City Manager	By:_____ James Lloyd, Chair, King County Fire Protection District No. 41 Commission
Date signed: _____	Date signed: _____
Approved as to form:	Approved as to form:
_____ City Attorney	_____ District Counsel

Exhibit A

Description of Annexation Area Boundaries for Juanita-Finn Hill-Kingsgate Annexation and Wild Glen Annexation Areas:

Legal Description

BOUNDARIES OF THE JUANITA-FINN HILL-KINGSGATE ANNEXATION AREA

The legal description of the boundaries of the Juanita-Finn-Hill-Kingsgate Annexation Area,

That portion of Sections 16, 17, 18, 19, 20, 21, 22, 27, 28, 29, 30 and 31 Township 26 North, Range 5 East W.M. and Sections 13, 23, 24, 25, 26 and 36 Township 26 North, Range 4 East W.M. in King County, Washington described as follows:

Beginning at North Quarter Corner of Section 28, Township 26 North, Range 5 East, W.M.;

Thence west along the north line of the Northwest Quarter of said Section 28 (said north line being the north limits of the City of Kirkland as established by City of Kirkland Ordinance No. 2252 and the centerline of NE 132nd Street) to the corner common to Sections 28 and 29, Township 26 North, Range 5 East, W.M.;

Thence west along the north line of the Northeast Quarter of said Section 29 (said north line being the north limits of the City of Kirkland as established by City of Kirkland Ordinance No. 2252 and the centerline of NE 132nd Street) to the centerline of 116th Avenue NE right of way;

Thence southerly along the centerline of 116th Avenue NE right of way to the easterly extension of the south margin of the NE 132nd Street right of way;

Thence westerly along said south margin and the south margin of the NE 131st Way right of way (said south margins being the north limits of the City of Kirkland as established by City of Kirkland Ordinance No. 3062) to the west line of east half of Section 30, Township 26 North, Range 5 East, W.M.;

Thence south along said west line (said west line being the west limits of the City of Kirkland as established by City of Kirkland Ordinance No.

3062) to the north line of the southeast quarter of the northwest quarter of said Section 30;

Thence west along said north line (said north line being the north boundary of a tract of land annexed to the City of Kirkland under City of Kirkland Ordinance No. 4048) to the west line of east 275 feet of said southeast quarter of the northwest quarter;

Thence south along said west line (said west line being the west boundary of a tract of land annexed to the City of Kirkland under City of Kirkland Ordinance No. 4048) to south line of said southeast quarter of the northwest quarter;

Thence along said south line to the east margin and/or the northerly extension of the east margin of 91st Avenue NE (said east margin being the west boundary of a tract of land annexed to the City of Kirkland under City of Kirkland Ordinance Number 3121);

Thence south along said east margin and/or its northerly extension (said east margin being the west boundary of a tract of land annexed to the City of Kirkland under City of Kirkland Ordinance Number 3121) to the south margin of NE 120th Street;

Thence east along the south margin of NE 120th Street and/or its easterly extension to the west limits of the City of Kirkland as established by King County Ordinance No. 15471;

Thence south along said west limits to the southerly margin of Juanita Drive NE right of way;

Thence along said southerly margin to the west line of Juanita Bay Condominiums (said line being the west limits of the City of Kirkland as established by City of Kirkland Ordinance No. 3062);

Thence southerly and southeasterly along the said west line and its southerly extension (said line being the west limits of the City of Kirkland as established by City of Kirkland Ordinance No. 3062) to the outer limits of the second class shorelands of Lake Washington;

Thence leaving said city limits, southwesterly and northwesterly along said outer limits to North line of King County Short Plat Number 985037 (Alteration), recorded under Recording Number 911180963, records of King County, Washington and the limits of the City of Kenmore as established by King County Ordinance No. 12815;

Thence along said limits of the City of Kenmore the following courses:

Thence easterly along the North line of said King County Short Plat and the North line of
Lot 2, King County Short Plat Number 273020, recorded under Recording Number 7601230425 records of King County, Washington to the west margin of 62nd Avenue Northeast;

Thence southerly along said margin to the north line of the Southeast Quarter of Section 23, Township 26 North, Range 4 East, W.M.;

Thence easterly along said north line to the east margin of 62nd Avenue Northeast;

Thence southerly along the east margin of 62nd Avenue Northeast to the point of
intersection with the north line of King County Short Plat Number 376072, recorded under Recording Number 7607290790, records of King County. Washington;

Thence easterly along the north line of said King County Short Plat and the north line of
King County Short Plat Number 682031, recorded under Recording Number 8404240701 and King County Short Plat Number S89S0226, recorded under Recording Number 8908311935. all in records of King County, Washington, to the westerly margin of Holmes Point Drive Northeast;

Thence northerly and easterly along said margin to the westerly margin of Juanita Drive
Northeast;

Thence northerly along the westerly margin of said Juanita Drive Northeast to the point of intersection with the westerly extension of the north margin of Northeast 143rd Street;

Thence easterly along said extended line and the north margin at Northeast 143rd Street
and the north margin of Northeast 145th Street to the intersection with the Westerly margin of 92nd Avenue Northeast;

Thence northerly along said margin to the intersection with the northeasterly margin of
Simonds Road Northeast, said margin also being the limits of the City of Bothell as
established by City of Bothell Ordinances 225, 227 and 960;

Thence southeasterly along the southerly limits of the City of Bothell and the northeasterly margin of Simonds Road Northeast to the west margin of 100th Avenue NE;

Thence north along said west margin to the north line of Section 19, Township 26 North, Range 5 East, W.M. and the south limits of the City of Bothell as established by City of Bothell Ordinance Number 225;

Thence east along said north line and the south limits of the City of Bothell to the Northeast Corner of said Section 19;

Thence east along the north line of Section 20, Township 26 North, Range 5 East, W.M. and the south limits of the City of Bothell as established by City of Bothell Ordinance Number 1220 to the southerly prolongation of the east margin of 100th Avenue NE and the easterly limits of the City of Bothell as established by City of Bothell Ordinance Number 1220;

Thence north along said southerly prolongation and easterly limits of Bothell to the north margin of NE 145th Street;

Thence leaving said city limits, east along said north margin to the southerly prolongation of the west line of the plat of Norway View according to the plat thereof recorded in Volume 125 of Plats at Pages 77 and 78, records of King County, Washington:

Thence north along said southerly prolongation to the north margin of NE 145th Street;

Thence east along said north margin and its easterly extension to the southeasterly margin of Juanita-Woodinville Way NE;

Thence southerly along said southeasterly margin to the north margin of NE 145th Street;

Thence east along said north margin to the east line of the plat of Windsor Vista No. 1 according to the plat thereof recorded in Volume 81 of Plats, at pages 70 and 71, records of King County, Washington;

Thence southerly along the southerly prolongation of said east line to the south line of Section 17, Township 26 North, Range 5 East, W.M.;

Thence east along said south line to the easterly margin of Primary State Highway No. 1 (SR-405) as depicted on the Record of Survey recording in Book 182 of Surveys, at Pages 251 through 259, records of King County, Washington:

Thence north along said easterly margin to the south line of a tract land conveyed to King County by the State of Washington by

instrument recorded under 8603110513, records of King County, Washington;

Thence east along the south line of said tract to the east line of said tract;

Thence north along the east line of said tract to the southwesterly margin of the City of Seattle Tolt River Pipeline Right of Way:

Thence southeasterly along southwesterly margin to the west margin of NE 124th Avenue NE and west limits of the City of Woodinville as established by King County Ordinance No. 10306;

Thence along said limits of the City of Woodinville the following courses:

Thence south along said west margin to the intersection of the westerly extension of the south boundary of Kingsgate Highlands, Division No. *5,* recorded in Volume 88 of Plats, Pages 1 to *5,* Records of King County, Washington;

Thence east along said westerly extension and said south boundary to the southeast corner of said plat of Kingsgate Highlands Division 5;

Thence north along the east boundary thereof to the southwest corner of the plat of Kingsgate Vista, recorded in Volume 107 of Plats, pages 52 and 53, records of King County, Washington;

Thence east along the south boundary of said plat of Kingsgate Vista and its easterly projection to the West margin of 132nd Ave NE;

Thence southerly along said west margin of 132nd Avenue NE to the westerly extension of the south margin of NE 143rd street;

Thence easterly along said westerly extension and south margin thereof to the west line of the Puget Sound Power and Light Co. transmission line easement as located in the NW 1/4 of the NW 1/4 of Section 22, Township 26 North, Range 5 East W.M.;

Thence south along said west line to the south line of the NW 1/4 of Section 22, Township 26, North Range 5 East W.M.;

Thence easterly along said south line to the NW corner of the NE 1/4 of the NE 1/4 of the SW 1/4 of said Section 22;

Thence south to the SW corner of the NE 1/4 of the NE 1/4 of the SW 1/4 of said Section 22;

Thence east along the south line thereof to the North-South centerline of' Section 22;

Thence north along said North-South centerline to the center of said Section 22;

Thence west along the East-West centerline thereof 310 feet, more or less, to the SW corner of Tax Lot No. 108 in the SE ¼ of the NW 1/4 of said Section 22;

Thence N 7° 10′ 00″ W along the west line of said Tax Lot 108, 380 feet, more or less, to the NW corner thereof;

Thence N 77°15′00″ E along the northerly line of said Tax Lot 108 to the westerly margin of the Burlington Northern Railway right-of-way (also known as Northern Pacific Belt Line);

Thence southerly along said westerly margin to the south line of the NE 1/4 of said Section 22;

Thence east along the south line of the NE 1/4 of said Section 22 to the easterly margin of the Burlington Northern Railway right-of-way, (also known as Northern Pacific, Snoqualmie Branch) and an angle point in the limits of the City of Woodinville;

Thence leaving said limits of the City of Woodinville and continuing along the south line of NE ¼ of said Section 22 to the easterly margin of the Burlington Northern Railway right-of-way, (also known as Northern Pacific, Snoqualmie Branch)

Thence south along said easterly margin to the south margin of NE 124th Street;

Thence westerly to the northeast corner of a tract of land annexed to the City of Redmond by City of Redmond Ordinance Number 1030;

Thence west along the north line of the tracts of land annexed to the City of Redmond by City of Redmond Ordinance Numbers 1030 and 966 to the west line of the east ¾ of the Northwest ¼ of the Southwest ¼ of Section 27, Township 26 North, Range 5 East, W.M.

Thence south along said west line and the west line of a tract of land annexed to the City of Redmond by City of Redmond Ordinance Number 966 to the south line of the said Northwest ¼ and the north line of a tract of land annexed to the City of Redmond by City of Redmond Ordinance Number 778;

Thence west along said south line and said limits of the City of Redmond to the easterly margin of Seattle Water Department Eastside Supply Line right-of-way and the limits of the City of Kirkland as established by City of Kirkland Ordinance Number 3063:

Thence north along said easterly margin and said limits of the City of Kirkland to the south margin of NE 124th Street:

Thence westerly along said right of way and said limits of the City of Kirkland to the northerly tangent point of the southerly margin of said right-of-way with the westerly margin of the Slater Avenue NE right of way;

Thence northwesterly perpendicular to the centerline of NE 124th Street right-of-way to the southerly line of a tract of land annexed to the City of Kirkland by City of Kirkland Ordinance No. 2545:

Thence northeasterly along said southerly line to the southeast corner of said tract of land;

Thence northerly along east line of said tract of land to the northeast corner thereof;

Thence west along said north line of said tract of land to the west line of the northeast quarter of the northeast quarter of Section 28, Township 26 North, Range 5, W.M. and the limits of the City of Kirkland as established by City of Kirkland Ordinance Number 2252;

Thence north along said west line and said limits of the City of Kirkland to the north line of said Section 28:

Thence west along said north line (said north line being the north limits of the City of Kirkland as established by City of Kirkland Ordinance No. 2252 and the centerline of NE 132nd Street) to the Point of Beginning.

BOUNDARIES OF THE WILD GLEN ANNEXATION AREA

Legal Description

That portion of Section 19, Township 26 North, Range 5 East W.M. in King County, Washington described as follows:

Beginning at the northwest corner of the Northeast Quarter of the Northeast Quarter of said Section 19; Thence east along the north lien of said Section 19 and the south limits of the City of Bothell as

established by City of Bothell Ordinance Number 225 to the west margin of 100th Avenue NE; Thence south along the west margin of 100th Avenue NE to the northerly margin of Simonds Road Northeast; Thence northwesterly along the northerly margin of Simonds Road Northeast to the west line of said Northeast Quarter of the Northeast Quarter of Section 19 and the limits of the City of Bothell as established by City of Bothell Ordinance Number 960; Thence north along said west line to the Point of Beginning.

Exhibit B

Procedures Relating to the Bonded Indebtedness of the District

Capitalized terms not defined in this Exhibit B have the meanings given in the Interlocal Agreement and in Resolution No. __ of the District.

1. Issuance of Bond; Terms

a. On or before May 31, 2011, the District shall issue, sell and deliver the Bond to the Lender under substantially the terms set forth in the offer letter dated May __, 2011.

2. Collection of Taxes; Repayment of Bond

a. From and after the Annexation Date, City Council, acting on behalf of the District, shall consult with the County Treasurer, as *ex officio* Treasurer of the District and shall certify to the County Assessor, the amount necessary, in accordance with RCW 35A.14.500 and 35A.14.801(5), to make timely payments of the principal of and interest on the bonded indebtedness coming due and payable in the next calendar year, including a reasonable allowance for delinquencies and nonpayments ("Annual Debt Service Requirements"). The Annual Debt Service Requirements shall take into account a reasonable expectation of delinquencies and nonpayments and shall be the regular levy amount required for that calendar year.

b. Upon receipt of certification of the Annual Debt Service Requirements, the County Assessor shall spread the levy on the rolls of the taxable property within the District as the District's boundaries existed on the date of issuance of the Bond.

c. The County Treasurer shall act as Bond Registrar and Paying Agent and shall collect all taxes levied and apply such receipts to the timely payment of the Annual Debt Service Requirements to the Lender.

d. From time to time (e.g., upon the sale of Fire Station 24 or 25), the City may transfer additional amounts to the County Treasurer, which amounts shall be applied to the prepayment of principal of, interest on, or redemption premium with respect to the Bond. Upon any prepayment of principal of the Bond, the Annual Debt Service Requirements shall be recalculated, in accordance with the terms of the Bond and the Authorizing Resolution.

3. Deposit and Use of Debt Proceeds

a. Upon issuance of the Bond, proceeds of the sale of the Bond shall be applied to pay the costs of issuance and all remaining proceeds shall be deposited with the County and transferred to the City on the Annexation Effective Date.

b. The City Finance Director shall direct the timing and amounts of all expenditure of bond proceeds to pay the costs of the Fire Station Consolidation Project and as otherwise set forth in the Interlocal Agreement.

c. Interest earned on proceeds invested pending their expenditure shall be used to pay costs of the Fire Station Consolidation Project, to pay debt service on the Bond or, if necessary, to make any required arbitrage rebate or yield reduction payments to the United States Treasury with respect to the Bond.

d. The City Finance Director shall, with the cooperation of the County Treasurer, ensure that any arbitrage rebate calculations that may be required (if any) under applicable provisions of the Internal Revenue Code and related regulations are completed in a timely fashion and that any amounts owing on account of rebate payments or yield reduction payments are paid out of bond proceeds or interest earnings thereon.

4. Prepayment of Bond. Whenever the City realizes proceeds from the sale of Fire Stations 24 or 25, the City shall apply those net proceeds, or cause the same to be applied, to prepayment of the Bond, including principal, interest, and any prepayment or redemption premium with respect thereto.

5. Reporting to City. The County Treasurer shall provide to the City Finance Director monthly financial reports and, within 60 days of the end of the calendar year, an annual financial report of District, and such other financial information as the City may request.

CITY OF KIRKLAND
Department of Finance & Administration
123 Fifth Avenue, Kirkland, WA 98033 425.587.3100
www.kirklandwa.gov

MEMORANDUM

To: Kurt Triplett, City Manager

From: Tracey Dunlap, Director of Finance & Administration
Michael Olson, Deputy Director of Finance & Administration

Date: July 25, 2014

Subject: PAYROLL WEEK PROCLAMATION

RECOMMENDATION:

That the Mayor proclaims September 1-5, 2014 as "Payroll Week".

BACKGROUND DISCUSSION:

The American Payroll Association founded National Payroll week in 1996. National Payroll Week celebrates the unique partnership among America's workers, their companies, the payroll professionals who pay them and critical government programs. National Payroll Week commends the hard work by America's 156 million wage earners and the payroll professionals who pay them. Together, through the payroll withholding system, they contribute, collect, report and deposit approximately $1.97 trillion, or 68.9%, of the annual revenue of the U.S. Treasury. In 2013, the City of Kirkland Payroll team paid over 800 employees, issued 14,970 direct deposits and payroll checks, representing approximately $46.5 million in gross wages.

This special week represents many things important to each of us who work. From the economic, cultural, and social achievements of workers, to the significance of "an honest day's work for an honest day's pay," National Payroll Week is a celebration on many levels.

Bethany Hensley, Payroll Systems Coordinator, will be present at the August 6, 2014 City Council meeting to receive the proclamation.

A PROCLAMATION OF THE CITY OF KIRKLAND

Proclaiming September 1 – 5, 2014, as "Payroll Week" in Kirkland, Washington

WHEREAS, the American Payroll Association and its more than 21,000 members have launched a nationwide public awareness campaign that pays tribute to the more than 156 million people who work in the United States and the payroll professionals who support the American system by paying wages, reporting worker earnings and withholding federal employment taxes; and,

WHEREAS, payroll professionals in Kirkland, Washington play a key role in maintaining the economic health of Kirkland, carrying out such diverse tasks as paying into the unemployment insurance system, providing information for child support enforcement, and carrying out tax withholding, reporting and depositing; and

WHEREAS, payroll departments collectively spend more than $15 billion annually complying with myriad federal and state wage and tax laws; and

WHEREAS, payroll professionals have become increasingly proactive in educating both the business community and the public at large about the payroll tax withholding systems; and

WHEREAS, payroll professionals meet regularly with federal and state tax officials to discuss both improving compliance with government procedures and how compliance can be achieved at less cost to both government and businesses; and

WHEREAS, in 2013, the City of Kirkland payroll staff paid over 800 employees, issued 14,970 direct deposits and payroll checks, representing approximately $46.5 million in gross wages; and

WHEREAS, the payroll staff are responsible for implementing pay provisions for six union contracts, retirement, health benefit plans, insurance, and other benefits;

WHEREAS, the payroll team was awarded the 2014 City Manager Award for Excellence in Teamwork;

NOW, THEREFORE, I, Amy Walen, hereby proclaim September 1 – 5, 2014 **"Payroll Week"** in Kirkland, Washington and give additional support to the efforts of the people who work in Kirkland, Washington and of the payroll profession.

Signed this 6th day of August, 2014

_____

Amy Walen, Mayor

KIRKLAND CITY COUNCIL REGULAR MEETING MINUTES
July 15, 2014

1. CALL TO ORDER

2. ROLL CALL

ROLL CALL:
Members Present: Councilmember Jay Arnold, Councilmember Dave Asher, Councilmember Shelley Kloba, Councilmember Doreen Marchione, Councilmember Toby Nixon, Deputy Mayor Penny Sweet, and Mayor Amy Walen.
Members Absent: None.

3. STUDY SESSION

a. Aquatics Center Update

Joining Councilmembers for this discussion were City Manager Kurt Triplett, Director of Parks and Community Services Jennifer Schroder, and consultants Lauren Livingston, Principal of The Sports Management Group, Mark Schatz, Architect with The Sports Management Group and Will Lisskam Transportation Engineer with Fehr & Peers. Chair of the Park Board Adam White also responded to Council questions.

4. EXECUTIVE SESSION

None.

5. HONORS AND PROCLAMATIONS

None.

6. COMMUNICATIONS

a. Announcements

(1) National Night Out

b. Items from the Audience

Roland White
Larry Kilbride
Glenn Buhlmann
Jason Nelson
Warren Raven
Lisa McConnell

Georgine Foster
Arvind Shenoy
Duana Kolouskova
Greg Rairdon
Victoria Newland
Rob Brown

c. Petitions

7. SPECIAL PRESENTATIONS

a. Metro Transit Proposed Cuts Update

King County Councilmembers Rod Dembowski, Larry Phillips and Jane Hague provided an update on current King County discussions on the issue.

b. Kirkland 2035 Update #14

Communications Program Manager Marie Jensen shared information on public involvement activities and progress on plan updates related to the Kirkland 2035 initiative.

8. CONSENT CALENDAR

a. Approval of Minutes: July 1, 2014

b. Audit of Accounts:
Payroll $2,924,258.47
Bills $1,769,550.14
run #1331 checks #554122 - 554268
run #1332 checks #554271 - 554423

c. General Correspondence

d. Claims

Claims received from Miho Kawamura and Pauline Skogmo were acknowledged via approval of the Consent Calendar.

e. Award of Bids

(1) The construction contract for the Annual Street Preservation Program, 2014 Phase III Slurry Seal Project, was awarded to Blackline Inc., of Vancouver, Washington in the amount of $496,080.85 via approval of the Consent Calendar.

f. Acceptance of Public Improvements and Establishing Lien Period

g. Approval of Agreements

h. Other Items of Business

(1) Tourism Development Committee Resignation

The resignation from Vicci Sorensen, who has moved out of state, was acknowledged and draft correspondence was authorized via approval of the Consent Calendar.

(2) Procurement Activities Report

(3) Surplus and Disposal of Equipment Rental Vehicles

Fleet #	Year	Make	VIN/Serial Number	License #	Mileage
A01-04	2001	Ford Crown Victoria	2FAFP71W81X181409	34108D	71,249
A06-07	2006	Ford Crown Victoria	2FAHP71W06X121721	41154D	103,676
C-15	2000	Ford Taurus Station Wagon	1FAFP5829YG231349	29923D	41,997
F210	2004	Chevrolet Colorado	1GCCS196648160461	36160D	55,705
F214	2006	Dodge Durango	1D8HB38N96F159279	42063D	58,263
F314	2006	Ford Road Rescue Aid Car	1FDXE45P06HA76482	41614D	64,578
F315	2006	Ford Road Rescue Aid Car	1FDXE45P36HA74967	41615D	48,656
P100	2010	Dodge Charger	2B3CK5CTXAH217578	50624D	113,528
P10-03	2010	Dodge Charger	2B3CA4CT3AH147712	50356D	94,624
P101	2010	Dodge Charger	2B3CA4CT0AH193319	50623D	80,180
P102	2010	Dodge Charger	2B3CA4CT7AH193320	50622D	95,323
P105	2010	Dodge Charger	2B3CL1CT3BH551846	53005D	92,352

Motion to Approve the Consent Calendar.
Moved by Councilmember Doreen Marchione, seconded by Councilmember Shelley Kloba
Vote: Motion carried 7-0
Yes: Councilmember Jay Arnold, Councilmember Dave Asher, Councilmember Shelley Kloba, Councilmember Doreen Marchione, Councilmember Toby Nixon, Deputy Mayor Penny Sweet, and Mayor Amy Walen.

9. PUBLIC HEARINGS

None.

10. UNFINISHED BUSINESS

a. Public Disclosure Semi-Annual Review

Public Disclosure Analyst Caleb Stewart reviewed the status of the Public Records program and, together with City Clerk Kathi Anderson, responded to Council questions and comment.

b. Lake Washington Promenade

Transportation Engineering Manager David Godfrey provided a briefing on the Lake Washington Promenade concept and received feedback from Council.

Motion to Approve the staff recommendation to include the Promenade in the Transportation Master Plan with an expectation that a design study would be made at some point over the life of the Plan.
Moved by Councilmember Dave Asher, seconded by Deputy Mayor Penny Sweet
Vote: Motion carried 7-0
Yes: Councilmember Jay Arnold, Councilmember Dave Asher, Councilmember Shelley Kloba, Councilmember Doreen Marchione, Councilmember Toby Nixon, Deputy Mayor Penny Sweet, and Mayor Amy Walen.

11. NEW BUSINESS

a. Comprehensive Plan Update - Citizen Amendment Requests

Senior Planner Angela Ruggeri presented the Planning Commission's recommendations in regard to citizen amendment requests to be further studied as part of the Comprehensive Plan Update process.

Motion to Approve the Planning Commission recommendations on the Citizen Amendment Requests to be further studied as part of the Comprehensive Plan Update, with the exclusion of the Walen property request, and also to approve the Planning Commission’s recommendations as to those requests which should not move forward.
Moved by Councilmember Toby Nixon, seconded by Deputy Mayor Penny Sweet
Vote: Motion carried 7-0
Yes: Councilmember Jay Arnold, Councilmember Dave Asher, Councilmember Shelley Kloba, Councilmember Doreen Marchione, Councilmember Toby Nixon, Deputy Mayor Penny Sweet, and Mayor Amy Walen.

Motion to Amend the motion to include the Citizen Amendment Request from Karen Levenson to be further studied as part of the Comprehensive Plan update.
Moved by Councilmember Toby Nixon, failed due to lack of second.

Mayor Walen recused herself from the discussion on the issue of the remaining Citizen Amendment Request based upon the appearance of fairness doctrine and left the Chamber for the duration of the discussion, returning following the vote.

Motion to Approve including the Walen request to be further studied as part of the Comprehensive Plan Update.
Moved by Councilmember Dave Asher, seconded by Councilmember Toby Nixon
Vote: Motion carried 6-0
Yes: Councilmember Jay Arnold, Councilmember Dave Asher, Councilmember Shelley Kloba, Councilmember Doreen Marchione, Councilmember Toby Nixon, and Deputy Mayor Penny Sweet.

b. Sound Transit Long Range Plan Environmental Impacts Comment Letter

Transportation Engineering Manager David Godfrey provided an overview of the pertinent elements of the plan and the draft correspondence presented by staff expressing the City of Kirkland's comments on the draft supplemental impact statement for Sound Transit's Long Range Plan and incorporating Council comments as discussed.

c. Ordinance O-4449 and its Summary, Relating to Land Use, Approving a Preliminary (and Final) Planned Unit Development and Preliminary Subdivision Applied for by Quadrant Homes in Department of Planning and Community Development File No. SUB13-01508, and Setting Forth Conditions of Said Approval.

Planner David Barnes reviewed the issues for Council consideration and requested Council feedback.

Motion to Direct staff to prepare an ordinance approving the Vintner's West planned unit development (PUD) application, but with the addition of clarification of public benefit, public access, signage and liability, to be brought back for Council action at their August 6, 2014 regular meeting.
Moved by Councilmember Dave Asher, seconded by Deputy Mayor Penny Sweet
Vote: Motion carried 7-0
Yes: Councilmember Jay Arnold, Councilmember Dave Asher, Councilmember Shelley Kloba, Councilmember Doreen Marchione, Councilmember Toby Nixon, Deputy Mayor Penny Sweet, and Mayor Amy Walen.

12. REPORTS

a. City Council Reports

(1) Finance and Administration Committee

None.

(2) Planning, and Economic Development Committee

None.

(3) Public Safety Committee

None.

(4) Public Works, Parks and Human Services Committee

Chair Kloba reported on the scope of work provided by Seattle Tilth for McAuliffe Park; plastic bag information; flashing yellow lights for turns at

intersections; transit cuts and the impact on Hopelink; and an overview of the Aquatic Recreation Center update.

(5) Tourism Development Committee

Chair Nixon reported on the Tourism Program budget; application period for tourism funding grants for 2015; resignation of a Tourism Board member; the new public relations consultant; the Waterfront Optimization study; and promotion of the Cross Kirkland Corridor.

(6) Regional Issues

Councilmembers shared information regarding a recent Sound Cities Association Public Issues Committee meeting at Kirkland City Hall; Business Roundtable event at Nytec; upcoming King County Regional Transit Committee meeting; congratulations to Deputy Mayor Sweet on the successful Celebrate Kirkland activities on July 4th; a Greater Kirkland Chamber of Commerce meeting; the Eastside Transportation Partnership retreat; an upcoming Startup Weekend September event; a Cascade White River-Lake Tapps Improvement Project; the Kirkland Uncorked event; a King County Domestic Violence Initiative meeting; a King County Regional Policy Committee meeting; Lake Washington Mayors meeting; and a Puget Sound Regional Council Transportation Policy Board meeting.

(7) Legislative Committee

Chair Asher reported on a reorganization at Waypoint Consulting and the potential impact on the City's legislative agenda.

b. City Manager Reports

(1) Calendar Update

City Manager Kurt Triplett informed the Council that the Eastside Public Safety Communications Agency (EPSCA) Board would be meeting with Deputy King County Executive Fred Jarrett.

(2) Property Purchase Opportunity

Parks and Community Services Director Jennifer Schroder reported on an opportunity to purchase property adjacent to the existing Juanita Height Park.

Motion to Direct staff to bring back an authorization to purchase the subject property for $10,000 and closing costs for Council action at their August 6, 2014 regular meeting.
Moved by Councilmember Dave Asher, seconded by Councilmember Jay Arnold

Vote: Motion carried 7-0
Yes: Councilmember Jay Arnold, Councilmember Dave Asher, Councilmember Shelley Kloba, Councilmember Doreen Marchione, Councilmember Toby Nixon, Deputy Mayor Penny Sweet, and Mayor Amy Walen.

13. ITEMS FROM THE AUDIENCE

None.

14. ADJOURNMENT

The Kirkland City Council regular meeting of July 15, 2014 was adjourned at 11:21 p.m.

City Clerk

Mayor

CITY OF KIRKLAND
Department of Finance and Administration
123 Fifth Avenue, Kirkland, WA 98033 425.587.3100
www.kirklandwa.gov

MEMORANDUM

To: Kurt Triplett, City Manager

From: Kathi Anderson, City Clerk

Date: July 17, 2014

Subject: CLAIM(S) FOR DAMAGES

RECOMMENDATION

It is recommended that the City Council acknowledges receipt of the following Claim(s) for Damages and refers each claim to the proper department (risk management section) for disposition.

POLICY IMPLICATIONS

This is consistent with City policy and procedure and is in accordance with the requirements of state law (RCW 35.31.040).

BACKGROUND DISCUSSION

The City has received the following Claim(s) for Damages from:

(1) Frank S. Mocker
47230 SE 162nd Street
North Bend, WA 98045

Amount: $2416.28

Nature of Claim: Claimant states damage to vehicle resulted from being struck by a City vehicle.

(2) Zaneta Noreikaite
11023 115th Court NE, E303
Kirkland, WA 98033

Amount: $5673.20

Nature of Claim: Claimant states that she suffered damage as a result of being transported to the hospital.

(3) Place One Sixteen Planned Unit Development
11403 NE 115th Court
Kirkland, WA 98033

Amount: $1939.76

Nature of Claim: Claimant states damage to home resulted from a City owned tree falling onto the roof.

(4) Michael J. Rogers
28000 NE 142nd SW #140
Duvall, WA 98019

Amount: $5669.00

Nature of Claim: Claimant states damage resulted from unlawful sale of vehicle and property.

Note: Names of claimants are no longer listed on the Agenda since names are listed in the memo.

CITY OF KIRKLAND
Department of Public Works
123 Fifth Avenue, Kirkland, WA 98033 425.587.3809
www.kirklandwa.us

MEMORANDUM

To: Kurt Triplett, City Manager

From: Dave Snider, P.E., Capital Projects Manager
Marilynne Beard, Interim Public Works Director

Date: July 24, 2014

Subject: 5TH AVE SOUTH S, 6TH ST AND 7TH AVE SOUTH UTILITY PROJECT AWARD CONTRACT

RECOMMENDATION:

That City Council awards Schedule A through E of the 5th Ave South, 6th St and 7th Ave South Utility Projects to Kar-Vel Construction of Renton, WA, in the amount of $1,462,629.83.

BACKGROUND AND DISCUSSION:

The 5th Ave South, 6th St and 7th Ave South Utility Project (Project) consists of five separate capital projects that have been combined into a single multi-schedule project to provide an economy of scale benefit for adjacent and related utility improvements, all in support of major on-going redevelopments in the Moss Bay and Everest Neighborhoods (Attachment A). Specifically, the Project supports the on-going Google expansion and the 2014 Preliminary Comprehensive Water System Plan (WSP), as the WSP is currently being updated. The Project planning effort also involved the City's IT Department staff in consultation on providing a future fiber optic pathway opportunity utilizing the to-be-abandoned watermain

During the design phase staff identified and coordinated the following cooperative design elements for the 6th St project (WA 150):

- A conversion of the existing watermain to a fiber optic pathway to complete the connection between Central Way and Kirkland Way,
- Upsizing the originally planned 8-inch watermain to a 12-inch watermain as scoped by the preliminary WSP, as well as extending the 12-inch watermain through the intersection of 6th Street and Kirkland Way to accommodate new signalized intersection improvements planned in 2015. The new intersection will be constructed with a concrete pavement road surface and to avoid disturbing the planned road surface, this utility improvement completes the watermain through the intersection.

The five individual projects (Schedules A – E) are shown on Attachment A and are listed in the table below:

Water and Sewer Utility	Project	Budget	Anticipated Expenses	Total
WA 150	6th Street Watermain	$520,500	$868,012	($347,512)
WA 151	7th Avenue Watermain	$378,000	$358,605	$19,395
SS 64	7th Avenue Sewermain	$930,500	$617,767	$312,734
SS 78	5th Avenue Sewermain	$226,900	$211,516	$15,8384
	Total	$2,055,900	$2,055,900	$0

Surface Water Utility	Project	Budget	Anticipated Expenses	Total
SD 83	7th Avenue Storm	$240,000	$240,000	$0
	Total	$240,000	$240,000	$0

Project Total	$2,295,900	$2,295,900	$0

Though the design phase, staff created a "Schedule E1" for the converting of the existing 6th Street watermain into a fiber optics conduit bank. During that process, staff also sought appropriate funding sources to pay for this added work.

As a result of the bid opening, the actual construction cost of Schedule E1 would add another $63, 564.75 in hard costs plus an estimated $21,000 in increased soft (inspection and project administration) costs. Through the design process, staff also sought appropriate funding sources, both internal and external; however, to-date, no funding sources have been identified.

Contract Bid Results

With an overall total construction budget of $1,574,010, and an engineer's estimate of $1,361,600, the Project was first advertised for contractor bids on July 1. Bids were opened on July 15 with the City receiving one contractor bid, as shown:

Contractor	Total Bid
Engineer's Estimate	*$1,361,600.00*
Kar–Vel Construction	$1,462,629.83

As a result of the single bid submitted, staff conducted a contemporaneous bid climate review, including discussions with neighboring agency representatives and interviews with companies on the official Plan Holder's List who chose not to submit a bid. The results show that, in general, contractors are very busy at this time with a lot of other projects in the region out to bid right now. Those companies that are regular bidders on Kirkland jobs explained that they found it necessary to pass on this Project as they would not be able to staff it appropriately. A check-in with neighboring agencies showed similar results with low bidder turn-out and bidder prices that are climbing upwards.

For the subject Project, the low bid is $115,616 above the engineer's estimate; however, the total bid price received is under the combined construction budget of $1,574,010. As a whole, the entire project can be completed within the existing overall combined utility project budget of $2,295,900 (Attachment B).

With full consideration given to meeting the time-of-completion requirements for private developments in the area, staff recommends awarding Schedules A though E of the 5th Ave South, 6th St and 7th Ave South Utility Project contract to Kar-Vel Construction. The contractor

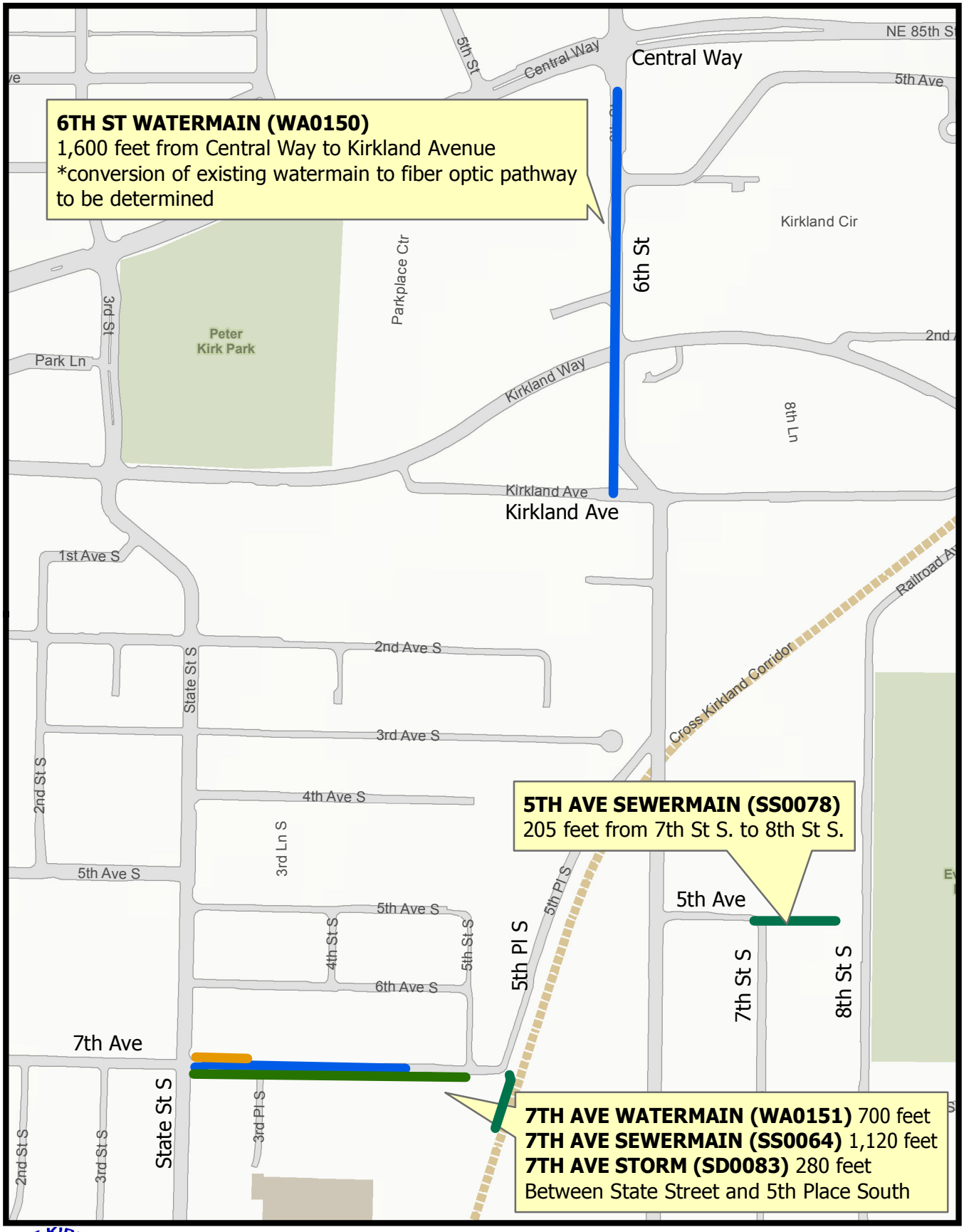
has successfully completed other utility projects for the City in the past and comes with current references that support their ability to complete the work in an acceptable and timely manner.

With an award of the contract by City Council at their August 6 meeting, construction will begin by early September with substantial completion expected in February, 2015. With City Council concurrence, staff will continue to look for a suitable funding source (or sources) for Schedule E1 and, if a guaranteed funding source is secured during the contractor's normal sequenced activities, staff will work towards adding Schedule E1 back into the overall Project scope through change order.

In advance of construction Public Works staff will send a construction informational flyer to nearby residents providing Project timelines and pertinent contact information. Staff will also keep all pertinent information up-to-date on the City's website.

Attachment A - Vicinity Map
Attachment B - Project Budget Report

ATTACHMENT A

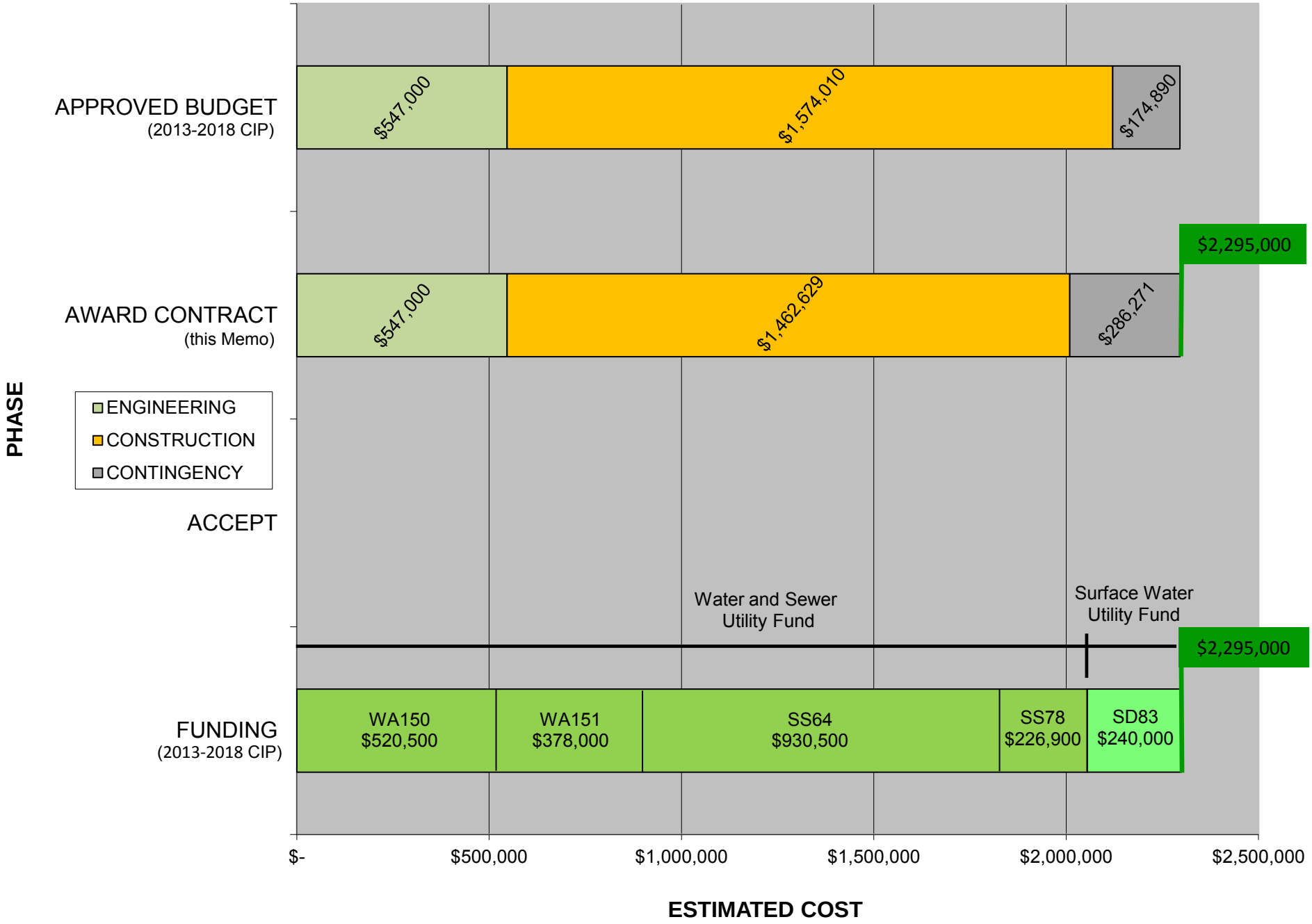


VICINITY MAP

5th Ave South, 6th St and 7th Ave South Utility Projects

Combined Utilities Project
(WA 0150, SS 0064, WA 0151, SS 0078, SD 0083)
Project Budget Report

Attachment B



CITY OF KIRKLAND
Department of Finance & Administration
123 Fifth Avenue, Kirkland, WA 98033 425.587.3100
www.kirklandwa.gov

MEMORANDUM

To: Kurt Triplett, City Manager

From: Tracey Dunlap, Director of Finance and Administration
Carol Wade, Accountant

Date: July 21, 2014

Subject: 2013 ANNUAL TRANSPORTATION AND PARK IMPACT FEES REPORT

RECOMMENDATION:

City Council accepts the 2013 Annual Transportation and Park Impact Fee Report.

BACKGROUND DISCUSSION:

RCW 82.02.070 related to impact fees provides that: "Annually, each county, city or town imposing impact fees shall provide a report on each impact fee account showing the source and amount of all moneys collected, earned, or received and system improvements that were financed in whole or in part by impact fees." This report is presented to the City Council in response to that requirement.

The City began collecting impact fees for transportation in June 1999 and for parks in August 1999. Although impact fees are not required to be tracked and applied to projects by zones per the ordinances, impact fees are being tracked by zones for administrative purposes (see Attachment C for map). Tracking the collection and subsequent transfer of impact fees helps to analyze what area(s) of the city development is occurring in and how funding of future capacity projects is related to the amount of development. The North zone was added due to the annexation of the new neighborhoods on June 1, 2011.

During 2013, $1,332,206 in transportation impact fees and $714,395 in park impact fees were collected. Attachment A summarizes the 2013 impact fee collections by zone.

The majority of 2013 activity occurred in the North zone, generating 70% of transportation impact fees and 60% of park impact fees. The two largest non-residential transportation impact fee payments are located in this zone: O'Brien Kirkland Properties LLC paid $318,585 for a 91,731 square foot Toyota auto dealership building and Fairfax Hospital paid $181,078 for a 60 bed, two story addition.

The North zone also contributed 62% of the 2013 single family residential impact fees. Select Homes, Inc., Parhaniemi Estates, was the largest contributor with $67,014 for transportation impact fees and $67,133 for park impact fees.

Since June 1, 2010, the Kirkland Municipal Code has provided for the optional deferral of impact fees for single family residences until sale of the property rather than at building permit issuance to assist with economic development. The KMC was amended again as of May 7, 2013, extending the deferral date indefinitely. A lien is filed against the title to the property and impact fees are paid upon closing of the sale of property. As of December 31, 2013, the City had 14 applicants who opted to defer transportation impact fees of $55,188 and park impact fees of $55,286.

Attachment B is a cumulative report showing total transportation and park impact fees collected by zone since inception. The East zone has collected 30% of impact fees to date for a total of $3,513,226. The new neighborhood North zone has generated impact fees in the amount of $1,842,281 ($1,194,817 for transportation and $647,464 for parks).

Both 2013 and 2012 impact fee revenues increased dramatically when compared to collections for prior years. Please see the summary table below.

Year	Transportation	Parks
2007	$613,567	$108,400
2008 *	$680,391	$200,870
2009	$382,549	$200,850
2010	$186,076	$161,892
2011	$327,104	$230,248
2012	$1,192,687	$690,487
2013	$1,332,206	$714,395

* Effective 02/01/08, impact fees increased substantially following a rate study completed in 2007

Impact fees have been budgeted conservatively in the Capital Improvement Program (CIP) because of the drop in development activity during the recession. To the extent that these revenues exceed the budgeted needs, the additional revenues are being held aside in anticipation of the needs that will be identified through the Comprehensive Plan process and other master plan updates. Allocation of these funds will be part of the CIP process in 2015.

At year-end 2013, the impact fee fund balance after transfers to fund CIP projects and debt was $4,167,385 ($3,057,782 for transportation and $1,109,603 for parks). The City's practice is to allocate impact fee-related revenues to qualifying capital projects in the order that they are received (i.e., first-in, first-out). Note that the Washington State Legislature extended the time period to expend impact fees to ten years from collection date. The City Council amended the Kirkland Municipal Code to reflect that change on September 20, 2011.

The following table shows impact fee revenues expended on projects and debt service payments since 1999.

Year	Project Name (Project Number)		Transportation	Parks
1999 through 2006			$2,659,761	$160,000
2007	124th Ave NE Roadway Improvements	(CST0059000)	89,919	
	NE 120th St Roadway Extension	(CST0057000)	309,000	
	Heritage Park Development	(CPK0095000)		155,000
2008	124th Ave NE Roadway Improvements	(CST0059000)	40,000	
	NE 85th St/132nd Ave NE Intersection Improvements	(CTR0078000)	279,000	
	NE 68th/108th Ave Intersection Improvements	(CTR0085000)	400,000	
	NE 85th St/114th Ave Intersection Improvements	(CTR0079000)	356,000	
	NE 85th/124th Ave Intersection Improvements	(CTR0080000)	179,000	
	Park Acquisition-Shelton Property	(CPK0131001)		81,573
	Park & Open Space Acquisition Program	(CPK0131000)		367,500
	Teen Center Debt Service Payment			40,185
	McAuliffe Park Debt Service Payment			231,365
2009	NE 120th St Roadway Extension	(CST0057000)	672,000	
	NE 68th/108th Ave Intersection Improvements	(CTR0085000)	562,000	
	Teen Center Debt Service Payment			44,650
	McAuliffe Park Debt Service Payment			231,415
2010	No CIP Projects were funded from impact fees			
	Teen Center Debt Service Payment			44,650
	McAuliffe Park Debt Service Payment			229,803
2011	No CIP Projects were funded from impact fees			
	McAuliffe Park Debt Service Payment			97,500
2012	No CIP Projects were funded from impact fees			
	Teen Center Debt Service Payment			40,185
	McAuliffe Park Debt Service Payment			100,000
2013	100th Ave/NE 132nd Intersection Improvements	(CTR0083000)	350,000	
	Teen Center Debt Service Payment			44,650
	McAuliffe Park Debt Service Payment			251,492
Total impact fee revenues transferred to projects through 2013 *			**$5,896,680**	**$2,119,968**
	Impact fees collected through 2013		8,531,568	3,105,172
	Interest accrued through 2013		422,894	124,399
Total impact fee collections and interest			**$8,954,462**	**$3,229,571**
Impact fee balance			**$3,057,782**	**$1,109,603**

* Includes transfer of interest on impact fee balances

Upcoming Impact Fee Updates

Transportation and Parks

As part of the Kirkland 2035 planning effort, the Transportation Master Plan (TMP) and Parks, Recreation, and Open Space Plan (PROS) will be updated. The results of these updates will be incorporated into the Capital Facilities element of the Comprehensive Plan, which forms the basis for the Transportation and Parks impact fees. The updated Comprehensive Plan is expected to be adopted in 2015.

As part of the 2013-2014 budget, a service package was approved to update the Transportation and Parks impact fees. A preliminary evaluation of impact fees is underway as part of the draft plans. The evaluations will be updated in 2015 based on the adopted plans and the Capital Facilities Plan, the results of which will be brought forward for City Council consideration.

School Impact Fees

Lake Washington School District (LWSD) recently provided the City of Kirkland with its 6-year Capital Facilities Plan, which includes an updated school impact fee calculation indicating an increase from $6,302 to $9,623 for each single family residence. The City Council would need to take a formal action to enact an increase to the school impact fee and staff is in communication with LWSD to determine their timetable for presenting the request to the City Council. More information will be provided at future Council meetings.

Attachments (3)

cc: Dave Snider, Capital Projects Manager
Rob Jammerman, Development Engineering Manager
Jennifer Schroder, Parks & Community Services Director
Michael Cogle, Parks Planning & Development Manager
Teresa Swan, Senior Planner
Tom Mikesell, Financial Planning Manager

Attachment A

City of Kirkland

2013 Impact Fee Report - Summary

Zone Collected	Amount Collected	
	Transportation	Parks
East		
Single Family Residential	$75,513	$75,331
Subtotal East	**$75,513**	**$75,331**
North		
Multi-Family/Non-Residential	$499,662	$0
Single Family Residential	$426,824	$427,259
Subtotal North	**$926,486**	**$427,259**
Northeast		
Multi-Family/Non-Residential	$55,060	$0
Subtotal Northeast	**$55,060**	**$0**
Northwest		
Multi-Family/Non-Residential	$16,103	$0
Single Family Residential	$82,731	$88,584
Subtotal Northwest	**$98,834**	**$88,584**
Southwest		
Multi-Family/Non-Residential	$82,743	$7,071
Single Family Residential	$93,571	$116,150
Subtotal Southwest	**$176,313**	**$123,221**
Total Collected - All Zone	**$1,332,206**	**$714,395**

City of Kirkland

Transportation Impact Fee Tracking - 2013 Revenue

Date Received	Payer/ApplicantName	Amount Received	Case # (link to Egov)
East - Single Family Residential			
1/2/2013	DGR DEVELOPMENT	$3,825	BSF12-04085
2/25/2013	BRIAN THORPE	$966	BLD11-00099
4/8/2013	OAKVIEW HOMES LLC	$3,942	BSF13-00866
4/25/2013	DGR DEVELOPMENT INC	$3,942	BSF13-01448
5/17/2013	SG LAND GROUP LLC	$3,942	BSF13-02166
5/20/2013	NATURAL & BUILT ENVIRONMENT	$3,825	BLD11-00656
8/13/2013	MERIT HOMES INC	$3,942	BSF13-02689
8/13/2013	MERIT HOMES INC	$702	BSF13-02759
8/13/2013	MERIT HOMES INC	$3,240	BSF13-02759
8/16/2013	MERIT HOMES INC	$3,942	BSF13-02757
8/27/2013	OAKVIEW HOMES LLC	$3,942	BSF13-03437
9/3/2013	KURTIS HOLMES	$3,825	BSF12-02769
9/5/2013	WISTI LANE LLC	$3,942	BSF13-02697
9/10/2013	MICHAEL SMITH	$3,942	BSF13-02782
9/19/2013	EE-NA ENTERPRISES	$3,942	BSF13-02223
10/11/2013	DAVE MAIN CREATIVE HOME PAR	$3,942	BSF13-01924
10/14/2013	ANDREW MICHAEL CONSTRUCTI	$3,942	BSF13-04251
10/21/2013	HIGHPOINT INVESTMENTS LLC	$3,942	BSF13-04638
11/5/2013	HIGHPOINT INVESTMENTS LLC	$3,942	BSF13-04637
11/7/2013	MERIT HOMES INC	$3,942	BSF13-02760
12/5/2013	QUADRANT HOMES	$3,942	BSF13-03054
	subtotal:	**$75,513**	
North - Multi-Family/Non-Residential			
6/17/2013	RON ESCARDA BHC FAIRFAX HOS	$181,078	BNR12-04529
8/28/2013	MICHAEL O'BRIEN OB KIRKLAND P	$308,358	BNR13-00716
12/10/2013	MICHAEL O'BRIEN OB KIRKLAND P	$10,227	BNR13-00716
	subtotal:	**$499,662**	
North - Single Family Residential			
1/3/2013	BURNSTEAD CONSTRUCTION LLC	$3,825	BSF12-03872
1/11/2013	HARBOUR HOMES LLC	$3,825	BSF12-03879
1/11/2013	HARBOUR HOMES LLC	$3,825	BSF12-03881
1/25/2013	TOLL WA LP	$314	BSF12-02534

Date Received	Payer/ApplicantName	Amount Received	Case # (link to Egov)
1/25/2013	TOLL WA LP	$314	BSF12-02542
1/25/2013	TOLL WA LP	$314	BSF12-02547
2/1/2013	MERIT HOMES INC	$3,825	BSF12-03944
2/1/2013	HARBOUR HOMES LLC	$3,825	BSF12-04136
2/1/2013	HARBOUR HOMES LLC	$3,825	BSF12-04138
2/4/2013	MERIT HOMES INC	$3,825	BSF12-03991
2/8/2013	PANORAMA ESTATES LLC	$3,825	BSF12-04336
2/13/2013	TOLL WA LP	$3,825	BSF12-03097
2/13/2013	TOLL WA LP	$3,825	BSF12-03098
2/13/2013	TOLL WA LP	$3,825	BSF12-03686
2/14/2013	HARBOUR HOMES LLC	$3,825	BSF12-04445
2/14/2013	HARBOUR HOMES LLC	$3,825	BSF12-04446
2/21/2013	TOLL WA LP	$3,942	BSF12-04907
2/25/2013	RICK BURNSTEAD CONSTRUCTIO	$3,942	BSF13-00619
2/25/2013	RICK BURNSTEAD CONSTRUCTIO	$3,942	BSF13-00620
2/27/2013	PARAMOUNT INTERNATIONAL, LL	$3,825	BSF12-03774
3/5/2013	SELECT HOMES INC	$3,942	BSF13-00669
3/5/2013	SELECT HOMES INC	$3,942	BSF13-00670
3/5/2013	SELECT HOMES INC	$3,942	BSF13-00672
3/8/2013	RICK BURNSTEAD CONSTRUCTIO	$3,942	BSF13-00617
3/8/2013	RICK BURNSTEAD CONSTRUCTIO	$3,942	BSF13-00623
3/13/2013	HARBOUR HOMES LLC	$3,942	BSF13-00027
3/13/2013	BURNSTEAD CONSTRUCTION LLC	$3,942	BSF13-00983
3/14/2013	SELECT HOMES INC	$3,942	BSF13-00646
3/14/2013	SELECT HOMES INC	$3,942	BSF13-00647
3/14/2013	SELECT HOMES INC	$3,942	BSF13-00648
3/19/2013	RICK BURNSTEAD CONSTRUCTIO	$3,942	BSF13-00540
3/27/2013	HARBOUR HOMES LLC	$3,942	BSF13-00375
3/27/2013	SELECT HOMES INC	$3,942	BSF13-01282
3/27/2013	SELECT HOMES INC	$3,942	BSF13-01297
3/29/2013	TOLL WA LP	$3,825	BSF12-03717
3/29/2013	TOLL WA LP	$3,942	BSF13-00028
4/3/2013	PANORAMA ESTATES LLC	$3,942	BSF13-00827
4/3/2013	PANORAMA ESTATES LLC	$3,942	BSF13-00828
4/3/2013	RICK BURNSTEAD CONSTRUCTIO	$3,942	BSF13-01442
4/4/2013	TOLL WA LP	$3,825	BSF12-04846
4/4/2013	TOLL WA LP	$3,825	BSF12-04866
4/4/2013	TOLL WA LP	$3,942	BSF13-00118

Date Received	Payer/ApplicantName	Amount Received	Case # (link to Egov)
4/10/2013	HARBOUR HOMES LLC	$3,942	BSF13-00410
4/11/2013	SELECT HOMES INC	$3,942	BSF13-01291
4/11/2013	SELECT HOMES INC	$3,942	BSF13-01295
4/25/2013	HARBOUR HOMES LLC	$3,942	BSF13-00693
4/25/2013	BURNSTEAD CONSTRUCTION LLC	$3,942	BSF13-01714
4/26/2013	PANORAMA ESTATES LLC	$3,942	BSF13-01107
4/29/2013	SELECT HOMES INC	$3,942	BSF13-01292
4/29/2013	SELECT HOMES INC	$3,942	BSF13-01296
4/30/2013	MERIT HOMES INC	$3,825	BSF12-04794
4/30/2013	MERIT HOMES INC	$3,825	BSF12-04795
4/30/2013	JOHN F BUCHAN HOMES	$3,942	BSF13-00722
4/30/2013	BURNSTEAD CONSTRUCTION LLC	$3,942	BSF13-01669
5/2/2013	RICK BURNSTEAD CONSTRUCTIO	$3,942	BSF13-01445
5/3/2013	TOLL WA LP	$3,942	BSF13-00119
5/3/2013	TOLL WA LP	$3,942	BSF13-00121
5/8/2013	MIKE & ANGELA ANTEMIE	$3,825	BSF12-01671
5/9/2013	TOLL WA LP	$3,942	BSF13-00120
5/14/2013	KENNETH KEHLE	$3,624	BSF13-01124
5/15/2013	HARBOUR HOMES LLC	$3,942	BSF13-00695
5/29/2013	RICK BURNSTEAD CONSTRUCTIO	$3,942	BSF13-01613
5/29/2013	RICK BURNSTEAD CONSTRUCTIO	$3,942	BSF13-01615
6/5/2013	BURNSTEAD CONSTRUCTION LLC	$3,942	BSF13-02506
6/5/2013	BURNSTEAD CONSTRUCTION LLC	$3,942	BSF13-02548
6/6/2013	WEST TIER DOOR CORPORATION	$3,942	BSF13-01808
6/11/2013	TOLL WA LP	($3,942)	BSF13-00118
6/11/2013	SELECT HOMES INC	$3,942	BSF13-00768
6/11/2013	SELECT HOMES INC	$3,942	BSF13-02051
6/28/2013	PANORAMA ESTATES LLC	$3,942	BSF13-01696
7/8/2013	JAMES KERBY BENJAMIN RYAN C	$3,825	BSF12-04164
7/8/2013	SELECT HOMES INC	$3,942	BSF13-02049
7/8/2013	SELECT HOMES INC	$3,942	BSF13-02052
7/10/2013	BURNSTEAD CONSTRUCTION LLC	$3,942	BSF13-02471
7/10/2013	BURNSTEAD CONSTRUCTION LLC	$3,942	BSF13-03313
7/17/2013	RICK BURNSTEAD CONSTRUCTIO	$3,942	BSF13-03100
7/23/2013	PANORAMA ESTATES LLC	$3,942	BSF13-01697
7/23/2013	PANORAMA ESTATES LLC	$3,942	BSF13-02190
7/23/2013	PANORAMA ESTATES LLC	$3,942	BSF13-02546
7/23/2013	PANORAMA ESTATES LLC	$3,942	BSF13-02875

Date Received	Payer/ApplicantName	Amount Received	Case # (link to Egov)
7/26/2013	PNW CONSTRUCTION AND DESIG	$3,942	BSF13-02399
7/26/2013	PNW CONSTRUCTION AND DESIG	$3,942	BSF13-03140
7/26/2013	PNW CONSTRUCTION AND DESIG	$3,942	BSF13-03142
7/26/2013	PNW CONSTRUCTION AND DESIG	$3,942	BSF13-03143
7/29/2013	RICH & MICHELLE HUNT	$3,942	BSF13-02463
7/29/2013	GAMUT 360 HOLDINGS LLC	$3,942	BSF13-03488
7/29/2013	GAMUT 360 HOLDINGS LLC	$3,942	BSF13-03496
7/30/2013	SHANNON ALLBAUGH	$3,825	KC B10L0113
8/6/2013	WEST TIER DEVELOPMENT CORP	$3,942	BSF13-03111
8/13/2013	BEACHWORKS LLC	$3,942	BSF13-02872
8/13/2013	JOHN BUCHAN HOMES LLC	$3,942	BSF13-03304
8/21/2013	SIVAKUMAAR & SIGMA NAGALING	$3,825	BSF12-03624
8/27/2013	BURNSTEAD CONSTRUCTION LLC	$3,942	BSF13-03964
8/28/2013	KEVIN STIGERTS	$3,942	BSF13-01114
8/30/2013	TOLL WA LP	$3,942	BSF13-03009
9/10/2013	STEVE JENSEN HOMES	$3,942	BSF13-04166
9/11/2013	SELECT HOMES INC	$3,942	BSF13-02048
9/27/2013	PNW CONSTRUCTION & DESIGN L	$3,942	BSF13-03786
10/2/2013	FRIENDS OF YOUTH	$788	BSF13-03294
10/2/2013	FRIENDS OF YOUTH	$788	BSF13-03297
10/3/2013	OLEG PONOMAR UNIQUE DESIGN	$3,942	BSF13-02055
10/10/2013	GAMUT 360 HOLDINGS LLC	$3,942	BSF13-03491
10/10/2013	GAMUT 360 HOLDINGS LLC	$3,942	BSF13-03494
10/10/2013	BURNSTEAD CONSTRUCTION LLC	$3,942	BSF13-05266
10/10/2013	BURNSTEAD CONSTRUCTION LLC	$3,942	BSF13-05267
10/18/2013	OLEG PONOMAR UNIQUE DESIGN	$3,942	BSF13-01111
10/24/2013	PANORAMA ESTATES LLC	$3,942	BSF13-04845
10/24/2013	BURNSTEAD CONSTRUCTION LLC	$3,942	BSF13-05421
10/25/2013	BURNSTEAD CONSTRUCTION LLC	$3,942	BSF13-05528
10/30/2013	JOHN BUCHAN HOMES LLC	$3,942	BSF13-04380
11/8/2013	BILL & TERRY HILL	$3,942	BSF13-02084
11/25/2013	NONA ADAMS	$3,942	BSF13-03246
11/27/2013	FRIENDS OF YOUTH	$788	BSF13-05568
11/27/2013	FRIENDS OF YOUTH	$788	BSF13-05570
12/6/2013	JOSEPH HERR BURNSTEAD CONS	$3,942	BSF13-06510
12/6/2013	BURNSTEAD CONSTRUCTION LLC	$3,942	BSF13-06543
12/6/2013	BURNSTEAD CONSTRUCTION LLC	$3,942	BSF13-06545
	subtotal:	**$426,824**	

Date Received	Payer/ApplicantName	Amount Received	Case # (link to Egov)
Northeast - Multi-Family/Non-Residential			
2/7/2013	RADFORD INVESTMENTS	$1,797	BNR12-03765
3/21/2013	S & I OF WA L L C	$8,837	BNR13-01064
8/8/2013	AGM INC	$43,491	BNR13-03147
12/10/2013	KIRKLAND-TOTEM REAL ESTATE	$935	BNR13-04442
	subtotal:	**$55,060**	
Northwest - Multi-Family/Non-Residential			
3/22/2013	620 LLC	$5,831	BNR12-00476
11/18/2013	KD MARTIN PROPERTIES LLC	$2,424	BMU13-03160
11/18/2013	KD MARTIN PROPERTIES LLC	$7,848	BMU13-03160
	subtotal:	**$16,103**	
Northwest - Single Family Residential			
2/6/2013	ICHIJO USA CO LTD	$3,825	BSF12-03874
3/11/2013	IRETA LLC	$3,825	BSF12-04536
3/12/2013	MERIDIAN INC	$3,825	BLD11-00161
3/20/2013	HO FAMILY LLC	$3,825	BLD12-00180
5/21/2013	WINFIELD HOMES LLC	$3,825	BLD12-00127
6/3/2013	WINFIELD HOMES LLC	$3,825	BSF12-01530
6/6/2013	GREGORY YELKIN	$680	BSF13-01007
6/12/2013	SARAH & ANDY IMBACH/NOWKA	$3,942	BSF13-01305
7/12/2013	TOM AND JAN REICHERT	$3,942	BSF13-01637
7/23/2013	DEANNA & JOERN MORTENSEN	$3,942	BSF13-01141
7/26/2013	SHIRLEY HOOD	$3,942	BSF13-02916
8/20/2013	CYNTHIA & BRIAN WARNER	$3,942	BSF13-03863
8/27/2013	JAVAD MAADANIAN	$88	BSF13-01142
10/3/2013	COLLZ INC	$1,382	BSF13-03870
10/3/2013	COLLZ INC	$2,560	BSF13-03870
10/9/2013	SG LAND GROUP LLC	$3,942	BSF13-05018
10/10/2013	RICK BURNSTEAD CONSTRUCTIO	$3,942	BSF13-03456
10/10/2013	EDWARD MILLER	$3,942	BSF13-04955
11/8/2013	JOHN LUX LUX CUSTOM HOMES	$3,942	BSF13-02719
11/12/2013	BENJAMIN RYAN COMMUNITIES L	$3,825	BSF12-02016
12/10/2013	CROSSMARK HOMES, LLC	$3,942	BSF13-04743
12/10/2013	CROSSMARK HOMES, LLC	$3,942	BSF13-04897
12/12/2013	ROBERT NEHRBAS	$3,942	BSF13-05541
12/26/2013	10011 BRIDGEPORT WAY SW BEN	$3,942	BSF13-05004

Date Received	Payer/ApplicantName	Amount Received	Case # (link to Egov)
	subtotal:	**$82,731**	
Southwest - Multi-Family/Non-Residential			
5/3/2013	SIMCA LIMITED PARTNERSHIP	$76,602	BNR13-01067
9/10/2013	CONNER DEVELOPMENT AND CO	$6,141	BMF13-01698
	subtotal:	**$82,743**	
Southwest - Single Family Residential			
1/16/2013	DALE & JOANIE SUNITSCH & DOL	$3,825	BSF12-03529
1/22/2013	KAHREN TEVOSYAN	$3,825	BSF12-02519
1/23/2013	TOLL WA LP	$3,825	BSF12-04150
1/28/2013	JARROD & JENNA TODD	$3,825	BSF12-04654
2/1/2013	TOLL WA LP	$3,825	BSF12-04343
3/19/2013	TOLL WA LP	$3,825	BSF12-04858
3/21/2013	TOLL WA LP	$4,484	BSF12-03235
3/21/2013	TOLL WA LP	$687	BSF13-00184
3/21/2013	TOLL WA LP	$2,311	BSF13-00186
3/21/2013	TOLL WA LP	$2,311	BSF13-00189
4/30/2013	TOLL WA LP	$2,242	BSF12-03556
4/30/2013	TOLL WA LP	$2,242	BSF12-03557
4/30/2013	TOLL WA LP	$2,242	BSF12-03576
6/7/2013	DAN WOZNIAK	$3,942	BSF13-02406
7/8/2013	TENTH & STATE LLC	($2,191)	BLD10-00275
8/5/2013	JEFF KRUEGER	$3,825	BLD11-00467
8/8/2013	ADAM & SALIANA BENZION	$3,942	BSF13-02590
8/15/2013	TOLL WA LP	$3,942	BSF13-01822
8/15/2013	TOLL WA LP	$3,942	BSF13-02002
8/15/2013	TOLL WA LP	$3,942	BSF13-02054
8/27/2013	DARYL & MICHELLE CONNELL	$3,942	BSF13-04225
9/10/2013	KIRKLAND CENTER POINT II LLC	$2,242	BSF12-01736
9/23/2013	KIRKLAND CENTER POINT II LLC	$2,242	BSF12-01736
10/4/2013	9720 NE 120TH PL TOLL WA LP	$4,622	BSF13-00159
10/4/2013	MERIT HOMES INC	$3,942	BSF13-02167
10/14/2013	ANTHONY SABEGH	$3,942	BSF13-02988
11/5/2013	TOLL WA LP	$3,942	BSF13-05355
11/7/2013	KEVIN RECH	$3,942	BSF13-03060
11/21/2013	TOLL WA LP	$3,942	BSF13-05233
	subtotal:	**$93,571**	

Date Received	Payer/ApplicantName	Amount Received	Case # (link to Egov)

Total Transportation Impact Fees: $1,332,206

City of Kirkland

Park Impact Fee Tracking - 2013 Revenue

Date Received	Payer/ApplicantName	Amount Received	Case # (link to Egov)
East - Single Family Residential			
1/2/2013	DGR DEVELOPMENT	$3,845	BSF12-04085
2/25/2013	BRIAN THORPE	$612	BLD11-00099
4/8/2013	OAKVIEW HOMES LLC	$3,949	BSF13-00866
4/25/2013	DGR DEVELOPMENT INC	$3,949	BSF13-01448
5/17/2013	SG LAND GROUP LLC	$3,949	BSF13-02166
5/20/2013	NATURAL & BUILT ENVIRONMENT	$3,845	BLD11-00656
8/13/2013	MERIT HOMES INC	$3,949	BSF13-02689
8/13/2013	MERIT HOMES INC	$3,949	BSF13-02759
8/16/2013	MERIT HOMES INC	$3,949	BSF13-02757
8/27/2013	OAKVIEW HOMES LLC	$3,949	BSF13-03437
9/3/2013	KURTIS HOLMES	$3,845	BSF12-02769
9/5/2013	WISTI LANE LLC	$3,949	BSF13-02697
9/10/2013	MICHAEL SMITH	$3,949	BSF13-02782
9/19/2013	EE-NA ENTERPRISES	$3,949	BSF13-02223
10/11/2013	DAVE MAIN CREATIVE HOME PAR	$3,949	BSF13-01924
10/14/2013	ANDREW MICHAEL CONSTRUCTI	$3,949	BSF13-04251
10/21/2013	HIGHPOINT INVESTMENTS LLC	$3,949	BSF13-04638
11/5/2013	HIGHPOINT INVESTMENTS LLC	$3,949	BSF13-04637
11/7/2013	MERIT HOMES INC	$3,949	BSF13-02760
12/5/2013	QUADRANT HOMES	$3,949	BSF13-03054
	subtotal:	**$75,331**	
North - Single Family Residential			
1/3/2013	BURNSTEAD CONSTRUCTION LLC	$3,845	BSF12-03872
1/11/2013	HARBOUR HOMES LLC	$3,845	BSF12-03879
1/11/2013	HARBOUR HOMES LLC	$3,845	BSF12-03881
2/1/2013	MERIT HOMES INC	$3,845	BSF12-03944
2/1/2013	HARBOUR HOMES LLC	$3,845	BSF12-04136
2/1/2013	HARBOUR HOMES LLC	$3,845	BSF12-04138
2/4/2013	MERIT HOMES INC	$3,845	BSF12-03991
2/8/2013	PANORAMA ESTATES LLC	$3,845	BSF12-04336
2/13/2013	TOLL WA LP	$3,845	BSF12-03097
2/13/2013	TOLL WA LP	$3,845	BSF12-03098

Date Received	Payer/ApplicantName	Amount Received	Case # (link to Egov)
2/13/2013	TOLL WA LP	$3,845	BSF12-03686
2/14/2013	HARBOUR HOMES LLC	$3,845	BSF12-04445
2/14/2013	HARBOUR HOMES LLC	$3,845	BSF12-04446
2/21/2013	TOLL WA LP	$3,949	BSF12-04907
2/25/2013	RICK BURNSTEAD CONSTRUCTIO	$3,949	BSF13-00619
2/25/2013	RICK BURNSTEAD CONSTRUCTIO	$3,949	BSF13-00620
2/27/2013	PARAMOUNT INTERNATIONAL, LL	$3,845	BSF12-03774
3/5/2013	SELECT HOMES INC	$3,949	BSF13-00669
3/5/2013	SELECT HOMES INC	$3,949	BSF13-00670
3/5/2013	SELECT HOMES INC	$3,949	BSF13-00672
3/8/2013	RICK BURNSTEAD CONSTRUCTIO	$3,949	BSF13-00617
3/8/2013	RICK BURNSTEAD CONSTRUCTIO	$3,949	BSF13-00623
3/13/2013	HARBOUR HOMES LLC	$3,949	BSF13-00027
3/13/2013	BURNSTEAD CONSTRUCTION LLC	$3,949	BSF13-00983
3/14/2013	SELECT HOMES INC	$3,949	BSF13-00646
3/14/2013	SELECT HOMES INC	$3,949	BSF13-00647
3/14/2013	SELECT HOMES INC	$3,949	BSF13-00648
3/19/2013	RICK BURNSTEAD CONSTRUCTIO	$3,949	BSF13-00540
3/27/2013	HARBOUR HOMES LLC	$3,949	BSF13-00375
3/27/2013	SELECT HOMES INC	$3,949	BSF13-01282
3/27/2013	SELECT HOMES INC	$3,949	BSF13-01297
3/29/2013	TOLL WA LP	$3,845	BSF12-03717
3/29/2013	TOLL WA LP	$3,949	BSF13-00028
4/3/2013	PANORAMA ESTATES LLC	$3,949	BSF13-00827
4/3/2013	PANORAMA ESTATES LLC	$3,949	BSF13-00828
4/3/2013	RICK BURNSTEAD CONSTRUCTIO	$3,949	BSF13-01442
4/4/2013	TOLL WA LP	$3,845	BSF12-04846
4/4/2013	TOLL WA LP	$3,845	BSF12-04866
4/4/2013	TOLL WA LP	$3,949	BSF13-00118
4/10/2013	HARBOUR HOMES LLC	$3,949	BSF13-00410
4/11/2013	SELECT HOMES INC	$3,949	BSF13-01291
4/11/2013	SELECT HOMES INC	$3,949	BSF13-01295
4/25/2013	HARBOUR HOMES LLC	$3,949	BSF13-00693
4/25/2013	BURNSTEAD CONSTRUCTION LLC	$3,949	BSF13-01714
4/26/2013	PANORAMA ESTATES LLC	$3,949	BSF13-01107
4/29/2013	SELECT HOMES INC	$3,949	BSF13-01292
4/29/2013	SELECT HOMES INC	$3,949	BSF13-01296
4/30/2013	MERIT HOMES INC	$3,845	BSF12-04794

Date Received	Payer/ApplicantName	Amount Received	Case # (link to Egov)
4/30/2013	MERIT HOMES INC	$3,845	BSF12-04795
4/30/2013	JOHN F BUCHAN HOMES	$3,949	BSF13-00722
4/30/2013	BURNSTEAD CONSTRUCTION LLC	$3,949	BSF13-01669
5/2/2013	RICK BURNSTEAD CONSTRUCTIO	$3,949	BSF13-01445
5/3/2013	TOLL WA LP	$3,949	BSF13-00119
5/3/2013	TOLL WA LP	$3,949	BSF13-00121
5/8/2013	MIKE & ANGELA ANTEMIE	$3,845	BSF12-01671
5/9/2013	TOLL WA LP	$3,949	BSF13-00120
5/14/2013	KENNETH KEHLE	$3,949	BSF13-01124
5/15/2013	HARBOUR HOMES LLC	$3,949	BSF13-00695
5/29/2013	RICK BURNSTEAD CONSTRUCTIO	$3,949	BSF13-01613
5/29/2013	RICK BURNSTEAD CONSTRUCTIO	$3,949	BSF13-01615
6/5/2013	BURNSTEAD CONSTRUCTION LLC	$3,949	BSF13-02506
6/5/2013	BURNSTEAD CONSTRUCTION LLC	$3,949	BSF13-02548
6/6/2013	WEST TIER DOOR CORPORATION	$3,949	BSF13-01808
6/11/2013	TOLL WA LP	($3,949)	BSF13-00118
6/11/2013	SELECT HOMES INC	$3,949	BSF13-00768
6/11/2013	SELECT HOMES INC	$3,949	BSF13-02051
6/28/2013	PANORAMA ESTATES LLC	$3,949	BSF13-01696
7/8/2013	JAMES KERBY BENJAMIN RYAN C	$3,845	BSF12-04164
7/8/2013	SELECT HOMES INC	$3,949	BSF13-02049
7/8/2013	SELECT HOMES INC	$3,949	BSF13-02052
7/10/2013	BURNSTEAD CONSTRUCTION LLC	$3,949	BSF13-02471
7/10/2013	BURNSTEAD CONSTRUCTION LLC	$3,949	BSF13-03313
7/17/2013	RICK BURNSTEAD CONSTRUCTIO	$3,949	BSF13-03100
7/23/2013	PANORAMA ESTATES LLC	$3,949	BSF13-01697
7/23/2013	PANORAMA ESTATES LLC	$3,949	BSF13-02190
7/23/2013	PANORAMA ESTATES LLC	$3,949	BSF13-02546
7/23/2013	PANORAMA ESTATES LLC	$3,949	BSF13-02875
7/26/2013	PNW CONSTRUCTION AND DESIG	$3,949	BSF13-02399
7/26/2013	PNW CONSTRUCTION AND DESIG	$3,949	BSF13-03140
7/26/2013	PNW CONSTRUCTION AND DESIG	$3,949	BSF13-03142
7/26/2013	PNW CONSTRUCTION AND DESIG	$3,949	BSF13-03143
7/29/2013	RICH & MICHELLE HUNT	$3,949	BSF13-02463
7/29/2013	GAMUT 360 HOLDINGS LLC	$3,949	BSF13-03488
7/29/2013	GAMUT 360 HOLDINGS LLC	$3,949	BSF13-03496
7/30/2013	SHANNON ALLBAUGH	$3,845	KC B10L0113
8/6/2013	WEST TIER DEVELOPMENT CORP	$3,949	BSF13-03111

Date Received	Payer/ApplicantName	Amount Received	Case # (link to Egov)
8/13/2013	BEACHWORKS LLC	$3,949	BSF13-02872
8/13/2013	JOHN BUCHAN HOMES LLC	$3,949	BSF13-03304
8/21/2013	SIVAKUMAAR & SIGMA NAGALING	$3,845	BSF12-03624
8/27/2013	BURNSTEAD CONSTRUCTION LLC	$3,949	BSF13-03964
8/28/2013	KEVIN STIGERTS	$3,949	BSF13-01114
8/30/2013	TOLL WA LP	$3,949	BSF13-03009
9/10/2013	STEVE JENSEN HOMES	$3,949	BSF13-04166
9/11/2013	SELECT HOMES INC	$3,949	BSF13-02048
9/27/2013	PNW CONSTRUCTION & DESIGN L	$3,949	BSF13-03786
10/2/2013	FRIENDS OF YOUTH	$790	BSF13-03294
10/2/2013	FRIENDS OF YOUTH	$790	BSF13-03297
10/3/2013	OLEG PONOMAR UNIQUE DESIGN	$3,949	BSF13-02055
10/10/2013	GAMUT 360 HOLDINGS LLC	$3,949	BSF13-03491
10/10/2013	GAMUT 360 HOLDINGS LLC	$3,949	BSF13-03494
10/10/2013	BURNSTEAD CONSTRUCTION LLC	$3,949	BSF13-05266
10/10/2013	BURNSTEAD CONSTRUCTION LLC	$3,949	BSF13-05267
10/18/2013	OLEG PONOMAR UNIQUE DESIGN	$3,949	BSF13-01111
10/24/2013	PANORAMA ESTATES LLC	$3,949	BSF13-04845
10/24/2013	BURNSTEAD CONSTRUCTION LLC	$3,949	BSF13-05421
10/25/2013	BURNSTEAD CONSTRUCTION LLC	$3,949	BSF13-05528
10/30/2013	JOHN BUCHAN HOMES LLC	$3,949	BSF13-04380
11/8/2013	BILL & TERRY HILL	$3,949	BSF13-02084
11/25/2013	NONA ADAMS	$3,949	BSF13-03246
11/27/2013	FRIENDS OF YOUTH	$790	BSF13-05568
11/27/2013	FRIENDS OF YOUTH	$790	BSF13-05570
12/6/2013	JOSEPH HERR BURNSTEAD CONS	$3,949	BSF13-06510
12/6/2013	BURNSTEAD CONSTRUCTION LLC	$3,949	BSF13-06543
12/6/2013	BURNSTEAD CONSTRUCTION LLC	$3,949	BSF13-06545
	subtotal:	**$427,259**	
Northwest - Single Family Residential			
2/6/2013	ICHIJO USA CO LTD	$3,845	BSF12-03874
3/11/2013	IRETA LLC	$3,845	BSF12-04536
3/12/2013	MERIDIAN INC	$3,845	BLD11-00161
3/20/2013	HO FAMILY LLC	$3,845	BLD12-00180
5/21/2013	WINFIELD HOMES LLC	$3,845	BLD12-00127
6/3/2013	WINFIELD HOMES LLC	$3,845	BSF12-01530
6/6/2013	GREGORY YELKIN	$1,217	BSF13-01007

Date Received	Payer/ApplicantName	Amount Received	Case # (link to Egov)
6/12/2013	SARAH & ANDY IMBACH/NOWKA	$3,949	BSF13-01305
7/12/2013	TOM AND JAN REICHERT	$3,949	BSF13-01637
7/23/2013	DEANNA & JOERN MORTENSEN	$3,949	BSF13-01141
7/26/2013	SHIRLEY HOOD	$3,949	BSF13-02916
8/9/2013	S & I PROPERTIES LLC	$5,166	BSF13-01719
8/20/2013	CYNTHIA & BRIAN WARNER	$3,949	BSF13-03863
10/3/2013	COLLZ INC	$3,949	BSF13-03870
10/9/2013	SG LAND GROUP LLC	$3,949	BSF13-05018
10/10/2013	RICK BURNSTEAD CONSTRUCTIO	$3,949	BSF13-03456
10/10/2013	EDWARD MILLER	$3,949	BSF13-04955
11/8/2013	JOHN LUX LUX CUSTOM HOMES	$3,949	BSF13-02719
11/12/2013	BENJAMIN RYAN COMMUNITIES L	$3,845	BSF12-02016
12/10/2013	CROSSMARK HOMES, LLC	$3,949	BSF13-04743
12/10/2013	CROSSMARK HOMES, LLC	$3,949	BSF13-04897
12/12/2013	ROBERT NEHRBAS	$3,949	BSF13-05541
12/26/2013	10011 BRIDGEPORT WAY SW BEN	$3,949	BSF13-05004
	subtotal:	**$88,584**	
Southwest - Multi-Family/Non-Residential			
9/10/2013	CONNER DEVELOPMENT AND CO	$7,071	BMF13-01698
	subtotal:	**$7,071**	
Southwest - Single Family Residential			
1/16/2013	DALE & JOANIE SUNITSCH & DOL	$3,845	BSF12-03529
1/18/2013	TOLL WA LP	$3,845	BSF12-02546
1/18/2013	TOLL WA LP	$3,845	BSF12-02548
1/22/2013	KAHREN TEVOSYAN	$3,845	BSF12-02519
1/23/2013	TOLL WA LP	$3,845	BSF12-04150
1/28/2013	JARROD & JENNA TODD	$3,845	BSF12-04654
2/1/2013	TOLL WA LP	$3,845	BSF12-04343
2/27/2013	TOLL WA LP	$3,845	BSF12-04852
3/19/2013	TOLL WA LP	$3,845	BSF12-04858
3/21/2013	TOLL WA LP	$5,030	BSF12-03235
3/21/2013	TOLL WA LP	$3,845	BSF12-04853
3/21/2013	TOLL WA LP	$2,583	BSF13-00184
3/21/2013	TOLL WA LP	$2,583	BSF13-00186
3/21/2013	TOLL WA LP	$2,583	BSF13-00189
4/30/2013	TOLL WA LP	$2,515	BSF12-03556

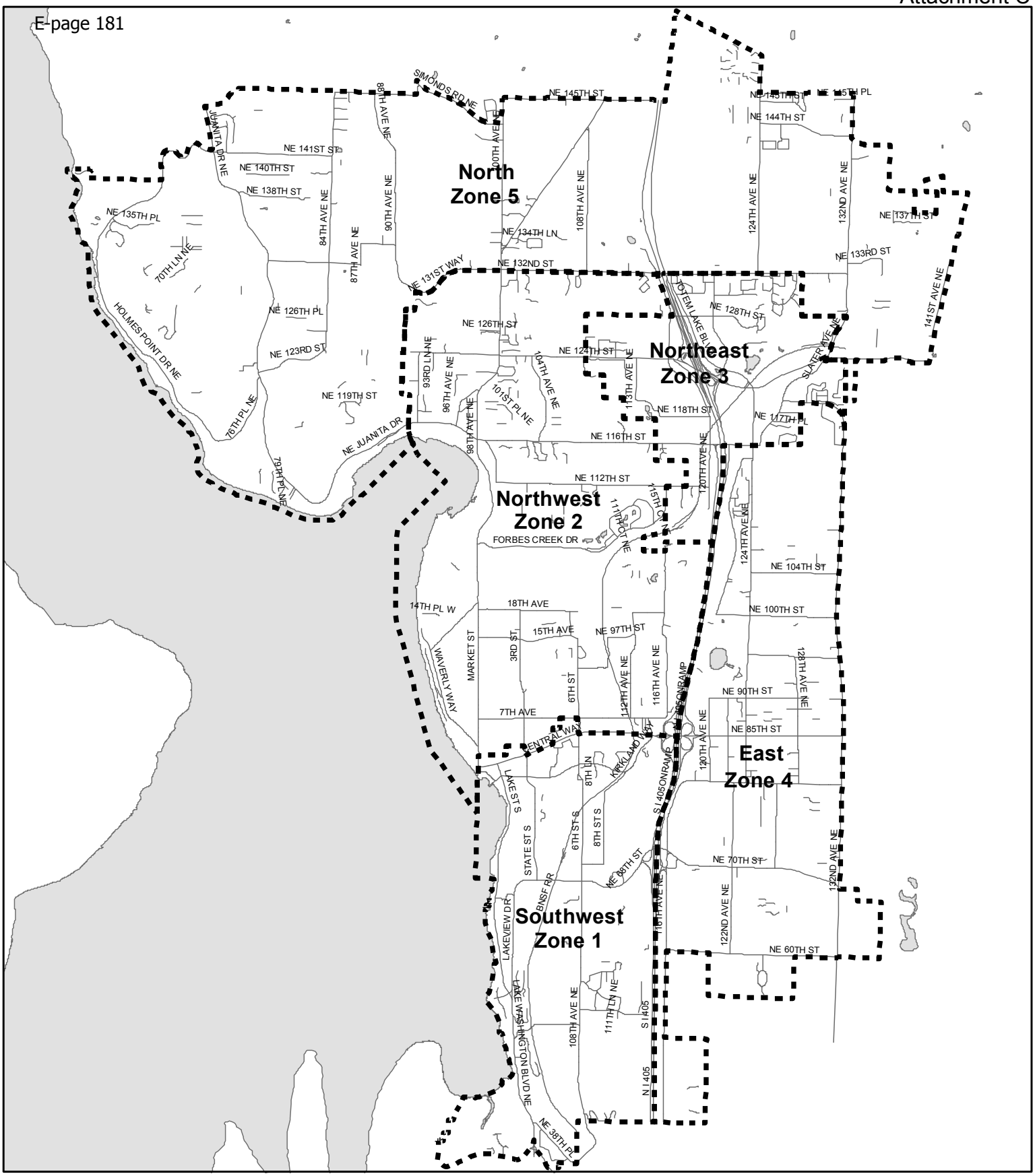
Date Received	Payer/ApplicantName	Amount Received	Case # (link to Egov)
4/30/2013	TOLL WA LP	$2,515	BSF12-03557
4/30/2013	TOLL WA LP	$2,515	BSF12-03576
6/7/2013	DAN WOZNIAK	$3,949	BSF13-02406
6/27/2013	9720 NE 120TH PL TOLL WA LP	($104)	BSF12-03577
8/5/2013	JEFF KRUEGER	$3,845	BLD11-00467
8/8/2013	ADAM & SALIANA BENZION	$3,949	BSF13-02590
8/15/2013	TOLL WA LP	$3,949	BSF13-01822
8/15/2013	TOLL WA LP	$3,949	BSF13-02002
8/15/2013	TOLL WA LP	$3,949	BSF13-02054
8/27/2013	DARYL & MICHELLE CONNELL	$3,949	BSF13-04225
9/10/2013	KIRKLAND CENTER POINT II LLC	$2,515	BSF12-01736
9/23/2013	KIRKLAND CENTER POINT II LLC	$2,515	BSF12-01736
10/4/2013	9720 NE 120TH PL TOLL WA LP	$5,166	BSF13-00159
10/4/2013	MERIT HOMES INC	$3,949	BSF13-02167
10/9/2013	ANTHONY SABEGH	$727	BSF13-02988
10/11/2013	ANTHONY SABEGH	$1,350	BSF13-02988
10/14/2013	ANTHONY SABEGH	$1,873	BSF13-02988
11/5/2013	TOLL WA LP	$3,949	BSF13-05355
11/7/2013	KEVIN RECH	$3,949	BSF13-03060
11/21/2013	TOLL WA LP	$3,949	BSF13-05233
	subtotal:	**$116,150**	
	Total Park Impact Fees:	**$714,395**	

Attachment B

City of Kirkland
Cumulative Impact Fee Report - Summary

1999-2013

Zone Collected	Amount Collected	
	Transportation	Parks
East		
Multi-Family/Non-Residential	$1,838,453	$336,854
Single Family Residential	$722,136	$615,783
Subtotal East	**$2,560,589**	**$952,637**
North		
Multi-Family/Non-Residential	$556,666	$12,575
Single Family Residential	$638,152	$634,889
Subtotal North	**$1,194,817**	**$647,464**
Northeast		
Multi-Family/Non-Residential	$1,631,142	$57,700
Single Family Residential	$13,485	$4,457
Subtotal Northeast	**$1,644,627**	**$62,157**
Northwest		
Multi-Family/Non-Residential	$774,021	$320,736
Single Family Residential	$454,880	$450,233
Subtotal Northwest	**$1,228,901**	**$770,969**
Southwest		
Multi-Family/Non-Residential	$1,463,194	$303,394
Single Family Residential	$439,439	$368,551
Subtotal Southwest	**$1,902,632**	**$671,945**
Total Collected - All Zone	**$8,531,568**	**$3,105,172**



Legend

- Transportation Subarea
- Lakes
- Street Centerline

City of Kirkland
Impact Fee Subareas

N
W E
S

0 0.25 0.5 1 Miles

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CITY OF KIRKLAND
Department of Finance & Administration
123 Fifth Avenue, Kirkland, WA 98033 425.587.3100
www.kirklandwa.gov

MEMORANDUM

To: Kurt Triplett, City Manager

From: Barry Scott, Purchasing Agent

Date: July 3, 2014

Subject: REPORT ON PROCUREMENT ACTIVITIES FOR COUNCIL MEETING OF AUGUST 6, 2014

This report is provided to apprise the Council of recent and upcoming procurement activities where the cost is estimated or known to be in excess of $50,000. The "Process" column on the table indicates the process being used to determine the award of the contract.

The City's major procurement activities initiated since the last report, dated July 3, 2014, are as follows:

	Project	Process	Estimate/Price	Status
1.	Development Services Website Architecture	Request for Proposals	$65,000 - $100,000	RFP issued on 6/19 with bids due on 7/18.
2.	Replacement Laptops for Fire Department Vehicles	Cooperative Purchase	$127,082.66	Ordered from Datec, Inc. of Seattle using WA State Master Contract.
3.	2013 Aging Infrastructure Replacement Project	Small Works Roster Process	$110,000 - $140,000	Project notice sent to contractors on 7/30 with bids due on 8/13.

Please contact me if you have any questions regarding this report.

CITY OF KIRKLAND
Department of Public Works
123 Fifth Avenue, Kirkland, WA 98033 425.587.3800
www.kirklandwa.gov

MEMORANDUM

To: Kurt Triplett, City Manager

From: Dave Snider, P.E., Capital Projects Manager
Rod Steitzer, P.E., Capital Projects Supervisor
Marilynne Beard, Interim Public Works Director

Date: July 24, 2014

Subject: JUANITA DRIVE CORRIDOR STUDY ADOPTION

RECOMMENDATION:

That City Council approves the attached resolution adopting the Juanita Drive Corridor Study (Study), together with any changes to the Study that may be needed as a result of this final review.

BACKGROUND DISCUSSION:

At their regular meeting of May 6, 2014 the City Council reviewed and discussed the draft Study for the Juanita Drive Corridor with limits extending from the intersection of Juanita Drive and 98th Avenue NE to the northern City boundary at NE 143rd Street (Attachment A). The Study included the profiling and evaluation of existing Corridor conditions, the conducting of a thorough public outreach and involvement process, the development and assessment of design alternatives, and the production of a recommended list of ranked improvements. Those recommended projects have been prioritized in the Study as "high", "medium", and "low" ratings based on a weighted average of five guiding principles and nine criteria categories. The guiding principles and criteria are found in Appendix B of the Study, and are summarized as follows:

Guiding Principles

- Address safety needs for all travel modes;
- Maintain the corridor's unique identity, diversity of roadway character and natural landscape;
- Respect neighborhood values and engage the community in a shared vision for future improvements;
- Protect the extraordinary natural environment and encourage low impact design approaches; and
- Provide a financially feasible, strategic and realistic set of community priorities for the Corridor.

Guiding Criteria

- Safety - Addresses existing Corridor safety
- Accessibility - Provides access to activities within the Corridor
- Identity - Consistency with Corridor identity and surrounding land uses

- Environment - Protection of natural environment
- Financial – Cost
- Fundable – Seek available funding sources
- Phasing - Ability to phase project
- Plan Consistency - Consistency with plans adopted by city and other jurisdictions
- Public Support - Identified public support

A list of individual capital improvement projects along Juanita Drive have been developed and recommended for incorporation into the Kirkland Transportation Master Plan 20 year project list.

Draft Overview:

Staff has incorporated answers to the questions and comments received from City Council at their May 6 meeting -- due to the size of the Study, links are provided to view the Study in specific sections: Executive Summary, Study & Outreach, Project Sheets, Profile.

In summary, the questions and comments received from City Council include:

- Cost

  Council asked to add the cost by prioritization to the Study. The costs for prioritized recommended projects are as follows: "high" (approximately $7 million), "medium" (approximately $8 million), and "low" (approximately $4 million). These costs have been added to the text on page 33.

  City Council also asked if the $1.35 million for 'quick wins' is part of the cost of the high priority projects. The total estimated project cost of $19 million, for all prioritized projects, without options, includes the $1.35 million for 'quick wins'; approximately $1 million of the $1.35 million 'quick win' projects are on the high priority list. The remaining $350,000 is comprised of smaller projects from the medium and low priority project lists. The cost for 'quick win' projects has been added to Table 4 on page 33.

- Bicycle lanes

  The basic road section associated with the full $19 million in recommended projects calls for installation of a bicycle lane in each direction throughout the Corridor. The 'quick win' bicycle lane project calls for the installation of pavement markings and signage in the northbound direction. As individual projects are funded in the future, the design process would replace the 'quick win' bicycle lane with pavement markings and signage that fit within each road section. A statement has been added for clarification on the *Uphill Bicycle Lane* section on page 40.

  City Council also asked if the bicycles lanes and bicycle lane buffer stripes would be painted, and commented on the use of physical barriers separating the bicyclist. In response, the Study involved close coordination with the bicycle community and found that community is not in favor of having physical barriers throughout the corridor. The Study team was also mindful of maintenance considerations and determined that the project design process will consider matters such as obstacles (i.e., garbage/recycling pads) as well as overall long-term maintenance for the bike lane. A statement regarding this has been added for clarification to the *Uphill Bicycle Lane* section on page 40.

Another question was raised regarding the use of green painted bicycle lanes in specific locations. In response, the use of green bicycle lane delineation is for the benefit of high visibility over short sections or intersections. A statement describing the use of green bicycle lanes can be found in the *Bicycle* section on page 29.

Conclusion:

The Study includes recommendations for a total of thirty-two (32) projects arranged into specific groupings; the estimated total cost range for all project groupings in $19 to $26 million. The ultimate design for each individual or project grouping will depend on future City Council decisions for things such as possible undergrounding aerial utilities, the adding of adjacent multipurpose trails, and the possible use of roundabouts as some examples.

Based on the results of the Study, together with the favorable response by City Council at the May 6 meeting, staff has submitted three grant applications seeking external funding for the Juanita Drive 'Quick Wins'. The first application was submitted in May and the City has already been notified that the Project has been placed on the contingency list for the *Countywide Non-Motorized Program*. In mid-July two additional applications were submitted to the Washington State Department of Transportation for the *State Pedestrian and Bicycle Safety Program,* and for the Federal *Citywide Safety Program*; the prioritized list of awarded WSDOT projects for both Programs will be available in Dec 2014.

With City Council's final review, staff recommends approval of the Juanita Corridor Study by Resolution.

Attachment A – Vicinity Map
Resolution

Vicinity Map
Juanita Drive Master Plan Corridor Study

RESOLUTION R-5066

A RESOLUTION OF THE CITY COUNCIL OF THE CITY OF KIRKLAND ADOPTING THE JUANITA DRIVE CORRIDOR STUDY.

WHEREAS, the City Council approved a Juanita Drive Corridor Study ("Study") as part of the 2013-2018 Capital Improvement Program update; and

WHEREAS, in April 2013, work began on the Study with the goal of assessing Juanita Drive Corridor needs and providing recommended improvements; and

WHEREAS, the boundaries of the Study extend from the intersection of Juanita Drive and 98th Avenue NE to Juanita Drive and NE 143rd Street, at the northern-western City limits; and

WHEREAS, to guide development of the Study, a Citizen Advisory Committee was formed and extensive community outreach was conducted; and

WHEREAS, the Transportation Commission was consulted throughout the Study and provided its expertise, review, and recommendations; and

WHEREAS, on May 6, 2014, the City Council reviewed a draft Study which included the evaluation and profiling of existing conditions, the development and assessment of design alternatives, and a recommended list of prioritized improvements; and

WHEREAS, the comments and direction received from the City Council following its review of the draft Study have been addressed in the final Study; and

WHEREAS, the Study recommendations consist of 32 projects grouped into packages with an estimated total cost range of $19 million to $26 million, depending on design options such as undergrounding aerial utilities, multipurpose trails, and roundabouts; and

WHEREAS, the Study identifies "quick-win" projects with an estimated cost of $1.35 million; and

WHEREAS, the remaining recommended projects have been prioritized into high, medium, and low ratings based on guiding principles and criteria established during the Study; and

WHEREAS, the new major projects of the Study have been recommended for incorporation into the Kirkland Transportation Master Plan and the 2015 Capital Improvement Program update;

NOW, THEREFORE, be it resolved by the City Council of the City of Kirkland as follows:

Section 1. The Juanita Drive Corridor Study attached as Exhibit A and incorporated by this reference is adopted.

Passed by majority vote of the Kirkland City Council in open meeting this _____ day of _____, 2014.

Signed in authentication thereof this ____ day of _____, 2014.

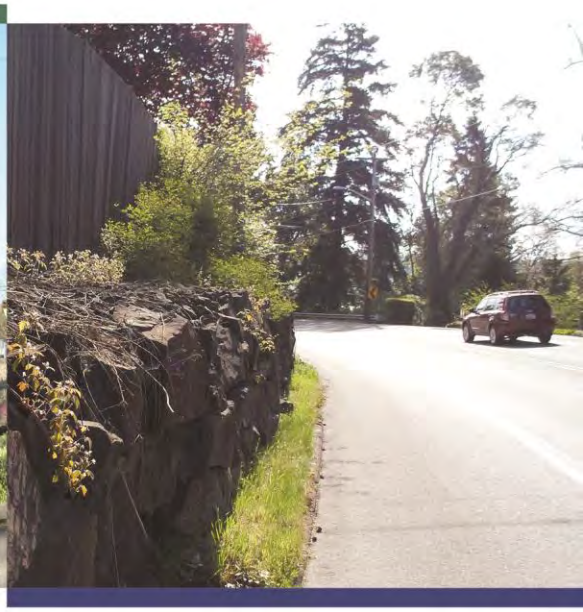
_____
MAYOR

Attest:

_____
City Clerk

JUANITA DRIVE Corridor Study

FINAL



FEHR & PEERS

Submitted To:
City of Kirkland
Public Works Department
123 - 5th Avenue
Kirkland, WA 98033

Submitted By:
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July 2014

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JUANITA DRIVE Corridor Study
SUMMARY

ABOUT THE STUDY

The City of Kirkland has developed a plan for future improvements to the Juanita Drive Corridor between Juanita Village and the northern City limits in Finn Hill. A key route around the northern end of Lake Washington between Kirkland and Kenmore, Juanita Drive serves over 10,000 vehicles per day and traverses steep topography with many twists, turns, and hills. The existing roadway geometry, multiple driveway access points, and limited sight distance complicate overall safety conditions along the corridor.

The Juanita Drive Corridor Study evaluates existing conditions, relies on input from stakeholders and users, and analyzes potential safety improvements for drivers, bicyclists and pedestrians. The study identifies key improvements that may be included for future construction in the Capital Improvement Program.

GUIDING PRINCIPLES

The vision for the future of the Juanita Drive Corridor will adhere to the following guiding principles:

- Address safety needs for all travel modes.
- Maintain the corridor's unique identity, diversity of roadway character, and natural landscape.
- Respect neighborhood values and engage the community in a shared vision for future improvements.
- Protect the extraordinary natural environment and encourage low impact design approaches.
- Provide a financially feasible, strategic, and realistic set of community priorities for the corridor.

These were developed after consulting with stakeholders.

COMMUNITY OUTREACH

The City identified key target audiences to engage:

- Businesses and residents along the project corridor and within the City of Kirkland
- Users of the project corridor; local and regional
- Management and users of parks and public spaces
- Local agencies, such as Lake Washington School District and King County Metro Transit
- Community groups and organizations
- City of Kirkland staff, including public safety officials
- Elected officials

JUANITA DRIVE Corridor Study
SUMMARY

THE PROPOSED PLAN

Working with a Citizen Advisory Committee, the Kirkland Transportation Commission, and by conducting extensive public outreach, the City used the guiding principles to identify and prioritize the corridor recommendations. The Transportation Commission reviewed the draft recommendations and approved them for consideration by the City Council.

The Juanita Drive Corridor Plan contains a variety of projects that meet the study's guiding principles and that can be phased in over the next several years. While the needs vary throughout the corridor, the plan contains several corridor-wide features, including the following:

- A basic roadway cross-section that contains a travel lane in each direction, buffered bicycle lanes, and a walkway on at least one side of the roadway. In some sections, an off-road multipurpose path is an option.
- Pedestrian crosswalks with flashing beacons.
- Street lighting upgrades.
- Drainage improvements.
- Intersection treatments, such as turn pockets and better sight distance.
- Traffic calming treatments to reduce speeds.
- Removal of on-street parking.

The plan does not envision the addition of travel lanes to accommodate more traffic, but the intersection treatments will improve overall traffic flow and safety.

The plan consists of 32 projects grouped into logical packages along Juanita Drive. The total cost of the plan ranges from $19 to $26 million, depending on the design options. About half of the cost ($10 million) is to provide the basic cross-section through the corridor. Building the wider multipurpose trails through the parks would add around $3.3 million in project costs. Intersection treatments, including turn pockets, crossing treatments and lighting would cost an additional $5 to $6 million, while various other nonmotorized, Intelligent Transportation Systems (ITS), safety and lighting treatments would add around $3 to $4 million in cost. Recognizing that because of their cost they will take several years to fund and implement, the plan sets priorities and identifies 'quick win' projects with a total cost of $1.0 to $1.5 million and which could potentially start in the near future as funding becomes available.


Basic Cross Section
(North part of Big Finn Hill Park)


Optional Multipurpose Trail
(North part of Big Finn Hill Park)

Projects	Basic Cost	Additional Costs for Option
Basic Cross-section	$10.4M	$3.3M (Multipurpose Trails)
Intersections	$5.3M	$1.2M (Roundabouts)
Uphill Bicycle Lane throughout Corridor	$0.6M	
Other Pedestrian/Bike Safety Treatments	$1.5M	
Intelligent Transportation Systems (ITS)	$1.1M	$1.2M (undergrounding utilities)
Other Safety Projects	$0.2M	
Total Projects	**$19.1 Million**	**$5.7 Million**

Note: Projects not in priority order

JUANITA DRIVE Corridor Study
SUMMARY

MATCHING THE RECOMMENDATIONS TO THE COMMUNITY VISION

What we Heard from the Community	What the Proposed Master Plan Recommends
Improving safety in the corridor is important; especially for bicycles and pedestrians	Separated walkway and bicycle lanes with buffer strips; intersection channelization; active pedestrian crossings
There are too many vehicle collisions	Intersection turn lanes to reduce rear end collisions; center line rumble strips to reduce head-on collisions
Traveling the corridor during rush hour is difficult, but minimal interest in widening the corridor for more automobile lanes	No new auto lanes, but some intersection turn lanes and traffic signal improvements
There aren't enough connections between neighborhoods and parks, including safe routes to local schools	Several new 'flashing' pedestrian crossings and links to neighborhoods, schools and parks
Provide as much separation as possible for pedestrians and bikes	Bike lanes with buffer strips and walkway on one side of road; option for multipurpose trail in Woodland and Big Finn Hill parks.
Mixed reactions to roundabouts; some people wanted them, some did not.	Options for a roundabout at NE 122nd St/Holmes Point Dr and at NE 138th Pl.
Don't impact the parks along the corridor	Two options in parks- basic cross section or wider section with multipurpose trail. Sensitivity to roadway width and right-of-way
Get something done soon!	Several 'quick win' projects that could be implemented soon as funding is available

Stay Involved!

Visit **www.kirklandwa.gov** (search "Juanita Drive") to:

- Find up-to-date news on the study
- Provide feedback on the City's interactive map
- Sign up for emails from the project's list serve

For additional information, please reach out to:

- **Christian Knight, Neighborhood Services Outreach Coordinator:** cknight@kirklandwa.gov, (425) 587-3831
- **Rod Steitzer, Project Engineer:** rsteitzer@kirklandwa.gov, (425) 587-3825

STUDY PURPOSE AND METHODOLOGY

PROJECT OVERVIEW

Juanita Drive is located in the City of Kirkland's Juanita and Finn Hill neighborhoods, as shown in **Figure 1**. The Juanita Drive corridor serves as a minor arterial connecting residential neighborhoods, as well as a key north/south route between the cities of Kirkland and Kenmore. Juanita Drive serves over 10,000 vehicles per day and traverses steep topography with many twists and turns. The existing roadway geometry, multiple driveway access points, use of the shoulder for residential services (e.g. mail, deliveries, trash containers), and limited sight distance complicate overall safety conditions along the corridor.

The Juanita Drive Corridor Study evaluates existing conditions, relies on input from stakeholders and users, and analyzes potential safety improvements for drivers, bicyclists and pedestrians. The study identifies key improvements that may be included for future consideration in the Capital Improvement Program.

GUIDING PRINCIPLES

After consulting with stakeholders, a corridor vision was developed that is based on the following guiding principles:

- Address safety needs for all travel modes
- Maintain the corridor's unique identity, diversity of roadway character, and natural landscape
- Respect neighborhood values and engage the community in a shared vision for future improvements
- Protect the extraordinary natural environment and encourage low impact design approaches
- Provide a financially feasible, strategic and realistic set of community priorities for the corridor

Working with a Citizen Advisory Committee and conducting extensive public outreach, the City used these principles to identify and prioritize the corridor recommendations outlined in this report.

FIGURE 1: STUDY AREA LOCATION

COMMUNITY OUTREACH

The City identified key target audiences to engage:

- Businesses and residents along the project corridor and within the City of Kirkland
- Users of the project corridor; local and regional
- Management and users of parks and public spaces
- Local agencies, such as Lake Washington School District and King County Metro Transit
- Community groups and organizations
- City of Kirkland staff, including public safety officials
- Elected officials

COMMUNITY OUTREACH

Community involvement was key in developing and implementing a successful corridor plan for Juanita Drive. To prepare a common vision for future improvements to the corridor, the City gathered input from the community at public workshops, briefings with neighborhood groups, and informational booths at local events. A community-based advisory committee was also formed to serve as a forum for additional dialogue and information sharing among community members and city staff. The project team developed an overall communication and public involvement strategy, conducted stakeholder interviews, created informational materials and website content, and facilitated a project advisory group.

Insights from the community outreach program are highlighted throughout the report. A detailed description of the outreach activities is provided in **Appendix A**.

CORRIDOR PROFILE

This section characterizes existing and future conditions on Juanita Drive in the City of Kirkland. The following sections describe the corridor in terms of historical context, character, land, use, physical conditions, and transportation operations.

HISTORICAL CONTEXT

Juanita Drive was the first major north-south roadway built connecting Kenmore and Kirkland. The southern portion of the corridor was originally developed in the 1920s when the Juanita Beach Resort was established. Lake Washington Boulevard, also known as state highway 2-A, was built through Juanita. Residents decided to became a part of the city of Kirkland in July 1967.

Most of Juanita Drive remained in unincorporated King County, which built the current roadway alignment. Juanita Drive was designed with more rural design standards, such as banked curves that accommodate higher speeds.

The City of Kenmore inherited the north end of the corridor in 1998 after incorporation. The southern section was annexed to Kirkland in 2011.

JUANITA DRIVE FUNCTIONAL CLASSIFICATION

Juanita Drive is the main north-south movement corridor for the Inglewood and Finn Hill neighborhoods in northwest Kirkland. The City of Kirkland classifies most of Juanita Drive as a minor arterial and a portion in the vicinity of Juanita Village as a principal arterial. Definitions of classifications are as follows:

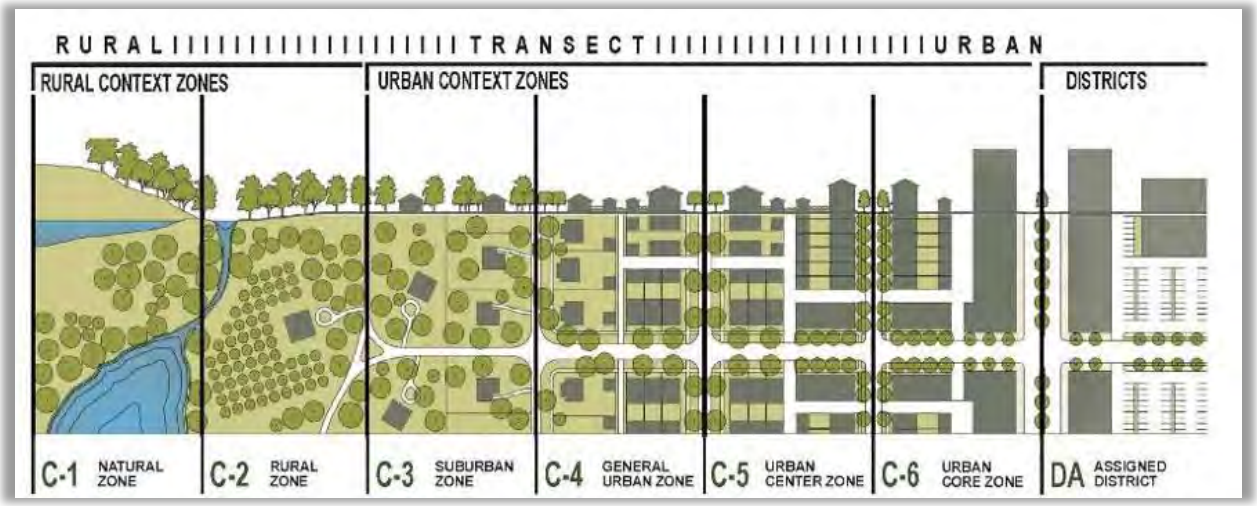
- **Principal Arterials** – connect Kirkland with other regional locations such as Bellevue and Redmond.
- **Minor Arterials** – provide connections between principal arterials and serve as key circulation routes within Kirkland.

To the east of 93rd Avenue NE in the vicinity of Juanita Village, Juanita Drive is classified as a principal arterial and connects to two other principal arterials – the north/south running 98th Avenue NE and the east/west running NE 116th Street. To the west and north of 93rd Avenue NE, Juanita Drive is a minor arterial and provides access to multiple collector streets, including Holmes Point Drive, NE 123rd Street, NE 132nd Street, and NE 141st Street.

CHARACTER

The three-mile section of Juanita Drive changes character several times, from a town center environment near Juanita Beach Park, to neighborhood zones with frequent property access, to a more rural atmosphere passing through Woodland and Big Finn Hill parks. The changing character means that a single roadway design may not be appropriate along the entire corridor. This approach is exemplified in **Figure 2**, which illustrates how a single roadway can transition from rural to urban with different roadway design requirements[1]. Juanita Drive best exemplifies the C-2 through C-4 zones.

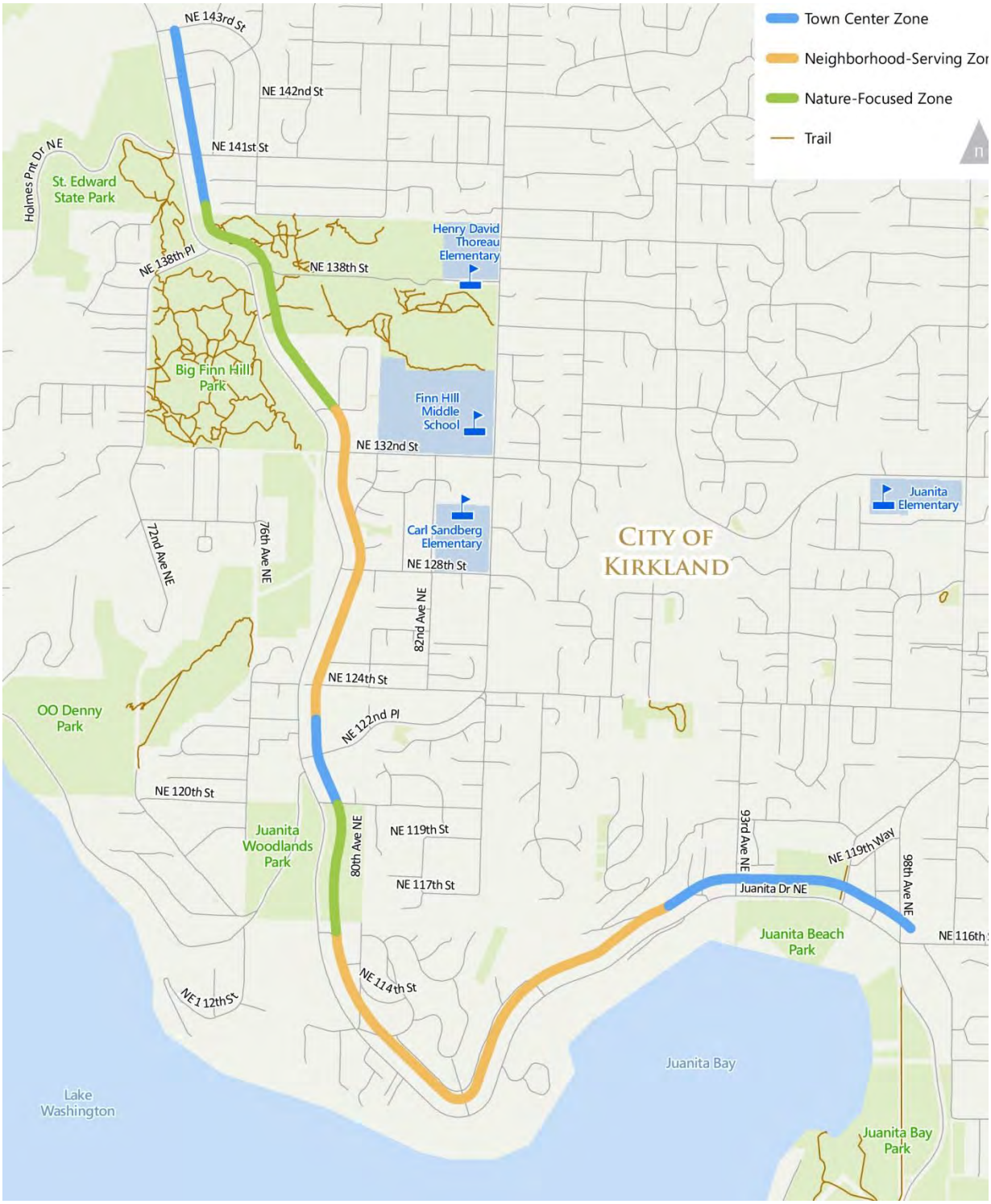
FIGURE 2: CHANGING ROADWAY CHARACTER



Juanita Drive can be thought of as having three primary 'zones', as shown in **Figure 3**. The project recommendations were tailored to best meet the needs of the surrounding land uses and roadway function as shown in these zones.

[1] Institute of Transportation Engineers. *Designing Walkable Urban Thoroughfares—A Context Sensitive Approach*. Washington, DC, ITE, 2010.

FIGURE 3: CORRIDOR CONTEXT



Town Center Zone

Town center zone segments serve all modes and trip types, but are focused on signaling the entry into a higher-density commercial or residential zone. Town center zone segments accommodate business access and transit stops, emphasizing multimodal interaction and gateway elements.

Features:

- Character: town center main street
- Serves residents, employees, and visitors arriving by all modes
- High visibility pedestrian crossing treatments

Example Location:

- Juanita Drive adjacent to Juanita Beach

Neighborhood-Serving Zones

Neighborhood-serving zone segments serve all trip types but focus on balancing access needs from side streets and driveways with safety for bike, pedestrian and auto trips. Neighborhood-serving zone segments may feature high-visibility mid-block pedestrian crossings and safe walking and biking options.

Features:

- Character: frequent neighborhood access
- Serves through bike, pedestrian, auto, as well as side-street access
- Pedestrian crossing treatments may include mid-block crossings, high visibility or raised crosswalks, and curb extensions

Example Location:

- Juanita Drive between NE 124th Street and NE 132nd Street

Nature-Focus Zones

Nature-focus zone segments serve all trip types and modes, but because of their location traveling through parks and open space, primarily focus on serving through bicycle and vehicular travel. These segments accommodate a mix of travel modes while maintaining a rural character.

Features:

- Character: rural roadway traversing scenic and wooded areas
- Serves all trip types, but focuses on through bicycle and vehicular travel
- Pedestrians and bicyclists can use wide shoulders or trail

Example Location:

- Juanita Drive adjacent to Big Finn Hill Park

LAND USE

Land use in the vicinity of Juanita Drive consists largely of single family home and recreation/conservation land. At major intersections, there are pockets of multifamily residential and commercial developments, with the highest densities located in the Juanita Village area at the southern end of the corridor. Bastyr University, located outside of Kirkland at the northwest corner of the study area adjacent to St. Edwards State Park, has an enrollment of approximately 1,000 students. To the west of Juanita Drive are two elementary schools and one middle school.

Table 1 summarizes existing land use and the amount of growth expected to occur by 2030 in the vicinity of Juanita Drive (south of NE 141st Street and west of 100th Avenue NE) and citywide in Kirkland.

TABLE 1: EXISTING AND FUTURE LAND USE

Area	Existing		2030		Total Growth		Percentage Growth	
	HH	EMP	HH	EMP	HH	EMP	HH	EMP
Corridor Study Area	8,000	1,120	8,700	1,500	700	380	9%	34%
Kirkland Citywide	39,780	41,170	45,790	51,870	6,010	10,700	15%	26%

Notes: HH = Households; EMP = Employment
Sources: City of Kirkland

By 2030, the number of households in the vicinity of Juanita Drive is expected to increase from 8,000 to 8,700, representing a total increase of 9%. The household growth will be spread throughout the greater Finn Hill area. Employment is expected to increase by a total of 34%, from 1,120 in 2013 to 1,500 in 2030. Most of this employment growth will be concentrated along 100th Avenue NE rather than Juanita Drive. This growth is consistent with city policy.

PHYSICAL CONDITIONS

The guiding principles emphasize addressing safety needs for all travel modes, while maintaining the corridor's identity and natural environment. This section describes the physical conditions that frame many of the corridor's needs. Many of the safety concerns along Juanita Drive relate to the physical conditions along the corridor. The following section describes:

- Roadway cross-section
- Topography
- Sight Distance
- Drainage
- Illumination

Details regarding the corridor inventory are provided in **Appendix C**.

ROADWAY CROSS-SECTION

Juanita Drive is characterized as a two-lane roadway for most of its length. **Figure 4** shows typical sections for the existing roadway. At one extreme, the Juanita Village area has a full urban roadway section with bicycle lanes, turn lanes, curb and gutter, planter strip, and sidewalks. However, most of the corridor has one travel lane in each directions and a variable-width shoulder on each side of the roadway. The total pavement width in these sections varies from 34 to 38 feet, with some short distances having wider width for parking. There are a few areas where a three-lane section provides turn lanes and shoulders or sidewalks on one or both sides.

The existing shoulders provide multiple functions: vehicle breakdown areas, places for trash containers, mail deliveries, walkways, and bicycling areas. The shoulders vary in width and do not provide a consistent or safe environment for walking or biking, although they are used for both.

Most of the corridor has a right-of-way width of 60 feet. However, the right-of-way is not readily usable for transportations due to steep slopes, vegetation, and other impediments, including numerous steep driveways.

WHAT WE HEARD FROM THE COMMUNITY

- Improving safety in the corridor is very important; especially for bicycles and pedestrians
- Concerned about safety for all modes of traffic, including pedestrians and bicyclists
- Limited sight distances throughout the corridor are a concern
- Desire for quick implementation of improvements, if possible
- Any improvements should be context sensitive of the blend between rural areas, neighborhoods and business centers
- Lack of neighborhood and park connectivity, including safe routes to local schools
- Traveling the corridor during rush hour is difficult, but there is minimal interest in widening the corridor for more automobile lanes. Some intersection fixes are fine
- Concerns about vehicle collisions
- Excitement about the City looking into improving the corridor

FIGURE 4: ROADWAY CROSS-SECTIONS

TOPOGRAPHY AND ROADWAY GEOMETRICS

The Juanita Drive Corridor is characterized by areas of steep topography and curving road segments with poor sight distance. **Figures 5 (a, b, c)** show the corridor in three segments (south, central, and north), along with information on slopes and sight distance.

Slopes

Portions of the corridor have slopes exceeding 33% adjacent to the roadway. In the southern segment, **(Figure 5a)**, the steep slopes coincide with closely spaced driveways that have steep grades approaching Juanita Drive. The steep slopes also create several drainage issues (see next section). The central segment **(Figure 5b)** is generally flatter to the south of NE 128th Street. Continuing north **(Figure 5c)**, there are several steep sections along Big Finn Hill Park.

Sight Distance

Motorists need adequate sigh distance or visibility for turning to and from Juanita Drive. The combination of steep driveway and side street approaches to Juanita Drive, along with tight roadway curves, creates several areas with challenging or severely limited sight distance. **Figure 5** shows those areas with sight distance issues for side streets/driveways (i.e. drivers wanting to turn onto Juanita Drive) and for Juanita Drive itself (i.e. drivers wanting to turn left from Juanita Drive into a side street or driveway). These locations of limited sight distance are highly correlated with the locations of collisions, as described in a later section.

DRAINAGE

Due to the topography along Juanita Drive, drainage is a problem that affects both property owners and users of Juanita Drive. As shown in **Figure 6**, there are several locations where groundwater or runoff crosses Juanita Drive, resulting in slippery conditions during rain events. Groundwater seepage on the roadway is a continual problem, particularly along the southern portion of the corridor because of the steep side-slopes.

In the areas between NE 124th and NE 132nd Streets, there is considerable runoff crossing Juanita Drive from east to west, because of limited storm drainage collection systems to direct the flow away from driveways that slope downward from Juanita Drive. The lack of storm drainage systems is evident throughout the corridor.

FIGURE 5A: SLOPE AND SIGHT DISTANCE – SOUTH

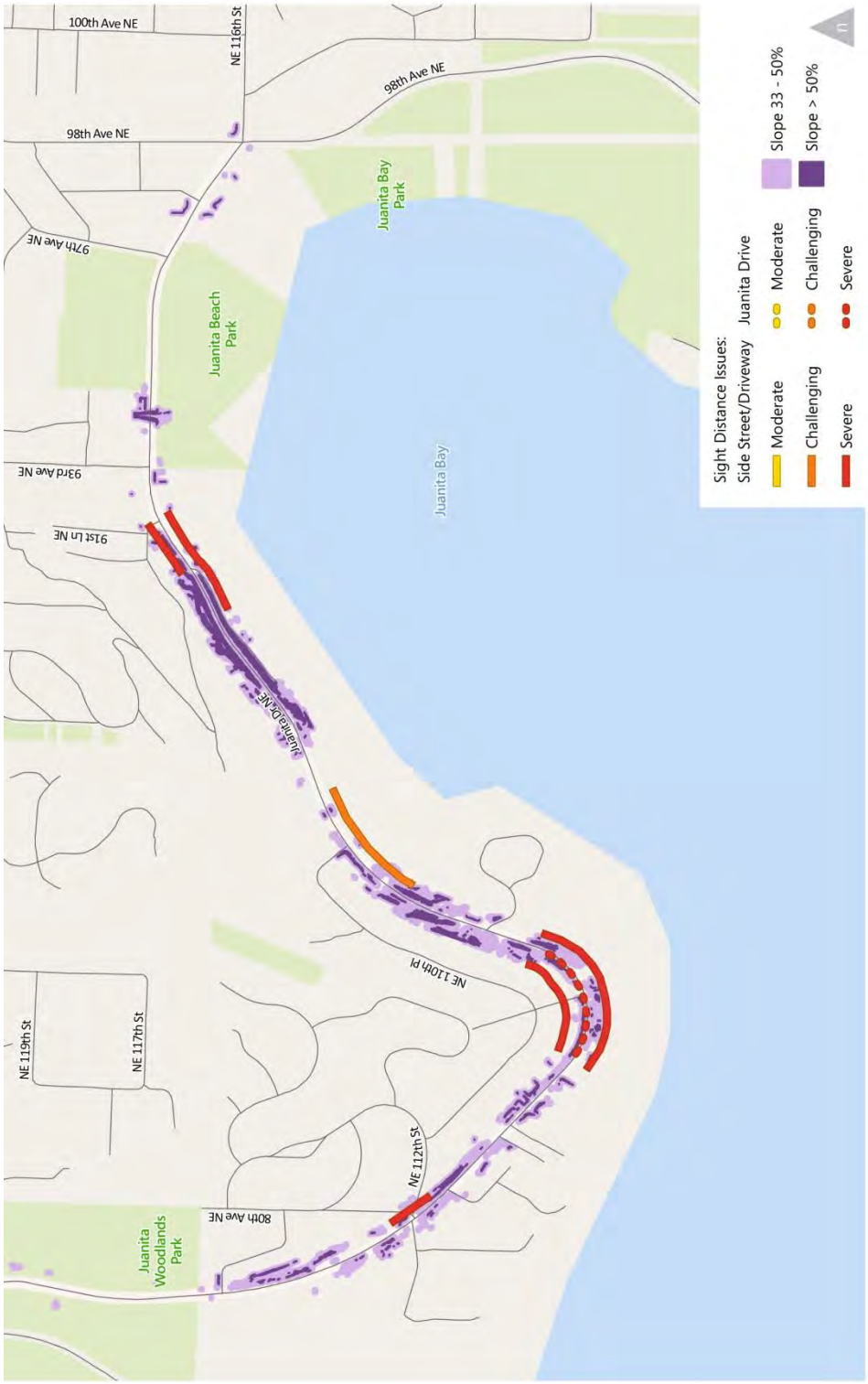


FIGURE 5B: SLOPE AND SIGHT DISTANCE – CENTRAL

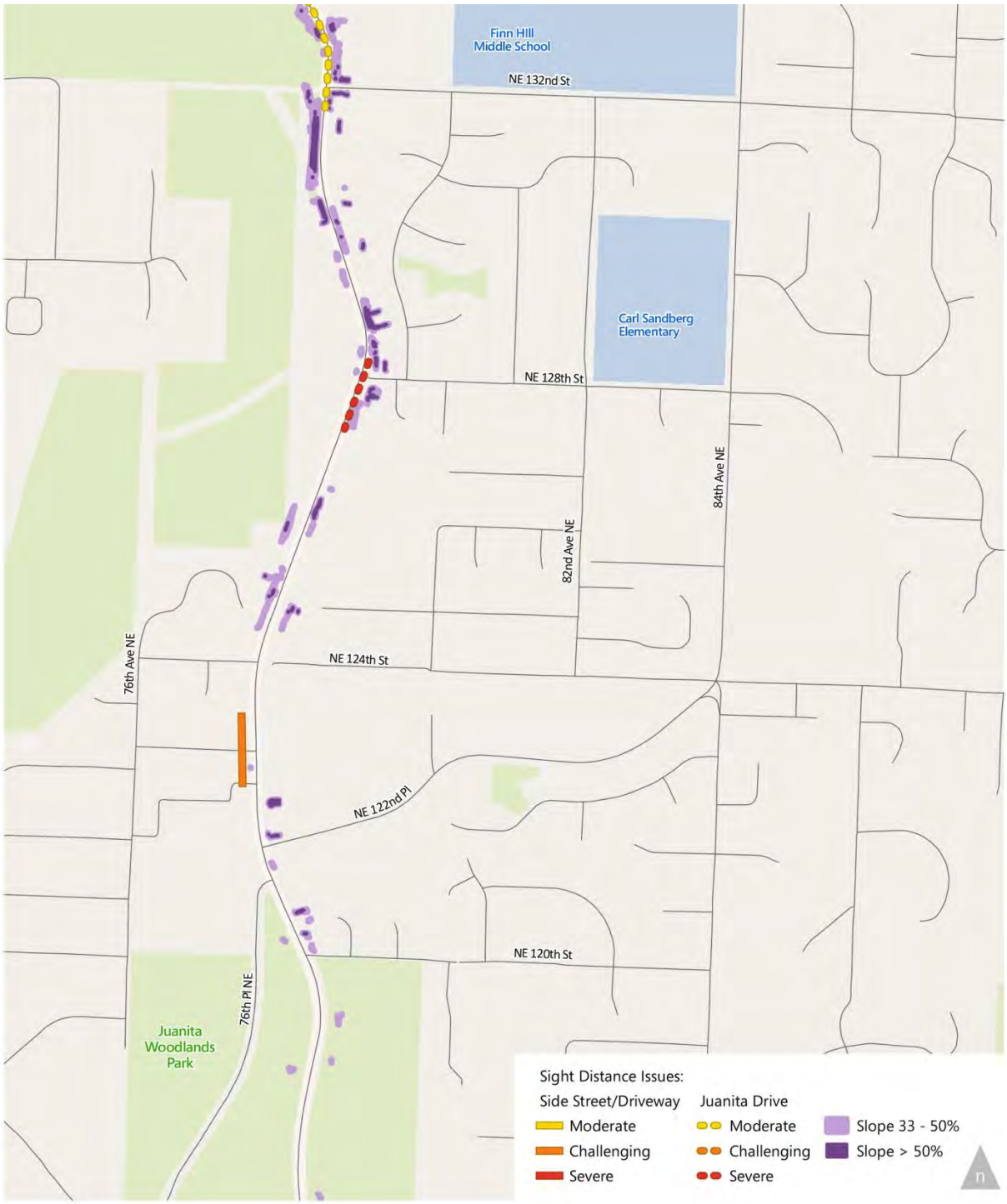


FIGURE 5C: SLOPE AND SIGHT DISTANCE – NORTH

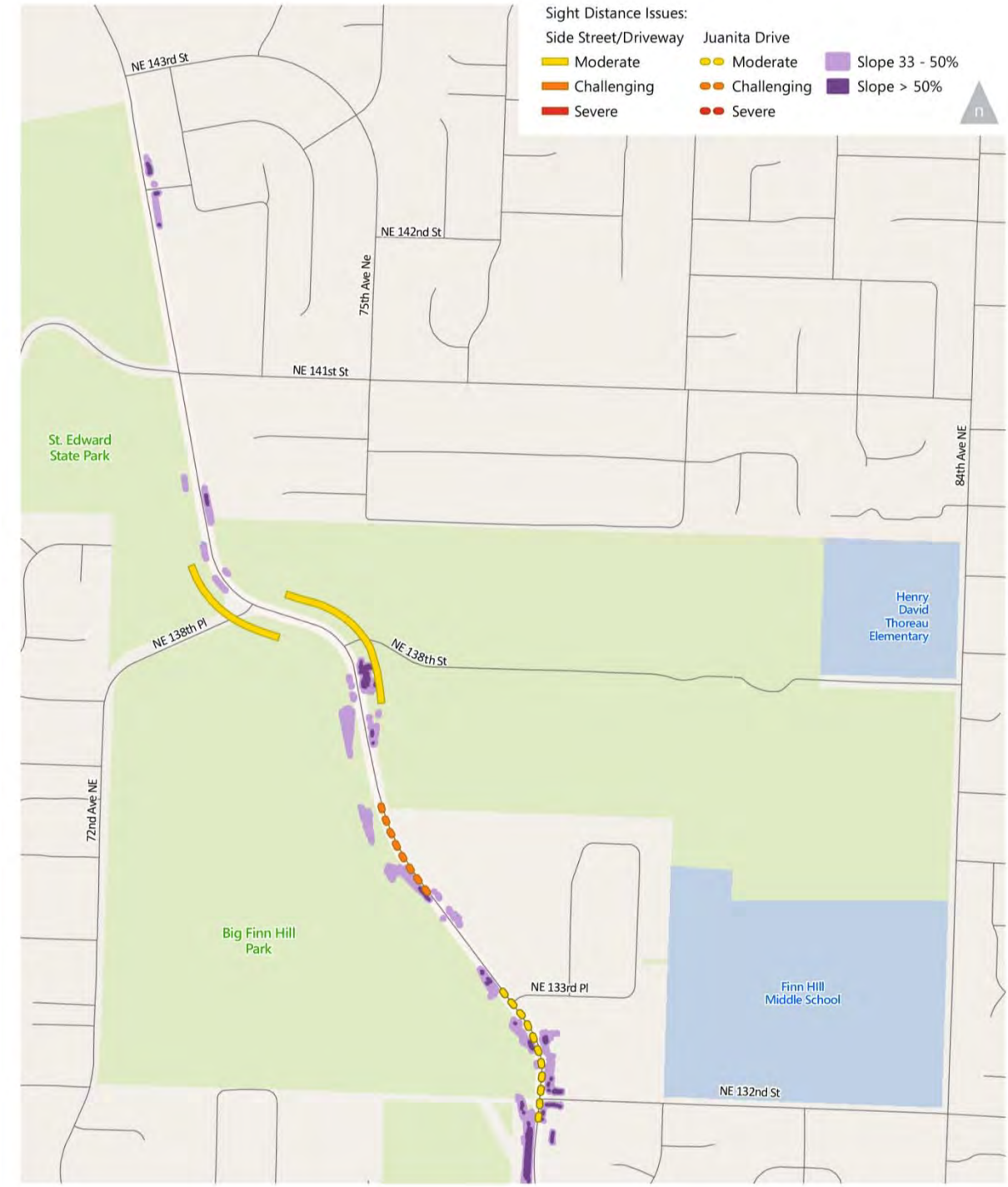
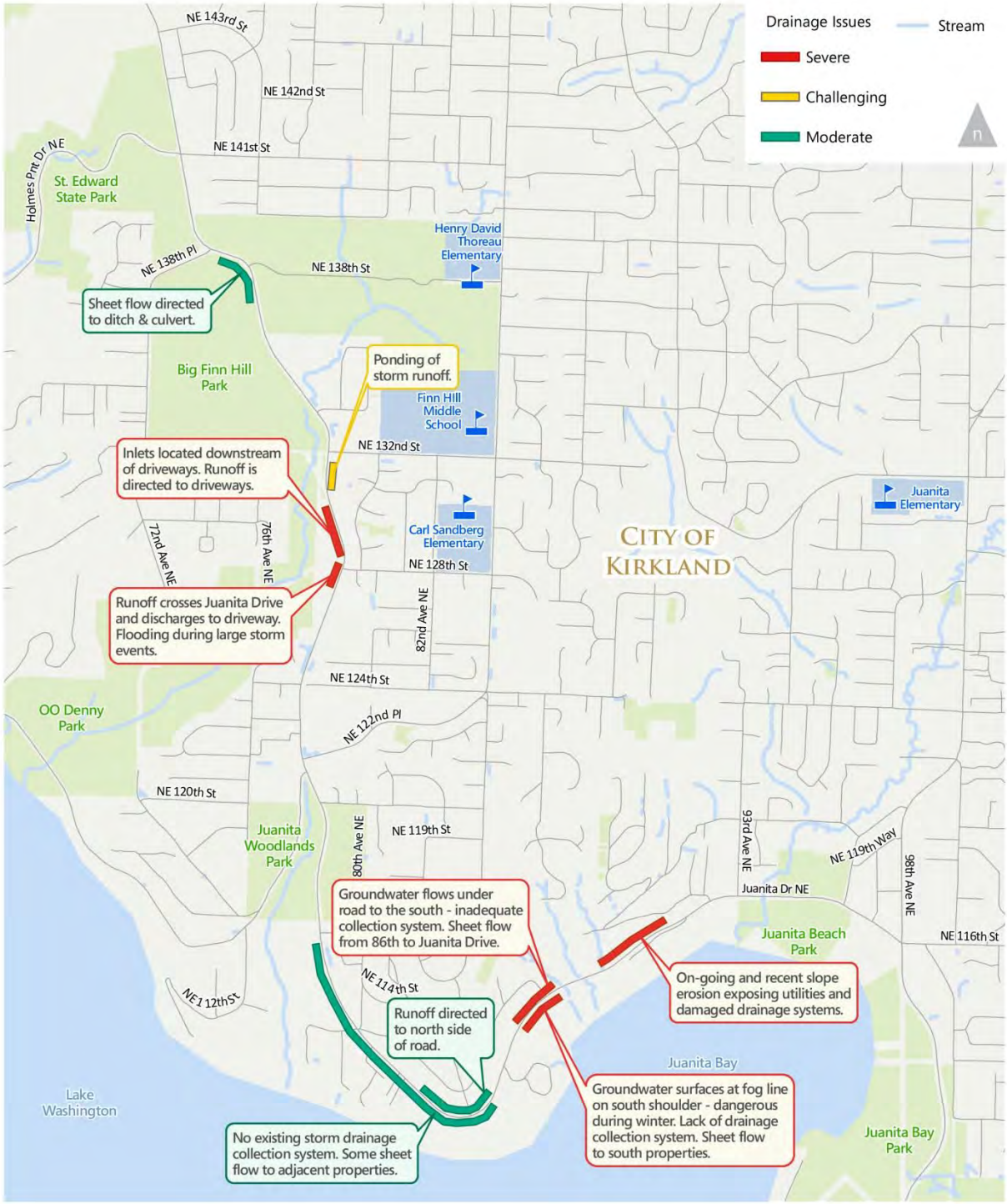


FIGURE 6: DRAINING ISSUES AND CONCERNS



LIGHTING

The existing lighting system on Juanita Drive consists of street lights mounted on timber and aluminum poles. Most of the street light poles are on the west side of the roadway with a mounting height of approximately 25 feet, with the exception of the north and south portions of the project where the poles are aluminum and staggered on both sides of the roadway. Spacing of the street lights varies along the corridor, which affects the lighting quality. On the north end from NE 143rd Street to NE 120th Street spacing varies from 100 feet to 400 feet. South of NE 120th Street spacing is approximately at 100 feet.

Existing light levels were determined using lighting analysis that examined *average light levels* (i.e. average light visible per square foot on the roadway) and what is called the *uniformity ratio*, the average light level to the darkest areas on the roadway.

The existing light levels along the north end of the project (from NE 143rd Street to NE 120th Street) are variable with several dark sections of roadway. In the south portion of the project (from NE 120th Street to 98th Avenue NE) the average light level is reasonably good.

While the overall average light levels in the corridor generally exceed the minimum standards, there are several sections of poor lighting within the areas listed below:

- South of NE 141st Street for approximately 600 feet
- South of NE 138th Street for approximately 800 feet
- North of NE 133rd Place for approximately 600 feet
- South of Holmes Point Drive for approximately 800 feet
- NE 141st St south to NE 132nd Street

In addition, there are two intersections with poor lighting: NE 141st Street and NE 122nd Place/Holmes Point Drive.

TRANSPORTATION OPERATIONS

The guiding principles emphasize safety for all modes. Understanding the transportation operations is important to the safety issues. This section describes existing transportation operations along Juanita Drive for each supported transportation mode: automobile, bicycle, pedestrians, and transit. Traffic flow, corridor safety, speed, and parking are discussed as they relate to these four modes of travel.

TRAFFIC FLOW

Peak hour and average weekday daily traffic (AWDT) counts were collected at five locations along Juanita Drive in 2012 **(Figure 7)**. Counts were performed for a 24-hour period on Tuesday, Wednesday, and Thursday, days which represent the most typical weekday traffic conditions. Daily traffic totals for the three days were averaged to obtain the final AWDT values.

Results show that the southern portion of the corridor experiences the highest traffic demand, with 17,700 AWDT in the vicinity of Juanita Village. Continuing north, demand decreases to 11,100 AWDT in the vicinity of Big Finn Hill Park before increasing to 12,700 AWDT near the shopping center at NE 141st Street.

SR 520 TOLLING – TRAFFIC EFFECTS

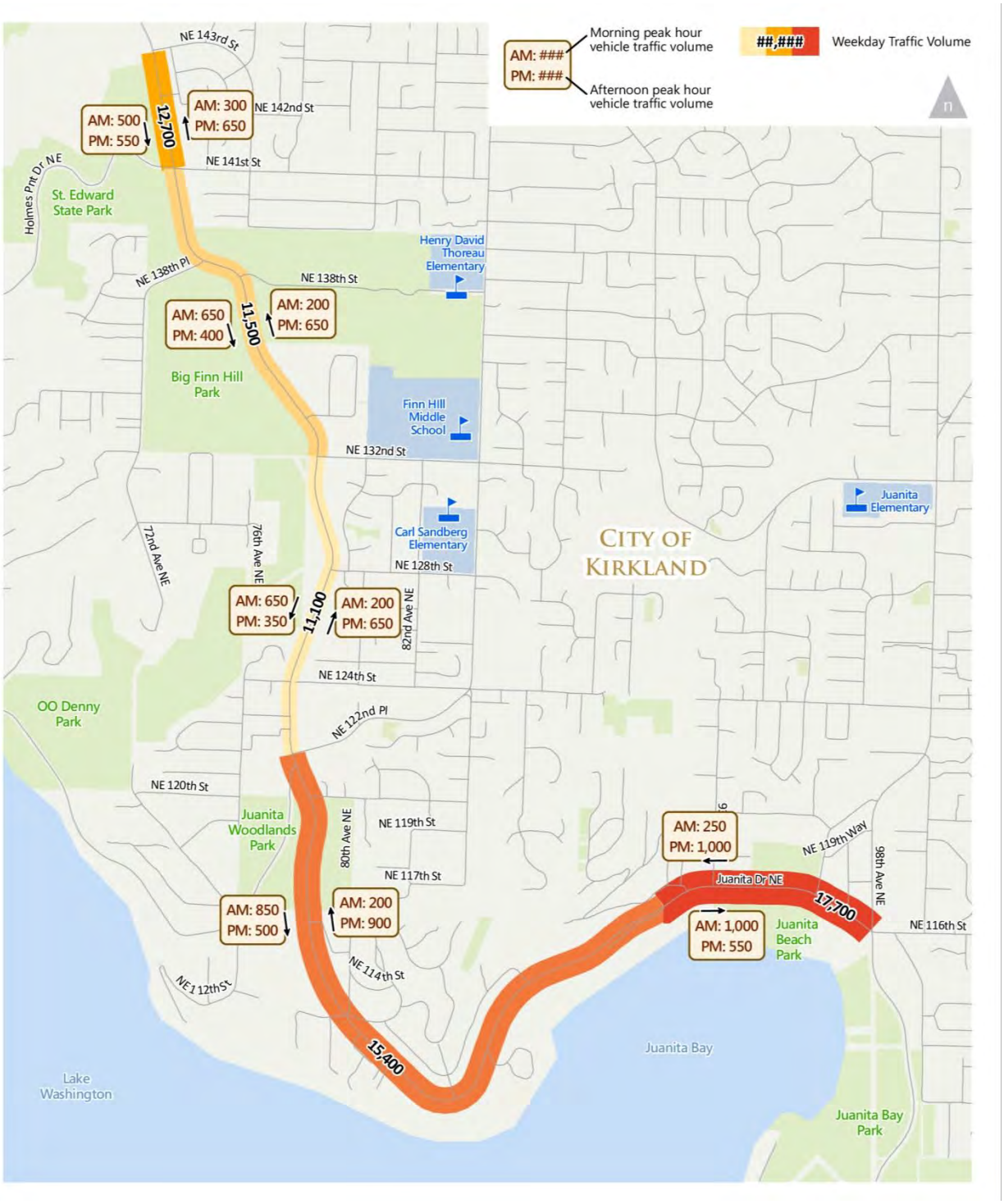
In December 2011, WSDOT implemented a toll for all drivers crossing Lake Washington on the SR 520 bridge. When tolling began, peak period volumes increased on Juanita Drive. On 100th Avenue NE, a parallel north/south Kirkland corridor, volume increases were larger. As of 2013, volumes were down to 2011 levels on Juanita Drive but remained higher on 100th Avenue.

Peak hour traffic counts show that morning commute traffic on Juanita Drive is heaviest in the southbound direction. Comparable demand occurs northbound during the PM peak hour. As with with the daily counts, AM and PM peak hour demand is heaviest near Juanita Village.

To better understand how peak hour travel patterns impact corridor traffic conditions, additional traffic counts were collected at eight intersections along Juanita Drive:

- NE 141st Street / Holmes Point Drive NE
- NE 132nd Street
- NE 128th Street
- NE 122nd Street
- 76th Place NE / Holmes Point Drive NE
- NE 112th Street/80th Avenue NE
- 97th Avenue NE
- 98th Avenue NE

FIGURE 7: EXISTING TRAFFIC VOLUME



The intersection counts indicate high levels of congestion near Juanita Village. During the AM peak hour, traffic congestion occurs at 98th Avenue NE and 97th Avenue NE. During the PM peak hour, the 98th Avenue NE intersection is also heavily congested All other intersections operate at reasonable congestion levels during the AM and PM peak hours, although slow moving, rolling traffic queues are commonly encountered heading southbound towards Juanita Village in the AM peak period and northbound towards the traffic signal at 76th Place NE / Holmes Point Drive NE during the PM peak period.

Based on the expected land use growth discussed previously, traffic demand along Juanita Drive could grow by 15 to 20 percent during the peak commute period by 2030. However, peak hour traffic growth along the central portion of the corridor will be constrained by the traffic throughput capacity at the southern and northern ends of the corridor. Because traffic demand is constrained, entering Juanita Drive at the 98th Avenue NE intersection at the southern end of the corridor and at Simonds Road NE (in the City of Kenmore) at the northern end, total peak period traffic demand on most portions of the corridor would likely increase by only 5 to 10 percent.

In 2030, the signalized intersections at 98th Avenue NE and 97th Avenue NE are expected to remain congested. Congestion at the 76th Place NE / Holmes Point Drive NE intersection would increase during the PM commute peak, resulting in longer traffic queues approaching the signal, but generally acceptable congestion levels compared to the city's standards.

An explanation of the intersection congestion calculation method and a table summarizing the specific intersection results are provided in **Appendix C**.

SAFETY

Along Juanita Drive, the existing roadway geometry, multiple driveway access points, and limited sight distance present safety concerns. Collision data for vehicles, bicycles, and pedestrians were collected to determine where these design concerns translate into safety deficiencies.

Collision data were obtained from the City of Kirkland for the Juanita Drive corridor. Collision data over a period of four years (January 2009 – December 2012) indicate a total of 142 collisions, an average of 36 collisions per year. Reports provide details about individual collisions, including type, probable cause, severity, time of day, weather conditions (summarized in the text box on the following page).

While the total number of collisions is not atypical of other Kirkland roadways, the severity of the collisions is higher than the City average. Thirty percent of the collisions resulted in injuries and there were

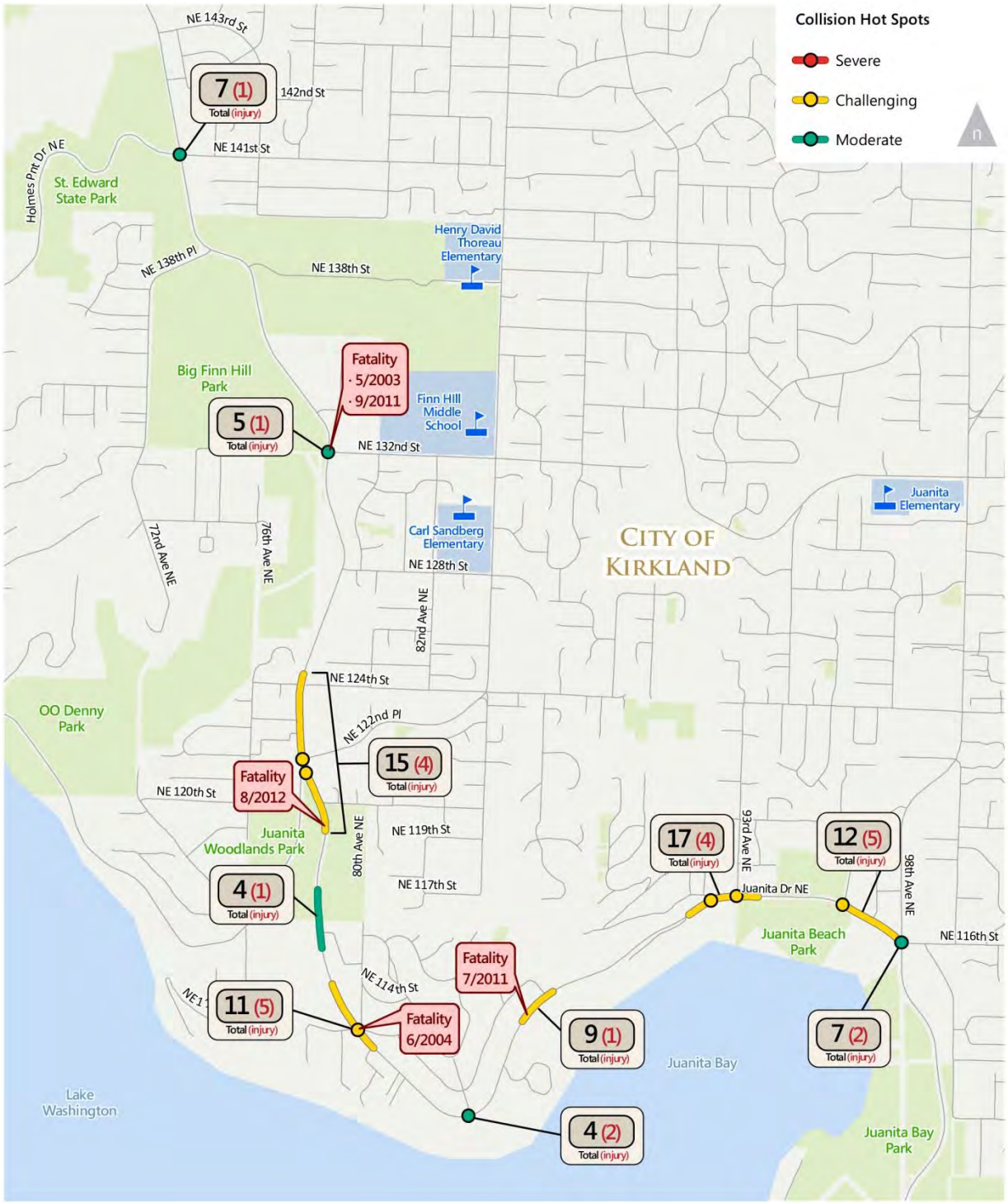
three fatalities, two involving a bicyclist. Exposure is high for bicyclists and pedestrians due to the limited sight distances, speeds, and lack of separation from motor vehicles.

Roadway segments and intersections with at least four collision events over the four year data period, representing the higher levels of collisions, are shown in **Figure 8**. Most of the rear-end collisions occurred at major cross streets where vehicles on Juanita Drive were stopped, waiting to turn left. Examples include the NE 132nd Street and NE 112th Street intersections. Angle collisions occur throughout the corridor often where drivers attempt to turn out of side streets or driveways onto Juanita Drive, facing high speed traffic and limited sight distance. Single vehicle and head-on collisions often occurred along segments where speeds exceed safe conditions (see next section). One example location is along the Juanita Woodlands Park.

COLLISION STATISTICS (JANUARY 2009 – DECEMBER 2012)

- Probable Cause and Type
  - Rear end was the most common type of collision, comprising 44% of the total.
  - 26% of all collisions were attributed to a driver exceeding reasonably safe speeds, based on police records.
  - Collisions attributed to DUI comprised 6% of the total, and about half of those were single vehicle collisions.
  - Single-vehicle collisions were 28% of the total.
- Conditions
  - 23% of all collisions occurred at night.
  - Weather conditions were wet or icy for 32% of all collisions.
- Severity
  - 30% of all collisions resulted in at least one injury.
  - Three collisions resulted in a fatality.
- Bicyclist and Pedestrians
  - Collisions involving a bicyclist were 5% of the total.
  - Two collisions resulted in a bicyclist fatality.
  - There was one collision involving a pedestrian over the 4-year period.

FIGURE 8: COLLISION HOT SPOTS



SPEED

Speed is an important factor in the safety and perception of comfort along Juanita Drive. Speed studies were conducted at three locations along Juanita Drive in both the northbound and southbound directions. In general northbound travel in uphill and southbound is downhill. **Table 2** summarizes the posted speed limit and observed speed levels at these locations. Two speed values are shown:

- **50th Percentile Speed** – half of motorists travel below this speed, and half of motorists exceed this speed.
- **85th Percentile** Speed – 85 percent of motorists travel below this speed, and 15 percent of motorists exceed this speed. Typically, the 85th percentile speed is used to establish posted speed limits.

Results show that the majority of drivers exceed the posted speed limit throughout the study area. Speeding is particularly prevalent in the north and central areas of the corridor, where over 70 percent of drivers exceed the posted speed. Over 10 percent of drivers travel at extreme speeds (10 mph or more over the posted speed) northbound near Big Finn Hill Park and southbound (downhill) in the vicinity of Juanita Woodlands Park. Time of day data associated with the observations indicate that most extreme speeding occurs at night.

All of the horizontal curves meet the safety standards of the established 35 mph posted speed, but several curves do not meet the standards for 40 mph travel. This creates potentially unsafe conditions for motorists and other users, particularly at night and during inclement weather.

TABLE 2: OBSERVED CORRIDOR SPEEDS

Location on Juanita Drive	Posted Speed Limit (mph)	50th Percentile Speed (mph)		85th Percentile Speed (mph)	
		Southbound	Northbound	Southbound	Northbound
North[1]	35	37	41	40	45
Central[2]	35	39	38	44	41
South / Juanita Village[3]	25	25	27	29	31

[1] Recorded directly north of NE 138th Street
[2] Recorded directly north of NE 112th Street / 80th Avenue NE
[3] Recorded directly west of NE 93rd Street
Source: Fehr & Peers, 2013.

PEDESTRIANS AND BICYCLISTS

Pedestrian and bicycle facilities in the Juanita Drive study area are depicted in **Figure 9.**

Pedestrians

Pedestrian facilities include sidewalks and crosswalks. To the east of NE 116th Place near Juanita Village and Juanita Beach Park, sidewalks are provided on both sides of the street, buffered from the roadway by landscaping strips and tree planter boxes. Pedestrian push buttons are located at the signalized intersections at 97th Avenue NE and 98th Avenue NE. Further west, there is a midblock crosswalk with warning beacons to connect Juanita Beach Park across Juanita Drive. At the 93rd Avenue crosswalk (pictured next page), crossing flags are provided.

Marked crosswalks are provided at the following locations:

- NE 141st Street (signalized intersection)
- 76th Place NE / Holmes Point Drive NE (signalized intersection)
- NE 122nd Street (signalized intersection)
- 86th Avenue NE (unsignalized intersection)

The 86th Avenue NE crosswalk presents safety concerns due to sight distance issues from both directions of travel on Juanita Drive.

For much of the corridor outside Juanita Village, sidewalks are not present on either side of the street. Sidewalks are typically provided only near commercial retail centers and at a few transit stops. Combined

with the lack of continuous sidewalks between neighborhood centers, the limited provision of safe and comfortable crosswalks limits pedestrian mobility along the full-length of the corridor.

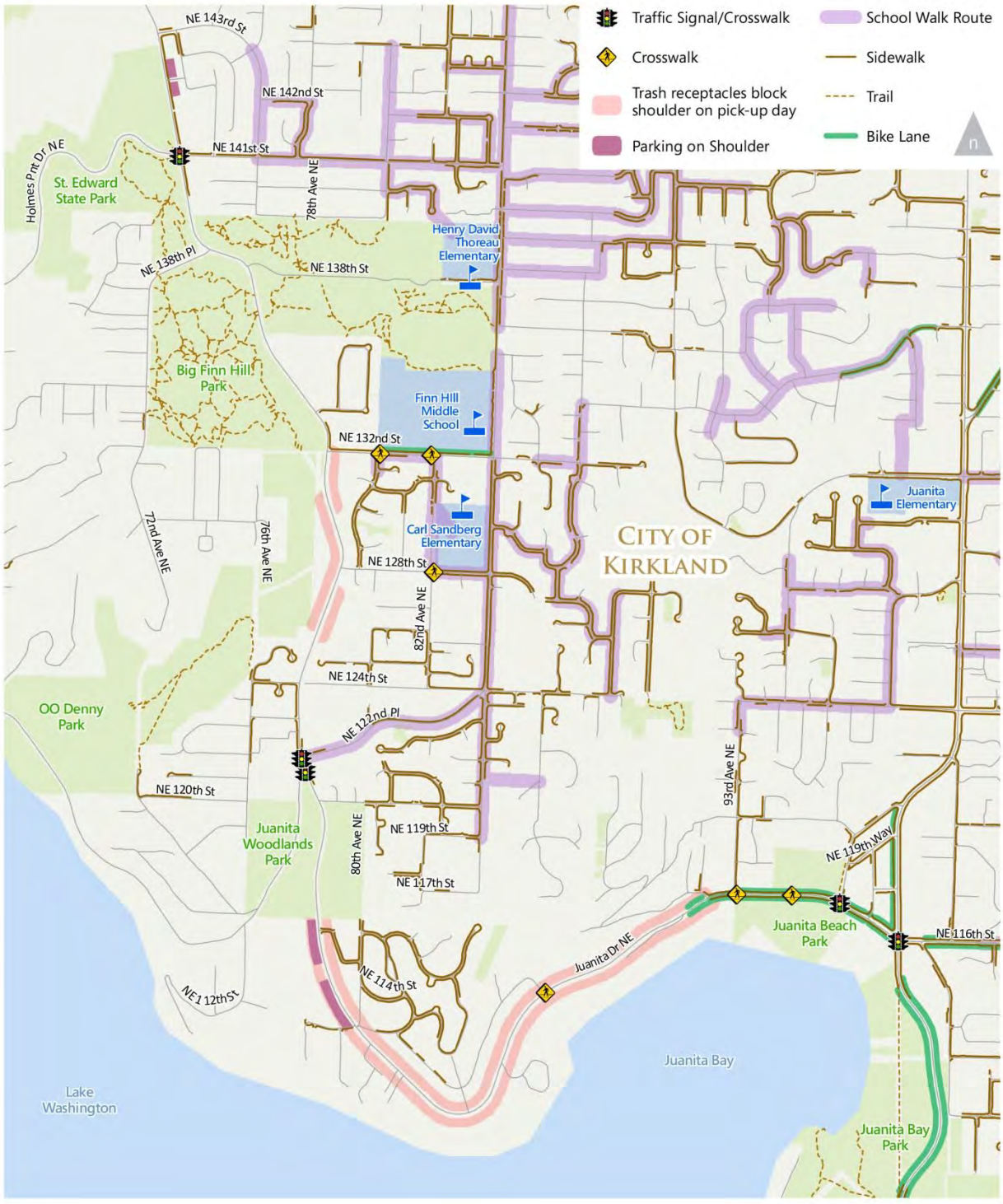
Bicycles

Formal bicycle facilities are limited to the Juanita Village area (see Figure 9). Between 98th Avenue and NE 116th Place, five-foot wide bike lanes are provided on both sides of the roadway. Bike lanes continue to the east along NE 116th Street and connect to bicycle facilities along 98th and 100th Avenue NE. West of NE 116th Place, Juanita Drive does not have marked bike lanes but the shoulders are often used by bicyclists.

Near neighborhood retail centers the roadway has curb, gutter, sidewalk, and about five feet of striped shoulder space. Outside of the neighborhood retail centers, bicyclists commonly ride in the shoulders on either side of the roadway (pictured right). The striped shoulders function like bike lanes but do not include standard bike lane markings. While the shoulders work reasonably well for bicycles, there are many other formal and informal uses of the shoulder that interfere with bicycle use, including trash receptacle placement and pickup, mail delivery, vehicle breakdowns, parking, and delivery truck pull-off.

Despite the lack of formal bicycle facilities on much of the corridor, Juanita Drive is a popular north-south route for commuter and recreational bicyclists. Counts collected by WSDOT and the Cascade Bicycle Club at the intersection of Juanita Drive and NE 143rd Street in September 2012 indicate 28 bicyclists pass through during the AM peak travel period (7 – 9 AM) and 32 during the PM peak (4 – 6 PM). Outside of commute hours, a moderate number of recreational bicyclists travel the corridor. Bicycle volumes are typically higher during weekends.

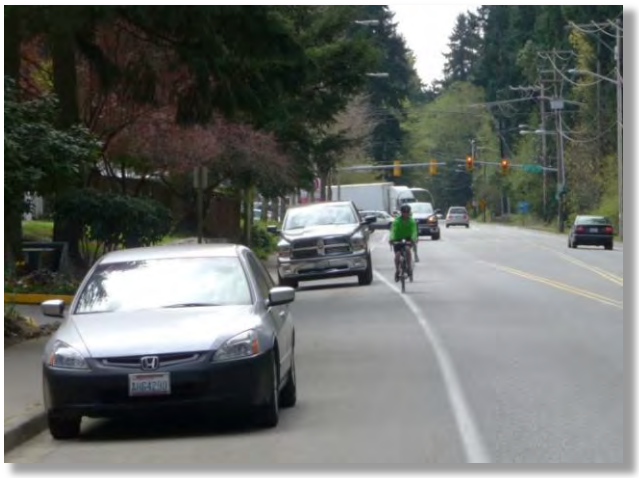
FIGURE 9: PEDESTRIAN AND BICYCLE FACILITIES



TRANSIT

King County Metro Transit (Metro) provides public transit service along Juanita Drive, offering two bus routes along the study corridor. Details of these passenger bus line routes, as of December 2013, are described below:

- **Route 260** – Route 260 connects Inglewood/Finn Hill with Downtown Seattle. It makes a clockwise loop of the Inglewood neighborhood, traveling south on 84th Avenue NE, west on NE 123rd Street/NE 122nd Place, north on Juanita Drive, and East on NE 141st Street before going south again onto 84th Avenue NE and heading east on NE 134th Street. Service includes three buses to Downtown Seattle during the AM commute period and three buses to Inglewood/Finn Hill during the PM peak period. There are three Route 260 stops that serve the Juanita Drive Corridor between NE 122nd Place and NE 141st Street.
- **Route 935** –Route 935 operates as Dial-a-Ride Transit (DART); passengers may wait at any of the route's stops for regularly scheduled service or may place a reservation for pick-up at an off-route location within the defined service area. Route 935 connects Totem Lake to Kenmore via Juanita Drive and 84th Avenue NE. The AM commute period service (5 – 9 AM) includes five vans to Totem Lake and six to Kenmore. Between 3 – 6 PM, seven vans connect to Totem Lake and six to Kenmore. There are nine scheduled northbound and southbound Route 935 stops that serve the Juanita Drive Corridor between Juanita Village and the Kirkland city limits.



PARKING

Vehicle parking is not permitted in the shoulder on most portions of the corridor. In practice, on-street parking commonly occurs at certain locations, including the west shoulder between Juanita Woodlands Park and the NE 112th Street / 80th Avenue NE and the east shoulder near NE 142nd Street. These locations are indicated in Figure 9 with the pedestrian and bicyclist facilities.

Use of shoulder space for on-street parking can create can create a variety of conflicts with the other functions of the shoulder (e.g., bicycle and pedestrian movement, trash receptacle placement and pickup, delivery pull-off space, vehicle breakdown space). For example, when vehicles are parked in the east shoulder near 142nd Street, northbound bicyclists are forced to merge from the shoulder into the travel lane (pictured right). This situation occurs throughout the corridor.

RECOMMENDED PLAN

The Juanita Drive Corridor Plan contains a variety of projects that meet the study's guiding principles, which can be phased in over the next several years. The plan recognizes that Juanita Drive passes through a wide variety of land use contexts, topography, and natural settings. This variety dictates the unique treatments that are applied to address specific safety, access, and mobility needs. However, the plan contains several features that are important to the overall upgrade of the corridor. These common features include the following:

- Basic roadway cross-section that contains a travel lane in each direction, buffered bicycle lanes, and a walkway on at least one side of the roadway. In some sections, an off-road multipurpose path is an option.
- Pedestrian crosswalks with flashing beacons.
- Street lighting upgrades.
- Drainage improvements.
- Intersection treatments, such as turn pockets and better sight distance.
- Traffic calming treatments to reduce speeds.
- Prohibition of on-street parking

The corridor plan does not recommend the addition of travel lanes to accommodate more traffic, but the intersection treatments will improve overall traffic flow and safety. Recognizing that many of these projects are expensive and will take several years to fund and implement, the plan sets priorities and identifies some 'quick win' projects that could be funded in the near future as funding becomes available.

The following sections describe the corridor plan recommendations in further detail.

PROPOSED ROADWAY CROSS-SECTION

BASIC CROSS-SECTION

The recommended basic roadway cross-section consists of the following (see **Figure 10)**:

- One 11-foot travel lane in each direction.
- Bicycle lanes in each direction, with a two-foot buffer separating the bicycle lane from the travel lane.
- A walkway (5-7 feet) on one side.

This cross-section (41-43 feet) fits within the existing roadway right-of-way (60 feet) but recognizes that much of the right-of-way is difficult to use given the hilly terrain and steep slopes. The cross-section would require adding from 4 to 7 feet of pavement width throughout the corridor. This design reflects the trade-offs needed to provide for safe conditions while respecting the natural environment and character of Juanita Drive.

FIGURE 10: BASIC CROSS-SECTION

The buffered bicycle lane would provide a safer environment for bicyclists throughout the corridor. The buffer is envisioned as a two-foot specially-painted area along most roadway sections. The buffer would provide visual cues to drivers while still allowing bicyclists access for passing or other maneuvers. The buffered bike lane would also be accessible for occasional use by waste management trucks, postal services, and emergency/maintenance vehicles. In some short areas, such as around curves, "green" bike

lanes could be painted, or the buffer could contain physical treatments such as rumble strips, plastic candles, or low curbing.

The Study involved close coordination with the bicycle community and found that the cycling community was not interested in having physical barriers throughout the corridor. Continuous physical separation of the bicycle lanes is not envisioned due to frequent driveway and intersection spacings, special vehicle access needs described above, and bicycle maneuverability. The Study team was also mindful of maintenance considerations and determined that the project design process will consider physical barriers, garbage/recycling pads, and maintenance of the bike lane area.

The walkway could be designed either as an asphalt surface flush with the bicycle lane (with paint separation), a textured or colored pavement, gravel pathway or as a raised sidewalk. These decisions could vary throughout the corridor and would be made with community input during the design process. The walkway could be on either side of the roadway in the south section of the corridor, with the eastern side being most likely in the central and northern sections.

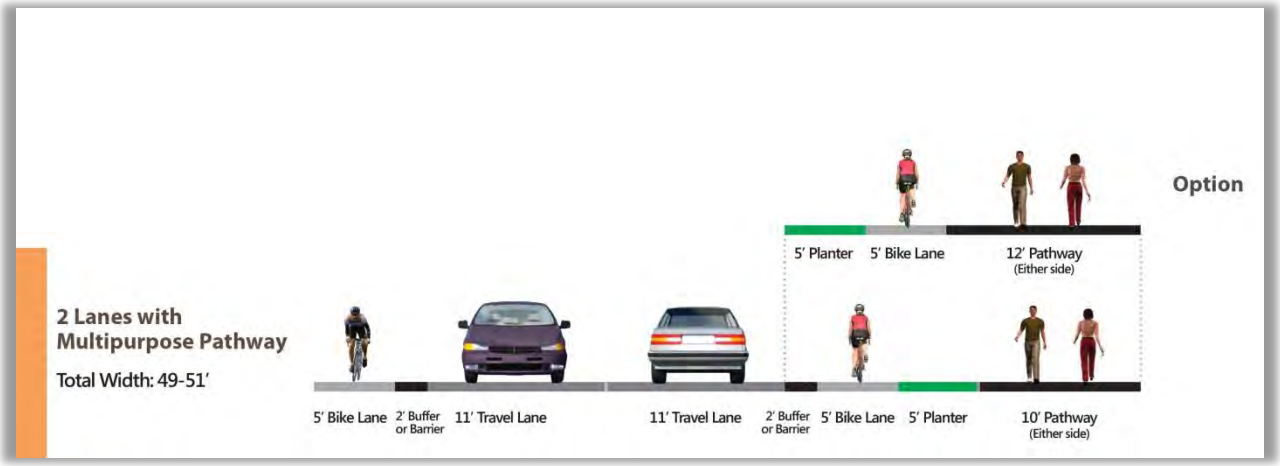
The basic cross-section assumes that on-street parking would be prohibited, which is the current condition throughout most of the corridor. Some of the informal parking that currently exists along the roadway shoulders would be eliminated due to the designation of the bicycle lane and walkway.

MULTIPURPOSE TRAIL CROSS-SECTION

Several members of the community favored the construction of a multipurpose trail along the corridor with separation from motor vehicles. This design was not practical in many sections due to topography, frequency of driveways, and cost. However, a multipurpose trail could be constructed through the park sections of the corridor to provide a more pleasant and safer environment for all nonmotorized users. **Figure 11** shows this cross-section, which would be about 10 feet wider than the basic cross-section. The multipurpose trail would be separated from the roadway by a planter strip, with the bicycle lane either adjacent to the travel lanes or next to the trail.

The multipurpose trail would need to be designed in harmony with the park setting, taking into consideration the likely need for additional right-of-way and tree impacts. The section through Big Finn Hill Park would lend itself most logically to this design treatment. The roadway section through Juanita Woodlands Park could also be considered, but it is shorter in length and the steep slopes would require expensive construction. In that section, a separated narrower trail could be an option.

FIGURE 11: CROSS-SECTION WITH MULTIPURPOSE TRAIL



TOWN CENTER AREA CROSS-SECTIONS

In the portions of the corridor that run through town centers there would be limited changes to the existing cross-sections; they would include three lane designs, sidewalks, and planter strips.

PROJECT RECOMMENDATIONS

The corridor plan consists of 32 projects grouped into logical packages as shown in **Appendix B**. The total cost of the plan ranges from $19 to $26 million, depending on the design options, as summarized in **Table 3**. About half of the cost ($10 million) is to provide the basic cross-section through the corridor. Building the wider multipurpose trails through the parks would add around $4.6 million. Intersection treatments including turn pockets, crossing treatments and lighting would require an additional $5 to $6 Million, while various other nonmotorized, Intelligent Transportation Systems (ITS), safety and lighting treatments would add around $3 to $4 million.

TABLE 3: SUMMARY OF RECOMMENDED PROJECTS

Projects	Basic Cost	Additional Costs for Option
Basic Cross-section	$10.6M	$3.3M (Multipurpose Trails)
Intersections	$5.3M	$1.2M (Roundabouts)
Uphill Bicycle Lane throughout Corridor	$0.6M	
Other Pedestrian/Bike Safety Treatments	$1.5M	
Intelligent Transportation Systems (ITS)	$1.1M	$1.2M (undergrounding utilities)
Other Safety Projects	$0.2M	
Total Projects	**$19.3 Million**	**$5.7 Million**

Note: Not in priority order

Table 4 lists the individual projects, shown in **Figure 12 (a,b,c).** The costs are considered to be conservatively high with large contingencies applied (generally 30% depending on project complexity). The basic costs in the table include the basic cross-section (see Figure 10). The option costs add the multipurpose trails, two roundabouts at NE 122nd Place and NE 138th Street, and undergrounding of utilities for the ITS project.

The projects in Table 4 are shown as high, medium, and lower priority based on rating them against the guiding principles of the study. The highest rated projects are marked with an asterisk (*). **Appendix B** shows the prioritization criteria and the rating results. All of the projects scored fairly well across the criteria, since they were developed with the guiding principles in mind. The biggest areas of difference in the priorities related to the degree to which the projects addressed known safety problems, how many travel modes they addressed, their cost, their ability to be phased, and degree of public support received

TABLE 4: RECOMMENDED PROJECTS

Project ID	Rating	Project Location	Project Description	Basic Cost[1]	Options Cost
I1	L	97th Ave NE/ 98th Ave NE Intersections	Retime signals	105	
I2	L	NE 116th Pl Intersection	Rechannelize	125	
I3	H*	112th Ave NE Intersection	Rechannelize Intersection/ Pedestrian Crossing	1,894	
I4	M	76th Pl NE/ NE 122nd Pl Dual Intersections	Rechannelize/ combine intersections with signal (L) or roundabout (H)	1,184	193(R)
I5	H*	NE 128th St Intersection	Left turn pocket/ pedestrian crossing	1,082	
I6	H*	NE 132nd St Intersection to NE 133rd Place	Left turn pocket/ pedestrian crossing/ walkway	878	
I7	H*	NE 138th Pl Intersection	Roundabout Option (Add to cost of Project R8)		1,012(R)
I8	L	NE 141st St Intersection	Add left turn signals	55	
NM1	M	98th Ave NE Intersection	Pedestrian/ Bicycle enhancements	83	
NM2	M	93rd Ave NE Intersection	Pedestrian Crossing	90	
NM3	M	86th Ave NE Intersection	Pedestrian Crossing/Drainage	525	
NM4	H	NE 124th St Intersection	Pedestrian Crossing/ walkway to NE 123rd St	143	
NM5	M	NE 132nd St- Juanita Drive to 72nd Ave NE	Pedestrian/Bicycle Corridor treatment	316	
NM6	H*	Big Finn Hill Park	Pedestrian crossing/ trail connection	203	
NM7	L	NE 143rd St Intersection	Pedestrian Crossing	90	
NM8	H*	Corridor	Bicycle safety treatments	129	
NM9	H	Corridor	Create northbound bicycle lane	377	
NM10	H	Corridor	Bicycle Signs for northbound bicycle lane	187	
R1	M	NE 116th Pl to 86th Ave NE	Cross-section/ Drainage Improvements/ Gateway median	4,994	
R2	M	86th Ave NE to NE 112th St	Cross-section/ close 83rd Ave NE	972	
R3	L	NE 112th St to 79th Way NE	Cross-section	1,051	
R4	L	79th Way NE to NE 120th St	Cross-section	550	980(MP)
R5	H*	NE 120th St to NE 122nd Lane	Extend 3rd lane/ walkway on east side	309	
R6	M	NE 124th St to NE 132nd St	Cross-section	985	
R7	H*	NE 133rd Pl to south of NE 138st St	Cross-section	781	901(MP)
R8	H	NE 138th St to North of NE 138th Pl intersection	Cross-section/ Intersection Channelization at NE 138th Pl and NE 138th St	497	806(MP)
R9	L	NE 138th Pl to NE 141st St	Cross-section/ Gateway Median	449	575(MP)
R10	L	NE 141st St to NE 143rd St	Cross-section	63	
V1	H*	NE 122nd Pl	Lighting Upgrade	50	
V2	H	Corridor- selected locations	Center line Rumble Strips	38	
V3	M	NE 138th Pl Intersection	Left turn refuge for EB to NB movement	41	
V4	L	Corridor	ITS Integration- Signals	1,050	1,200(ITS)
V5	L	Corridor	Gateway Signs- North and South End	40	
			Total	**19,336**	**5,667**

[1] in 1,000s
Rating: L=Lower; M=Medium; H=High
* Highest Rated

(R) Roundabout Options 1,205
(MP) Widen for Multipurpose Options 3,262
(ITS) ITS Undergrounding 1,200

during the community outreach events.

The summary ratings and costs are as follows:

Rating	Cost	Percent of Cost
High	$6.6M	(34%)
Medium	$9.2M	(48%)
Lower	$3.5M	(18%)
Total	$19.3M	(100%)

Over 80 percent of the project rate as high or medium priority. The prioritization process will be helpful to the city seeking grant funds or packaging project elements along the corridor.

Table 5 summarizes what we heard from the community and how the proposed corridor plan addresses the community needs.

TABLE 5: COMMUNITY INPUT ON THE RECOMMENDATIONS

What we Heard from the Community	What the Proposed Corridor Plan Recommends
Improving safety in the corridor is important; especially for bicycles and pedestrians	Separated walkway and bicycle lanes with buffer strips; intersection channelization; active pedestrian crossings
There are too many vehicle collisions	Intersection turn lanes to reduce rear end collisions; center line rumble strips to reduce head-on collisions
Traveling the corridor during rush hour is difficult, but minimal interest in widening the corridor for more automobile lanes	No new auto lanes, but some intersection turn lanes and traffic signal improvements
There aren't enough connections between neighborhoods and parks, including safe routes to local schools	Several new 'flashing' pedestrian crossings and links to neighborhoods, schools and parks
Provide as much separation as possible for pedestrians and bikes	Bike lanes with buffer strips and walkway on one side of road; option for multipurpose trail in Woodland and Big Finn Hill parks.
Mixed reactions to roundabouts; some people wanted them, some did not.	Options for a roundabout at NE 122nd St/Holmes Point Dr and at NE 138th Pl.
Don't impact the parks along the corridor	Two options in parks- basic cross section or wider section with multipurpose trail. Sensitivity to roadway width and right-of-way
Get something done soon!	Several 'quick win' projects that could be implemented soon as funding is available

FIGURE 12A: RECOMMENDED PROJECTS - SOUTH

FIGURE 12B: RECOMMENDED PROJECTS - CENTRAL

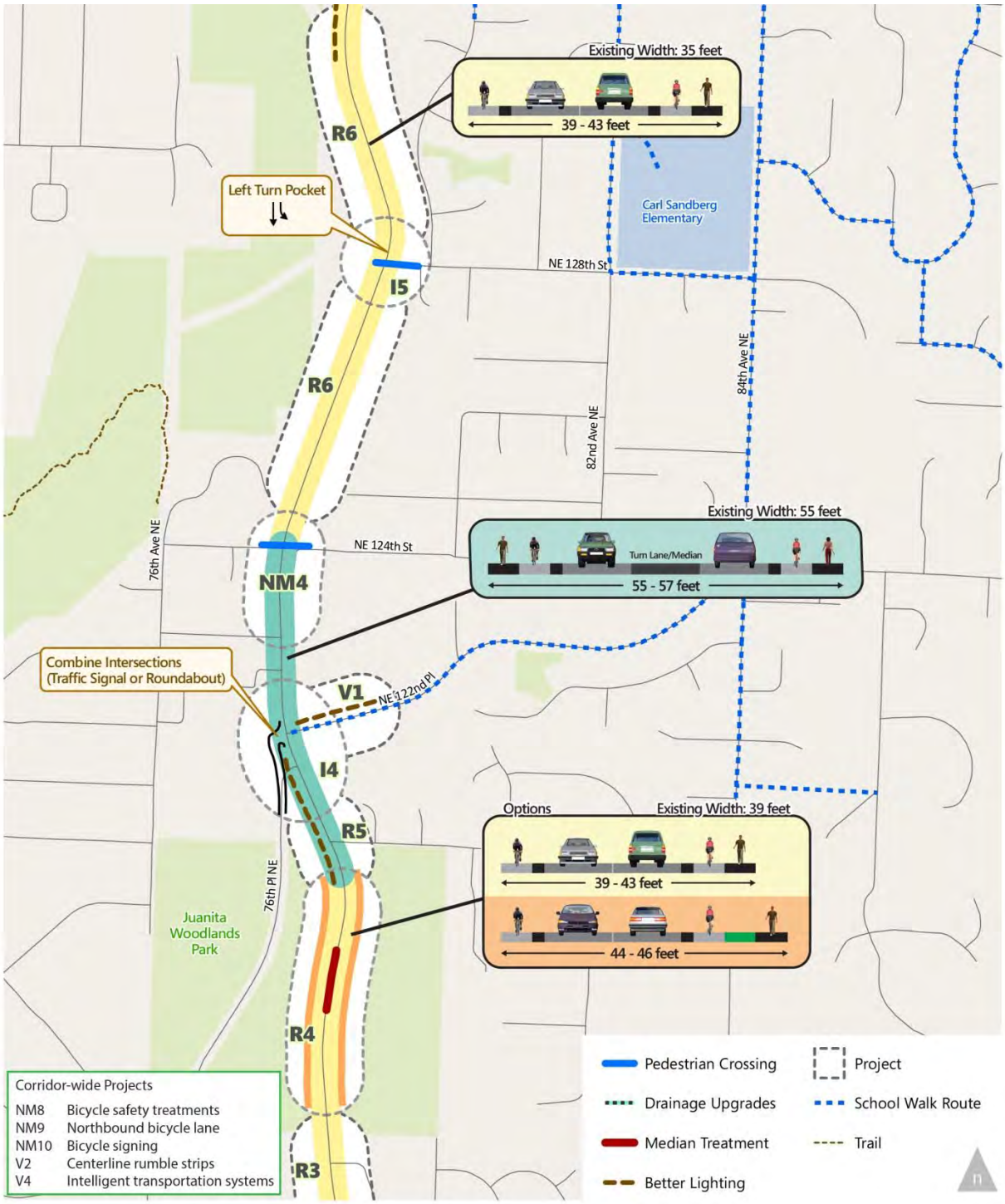
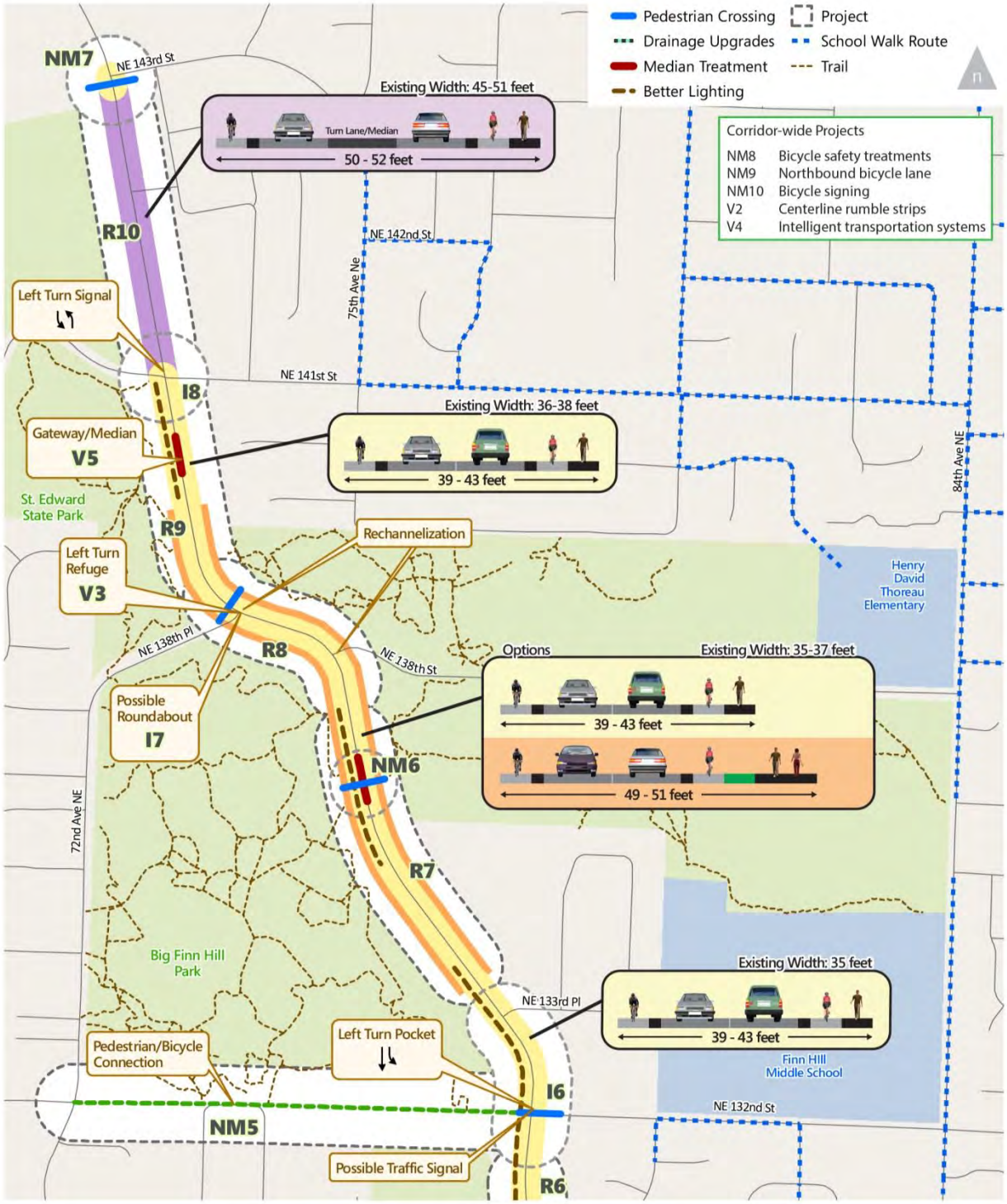


FIGURE 12C: RECOMMENDED PROJECTS - NORTH



'QUICK WIN' PROJECTS

Realizing the high implementation cost of the entire plan, the team identified several relatively low-cost actions that could produce immediate benefits. **Table 6** lists these quick win projects, which are depicted in **Figure 13** and listed based on their priority rating (i.e., H, M, L).

TABLE 6: QUICK WIN PROJECTS

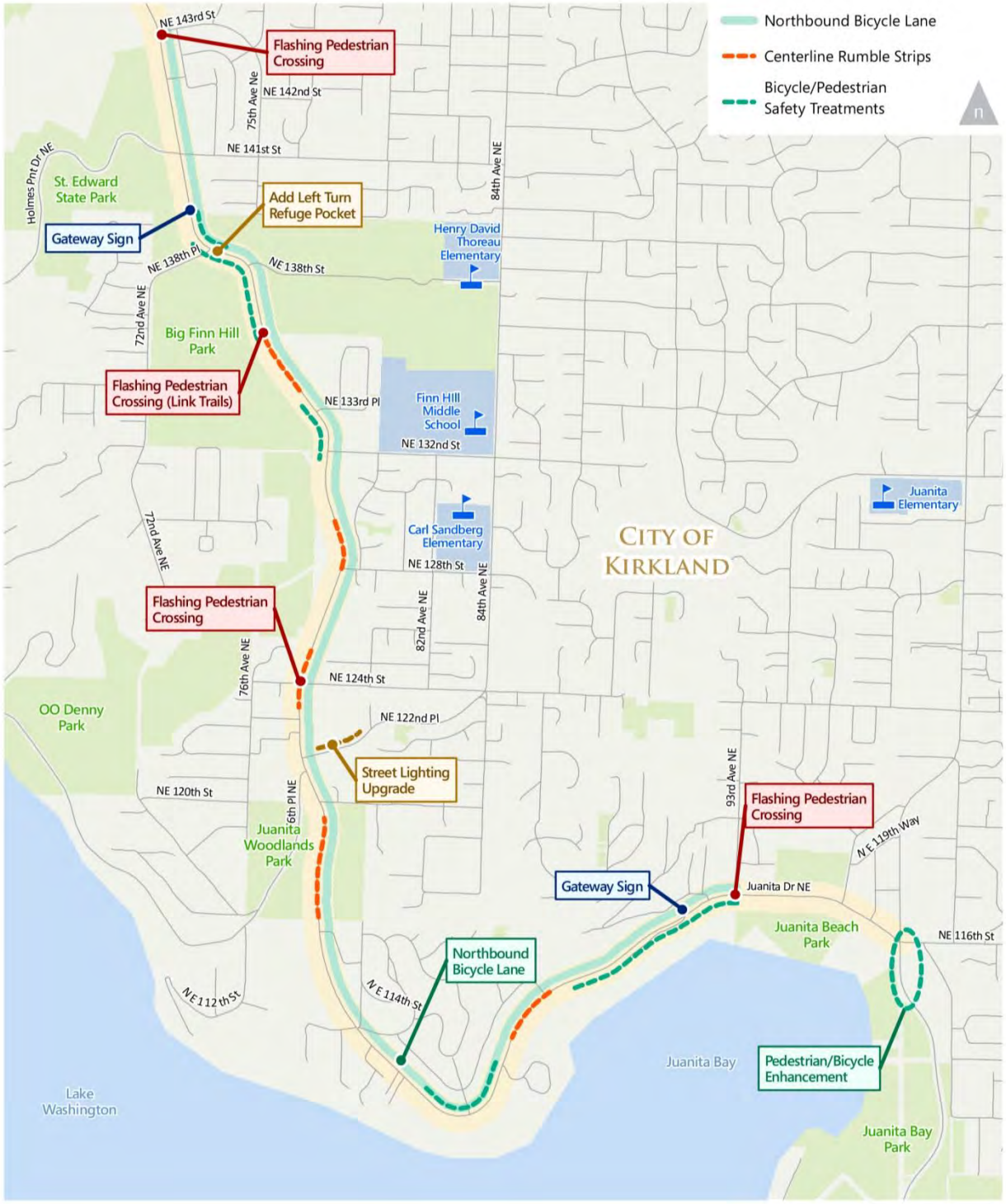
ID	Project Description	Estimated Cost ($000)	Priority Rating (Table 4)
NM6	Flashing Pedestrian Crossing at Big Finn Hill Park	$210	H
NM8	Interim Pedestrian/Bicycle Safety Treatments	$130	H
NM9	Northbound Bicycle Lane Throughout Corridor	$380	H
NM10	Bicycle Signs for Northbound Bicycle Lane	$190	H
V1	Lighting Upgrade (NE 122nd Place)	$50	H
V2	Centerline Rumble Strips	$40	H
NM1	98th Avenue Bicycle/Pedestrian Enhancements	$90	M
NM2	Flashing Pedestrian Crossing at 93rd Avenue NE	$90	M
V3	Left turn refuge pocket-NE 138th Place	$40	M
NM7	Flashing Pedestrian Crossing at NE 143rd Street	$90	L
V5	Gateway Signs (north and south ends of corridor)	$40	L
	TOTAL	**$1.35M**	

The summary ratings and costs of the quick win projects are as follows:

Rating	Cost	Percent of Cost
High	$1.00M	(74%)
Medium	$0.22M	(16%)
Lower	$.013M	(10%)
Total	$1.35M	(100%)

Ninety (90) percent of the quick win projects rate as high or medium priority.

FIGURE 13: QUICK WIN PROJECTS



Several of these projects could be included within the City's near-term transportation Capital Improvement Program. Others may require specific funding allocations from grants or other dedicated funds. One project merits specific discussion in the following section.

UPHILL BICYCLE LANE

Given the high cost of providing the basic cross-section throughout the corridor, it is likely to be built in phases. This would lead to discontinuous nonmotorized treatments along the corridor until the plan is finished. Particularly for bicycles, there is a need to provide a safe, continuous treatment along the full corridor. Otherwise, bicycles need to travel into and out of a designated bicycle lane. To address this concern, Project NM9 would construct a northbound buffered bicycle lane throughout the corridor. The result would be a five-foot bike lane with a 1-2 foot buffer in the uphill direction where bicyclists are slowest.

This project would be created with limited or no widening in most sections. The buffer would be delineated with painted edge stripes and some use of guide posts or other physical treatments around tight corners. Permanent bicycle lane signing (project NM10) would also be included. It is estimated that much of the work performed in this project could be incorporated into the permanent cross-section design, including the permanent bicycle signing. As individual projects are funded, the design process would replace the 'quick win' bicycle lane with pavement markings and signage that fit within each road section. The final cross-section would be one buffered bicycle lane in each direction on Juanita Drive plus the walkway on one side of the roadway.

PROJECT PACKAGING

To assist the city in developing data for its Capital Improvement Program and grant applications, the plan includes nine fact sheets that describe packages of projects that serve similar geographic or functional areas. **Appendix B** contains the fact sheets, which are one-page summaries followed by the detailed cost breakouts for each project in the group. The project groups are listed in **Table 6.**

TABLE 7: JUANITA DRIVE PROJECT GROUPS

ID	Project Group Description	Projects Included	Cost	Upgrade
1	Corridor Pedestrian Treatments	NM1 NM2 NM6 NM7	$466,000	
2	Neighborhood Access Points- 86th Avenue NE; NE 112th Street/80th Avenue NE	NM3 I3	$2,419,000	
3	South Corridor - Juanita Lane to NE 120th Street	R1 R2 R3 R4 I2	$7,692,000	$980,000
4	Holmes Point Drive / NE 122nd Place Intersection	R5 I4 V1	$1,543,000	$193,000
5	Central Corridor- NE 124th Street to NE 133rd Street	R6 I5 I6 NM5 NM6	$3,464,000	
6	North Corridor- Big Finn Hill Park to NE 140th Street	R7 R8 R9 I7 V3 V5	$1,808,000	$3,294,000
7	North Corridor- NE 141st Street to NE 143rd St	I8 R10 NM7	$208,000	
8	Corridor Interim Bike and Safety Treatments	NM8 NM9 NM10 V2	$731,000	
9	Corridor ITS Integration	V4 I1	$1,155,000	$1,200,000

APPENDIX A: COMMUNITY OUTREACH SUMMARY

Overview

The City of Kirkland developed a corridor plan for future transportation improvements to the Juanita Drive Corridor between Juanita Village and the northern City limits in Finn Hill. To better understand community concerns related to this corridor and to develop solutions to improve safety and mobility in the future, the City of Kirkland initiated an extensive public involvement effort.

The project team developed an overall communication and public involvement strategy, conducted stakeholder interviews, created project informational materials and website content, conducted and participated in community events and facilitated a project advisory group.

The City identified key target audiences to engage:

- Businesses and residents along the project corridor and within the City of Kirkland
- Users of the project corridor; local and regional
- Management and users of the parks and public spaces
- Local agencies, such as Lake Washington School District and Metro
- Community groups and organizations
- City of Kirkland staff, such as emergency response
- Elected officials

Community involvement was key in developing and implementing a successful corridor plan for Juanita Drive. To prepare a common vision for future improvements to the corridor, the City gathered input from the community at public workshops, briefings with neighborhood groups, and informational booths at local events. A community-based advisory committee was also formed to serve as a forum for additional dialogue and information sharing among community members and city staff.

Stakeholder Interviews

Interviews were conducted in Spring 2013 to inform key stakeholders about the project, identify key issues that should be addressed and better understand how stakeholders felt their organization, as well as the public, could influence the project moving forward. Interviewees included community leaders, business representatives, agency staff and emergency response providers.

What we heard from the community:

- Improving safety in the corridor is important; especially for bicycles and pedestrians
- Traffic congestion during peak travel periods is a concern
- Limited sight distances throughout the corridor are a concern, especially for large vehicles
- Desire for quick implementation of improvements, if possible
- Any improvements should be context sensitive of the blend between rural areas, neighborhoods and business centers

Events (2013)

- May 8 – Kirkland Alliance of Neighborhoods, Heritage Hall
- May 13 – Juanita Neighborhoods Association, Juanita Elementary
- May 14 – Kirkland Business Roundtable, Eastside Tennis Center
- May 29 – Finn Hill Neighborhood Alliance, Finn Hill Middle School
- June 5 – Kirkland Wednesday Market, Marina Park
- June 7 – Juanita Friday Market, Juanita Beach Park, Walk & Roll Safety Fair
- June 8 – City Planning Day, Kirkland City Hall
- June 12 – Corridor Study Community Workshop, Finn Hill Middle School
- Sept. 8 – DennyFest, O.O. Denny Park
- Sept. 9 – Juanita Neighborhood Association, Juanita Elementary
- Oct. 7 – Juanita Corridor Study Community Open House, Finn Hill Middle School
- Oct. 19 – City Planning Day, Peter Kirk Community Center
- Nov. 6 – Finn Hill Neighborhood Alliance, Finn Hill Middle School

Advisory Committee Meetings

The purpose of the advisory committee was to provide a forum for dialogue and two-way information sharing between key stakeholders and the City. The City kept the committee informed and involved throughout the corridor study, including seeking their input on identifying issues to be addressed, developing alternatives, establishing criteria for evaluating alternatives and establishing a common vision for future improvements. The Committee also assisted with the broader public outreach process by providing input on tradeoffs and community priorities.

The committee was advisory in nature and met four times, at key milestones throughout the Corridor Plan process.

- May 23, 2013
- July 31, 2013
- Sept. 10, 2013
- Oct. 29, 2013

Advisory committee members were:

- Mike Haschak – Kirkland Fire
- Bryan McNaghten – Kirkland Police
- Lisa Broulette – Kirkland Police
- Jon Pascal – Finn Hill Neighborhood Alliance
- Pierre Geurts – Finn Hill Neighborhood, At Large
- Norm Storme – Juanita Neighborhoods Association
- Scott Emry – Lake Washington School District
- Janice Gerrish – King County Parks Trail Board
- Sharon Clausson – King County Parks Staff
- Lance Carter – Juanita Businesses
- Nima Salestani – Finn Hill Businesses
- Daniel Weise – Cascade Bicycle Club
- Daniel Clark – Bastyr University
- Tedd McCagg – Finn Hill Neighborhood Alliance

Fairs and Festivals

Outreach at fairs and festivals in 2013 provided the project an opportunity to engage a new subset of the community at events that attract a wider, and potentially new, audience. The project identified several local events within or near the corridor to share information about the process and solicit feedback at various stages of corridor plan development:

- June 5 – Kirkland Wednesday Market, Marina Park
- June 7 – Juanita Friday Market, Juanita Beach Park
- June 8 – City Planning Day, Kirkland City Hall
- Sept. 8 – DennyFest, O.O. Denny Park
- Oct. 19 – City Planning Day, Peter Kirk Community Center

What we heard:

- Concerns about safety for all modes of traffic, including pedestrians and bicyclists
- Concerns about lack of proper sidewalks
- Lack of neighborhood and park connectivity, including safe routes to local schools
- Traveling the corridor during rush hour is difficult
- No interest in widening the corridor for more automobile lanes
- Concerns about vehicle collisions in certain areas of the corridor
- Excitement about the City looking into improving the corridor
- Approval of proposed draft alternatives for various segments of the corridor

Presentations to Neighborhood Groups

Attending and presenting at neighborhood association meetings in 2013 allowed the project to share information about the Corridor Plan process and goals, and to solicit community input on the key corridor issues and potential solutions to consider. Presentations were given to several neighborhood and community organizations within the project corridor:

- May 8 – Kirkland Alliance of Neighborhoods, Heritage Hall
- May 13 – Juanita Neighborhoods Association, Juanita Elementary
- May 14 – Kirkland Business Roundtable, Eastside Tennis Center
- May 29 – Finn Hill Neighborhood Alliance, Finn Hill Middle School
- Sept. 9 – Juanita Neighborhood Association, Juanita Elementary
- Nov. 6 – Finn Hill Neighborhood Alliance, Finn Hill Middle School

Community Workshop – June 12, 2013

The community was invited to engage in a hands-on workshop with City and project staff to initiate a conversation about key issues related to the Juanita Drive Corridor. At the workshop, community members were asked to point out areas of concern on large maps of the corridor, propose solutions and provide general feedback about how the project should progress. Project staff gave a brief presentation and was available to answer questions. Comments received were then used to develop a suite of proposed alternatives.

To advertise the community workshop, staff distributed posters to community centers and businesses along the corridor, postcards were mailed to nearby neighborhoods within the project area, brief articles were provided to schools to include in their newsletters and the City sent a press release. In the end, more than 80 people participated at the event.

The team also conducted an informal, post-event survey to get feedback on how well the event went, how attendees heard about the event, what neighborhood or organization they represent, and potential opportunities for improvement.

What we heard:

- "This was great. The best, most informative Kirkland neighborhood event I've attended. Thanks."
- "Really impressed - great work - fun giving feedback/ideas."
- "Appreciate the introduction to the information and website for further information."
- "Great work. Good guiding principles!"
- "The present road markings are a dull yellow. Very hard to see at night especially in the rain."
- "Table events were great! Keep it up! Thanks for the opportunity to provide feedback."
- "Concerned about road widening north of NE 128th St. on east side of Juanita Drive and potential tree removal."
- Improving safety is a top interest, for all modes of traffic.
- Concerns about lack of light on the roadway when dark.
- Concerns about roadway drainage.
- Interest in community connectivity.
- Interest in improvements to bicycle safety and routes.

<u>Open House – October 7, 2013</u>

Before the project team finalized the proposed improvements in the final report, the team sought out feedback from the community. At the open house, participants were encouraged to review draft alternatives for each segment of the corridor, ask staff questions and then note on a map their favorite alternative by placing a sticker next to it. General feedback and comments were also encouraged. Staff then used this input to further refine the alternatives.

To advertise the open house, staff distributed fact sheets, postcards were mailed to addresses within the project area and the City sent a press release.

The team also conducted an informal, post-event survey to get feedback on how well the event went, how attendees heard about the event, what neighborhood or organization they represent, and potential opportunities for improvement.

What we heard about the draft recommendations:

- "Center turn lanes are very important."
- "Communication has been excellent!"
- "Very much in favor of crosswalks connecting east and west sides of Big Finn Hill Park."
- "Biggest concern is walking on Juanita Drive."
- "Roundabouts would greatly improve the flow on Juanita."
- "Great to have knowledgeable professionals to discuss details and possibilities. Good work!"
- "Juanita Drive needs turn lanes!"
- Mixed reactions to roundabouts; some wanted them, some did not.
- General agreement on various proposed alternatives.
- Excitement over dedicated bike lanes and pedestrian paths.

APPENDIX B

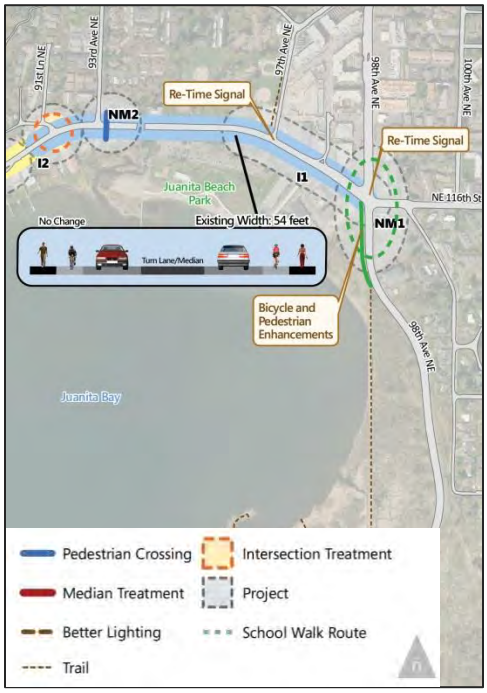
PROJECT FACT SHEETS

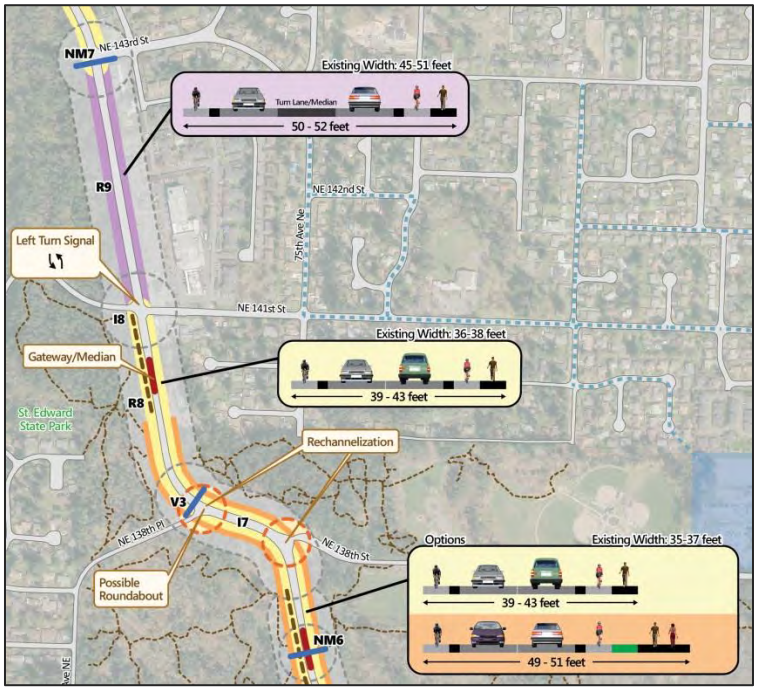
PRIORITIZATION RESULTS

COST ESTIMATES

Project Group 1 – Corridor Pedestrian Treatments – This project group includes crosswalk and other pedestrian infrastructure improvements.

ID	Location	Description/Justification
NM1	Juanita Drive / 98th Avenue NE intersection	Pedestrian and bicycle enhancements. Widen sidewalk connection with Old Market Street Trail to the south. Add bike box on south intersection approach.
NM2	Juanita Drive / 93rd Avenue NE intersection	Add flashing crosswalk to existing crosswalk.
NM6	Juanita Drive, approximately 600 feet south of NE 138th Street	Construct mid-block Flashing crosswalk to connect Big Finn Hill Park trails on the east and west sides of Juanita Drive.
NM7	Juanita Drive / NE 143rd Street intersection	Construct flashing crosswalk at intersection to connect residential neighborhood on the east side of the street with St. Edward State Park on the west.





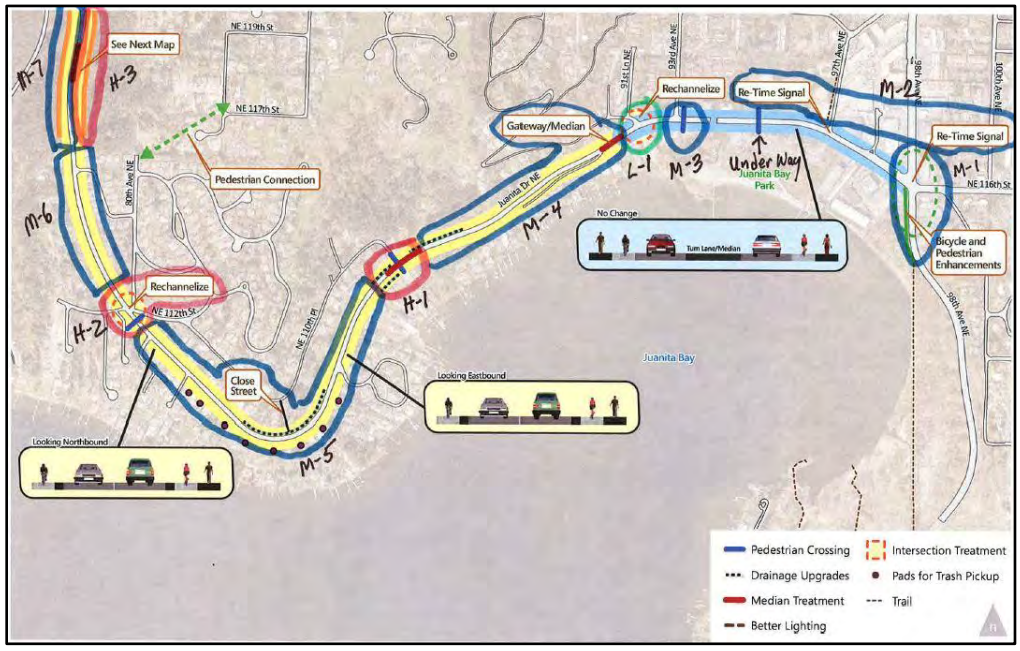
ID	Capital Cost (in 1,000s) Basic	Options	Priority [a]	Challenges to be resolved
NM1	$83	--	M	No width on south approach for bike lane; widened sidewalk may require right-of-way.
NM2	$90	--	M	Minimal
NM6	$203	--	H	Integrate with full cross-section treatment, which may come later.
NM7	$90	--	L	Minimal
Total	$466	--		

[a] H = high ; M = medium ; L = low

Project Group 2 – Neighborhood Access Points – This project group includes improvements to 86th Avenue NE and NE 112th Street / 80th Avenue NE, principal access points to the Surfmere and Hermosa Vista neighborhoods.

ID	Location	Description/Justification
NM3	Juanita Drive / 86th Avenue NE intersection	Construct Rectangular Rapid Flashing Beacon[1] crosswalk at intersection to connect residential neighborhoods on north side of street with transit stop on south side. Improve drainage on both sides of street.
I3	Juanita Drive / NE 112th Street / 80th Avenue NE intersection	Re-channelize as 4-legged intersection. Realign 80th Avenue NE to intersect NE 112th Street approximately 60 feet east of Juanita Drive. Construct Rectangular Rapid Flashing Beacon[1] crosswalk at intersection to connect residential neighborhoods on east and west side of street.

[1] Rectangular Rapid Flashing Beacon can enhance safety by reducing crashes between vehicles and pedestrians at unsignalized intersections and mid-block pedestrian crossings by increasing driver awareness of potential pedestrian conflicts. Other flashing signals may be substituted in the future as technology changes.



ID	Capital Cost (in 1,000s) Basic	Options	Priority [a]	Challenges to be resolved
NM3	$525	--	M	Drainage concerns, sufficient advance crosswalk signing needed
I3	$1,894	--	H	Slopes, right-of-way in Hermosa Vista to consolidate intersections, integrate crosswalk with turn pockets
Total	$2,419	--		

[a] H = high ; M = medium ; L = low

Project Group 3 – South Corridor: Juanita Lane to NE 120th Street – This project group includes cross-section improvements to the south corridor of Juanita Drive from Juanita Lane to NE 120th Street.

ID	Location	Description/Justification
R1	NE 116th Place to 86th Avenue NE	Widen and reconfigure cross-section to include buffered bike lanes on both sides of street and walkway on north side of street. Improve downhill drainage.
R2	86th Avenue NE to NE 112th Street	Widen and reconfigure cross-section to include buffered bike lanes on both sides of street and walkway on north side of street. Close 83rd Avenue NE intersection to vehicle traffic. Improve inside curve for bicycle and pedestrian passage. Create pads for trash pickups.
R3	NE 112th Street to 79th Way NE	Widen and reconfigure cross-section to include buffered bike lanes on both sides of street and walkway on east side of street.
R4	79th Way NE to NE 120th Street	Widen and reconfigure cross-section to include buffered bike lanes on both sides of street and walkway on east side of street. [1]
I2	Juanita Drive / NE 116th Place intersection	Restripe intersection to improve vehicle sight distance and enhance safety for bicyclists and pedestrians.

[1] option to add separated pathway on east side through park

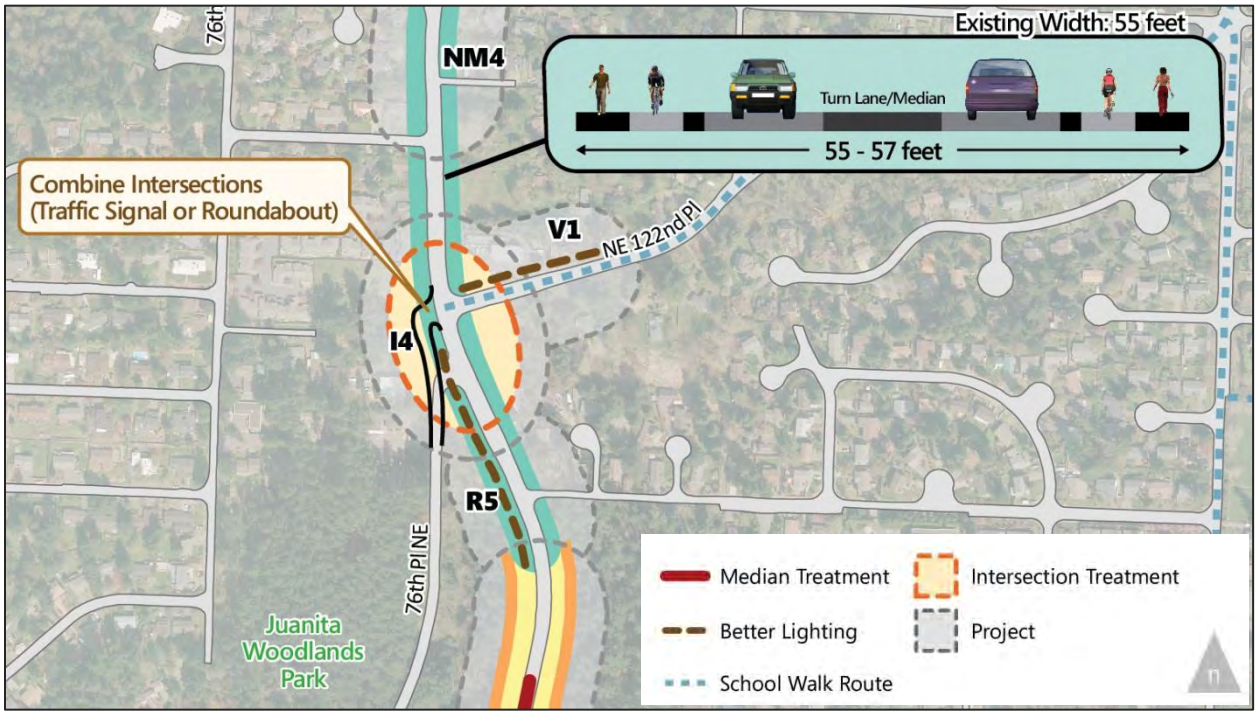
ID	Capital Cost (in 1,000s) Basic	Options	Priority [a]	Challenges to be resolved
R1	$4,994 [b]	--	M	Steep slopes, sloughing, proximity of Juanita Lane, drainage
R2	$972 [c]	--	M	Steep slopes, drainage, frequent driveways, trash cans in shoulder
R3	$1,051	--	L	Moderately steep slopes
R4	$550	$980 [d]	L	Steep slopes limits widening options without high costs
I2	$125	--	L	Minimal
Total	$7,692	$980		

[a] H = high ; M = medium ; L = low
[b] drainage portion of cost is approximately $98,000
[c] drainage portion of cost is approximately $98,000
[c] adds multi-purpose trail

Project Group 4 – Holmes Point Drive / NE 122nd Place Intersection – This project group includes intersection improvements and other upgrades in the vicinity of the Holmes Point Drive / NE 122nd Place intersection.

ID	Location	Description/Justification
R5	NE 120th Street to NE 122nd Lane	Widen and reconfigure cross-section to include center turn lane, bike lanes and walkway on east side of street.
I4	76th Place NE and NE 122nd Street intersections with Juanita Drive	Realign offset intersection to create single signalized intersection or roundabout.[1]
V1	NE 122nd Place	Upgrade street-lighting in the vicinity of Juanita Drive

[1] roundabout an option to traffic signal



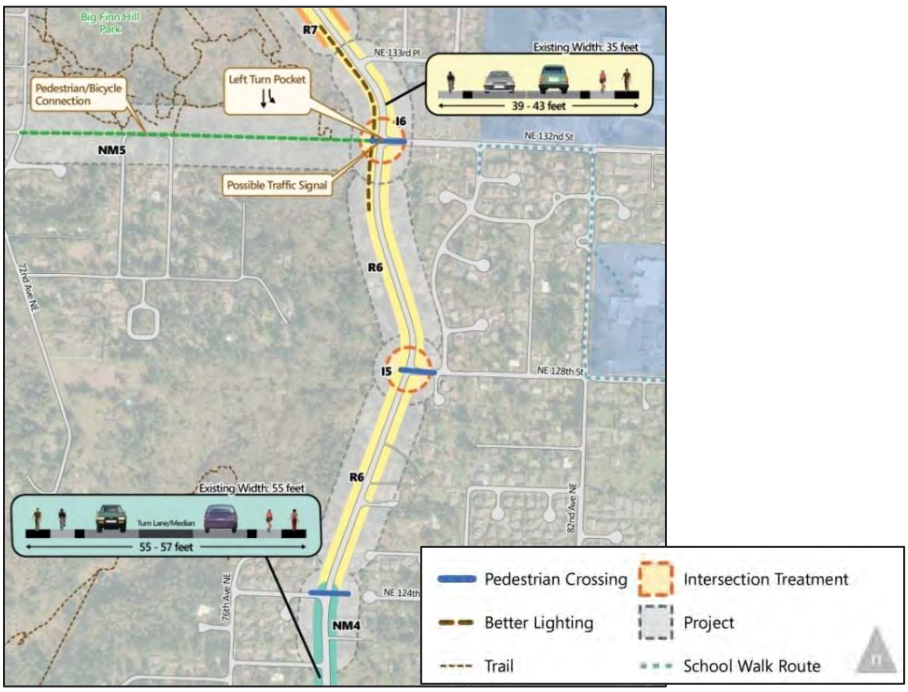
ID	Capital Cost (in 1,000s) Basic	Options	Priority [a]	Challenges to be resolved
R5	$309	--	H	Minimal
I4	$1,184 [b]	$193 [b]	M	Difficult configuration if fire station stays at this location
V1	$50	--	H	Minimal
Total	$1,543	$193		

[a] H = high ; M = medium ; L = low
[b] basic = signal; option = additional for roundabout

Project Group 5 – Central Corridor: NE 124th Street to NE 133rd Street – This project group includes cross-section improvements to the central portion of Juanita Drive from NE 124th Street to NE 133rd Street.

ID	Location	Description/Justification
R6	NE 124th Street to NE 132nd Street	Widen cross section to include buffered bike lanes on both sides of street and walkway on east side of street.
I5	Juanita Dr / NE 128th Street intersection	Widen southbound approach of Juanita Drive to include left turn lane. Construct flashing crosswalk at intersection.
I6	NE 132nd Street to NE 133rd Place	Widen southbound approach to NE 128th Street to include left turn lane. Construct walkway to east side of street and pedestrian bridge west of Juanita Drive across [ravine]. Construct flashing crosswalk at intersection.
NM4	Juanita Drive / NE 124th Street intersection	Construct flashing crosswalk at intersection. Improve walkway on west side of street from NE 124th Street to NE 123rd Street.
NM5	NE 132nd Street to 72nd Avenue NE	Construct pedestrian/bicycle pathway along existing easement. Build a nonmotorized bridge across Denny Creek.

[1] roundabout an option to traffic signal



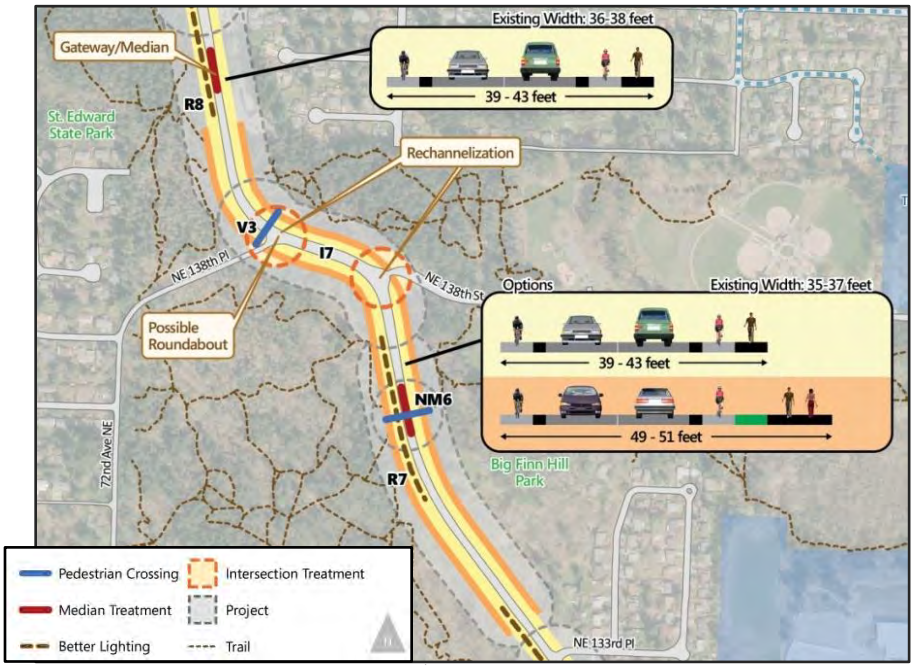
ID	Capital Cost (in 1,000s) Basic	Options	Priority [a]	Challenges to be resolved
R6	$985	--	M	Some slopes
I5	$1,082 [b]	--	H	Drainage on west side
I6	$878	--	H	Lighting; link to nonmotorized path (NM5)
NM4	$143	--	H	Tie to NE 124th Street cul-de-sac
NM5	$316	--	M	Bridge construction; interface with existing streets
Total	$3,404	--		

[a] H = high ; M = medium ; L = low
[b] drainage portion of cost is approximately $98,000

Project Group 6 – North Corridor: Big Finn Hill Park to NE 140th Street – This project group includes cross-section improvements to the north corridor of Juanita Drive from Big Finn Hill Park to NE 140th Street.

ID	Location	Description/Justification
R7	NE 133rd Place to south of NE 138th Street	Widen cross section to include buffered bike lanes on both sides of street and walkway on east side of street[1].
R8	NE 138th Street to north of NE 138th Place	Widen cross section to include buffered bike lanes on both sides of street, rechannelize both NE 138th intersections and construct walkway on east side of street[1].
I7	NE 138th Place	Construct roundabout (option)
R9	NE 138th Place to south of NE 141st Street	Widen cross section and construct gateway median south of NE 141st Street[2].
V3	Juanita Drive / NE 138th Place Intersection	Reconfigure cross section directly north of intersection to include a refuge/merge lane for traffic turning left onto Juanita Drive from NE 138th Place. (Interim treatment)

[1] option to construct separated multi-purpose trail through park section
[2] refer to Project V5 for Gateway sign project

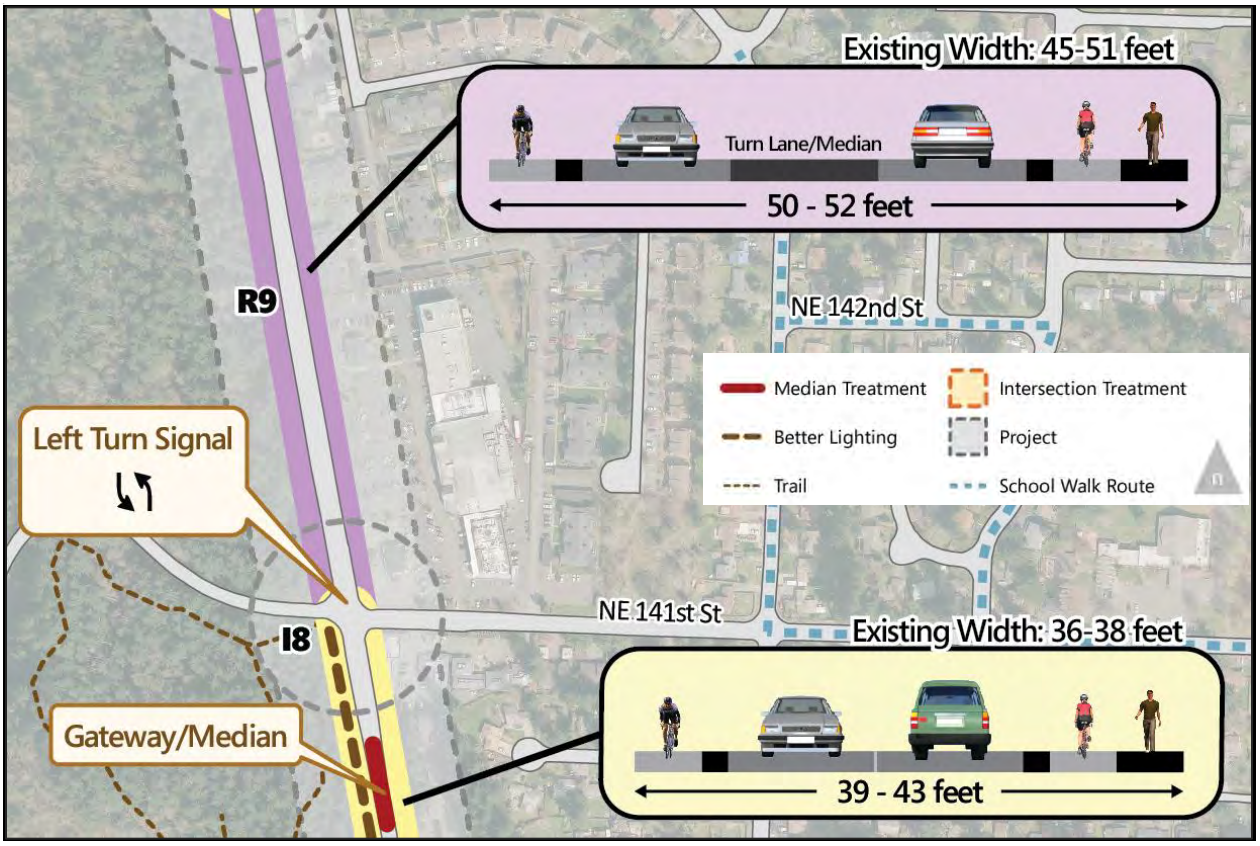


ID	Capital Cost (in 1,000s) Basic	Options	Priority [a]	Challenges to be resolved
R7	$781	$901[b]	H	Steep slopes; park right-of-way and trees
R8	$497	$806[b]	H	Steep slopes; park right-of-way and trees.
I7	--	$1012[c]	H	Slopes; regrading
R9	$449	$575[b]	M	Steep slopes; park right-of-way and trees
V3	$41	$41	M	Minimal
Total	$1,768	$4,613		

[a] H = high ; M = medium ; L = low
[b] adds multi-purpose trail
[c] roundabout incremental cost

Project Group 7 – North Corridor: NE 140th Street to NE 143rd Street – This project group includes cross-section improvements to the north corridor of Juanita Drive from NE 140th Street to NE 143rd Street.

ID	Location	Description/Justification
I8	Juanita Drive / NE 141st Street Intersection	Modify signal head to accommodate protected northbound and southbound left turns.
R10	NE 141st Street to NE 143rd Street	Reconfigure cross section to include bike lanes on both sides of street.
NM7	NE 143rd Street	Provide flashing crosswalk



ID	Capital Cost (in 1,000s) Basic	Options	Priority [a]	Challenges to be resolved
I8	$55	--	L	Minimal
R10	$63	--	L	Could affect parking on east side south of NE 143rd Street
NM7	$90	--	L	
Total	$208	--		

[a] H = high ; M = medium ; L = low

Project Group 8 – Corridor Bicycle Lane and Safety Treatments – This project group includes short-term corridor treatments to improve comfort and safety for bicyclists and motorists.

ID	Location	Description/Justification
NM8	Selected locations along corridor[1]	Construct interim "bicycle safety treatments" at pinch-points along corridor. Could include restriping, signing, barriers (e.g. candles, rumble strips)
NM9	Corridor	Rechannelize existing roadway to include northbound buffered bike lane.
NM10	Corridor	Add bicycle signs for northbound bike lane
V2	Selected locations along corridor[1]	Add center line rumble strips to help prevent drivers from veering out of travel lane

[1] to be determined during design

ID	Capital Cost (in 1,000s)		Priority [a]	Challenges to be resolved
	Basic	Options		
NM8	$129	--	H	Identify key locations
NM9	$377 [b]	--	H	Determine minimal cross section to achieve buffered bike lane. Interim treatment.
NM10	$187	--	H	
V2	$50	--	H	Identify key locations
Total	$743	--		

[a] H = high ; M = medium ; L = low
[b] portion of this project could be included in full cross section design

Project Group 9 – Corridor ITS Integration – This project group includes intelligent transportation systems (ITS) upgrades for the Juanita Drive corridor and traffic signal timing.

ID	Location	Description/Justification
V4	Corridor – Signalized intersection from 98th Avenue NE to NE 141st Street	Integrate intersection signals with intelligent transportation systems (ITS) technology.
I1	98th Avenue NE and 97th Avenue NE intersections with Juanita Drive	Retime traffic signals to improve traffic operations at east end of corridor[1].

ID	Capital Cost (in 1,000s)		Priority [a]	Challenges to be resolved
	Basic	Options		
V4	$1,050	$1,200 [b]	L	Determine overhead or underground design
I1	$105 [c]	--	L	Minimal
Total	$1,155	$1,200		

[a] H = high ; M = medium ; L = low
[b] underground utilities
[c] tie to city's traffic signal and safety project underway in 2013/14

Prioritization Criteria

Use to prioritize corridor projects
Combination of quantitative and qualitative criteria
Build from Guiding Principles

GUIDING PRINCIPLES

- Address safety needs for all travel modes.
- Maintain corridor unique identity and natural landscape.
- Engage community in shared vision for future improvements.
- Protect the extraordinary natural environment.
- Provide financially feasible, strategic and realistic priorities for the corridor.

Criterion	Description	Weight*	Rating		
			Low	***Medium***	***High***
Safety	Addresses existing corridor safety problem	3	*Limited or no effect*	*Direct safety benefit*	*Improves High collision location*
Accessibility	Provides access to activities within the corridor	2	*Limited or no effect*	*Improves single mode*	*Improves multiple modes*
Identity	Consistency with corridor identity and surrounding land uses	3	*Diminishes identity*	*Neutral effect*	*Enhances identity*
Environment	Protection of natural environment	2	*Degrades environment*	*Neutral effect*	*Enhances environment*
Financial	Cost	2	*High (>$1.5 M)*	*Medium ($500K-$1.5M)*	*Low (<$500K)*
Fundable	Available funding sources	3	*Low likelihood of funding*	*Likely to compete for city funds*	*Good potential for grant/ other funding*
Phasing	Ability to phase project	2	*Minimal ability to phase*	*Some phasing potential*	*High ability to phase; interim options available*
Plan Consistency	Consistency with plans adopted by city and other jurisdictions	1	*Not consistent*	*Generally consistent*	*Highly consistent*
Public Support	Identified public support	2	*Limited support*	*Good support*	*Strong support*

*Weighting based on perceived importance of criterion matched to guiding principle

	Juanita Drive Transportation Improvements											
Project ID[1]	Project Location	Project Description	Safety	Accessibility	Identity	Environment	Financial	Fundable	Phasing	Plan Consiste	Public Support	Total Priority Rating	Rating
			Criteria Weight										
			3	2	3	2	2	3	2	1	2		
I1	97th Ave NE/ 98th Ave NE Intersections	Retime signals	1	2	2	2	3	3	3	3	1	**43**	L
I2	NE 116th Pl Intersecton	Rechannelize	2	1	2	2	3	2	2	3	2	**41**	L
I3	112th Ave NE Intersection	Rechannelize Intersection/ Pedestrian	3	3	3	2	1	3	2	3	3	**52**	H
I4	76th Pl NE/ NE 122nd Pl Dual Intersections	Rechannelize/ combine intersections with signal (L) or roundabout (H)	2	3	2.5	2	2	2	2	3	3	**46.5**	M
I5	NE 128th St Intersection	Left turn pocket/ pedestrian crossing	3	3	3	2	2	3	2	3	3	**54**	H
I6	NE 132nd St Intersection to NE 133rd Place	Left turn pocket/ pedestrian crossing/	3	3	3	2	2	3	3	3	3	**56**	H
R8	NE 138th to South of NE 141st Pl intersection	Cross Section/ Intersection Channelization at NE 138th Pl and NE 138th St											
I7	NE 138th Pl Intersection	Roundabout Option (Add to cost of Project R8)	2	3	3	2	2	2	3	3	3	**50**	H
I8	NE 141st St Intersection	Add left turn signals	1	2	2	2	3	3	2	3	2	**43**	L
NM1	98th Ave NE Intersection	Pedestrian/ Bicycle enhancements	2	2	2	2	3	3	2	3	1	**44**	M
NM2	93rd Ave NE Intersection	Pedestrian Crossing	2	2	2	2	3	3	2	3	2	**46**	M
NM3	86th Ave NE Intersection	Pedestrian Crossing/Drainage	2	2	2	2	2	3	3	3	3	**48**	M
NM4	NE 124th St Intersection	Pedestrian Crossing/ walkway to NE 123rd St	2	2	3	2	3	3	2	3	2	**49**	H
NM5	NE 132nd St- Juanita Drive to 72nd Ave NE	Pedestrian/Bicycle Corridor treatment	2	2	3	2	3	3	1	3	2	**47**	M
NM6	Big Finn Hill Park	Pedestrian crossing/ trail connection	2	2	3	3	3	3	2	3	2	**51**	H
NM7	NE 143rd St Intersection	Pedestrian Crossing	2	1	2	2	3	3	2	2	2	**43**	L
NM8	Corridor	Bicycle safety treatments	3	2	3	2	3	3	3	3	3	**56**	H
NM9	Corridor	Create northbound bicycle lane	3	2	3	2	2	2	2	3	3	**49**	H
NM10	Corridor	Bicycle Signs for northbound bicycle lane											
R1	NE 116th Pl to 86th Ave NE	Cross Section/ Drainage Improvements/ Gateway median	2	3	3	2	1	2	2	3	3	**46**	M
R2	86th Ave NE to NE 112th St	Cross Section/ close 83rd Ave NE	2	3	3	2	2	2	2	3	2	**46**	M
R3	NE 112th St to 79th Way NE	Cross Section	2	3	2	2	2	2	1	2	1.5	**39**	L
R4	79th Way NE to NE 120th St	Cross Section	2	3	3	2	1	2	1	3	2	**42**	L
R5	NE 120th St to NE 122nd Lane	Extend 3rd lane/ walkway on east side	3	3	3	2	3	2	2	3	2	**51**	H
R6	NE 124th St to NE 132nd St	Cross section	1	3	3	2	3	2	2	3	2	**45**	M
R7	NE 133rd Pl to south of NE 138st St	Cross section	2	3	3	1.5	2	3	2	3	3	**50**	H
R9	NE 138th Pl to NE 141st St	Cross section/ Gateway Median	2	2	2	2	3	3	1	3	2	**44**	M
R10	NE 141st St to NE 143rd St	Cross Section	1.5	2	2	2	3	3	1	3	2	**42.5**	L
V1	NE 122nd Pl	Lighting Upgrade	2	3	3	2	3	3	2	3	2	**51**	H
V2	Corridor- selected locations	Center line Rumble Strips	3	1	2	2	3	3	3	3	2	**49**	H
V3	NE 138th Pl Intersection	Left turn refuge for EB to NB movement	2	2	2	2	3	3	2	2	2	**45**	M
v4	Corridor	ITS Integration- Signals	2	1	2	2	2	3	2	2	2	**41**	L
	Notes: Low = 1 ; Medium = 2 ; High = 3												

Juanita Drive Transportation Improvements

Project ID	Rating	Project Location	Project Description	Total Cost Basic Section (in 1000s)	Addt'l Cost for Options (in 1000s)	Option Description
I1	L	97th Ave NE/ 98th Ave NE Intersections	Retime signals	105		
I2	L	NE 116th Pl IntersectIon	Rechannelize	125		
I3	H	112th Ave NE Intersection	Rechannelize Intersection/ Pedestrian Crossing	1,894		
I4	M	76th Pl NE/ NE 122nd Pl Dual Intersections	Rechannelize/ combine intersections with signal (L) or roundabout (H)	1,184	193	Roundabout
I5	H	NE 128th St Intersection	Left turn pocket/ pedestrian crossing	1,082		
I6	H	NE 132nd St Intersection to NE 133rd Place	Left turn pocket/ pedestrian crossing/ walkway	878		
I7	H	NE 138th Pl Intersection	Roundabout Option (Add to cost of Project R8)		1,012	Roundabout
I8	L	NE 141st St Intersection	Add left turn signals	55		
NM1	M	98th Ave NE Intersection	Pedestrian/ Bicycle enhancements	83		
NM2	M	93rd Ave NE Intersection	Pedestrian Crossing	90		
NM3	M	86th Ave NE Intersection	Pedestrian Crossing/Drainage	525		
NM4	H	NE 124th St Intersection	Pedestrian Crossing/ walkway to NE 123rd St	143		
NM5	M	NE 132nd St- Juanita Drive to 72nd Ave NE	Pedestrian/Bicycle Corridor treatment	316		
NM6	H	Big Finn Hill Park	Pedestrian crossing/ trail connection	203		
NM7	L	NE 143rd St Intersection	Pedestrian Crossing	90		
NM8	H	Corridor	Bicycle safety treatments	129		
NM9	H	Corridor	Create northbound bicycle lane	377		
NM10	H	Corridor	Bicycle Signs for northbound bicycle lane	187		
R1	M	NE 116th Pl to 86th Ave NE	Cross Section/ Drainage Improvements/ Gateway median	4,994		
R2	M	86th Ave NE to NE 112th St	Cross Section/ close 83rd Ave NE	972		
R3	L	NE 112th St to 79th Way NE	Cross Section	1,051		
R4	L	79th Way NE to NE 120th St	Cross Section	550	980	Widen for Multipurpose Trail
R5	H	NE 120th St to NE 122nd Lane	Extend 3rd lane/ walkway on east side	309		
R6	M	NE 124th St to NE 132nd St	Cross section	985		
R7	H	NE 133rd Pl to south of NE 138st St	Cross section	781	901	Widen for Multipurpose Trail
R8	H	NE 138th to South of NE 141st Pl intersection	Cross Section/ Intersection Channelization at NE 138th Pl and NE 138th St	497	806	Widen for Multipurpose Trail
R9	L	NE 138th Pl to NE 141st St	Cross section/ Gateway Median	449	575	Widen for Multipurpose Trail
R10	L	NE 141st St to NE 143rd St	Cross Section	63		
V1	H	NE 122nd Pl	Lighting Upgrade	50		
V2	H	Corridor- selected locations	Center line Rumble Strips	38		
V3	M	NE 138th Pl Intersection	Left turn refuge for EB to NB movement	41		
V4	L	Corridor	ITS Integration- Signals	1,050	1,200	Undergrounding of ITS Utilities
V5	L	Corridor	Gateway Signs- North and South End	40		
				19,336	**5,667**	

Notes: Low = 1 ; Medium = 2 ; High = 3

Roundabout Option	1,205
Widen for Multipurpose Trail	3,262
ITS Undergrounding	1,200

Preliminary Level Opinion of Cost							
City of Kirkland: Juanita Dr. Corridor Study							
13-Dec-13							
Perteet Project # 20110185							
ITEM	UNITS	UNIT PRICE	PROJECT NM1 - QUANTITY	PROJECT NM1 - AMOUNT	PROJECT I1 - QUANTITY	PROJECT I1 - AMOUNT	
PREPARATION							
Mobilization (10%)	LS	$ 1	4,000	$ 4,000	5,000	$ 5,000	
Roadway Surveying (2%)	LS	$ 1	1,000	$ 1,000		$ -	
Structure Surveying (5%)	LS	$ 1		$ -		$ -	
Removal of Structures & Obstructions (1%)	LS	$ 1	1,000	$ 1,000		$ -	
Clearing and Grubbing	AC	$ 7,000	0.04	$ 300		$ -	
GRADING							
Roadway Excavation Incl. Haul	CY	$ 15	100	$ 1,500		$ -	
Gravel Borrow Incl. Haul	TON	$ 16	130	$ 2,100		$ -	
STORM SEWER							
Drainage Systems	LS	$ 1		$ -		$ -	
SURFACING							
Portland Cement Concrete Sidewalk	SY	$ 20	560	$ 11,200		$ -	
HMA CL 1/2 IN. PG 64-22	TON	$ 100		$ -		$ -	
Crushed Surfacing Base Course	TON	$ 35	130	$ 4,600		$ -	
EROSION CONTROL AND PLANTING							
Temporary Water Pollution & Erosion Control (6%)	LS	$ 1	2,000	$ 2,000		$ -	
TRAFFIC							
Project Traffic Control	EST	$ 1	3,000	$ 3,000		$ -	
Traffic Signal Systems	EST	$ 1		$ -	50,000	$ 50,000	
Cement Conc Curb and Gutter	LF	$ 15		$ -		$ -	
Cement Conc Curb Ramps	EA	$ 1,500	2	$ 3,000		$ -	
Illumination System	EST	$ 1		$ -		$ -	
Striping	LF	$ 3	3,000	$ 9,000		$ -	
OTHER							
Retaining Walls	SF	$ 60		$ -		$ -	
CONSTRUCTION SUB TOTAL				**$ 43,000**		**$ 55,000**	
Construction Contingencies (30%)				$ 20,000		$ 20,000	
CONSTRUCTION TOTAL				**$ 63,000**		**$ 75,000**	
ENGINEERING SERVICES							
Preliminary Engineering (15%)				$ 10,000		$ 20,000	
Construction Engineering (12%)				$ 10,000		$ 10,000	
Total Preliminary Opinion of Cost				**$ 83,000**		**$ 105,000**	

Project Details	Location	Project Description
Project NM1	98th Ave NE Intersection	Bicycle and Pedestrian enhancements beginning at the SW corner of the Juanita Dr & Ne 98th Ave NE intersection and continuing south along the west side of 98th Ave NE for ~500 LF. Additional striping will be done to creat a bike box at the NB LT lane of 98th Ave NE to Juanita Dr.
Project I1	97th Ave NE/98th Ave NE Intersections	Retiming of esisting signal systems at the intersection of Juanita Dr & 97th Ave NE and the intersection of Juanita Dr & 98th Ave NE

Preliminary Level Opinion of Cost							
City of Kirkland: Juanita Dr. Corridor Study							
13-Dec-13							
Perteet Project # 20110185							
ITEM	UNITS	UNIT PRICE	PROJECT NM2 - QUANTITY	PROJECT NM2 - AMOUNT	PROJECT I2 - QUANTITY	PROJECT I2 - AMOUNT
PREPARATION						
Mobilization (10%)	LS	$ 1	7,000	$ 7,000	5,000	$ 5,000
Roadway Surveying (2%)	LS	$ 1	2,000	$ 2,000	1,000	$ 1,000
Structure Surveying (5%)	LS	$ 1		$ -	2,000	$ 2,000
Removal of Structures & Obstructions (1%)	LS	$ 1	1,000	$ 1,000	1,000	$ 1,000
Clearing and Grubbing	AC	$ 10,000	0.03	$ 300	0.03	$ 300
GRADING						
Roadway Excavation Incl. Haul	CY	$ 15		$ -	60	$ 900
Gravel Borrow Incl. Haul	TON	$ 16		$ -		$ -
STORM SEWER						
Drainage Systems	LS	$ 1		$ -	2,000	$ 2,000
SURFACING						
Portland Cement Concrete Sidewalk	SY	$ 20		$ -		$ -
HMA CL 1/2 IN. PG 64-22	TON	$ 90		$ -		$ -
Crushed Surfacing Base Course	TON	$ 25		$ -		$ -
EROSION CONTROL AND PLANTING						
Temporary Water Pollution & Erosion Control (6%)	LS	$ 1	4,000	$ 4,000	3,000	$ 3,000
TRAFFIC						
Project Traffic Control (10%)	EST	$ 1	7,000	$ 7,000	5,000	$ 5,000
Traffic Signal Systems	EST	$ 1		$ -		$ -
Cement Conc Curb and Gutter	LF	$ 15		$ -		$ -
Cement Conc Curb Ramps	EA	$ 1,500	2	$ 3,000	1	$ 1,500
Illumination System	EST	$ 1		$ -	5,000	$ 5,000
Striping	LF	$ 3	500	$ 1,500	500	$ 1,500
OTHER						
Retaining Walls (SEW)	SF	$ 60		$ -	600	$ 36,000
Utility Coordination	EST	$ 1		$ -		$ -
Enhanced Pedestrian Crossing	EST	$ 1	60,000	$ 60,000		$ -
CONSTRUCTION SUB TOTAL				**$ 86,000**		**$ 65,000**
Construction Contingencies (30%)				$ 30,000		$ 20,000
CONSTRUCTION TOTAL				**$ 116,000**		**$ 85,000**
ENGINEERING SERVICES						
Preliminary Engineering (15%)				$ 20,000		$ 20,000
Construction Engineering (12%)				$ 20,000		$ 20,000
Total Preliminary Opinion of Cost				**$ 156,000**		**$ 125,000**
Cost reduced by packaging with other crossings				$ 90,000		

Project Details	Location	Project Description
Project NM2	93rd Ave NE Intersection	Restriping of 93rd Ave NE & Juanita Dr intersection. Improving pedestrian and bicycle safety. Installation of enhanced pedestrian crossing just to the east of 93rd Ave NE
Project I2	NE 116th Pl Intersection	Restriping of NE 116th Pl & Juanita Dr intersection. Improving sight distances and pedestrian/bicycle safety.

Preliminary Level Opinion of Cost								
City of Kirkland: Juanita Dr. Corridor Study								
13-Dec-13								
Perteet Project # 20110185								
ITEM	UNITS	UNIT PRICE	PROJECT R2 - QUANTITY	PROJECT R2 - AMOUNT	PROJECT NM3 - QUANTITY	PROJECT NM3 - AMOUNT	PROJECT I3 - QUANTITY	PROJECT I3 - AMOUNT
PREPARATION								
Mobilization (10%)	LS	$ 1	43,000	$ 43,000	23,000	$ 23,000	82,000	$ 82,000
Roadway Surveying (2%)	LS	$ 1	9,000	$ 9,000	5,000	$ 5,000	17,000	$ 17,000
Structure Surveying (5%)	LS	$ 1	22,000	$ 22,000	12,000	$ 12,000	41,000	$ 41,000
Removal of Structures & Obstructions (1%)	LS	$ 1	5,000	$ 5,000	3,000	$ 3,000	9,000	$ 9,000
Clearing and Grubbing	AC	$ 10,000	0.17	$ 1,700	0.02	$ 200	0.3	$ 2,800
GRADING								
Roadway Excavation Incl. Haul	CY	$ 15	1,000	$ 15,000	200	$ 3,000	1,600	$ 24,000
Gravel Borrow Incl. Haul	TON	$ 16	660	$ 10,600	320	$ 5,200	6,100	$ 97,600
STORM SEWER								
Drainage Systems	LS	$ 1	26,500	$ 26,500	20,000	$ 20,000	45,000	$ 45,000
SURFACING								
Roadway Widening (Includes HMA, CSBC, CSTC, Sidewalk)	EST	$ 1	93,000	$ 93,000	48,600	$ 48,600		$ -
Portland Cement Concrete Sidewalk	SY	$ 35		$ -		$ -	520	$ 18,200
HMA CL 1/2 IN. PG 64-22	TON	$ 100		$ -		$ -	1,351	$ 135,100
Crushed Surfacing Base Course	TON	$ 25		$ -		$ -	1,554	$ 38,900
EROSION CONTROL AND PLANTING								
Temporary Water Pollution & Erosion Control (6%)	LS	$ 1	26,000	$ 26,000	14,000	$ 14,000	49,000	$ 49,000
TRAFFIC								
Project Traffic Control (10%)	EST	$ 1	43,000	$ 43,000	23,000	$ 23,000	82,000	$ 82,000
Traffic Signal Systems	EST	$ 1		$ -		$ -		$ -
Cement Conc Curb and Gutter	LF	$ 15	1,200	$ 18,000	200	$ 3,000	750	$ 11,300
Cement Conc Curb Ramps	EA	$ 1,500		$ -	2	$ 3,000	8	$ 12,000
Illumination System	EST	$ 1	20,000	$ 20,000	5,000	$ 5,000	20,000	$ 20,000
Striping	LF	$ 3	2,100	$ 6,300	600	$ 1,800	2,700	$ 8,100
OTHER								
Retaining Walls (SEW/Gravity)	SF	$ 60	3,850	$ 231,000	1,200	$ 72,000	1,950	$ 117,000
Retaining Walls (Soilder Pile)	SF	$ 90		$ -		$ -	2,480	$ 223,200
Trash Can Pad	SY	$ 40	45	$ 1,800		$ -		
Enhanced Pedestrian Crossing	EA	$ 60,000		$ -	1	$ 60,000	1	$ 60,000
Gateway Island	LS	$ 1		$ -	2,500	$ 2,500		$ -
CONSTRUCTION SUB TOTAL				**$ 572,000**		**$ 305,000**		**$ 1,094,000**
Construction Contingencies (30%)				$ 180,000		$ 100,000		$ 330,000
CONSTRUCTION TOTAL				**$ 752,000**		**$ 405,000**		**$ 1,424,000**
ENGINEERING SERVICES								
Preliminary Engineering (15%)				$ 120,000		$ 70,000		$ 220,000
Construction Engineering (12%)				$ 100,000		$ 50,000		$ 180,000
Total Preliminary Opinion of Cost				**$ 972,000**		**$ 525,000**		**$ 1,824,000**

Project Details	Location	Project Description
Project R2	86th Ave NE to NE 112th St	This project involves widening the existing roadway section to accommodate through lanes, bicycle lanes in both directions, and sidewalk facilities. Sidewalks will be installed along the south side of the roadway from 86th to 112th St. Drainage upgrades will be made along the north side of the roadway around the curve adjacent to 83rd Ave NE. New pads for trash pickup will be installed along the south side of the roadway. There will be no access to 86th.
Project NM3	86th Ave NE Intersection	This project will install drainage improvements aimed at the existing groundwater issues just to the west of 86th Ave NE. An enhanced pedestrian crossing will be installed at 86th Ave NE on Juanita Dr. Project Limits are Sta 144+00 to Sta 146+00 Length 200 LF
Project V3	112th Ave NE Intersection	This project will widen Juanita Dr through the intersection of 112th Ave NE & Juanita Dr. The widening will allow for a new two way left turn lane on Juanita Dr., bicycle lanes, and new striping for NE 112th St and 80th Ave NE. Sidewalks will be installed on both sides on Juanita Dr. to allow for the installation of an enhanced pedestrian crossing to the south of the intersection. Project Length = 600 LF Sta 176+00 to Sta 182+00 80th Ave NE will be regraded Retaining Walls will be required on all four corners of the intersection due to the roadway grade and steep side slopes.

Preliminary Level Opinion of Cost				
City of Kirkland: Juanita Dr. Corridor Study				
21-Nov-13				
Perteet Project # 20110185				
ITEM	**UNITS**	**UNIT PRICE**	**PROJECT NM3 - QUANTITY**	**PROJECT NM3 - AMOUNT**
PREPARATION				
Mobilization (10%)	LS	$ 1	5,000	$ 5,000
Roadway Surveying (2%)	LS	$ 1	1,000	$ 1,000
Removal of Structures & Obstructions (1%)	LS	$ 1	1,000	$ 1,000
STORM SEWER				
Drainage Systems	LS	$ 1	20,000	$ 20,000
SURFACING				
Roadway Widening (Includes HMA, CSBC, CSTC, Sidewalk)	EST	$ 1	24,300	$ 24,300
EROSION CONTROL AND PLANTING				
Temporary Water Pollution & Erosion Control (6%)	LS	$ 1	3,000	$ 3,000
TRAFFIC				
Project Traffic Control (10%)	EST	$ 1	5,000	$ 5,000
CONSTRUCTION SUB TOTAL				**$ 60,000**
Construction Contingencies (30%)				$ 20,000
CONSTRUCTION TOTAL				**$ 80,000**
ENGINEERING SERVICES				
Preliminary Engineering (15%)				$ 20,000
Construction Engineering (12%)				$ 10,000
Total Preliminary Opinion of Cost				**$ 110,000**

Project Details	Location	Project Description
Project NM3	86th Ave NE Intersection	This project will install drainage improvements aimed at the existing groundwater issues just to the west of 86th Ave NE. at 86th Ave NE on Juanita Dr. Project Limits are Sta 144+00 to Sta 146+00 Length 200 LF

This estimate reflects Drainage related items only! Assumptions include that the roadway structure will be replaced as part of the drainage work. Groundwater seepage in this area has caused damage to the existing pavement structure. Therefore 50% of the roadway widening cost for the whole NM3 project will be part of the drainage item schedule.

Preliminary Level Opinion of Cost								
City of Kirkland: Juanita Dr. Corridor Study								
13-Dec-13								
Perteet Project # 20110185								
ITEM	UNITS	UNIT PRICE	PROJECT I4(L) - QUANTITY	PROJECT I4(L) - AMOUNT	PROJECT I4(H) - QUANTITY	PROJECT I4(H) - AMOUNT	PROJECT V1 - QUANTITY	PROJECT V1 - AMOUNT
PREPARATION								
Mobilization (10%)	LS	$ 1	42,000	$ 42,000	42,000	$ 42,000	2,000	$ 2,000
Roadway Surveying (2%)	LS	$ 1	9,000	$ 9,000	9,000	$ 9,000		$ -
Structure Surveying (5%)	LS	$ 1	18,000	$ 18,000	5,000	$ 5,000		$ -
Removal of Structures & Obstructions (1%)	LS	$ 1	9,000	$ 9,000	50,000	$ 50,000	1,000	$ 1,000
Clearing and Grubbing	AC	$ 10,000	0.69	$ 6,900	0.9	$ 9,200		$ -
GRADING								
Roadway Excavation Incl. Haul	CY	$ 15	820	$ 12,300	1,570	$ 23,600		$ -
Gravel Borrow Incl. Haul	TON	$ 16	410	$ 6,600	820	$ 13,200		$ -
STORM SEWER								
Drainage Systems	LS	$ 1	35,000	$ 35,000	43,000	$ 43,000		$ -
SURFACING								
Roadway Widening (Includes HMA, CSBC, CSTC, Sidewalk)	EST	$ 1	39,900	$ 39,900				
Portland Cement Concrete Sidewalk	SY	$ 20	600	$ 12,000	1,070	$ 21,400		$ -
HMA CL 1/2 IN. PG 64-22	TON	$ 90	370	$ 33,300	1,073	$ 96,600		$ -
Crushed Surfacing Base Course	TON	$ 25	592	$ 14,800	1,443	$ 36,100		$ -
EROSION CONTROL AND PLANTING								
Temporary Water Pollution & Erosion Control (6%)	LS	$ 1	26,000	$ 26,000	25,000	$ 25,000		$ -
TRAFFIC								
Project Traffic Control	EST	$ 1	42,000	$ 42,000	83,000	$ 83,000	2,000	$ 2,000
Traffic Signal Systems	EST	$ 1	200,000	$ 200,000		$ -		$ -
Cement Conc Curb and Gutter	LF	$ 15	1,300	$ 19,500	2,500	$ 37,500		$ -
Cement Conc Curb Ramps	EA	$ 1,500	5	$ 7,500	8	$ 12,000		$ -
Illumination System	EST	$ 1	20,000	$ 20,000	20,000	$ 20,000	15,000	$ 15,000
Striping	LF	$ 3	3,200	$ 9,600	3,200	$ 9,600		$ -
OTHER								
Retaining Walls (SEW)	SF	$ 60		$ -	1,500	$ 90,000		$ -
ROW Acquisition	SF	$ 20	7,000	$ 140,000	10,000	$ 200,000		0
CONSTRUCTION SUB TOTAL				**$ 704,000**		**$ 827,000**		**$ 20,000**
Construction Contingencies (30%)				$ 220,000		$ 250,000		$ 10,000
CONSTRUCTION TOTAL				**$ 924,000**		**$ 1,077,000**		**$ 30,000**
ENGINEERING SERVICES								
Preliminary Engineering (15%)				$ 140,000		$ 170,000		$ 10,000
Construction Engineering (12%)				$ 120,000		$ 130,000		$ 10,000
Total Preliminary Opinion of Cost				**$ 1,184,000**		**$ 1,377,000**		**$ 50,000**

Project Details	Location	Project Description
Project I4(L)	76th Pl NE/ NE 122nd Pl Dual Intersections	This project realigns 76th Pl NE in order to create a single signalized intersection with NE 122nd Pl.
Project I4(H)	76th Pl NE/ NE 122nd Pl Dual Intersections	This project realigns 76th Pl NE in order to create a roundabout intersection with NE 122nd Pl. and Juanita Dr.
Project V1	NE 122nd Pl	Improving existing lighting levels along the north side of NE 122nd Pl. beginning at Juanita Dr. and extending east approximately 600 LF.

Preliminary Level Opinion of Cost						
City of Kirkland: Juanita Dr. Corridor Study						
13-Dec-13						
Perteet Project # 20110185						
ITEM	UNITS	UNIT PRICE	PROJECT I6 - QUANTITY	PROJECT I6 - AMOUNT	PROJECT I5 - QUANTITY	PROJECT I5 - AMOUNT
PREPARATION						
Mobilization (10%)	LS	$ 1	39,000	$ 39,000	48,000	$ 48,000
Roadway Surveying (2%)	LS	$ 1	8,000	$ 8,000	10,000	$ 10,000
Structure Surveying (5%)	LS	$ 1	20,000	$ 20,000	24,000	$ 24,000
Removal of Structures & Obstructions (1%)	LS	$ 1	4,000	$ 4,000	5,000	$ 5,000
Clearing and Grubbing	AC	$ 10,000	0.11	$ 1,100	0.4	$ 3,700
GRADING						
Roadway Excavation Incl. Haul	CY	$ 15	710	$ 10,700	1,280	$ 19,200
Gravel Borrow Incl. Haul	TON	$ 16	290	$ 4,700	1,830	$ 29,300
STORM SEWER						
Drainage Systems	LS	$ 1	37,500	$ 37,500	30,000	$ 30,000
SURFACING						
Roadway Widening (Includes HMA, CSBC, CSTC, Sidewalk)	EST	$ 1	127,600	$ 127,600	136,400	$ 136,400
Portland Cement Concrete Sidewalk	SY	$ 35		$ -		$ -
HMA CL 1/2 IN. PG 64-22	TON	$ 100		$ -		$ -
Crushed Surfacing Base Course	TON	$ 25		$ -		$ -
EROSION CONTROL AND PLANTING						
Temporary Water Pollution & Erosion Control (6%)	LS	$ 1	24,000	$ 24,000	29,000	$ 29,000
TRAFFIC						
Project Traffic Control (10%)	EST	$ 1	39,000	$ 39,000	48,000	$ 48,000
Traffic Signal Systems	EST	$ 1		$ -		$ -
Cement Conc Curb and Gutter	LF	$ 15	3,600	$ 54,000	800	$ 12,000
Cement Conc Extruded Curb	LF	$ 15		$ -	300	$ 4,500
Cement Conc Curb Ramps	EA	$ 1,500	3	$ 4,500	3	$ 4,500
Illumination System	EST	$ 1	25,000	$ 25,000		$ -
Striping	LF	$ 3	3,600	$ 10,800	3,200	$ 9,600
OTHER						
Retaining Walls (SEW)	SF	$ 60	1,800	$ 108,000	3,800	$ 228,000
CONSTRUCTION SUB TOTAL				**$ 518,000**		**$ 642,000**
Construction Contingencies (30%)				$ 160,000		$ 200,000
CONSTRUCTION TOTAL				**$ 678,000**		**$ 842,000**
ENGINEERING SERVICES						
Preliminary Engineering (15%)				$ 110,000		$ 130,000
Construction Engineering (12%)				$ 90,000		$ 110,000
Total Preliminary Opinion of Cost				**$ 878,000**		**$ 1,082,000**

Project Details	Location	Project Description
Project I6	NE 132nd St Intersection to NE 133rd Place	This project involves the construction of a new intersection at Juanita Dr. & NE 132nd St. This intersection will widen the existing roadway section to include two through lanes, a SB LT lane to NE 132nd St., bicycle lanes, and pedestrian facilities. NE 132nd St. will be restriped to accomodate new movements. Roadway lighting will be improved in the intersection and approach areas.
Project I5	NE 128th St Intersection	This project involves the construction of a intersection at Juanita Dr. a& NE 128th St. The existing roadway section will be widened to accommodate two through lanes, a SB LT lane to NE 128th St., bicycle lanes, and sidewalks on the east side of Juanita Dr. Roadway lighting will be improved in the intersection and approach areas.

Preliminary Level Opinion of Cost				
City of Kirkland: Juanita Dr. Corridor Study				
21-Nov-13				
Perteet Project # 20110185				
ITEM	**UNITS**	**UNIT PRICE**	**PROJECT I5 - QUANTITY**	**PROJECT I5 - AMOUNT**
PREPARATION				
Mobilization (10%)	LS	$ 1	4,000	$ 4,000
Roadway Surveying (2%)	LS	$ 1	1,000	$ 1,000
Removal of Structures & Obstructions (1%)	LS	$ 1	1,000	$ 1,000
STORM SEWER				
Drainage Systems	LS	$ 1	30,000	$ 30,000
EROSION CONTROL AND PLANTING				
Temporary Water Pollution & Erosion Control (6%)	LS	$ 1	3,000	$ 3,000
TRAFFIC				
Project Traffic Control (10%)	EST	$ 1	4,000	$ 4,000
Cement Conc Extruded Curb	LF	$ 15	300	$ 4,500
CONSTRUCTION SUB TOTAL				**$ 48,000**
Construction Contingencies (30%)				$ 20,000
CONSTRUCTION TOTAL				**$ 68,000**
ENGINEERING SERVICES				
Preliminary Engineering (15%)				$ 20,000
Construction Engineering (12%)				$ 10,000
Total Preliminary Opinion of Cost				**$ 98,000**

Project Details	Location	Project Description
Project I5	NE 128th St Intersection	This project involves the construction of a intersection at Juanita Dr. a& NE 128th St. The existing roadway section will be widened to accommodate two through lanes, a SB LT lane to NE 128th St., bicycle lanes, and sidewalks on the east side of Juanita Dr. Roadway lighting will be improved in the intersection and approach areas. This estimate contains only Drainage Items

Preliminary Level Opinion of Cost								
City of Kirkland: Juanita Dr. Corridor Study								
27-Nov-13								
Perteet Project # 20110185								
ITEM	UNITS	UNIT PRICE	PROJECT R8 - QUANTITY	PROJECT R8 - AMOUNT	PROJECT R8B - QUANTITY	PROJECT R8B - AMOUNT	PROJECT R8B + I7 QUANTITY	PROJECT R8B + I7 AMOUNT
PREPARATION								
Mobilization (10%)	LS	$ 1	23,000	$ 23,000	60,000	$ 60,000	108,000	$ 108,000
Roadway Surveying (2%)	LS	$ 1	5,000	$ 5,000	6,000	$ 6,000	11,000	$ 11,000
Structure Surveying (5%)	LS	$ 1	0	$ -	13,000	$ 13,000	20,000	$ 20,000
Removal of Structures & Obstructions (1%)	LS	$ 1	3,000	$ 3,000	6,000	$ 6,000	11,000	$ 11,000
Clearing and Grubbing	AC	$ 10,000	0.12	$ 1,200	0.44	$ 4,400	0.30	$ 3,000
GRADING								
Roadway Excavation Incl. Haul	CY	$ 15	540	$ 8,100	990	$ 14,900	2,040	$ 30,600
Gravel Borrow Incl. Haul	TON	$ 16	180	$ 2,900	830	$ 13,300	4,350	$ 69,600
STORM SEWER								
Drainage Systems	LS	$ 1	12,000	$ 12,000	12,000	$ 12,000	27,500	$ 27,500
SURFACING								
Roadway Widening (Includes HMA, CSBC, CSTC, Sidewalk)	EST	$ 1	106,200	$ 106,200	87,600	$ 87,600	53,100	$ 53,100
Portland Cement Concrete Sidewalk	SY	$ 20	70	$ 1,400		$ -	340	$ 6,800
HMA CL 1/2 IN. PG 64-22	TON	$ 90		$ -	280	$ 25,200	722	$ 65,000
Crushed Surfacing Base Course	TON	$ 25	19	$ 500	204	$ 5,100	777	$ 19,500
EROSION CONTROL AND PLANTING								
Temporary Water Pollution & Erosion Control (6%)	LS	$ 1	14,000	$ 14,000	36,000	$ 36,000	65,000	$ 65,000
TRAFFIC								
Project Traffic Control (10%)	EST	$ 1	23,000	$ 23,000	60,000	$ 60,000	108,000	$ 108,000
Traffic Signal Systems	EST	$ 1		$ -	0	$ -		$ -
Cement Conc Curb and Gutter	LF	$ 15	800	$ 12,000	800	$ 12,000	2,500	$ 37,500
Cement Conc Curb Ramps	EA	$ 1,500		$ -	0	$ -	8	$ 12,000
Illumination System	EST	$ 1	15,000	$ 15,000	15,000	$ 15,000	15,000	$ 15,000
Striping	LF	$ 3	3,200	$ 9,600	3,200	$ 9,600	5,700	$ 17,100
OTHER								
Retaining Walls	SF	$ 60		$ -	4,200	$ 252,000	6,450	$ 387,000
Enhanced Pedestrian Crossing	LS	$ 60,000	1	60,000	1	$ 60,000		
ROW Acquisition	SF	$ 20			4,000	$ 80,000	16,400	$ 328,000
CONSTRUCTION SUB TOTAL				**$ 297,000**		**$ 773,000**		**$ 1,395,000**
Construction Contingencies (30%)				$ 90,000		$ 240,000		$ 420,000
CONSTRUCTION TOTAL				**$ 387,000**		**$ 1,013,000**		**$ 1,815,000**
ENGINEERING SERVICES								
Preliminary Engineering (15%)				$ 60,000		$ 160,000		$ 280,000
Construction Engineering (12%)				$ 50,000		$ 130,000		$ 220,000
Total Preliminary Opinion of Cost				**$ 497,000**		**$ 1,303,000**		**$ 2,315,000**

Project Details	Location	Project Description
Project R8	NE 138th St to north of 138th Pl	This project involves the restriping of the NE 138th Pl & Juanita Dr. intersection. Striping will be done to improve sight distance for drivers turning onto Juanita Dr. from NE 138th Pl and will also provide a protected area on Juanita Dr. allowing drivers to join traffic safetly. Roadway will be widened to accomodate a new sidewalk along the north side of Juanita Dr. An enhanced pedestrian crossing will be added iust north of the 138th Pl intersection.
Project R8B **Widen for Multipurpose Trail**	NE 138th St to north of 138th Pl	This project involves the restriping of the NE 138th Pl & Juanita Dr. intersection. Striping will be done to improve sight distance for drivers turning onto Juanita Dr. from NE 138th Pl and will also provide a protected area on Juanita Dr. allowing drivers to join traffic safetly. Roadway will be widened to accomodate typical roadway section including bike lanes in both directions, through lanes, and a two way left turn lane. A 10' separated pathway will be added along the north side of Juanita Dr. from Finn Hill park to the north project limit. This project will involve ROW acquisition due to the separated pathway on the north side. An enhanced pedestrian crossing will be added just north of the 138th Pl intersection.
Project R8B + I7	NE 138th St to north of 138th Pl	This project involves the construction of a single lane roundabout at the Juanita Dr. & NE 138th Pl intersection. The roundabout will incorporate bicycle lanes as well as sidewalks and crossings at all legs. This project will involve ROW acquisition due to the large roundabout footprint. Along with the roundabout the project will also install a 10' separated pedestrian walkway along the north side of Juanita Dr. from the entrance of Big Finn Hill Park to north of NE 138th Pl.

Preliminary Level Opinion of Cost							
City of Kirkland: Juanita Dr. Corridor Study							
13-Dec-13							
Perteet Project # 20110185							
ITEM	UNITS	UNIT PRICE	PROJECT I8 - QUANTITY	PROJECT I8 - AMOUNT	PROJECT NM7 - QUANTITY	PROJECT NM7 - AMOUNT	
PREPARATION							
Mobilization (10%)	LS	$ 1	2,000	$ 2,000	7,000	$ 7,000	
Roadway Surveying (2%)	LS	$ 1	1,000	$ 1,000	2,000	$ 2,000	
Structure Surveying (5%)	LS	$ 1		$ -		$ -	
Removal of Structures & Obstructions (1%)	LS	$ 1	1,000	$ 1,000	1,000	$ 1,000	
Clearing and Grubbing	AC	$ 10,000		$ -		$ -	
GRADING							
Roadway Excavation Incl. Haul	CY	$ 15	30	$ 500		$ -	
Gravel Borrow Incl. Haul	TON	$ 16		$ -		$ -	
STORM SEWER							
Drainage Systems	LS	$ 1	5,500	$ 5,500		$ -	
SURFACING							
Roadway Widening (Includes HMA, CSBC, CSTC, Sidewalk)	EST	$ 1					
Portland Cement Concrete Sidewalk	SY	$ 35	70	$ 2,500		$ -	
HMA CL 1/2 IN. PG 64-22	TON	$ 100	20	$ 2,000		$ -	
Crushed Surfacing Base Course	TON	$ 25	56	$ 1,400		$ -	
EROSION CONTROL AND PLANTING							
Temporary Water Pollution & Erosion Control (6%)	LS	$ 1	1,000	$ 1,000		$ -	
TRAFFIC							
Project Traffic Control (10%)	EST	$ 1	3,000	$ 3,000	7,000	$ 7,000	
Traffic Signal Systems	EST	$ 1		$ -		$ -	
Cement Conc Curb and Gutter	LF	$ 15	100	$ 1,500		$ -	
Cement Conc Curb Ramps	EA	$ 1,500	2	$ 3,000		$ -	
Illumination System	EST	$ 1		$ -		$ -	
Striping	LF	$ 3		$ -	100	$ 300	
OTHER							
Retaining Walls (SEW)	SF	$ 60		$ -		$ -	
Gateway Island	LS	$ 1				$ -	
Enhanced Pedestrian Crossing	LS	$ 60,000			1	$ 60,000	
CONSTRUCTION SUB TOTAL				**$ 25,000**		**$ 78,000**	
Construction Contingencies (30%)				$ 10,000		$ 30,000	
CONSTRUCTION TOTAL				**$ 35,000**		**$ 108,000**	
ENGINEERING SERVICES							
Preliminary Engineering (15%)				$ 10,000		$ 20,000	
Construction Engineering (12%)				$ 10,000		$ 20,000	
Total Preliminary Opinion of Cost				**$ 55,000**		**$ 148,000**	
Cost reduction by packaging crosswalk projects						$ 90,000	

Project Details	Location	Project Description
Project I8	NE 141st St Intersection	This project involves improving the Juanita Dr. & NE 141st St. intersection. Changes to the existing signal system include the addition of a dedicated SB LT phase onto NE 141st St. Existing curb ramp and sidewalk facilities at the SE and NE corners will be improved to meet
Project NM7	NE 143rd St Intersection	This project will add an enhanced pedestrian crossing across Juanita Dr. at NE 143rd St.

Preliminary Level Opinion of Cost				
City of Kirkland: Juanita Dr. Corridor Study				
13-Dec-13				
Perteet Project # 20110185				
ITEM	UNITS	UNIT PRICE	PROJECT NM1 - QUANTITY	PROJECT NM1 - AMOUNT
PREPARATION				
Mobilization (10%)	LS	$ 1	4,000	$ 4,000
Roadway Surveying (2%)	LS	$ 1	1,000	$ 1,000
Structure Surveying (5%)	LS	$ 1		$ -
Removal of Structures & Obstructions (1%)	LS	$ 1	1,000	$ 1,000
Clearing and Grubbing	AC	$ 7,000	0.04	$ 300
GRADING				
Roadway Excavation Incl. Haul	CY	$ 15	100	$ 1,500
Gravel Borrow Incl. Haul	TON	$ 16	130	$ 2,100
STORM SEWER				
Drainage Systems	LS	$ 1		$ -
SURFACING				
Portland Cement Concrete Sidewalk	SY	$ 20	560	$ 11,200
HMA CL 1/2 IN. PG 64-22	TON	$ 100		$ -
Crushed Surfacing Base Course	TON	$ 35	130	$ 4,600
EROSION CONTROL AND PLANTING				
Temporary Water Pollution & Erosion Control (6%)	LS	$ 1	2,000	$ 2,000
TRAFFIC				
Project Traffic Control	EST	$ 1	3,000	$ 3,000
Traffic Signal Systems	EST	$ 1		$ -
Cement Conc Curb and Gutter	LF	$ 15		$ -
Cement Conc Curb Ramps	EA	$ 1,500	2	$ 3,000
Illumination System	EST	$ 1		$ -
Striping	LF	$ 3	3,000	$ 9,000
OTHER				
Retaining Walls	SF	$ 60		$ -
CONSTRUCTION SUB TOTAL				**$ 43,000**
Construction Contingencies (30%)				$ 20,000
CONSTRUCTION TOTAL				**$ 63,000**
ENGINEERING SERVICES				
Preliminary Engineering (15%)				$ 10,000
Construction Engineering (12%)				$ 10,000
Total Preliminary Opinion of Cost				**$ 83,000**

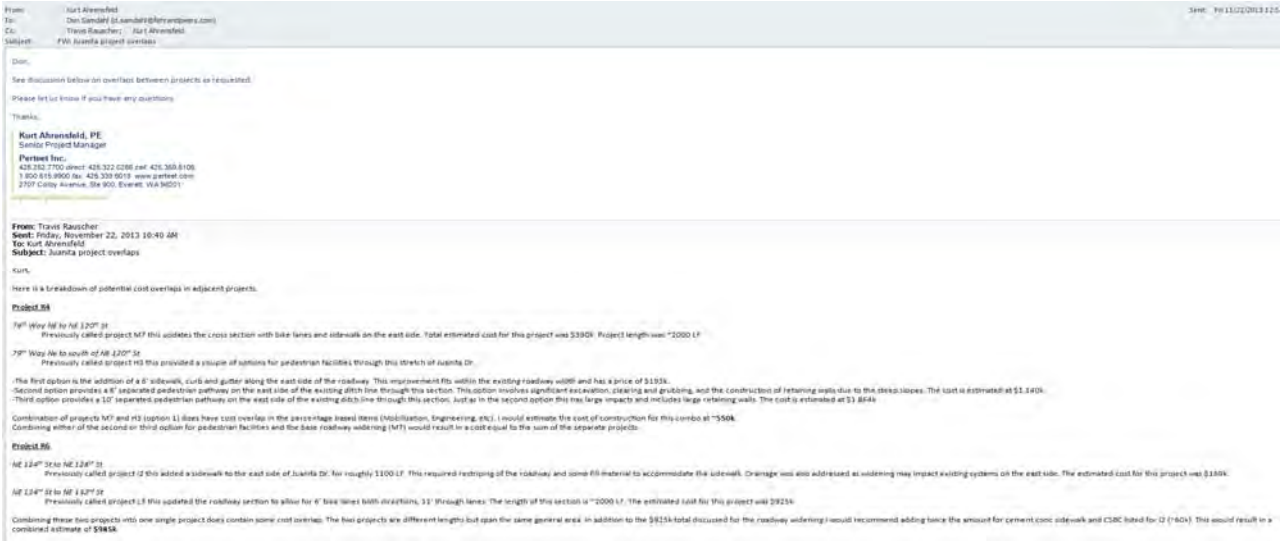
Project Details	Location	Project Description
Project NM1	98th Ave NE Intersection	Bicycle and Pedestrian enhancements beginning at the SW corner of the Juanita Dr & Ne 98th Ave NE intersection and continuing south along the west side of 98th Ave NE for ~500 LF. Additional striping will be done to creat a bike box at the NB LT lane of 98th Ave NE to Juanita Dr.

Preliminary Level Opinion of Cost									
City of Kirkland: Juanita Dr. Corridor Study									
13-Dec-13									
Perteet Project # 20110185									
ITEM	UNITS	UNIT PRICE	PROJECT R6 - QUANTITY	PROJECT R6 - AMOUNT	PROJECT R6w - QUANTITY	PROJECT R6w - AMOUNT	PROJECT NM4 - QUANTITY	PROJECT NM4 - AMOUNT
PREPARATION								
Mobilization (10%)	LS	$ 1	43,000	$ 43,000	8,000	$ 8,000	8,000	$ 8,000
Roadway Surveying (2%)	LS	$ 1	9,000	$ 9,000	2,000	$ 2,000	2,000	$ 2,000
Structure Surveying (5%)	LS	$ 1		$ -		$ -	4,000	$ 4,000
Removal of Structures & Obstructions (1%)	LS	$ 1	5,000	$ 5,000	1,000	$ 1,000	1,000	$ 1,000
Clearing and Grubbing	AC	$ 10,000	0.23	$ 2,300	0.1	$ 800	0.02	$ 200
GRADING								
Roadway Excavation Incl. Haul	CY	$ 15	970	$ 14,600	210	$ 3,200		$ -
Gravel Borrow Incl. Haul	TON	$ 16	520	$ 8,400	90	$ 1,500		$ -
STORM SEWER								
Drainage Systems	LS	$ 1	40,000	$ 40,000	22,000	$ 22,000		$ -
SURFACING								
Roadway Widening (Includes HMA, CSBC, CSTC, Sidewalk)	EST	$ 1	265,500	$ 265,500		$ -		$ -
Portland Cement Concrete Sidewalk	SY	$ 35		$ -	740	$ 25,900	20	$ 700
HMA CL 1/2 IN. PG 64-22	TON	$ 100		$ -		$ -		$ -
Crushed Surfacing Base Course	TON	$ 25		$ -	204	$ 5,100	19	$ 500
EROSION CONTROL AND PLANTING								
Temporary Water Pollution & Erosion Control (6%)	LS	$ 1	26,000	$ 26,000	5,000	$ 5,000	5,000	$ 5,000
TRAFFIC								
Project Traffic Control (10%)	EST	$ 1	43,000	$ 43,000	8,000	$ 8,000	8,000	$ 8,000
Traffic Signal Systems	EST	$ 1		$ -		$ -		$ -
Cement Conc Curb and Gutter	LF	$ 15	2,000	$ 30,000	1,100	$ 16,500		$ -
Cement Conc Curb Ramps	EA	$ 1,500		$ -		$ -	2	$ 3,000
Illumination System	EST	$ 1	50,000	$ 50,000		$ -	10,000	$ 10,000
Striping	LF	$ 3	6,000	$ 18,000		$ -		$ -
OTHER								
Retaining Walls (SEW)	SF	$ 60		$ -		$ -		$ -
Enhanced Pedestrian Crossing	LS	$ 1					60,000	$ 60,000
CONSTRUCTION SUB TOTAL				**$ 555,000**		**$ 99,000**		**$ 103,000**
Construction Contingencies (30%)				$ 170,000		$ 30,000		$ 40,000
CONSTRUCTION TOTAL				**$ 725,000**		**$ 129,000**		**$ 143,000**
ENGINEERING SERVICES								
Preliminary Engineering (15%)				$ 110,000		$ 20,000		$ 30,000
Construction Engineering (12%)				$ 90,000		$ 20,000		$ 20,000
Total Preliminary Opinion of Cost				**$ 925,000**		**$ 169,000**		**$ 193,000**

$985,000.00

**Combining projects R6 and R6w into one project, this is the cost. See email below

Project Details	Location	Project Description
Project R6	NE 124th St to NE 132nd St	This project involves the widening of the existing roadway section to include two through lanes, bicycle lanes, and sidewalk facilities on the east side of the roadway. Any impacts to the existing drainage systems will be mitigated. Sta 222+00 to Sta 242+00
Project R6w	NE 124th St - NE 128th St	This project adds a sidewalk to the east side of the existing roadway section
Project NM4	NE 124th St Intersection	This project involves intersection improvements at Juanita Dr & NE 124th St. A new pedestrian connection to the adjacent neighborhood to the east wil be installed. This new pathway will lead to a new crossing at Juanita Dr.



Kurt Ahrensfeld, PE
Senior Project Manager
Perteet Inc.

From: Travis Rauscher
Sent: Friday, November 22, 2013 10:40 AM
To: Kurt Ahrensfeld
Subject: Juanita project overlaps

Kurt,

Here is a breakdown of potential cost overlaps in adjacent projects.

Project R6

76th Way NE to NE 120th St
Previously called project M7 this updates the cross section with bike lanes and sidewalk on the east side. Total estimated cost for this project was $3909. Project length was ~2000 LF

79th Way NE to south of NE 120th St
Previously called project M3 this provided a couple of options for pedestrian facilities through this stretch of Juanita Dr.

-The first option is the addition of a 8' sidewalk, curb and gutter along the east side of the roadway. This improvement fits within the existing roadway width and has a price of $193k.
-Second option provides a 8' separated pedestrian pathway on the east side of the existing ditch line through this section. This option involves significant excavation, clearing and grubbing, and the construction of retaining walls due to the steep slopes. The cost is estimated at $1.140k
-Third option provides a 10' separated pedestrian pathway on the east side of the existing ditch line through this section. Just as in the second option this has large impacts and includes large retaining walls. The cost is estimated at $1.464k

Combination of projects M7 and M3 (option 1) does have cost overlap in the percentage based items (Mobilization, Engineering, etc). I would estimate the cost of construction for this combo at ~$50k.
Combining either of the second or third option for pedestrian facilities and the base roadway widening (M7) would result in a cost equal to the sum of the separate projects.

Project R6

NE 124th St to NE 124th St
Previously called project I2 this added a sidewalk to the east side of Juanita Dr. for roughly 1100 LF. This required restriping of the roadway and some fill material to accommodate the sidewalk. Drainage was also addressed as widening may impact existing systems on the east side. The estimated cost for this project was $180k

NE 124th St to NE 132nd St
Previously called project L3 this updated the roadway section to allow for 6' bike lanes both directions, 11' through lanes. The length of this section is ~2000 LF. The estimated cost for this project was $925k

Combining these two projects into one single project does contain some cost overlap. The two projects are different lengths but span the same general area. In addition to the $925k total discussed for the roadway widening I would recommend adding twice the amount for cement conc sidewalk and CSBC listed for (2 (~60k). This would result in a combined estimate of **$985k**.

Preliminary Level Opinion of Cost				
City of Kirkland: Juanita Dr. Corridor Study				
13-Dec-13				
Perteet Project # 20110185				
ITEM	**UNITS**	**UNIT PRICE**	**PROJECT NM5 - QUANTITY**	**PROJECT NM5 - AMOUNT**
PREPARATION				
Mobilization (10%)	LS	$ 1	28,000	$ 28,000
Roadway Surveying (2%)	LS	$ 1	6,000	$ 6,000
Structure Surveying (5%)	LS	$ 1		$ -
Removal of Structures & Obstructions (1%)	LS	$ 1	28,000	$ 28,000
Clearing and Grubbing	AC	$ 10,000	0.26	$ 2,600
GRADING				
Roadway Excavation Incl. Haul	CY	$ 15	140	$ 2,100
Gravel Borrow Incl. Haul	TON	$ 16	90	$ 1,500
STORM SEWER				
Drainage Systems	LS	$ 1		$ -
SURFACING				
Roadway Widening (Includes HMA, CSBC, CSTC, Sidewalk)	EST	$ 1		$ -
Portland Cement Concrete Sidewalk	SY	$ 35		$ -
HMA CL 1/2 IN. PG 64-22	TON	$ 100	260	$ 26,000
Crushed Surfacing Base Course	TON	$ 25	241	$ 6,100
EROSION CONTROL AND PLANTING				
Temporary Water Pollution & Erosion Control (6%)	LS	$ 1	17,000	$ 17,000
TRAFFIC				
Project Traffic Control (10%)	EST	$ 1	28,000	$ 28,000
Traffic Signal Systems	EST	$ 1		$ -
Cement Conc Curb and Gutter	LF	$ 15		$ -
Cement Conc Curb Ramps	EA	$ 1,500		$ -
Illumination System	EST	$ 1	40,000	$ 40,000
Striping	LF			$ -
OTHER				
Retaining Walls	SF	$ 60		$ -
Enhanced Pedestrian Crossing	LS	$ 1		$ -
Gateway Island	LS	$ 1		$ -
Timber Bridge	SF	$ 100	1,800	$ 180,000
Trail Extension	LF	$ 20	600	$ 12,000
CONSTRUCTION SUB TOTAL				**$ 186,000**
Construction Contingencies (30%)				$ 60,000
CONSTRUCTION TOTAL				**$ 246,000**
ENGINEERING SERVICES				
Preliminary Engineering (15%)				$ 40,000
Construction Engineering (12%)				$ 30,000
Total Preliminary Opinion of Cost				**$ 316,000**

Project Details	Location	Project Description
Project NM5	NE 132nd St- Juanita Drive to 72nd Ave NE	This project involves the construction of a pedestrian/bicycle pathway between the intersection of Juanita Dr. & NE 132nd St heading west to 76th Ave NE.

Preliminary Level Opinion of Cost				
City of Kirkland: Juanita Dr. Corridor Study				
13-Dec-13				
Perteet Project # 20110185				
ITEM	**UNITS**	**UNIT PRICE**	**PROJECT NM6 - QUANTITY**	**PROJECT NM6 - AMOUNT**
PREPARATION				
Mobilization (10%)	LS	$ 1	9,000	$ 9,000
Roadway Surveying (2%)	LS	$ 1	1,000	$ 1,000
Structure Surveying (5%)	LS	$ 1	0	$ -
Removal of Structures & Obstructions (1%)	LS	$ 1	1,000	$ 1,000
Clearing and Grubbing	AC	$ 10,000	0.1	$ 600
GRADING				
Roadway Excavation Incl. Haul	CY	$ 15	290	$ 4,400
Gravel Borrow Incl. Haul	TON	$ 16	290	$ 4,700
STORM SEWER				
Drainage Systems	LS	$ 1	7,000	$ 7,000
SURFACING				
Portland Cement Concrete Sidewalk	SY	$ 35		$ -
HMA CL 1/2 IN. PG 64-22	TON	$ 100		$ -
Crushed Surfacing Base Course	TON	$ 25		$ -
EROSION CONTROL AND PLANTING				
Temporary Water Pollution & Erosion Control (6%)	LS	$ 1	6,000	$ 6,000
TRAFFIC				
Project Traffic Control (10%)	EST	$ 1	9,000	$ 9,000
Traffic Signal Systems	EST	$ 1		$ -
Cement Conc Curb and Gutter	LF	$ 15		$ -
Cement Conc Curb Ramps	EA	$ 1,500		$ -
Illumination System	EST	$ 1	10,000	$ 10,000
Striping	LF		1,600	$ -
OTHER				
Retaining Walls	SF	$ 60		$ -
Enhanced Pedestrian Crossing	LS	$ 1	60,000	$ 60,000
CONSTRUCTION SUB TOTAL				**$ 113,000**
Construction Contingencies (30%)				$ 40,000
CONSTRUCTION TOTAL				**$ 153,000**
ENGINEERING SERVICES				
Preliminary Engineering (15%)				$ 30,000
Construction Engineering (12%)				$ 20,000
Total Preliminary Opinion of Cost				**$ 203,000**

Project Details	Location	Project Description
Project NM6	Big Finn Hill Park	This project involves the contruction of a enhanced pedestrian crossing of Juanita Dr. approx 1000 ft south of the Big Finn Hill Park entrance. This crossing will connect the two existing trail networks in Big Finn Hill Park. Improvements to the existing drainage systems along the west side of Juanita Dr. will be completed. Roadway lighting will be enhanced to increase visibility and pedestrian/bicycle safety.

Preliminary Level Opinion of Cost					
City of Kirkland: Juanita Dr. Corridor Study					
13-Dec-13					
Perteet Project # 20110185					
ITEM		UNITS	UNIT PRICE	PROJECT NM8 - QUANTITY	PROJECT NM8 - AMOUNT
PREPARATION					
Mobilization (10%)		LS	$ 1	4,000	$ 4,000
Roadway Surveying (2%)		LS	$ 1	1,000	$ 1,000
Removal of Structures & Obstructions (10%)		LS	$ 1	4,000	$ 4,000
Roadway Excavation (10%)		EST	$ 1	4,000	$ 4,000
SURFACING					
Pavement Repair (15%)		EST	$ 1	6,000	$ 6,000
TRAFFIC					
Project Traffic Control (15%)		EST	$ 1	6,000	$ 6,000
Plastic Wide Lane Line		LF	$ 2.50	6,300	$ 15,800
Double Yellow Center Stripe		LF	$ 5		$ -
Removing Existing Striping		LF	$ 2	6,300	$ 12,600
OTHER					
Guide Posts		EA	$ 50	119	$ 6,000
Signing		EA	$ 750	13	$ 9,500
CONSTRUCTION SUB TOTAL					**$ 69,000**
Construction Contingencies (15%)					$ 20,000
CONSTRUCTION TOTAL					**$ 89,000**
ENGINEERING SERVICES					
Preliminary Engineering (15%)					$ 20,000
Construction Engineering (12%)					$ 20,000
Total Preliminary Opinion of Cost					**$ 129,000**

Project Details	Location	Project Description
Project NM8	Corridor	Add markings and guide posts at specific locations to improve safety

Total Length of Buffer Type Edge Line = 6300 **LF**

Total Length of Double Yellow Center Stripe = **LF**

Number of Guide Posts = 119.318 **EA**

# of New Sign, Post, and Foundation = 12.6 **EA**

Unit Cost = $750.00 **EA**

Preliminary Level Opinion of Cost					
City of Kirkland: Juanita Dr. Corridor Study					
13-Dec-13					
Perteet Project # 20110185					
ITEM		UNITS	UNIT PRICE	PROJECT NM9 - QUANTITY	PROJECT NM9 - AMOUNT
PREPARATION					
Mobilization (10%)		LS	$ 1	13,000	$ 13,000
Roadway Surveying (2%)		LS	$ 1	3,000	$ 3,000
Removal of Structures & Obstructions (10%)		LS	$ 1	13,000	$ 13,000
Roadway Excavation (10%)		EST	$ 1	13,000	$ 13,000
SURFACING					
Pavement Repair (15%)		EST	$ 1	19,000	$ 19,000
TRAFFIC					
Project Traffic Control (15%)		EST	$ 1	19,000	$ 19,000
Plastic Wide Lane Line		LF	$ 2.50	16,900	$ 42,300
Double Yellow Center Stripe		LF	$ 5	4,300	$ 21,500
Removing Existing Striping		LF	$ 2	21,200	$ 42,400
OTHER					
Guide Posts		EA	$ 50	300	$ 15,000
Permanent Signing		LS	$ 1	15,000	$ 15,000
CONSTRUCTION SUB TOTAL					**$ 217,000**
Construction Contingencies (30%)					$ 70,000
CONSTRUCTION TOTAL					**$ 287,000**
ENGINEERING SERVICES					
Preliminary Engineering (15%)					$ 50,000
Construction Engineering (12%)					$ 40,000
Total Preliminary Opinion of Cost					**$ 377,000**

Project Details	Location	Project Description
Project NM9	Corridor	Create Northbound Bicycle Lane. Edge line will be similar to a gore area, two 4" plastic lines with hatching of 45deg strips inbetween. Total width is 2'

Section	Description	Length	# of lines	Total	# of Posts
116th to 120th	6', 11', 11', 6' Typ Section. Restripe edge lines	8100	1	8100	
	Guide posts put on the inside of curve at 83rd Ave area spaced at 10'				100
NE 122nd Pl to NE 124th St	No change to typical section	1000	1	1000	
	Restriping edge lines to wide lane line				
NE 124th to NE 132nd St	7', 11', 11', 6' Typical Section	2700	1	2700	
	Restriping edge lines to wide lane line				
	Guide posts on the west side of Juanita Dr. at the NE 128th St intersection				50
NE 132nd St to NE 133rd Pl	6', 11', 11', 12' Typical Section	500		0	
	Restriping edge lines to wide lane line		1	500	
	Restriping of center line to accommodate adjusted section		1	500	
	12' shoulder is wide ot accommodate bicycle lane and bus stop				
	Guide posts on the west side of Juanita Dr. at the NE 132nd St intersection				50
NE 133rd Pl to NE 138th St.	6', 11', 11', 7' Typical Section	1800			
	Restriping edge lines to wide lane line		1	1800	
	Restriping of center line to accommodate adjusted section		1	1800	
NE 1389th St to NE 138th Pl	6', 11', 11', 11', 6' Typical Section	1000			
	Restriping edge lines to wide lane line		1	1000	
	Restriping of center line to accommodate adjusted section		2	2000	
	Guide posts will be placed on the west side of Juanita Dr at the NE 138th St intersection				50
	Guide posts will be placed on the east side of Juanita Dr at the NE 138th Pl intersection				50
NE 138th Pl to NE 141st St.	6', 11', 11', 6' Typical Section	800	1	800	
	Restriping edge lines to wide lane line				
NE 141st to NE 143rd	Not change to typical section				
	Restriping edge lines to wide lane line	1000	1	1000	
	Total Length of Buffer Type Edge Line =			**16900**	**LF**
	Total Length of Double Yellow Center Stripe =			**4300**	**LF**
	Number of Guide Posts =			**300**	**EA**

Preliminary Level Opinion of Cost					
City of Kirkland: Juanita Dr. Corridor Study					
13-Dec-13					
Perteet Project # 20110185					
ITEM		UNITS	UNIT PRICE	PROJECT NM10 QUANTITY	PROJECT NM10 AMOUNT
PREPARATION					
Mobilization (10%)		LS	$ 1	10,000	$ 10,000
Roadway Surveying (2%)		LS	$ 1	2,000	$ 2,000
Removal of Structures & Obstructions (10%)		LS	$ 1	10,000	$ 10,000
OTHER					
Permanent Signing		LS	$ 1	94,500	$ 94,500
CONSTRUCTION SUB TOTAL					**$ 117,000**
Construction Contingencies (15%)					$ 20,000
CONSTRUCTION TOTAL					**$ 137,000**
ENGINEERING SERVICES					
Preliminary Engineering (15%)					$ 30,000
Construction Engineering (12%)					$ 20,000
Total Preliminary Opinion of Cost					**$ 187,000**

Project Details	Location	
Enhanced Signing	Corridor	

Section	Description	Length	# of Existing Signs	# of New Signs
Corridor in the Northbound direction	This project will replace the existing signs along the corridor to enhance driver awareness for bicycle users. It will also add an average of two signs per 1000LF of roadway notifying users of increased bicycle traffic. No Parking signs will be installed in areas as well.	18000	135	36

# of Signs to be Removed and Replaced = 135 EA
Unit Cost = $ 500.00 EA

# of New Sign, Post, and Foundation = 36 EA
Unit Cost = $ 750.00 EA

Total Cost = $ 94,500.00

Preliminary Level Opinion of Cost				
City of Kirkland: Juanita Dr. Corridor Study				
13-Dec-13				
Perteet Project # 20110185				
ITEM	**UNITS**	**UNIT PRICE**	**PROJECT R1 - QUANTITY**	**PROJECT R1 - AMOUNT**
PREPARATION				
Mobilization (10%)	LS	$ 1	215,000	$ 215,000
Roadway Surveying (2%)	LS	$ 1	43,000	$ 43,000
Structure Surveying (5%)	LS	$ 1	108,000	$ 108,000
Removal of Structures & Obstructions (1%)	LS	$ 1	22,000	$ 22,000
Clearing and Grubbing	AC	$ 10,000	0.21	$ 2,100
GRADING				
Roadway Excavation Incl. Haul	CY	$ 15	2,670	$ 40,100
Gravel Borrow Incl. Haul	TON	$ 16	2,200	$ 35,200
STORM SEWER				
Drainage Systems	LS	$ 1	50,000	$ 50,000
SURFACING				
Roadway Widening (Includes HMA, CSBC, CSTC, Sidewalk)	EST	$ 1	239,000	$ 239,000
Portland Cement Concrete Sidewalk	SY	$ 20		
HMA CL 1/2 IN. PG 64-22	TON	$ 120	80	$ 9,600
Crushed Surfacing Base Course	TON	$ 35		$ -
EROSION CONTROL AND PLANTING				
Temporary Water Pollution & Erosion Control (6%)	LS	$ 1	129,000	$ 129,000
TRAFFIC				
Project Traffic Control (15%)	EST	$ 1	323,000	$ 323,000
Traffic Signal Systems	EST	$ 1		$ -
Cement Conc Curb and Gutter	LF	$ 15	1,800	$ 27,000
Cement Conc Curb Ramps	EA	$ 1,500		$ -
Illumination System	EST	$ 1		$ -
Striping	LF	$ 3	5,400	$ 16,200
OTHER				
Retaining Walls (Soilder Pile)	SF	$ 100	9,600	$ 960,000
Retaining Walls (SEW)	SF	$ 80	9,600	$ 768,000
Gateway Island	LS	$ 4,000	1	$ 4,000
Property Restoration (1%)	EST	$ 1	22,000	$ 22,000
CONSTRUCTION SUB TOTAL				**$ 3,014,000**
Construction Contingencies (30%)				$ 910,000
CONSTRUCTION TOTAL				**$ 3,924,000**
ENGINEERING SERVICES				
Preliminary Engineering (15%)				$ 590,000
Construction Engineering (12%)				$ 480,000
Total Preliminary Opinion of Cost				**$ 4,994,000**

Project Details	Location	Project Description
Project R1	NE 116th Pl to 86th Ave NE	This project widens the existing roadway section to include two through lanes, bicycle lanes in both directions, and sidewalk along the south side of the roadway. Drainage improvements will be installed along the north side of the roadway to collect both runoff and groundwater. Due to the steep slopes along both the north and south sides of the roadway through this area, retaining walls will be installed. Improvements to NE Juanita Ln will be completed to improve access, sight distances, and pedestrian safety. A Gateway island will be constructed at the east end of the project area near the east leg of the NE 116th Pl intersection. Approximate Length = 1800 ~Sta 124+00 to Sta 142+00

Preliminary Level Opinion of Cost				
City of Kirkland: Juanita Dr. Corridor Study				
21-Nov-13				
Perteet Project # 20110185				
ITEM	**UNITS**	**UNIT PRICE**	**PROJECT R1 - QUANTITY**	**PROJECT R1 - AMOUNT**
PREPARATION				
Mobilization (10%)	LS	$ 1	92,000	$ 92,000
Roadway Surveying (2%)	LS	$ 1	19,000	$ 19,000
Structure Surveying (5%)	LS	$ 1	46,000	$ 46,000
Removal of Structures & Obstructions (1%)	LS	$ 1	10,000	$ 10,000
STORM SEWER				
Drainage Systems	LS	$ 1	50,000	$ 50,000
EROSION CONTROL AND PLANTING				
Temporary Water Pollution & Erosion Control (6%)	LS	$ 1	55,000	$ 55,000
TRAFFIC				
Project Traffic Control (15%)	EST	$ 1	138,000	$ 138,000
OTHER				
Retaining Walls (Soilder Pile)	SF	$ 100	4,800	$ 480,000
Retaining Walls (SEW)	SF	$ 80	4,800	$ 384,000
CONSTRUCTION SUB TOTAL				**$ 1,274,000**
Construction Contingencies (30%)				$ 390,000
CONSTRUCTION TOTAL				**$ 1,664,000**
ENGINEERING SERVICES				
Preliminary Engineering (15%)				$ 250,000
Construction Engineering (12%)				$ 200,000
Total Preliminary Opinion of Cost				**$ 2,114,000**

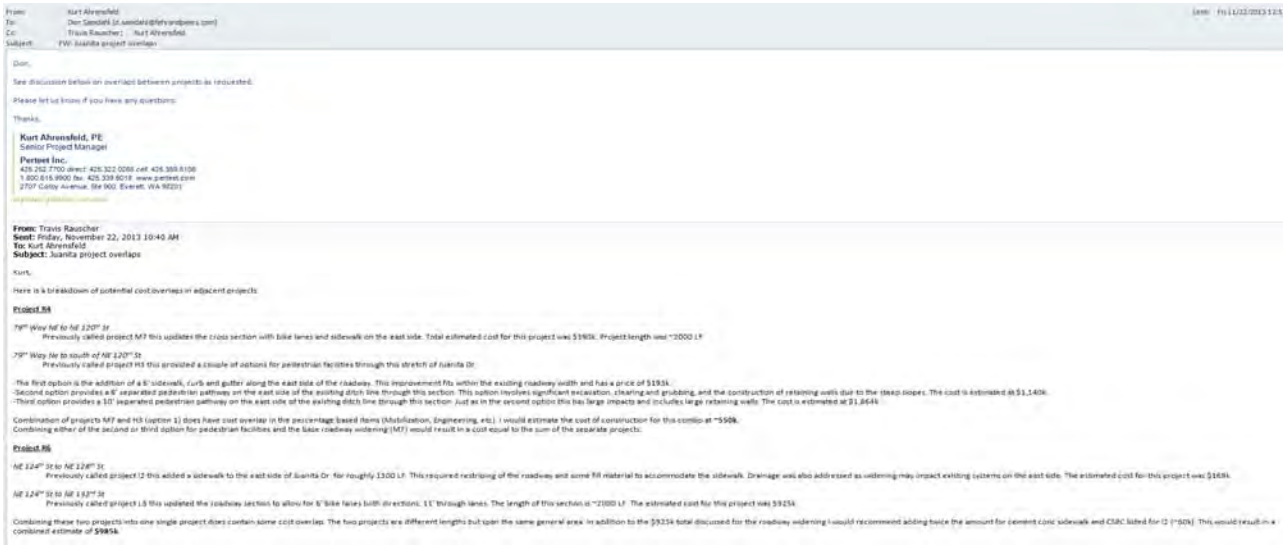
Project Details	Location	Project Description
Project R1	NE 116th Pl to 86th Ave NE	This project widens the existing roadway section to include two through lanes, bicycle lanes in both directions, and sidewalk along the south side of the roadway. Drainage improvements will be installed along the north side of the roadway to collect both runoff and groundwater. Due to the steep slopes along both the north and south sides of the roadway through this area, retaining walls will be installed. Improvements to NE Juanita Ln will be completed to improve access, sight distances, and pedestrian safety. A Gateway island will be constructed at the east end of the project area near the east leg of the NE 116th Pl intersection. Approximate Length = 1800 ~Sta 124+00 to Sta 142+00 This estimate summary contains Drainage related items only! Assumptions include that the walls on both the north and south side of the roadway are for both roadway and drainage purposes and thus the costs are split equally.

Preliminary Level Opinion of Cost									
City of Kirkland: Juanita Dr. Corridor Study									
13-Dec-13									
Perteet Project # 20110185									
ITEM	UNITS	UNIT PRICE	PROJECT R3 - QUANTITY	PROJECT R3 - AMOUNT	PROJECT R4 - QUANTITY	PROJECT R4 - AMOUNT	PROJECT R4 SW - QUANTITY	PROJECT R4 SW - AMOUNT
PREPARATION								
Mobilization (10%)	LS	$ 1	49,000	$ 49,000	16,000	$ 16,000	7,000	$ 7,000
Roadway Surveying (2%)	LS	$ 1	10,000	$ 10,000	4,000	$ 4,000	2,000	$ 2,000
Structure Surveying (5%)	LS	$ 1		$ -		$ -		$ -
Removal of Structures & Obstructions (1%)	LS	$ 1	5,000	$ 5,000	2,000	$ 2,000	20,000	$ 20,000
Clearing and Grubbing	AC	$ 10,000	0.10	$ 1,000		$ -	0.07	$ 700
GRADING								
Roadway Excavation Incl. Haul	CY	$ 15	1,120	$ 16,800	560	$ 8,400	230	$ 3,500
Gravel Borrow Incl. Haul	TON	$ 16	170	$ 2,800	90	$ 1,500	250	$ 4,000
STORM SEWER								
Drainage Systems	LS	$ 1	10,000	$ 10,000		$ -	10,000	$ 10,000
SURFACING								
Roadway Widening (Includes HMA, CSBC, CSTC, Sidewalk)	EST	$ 1	132,800	$ 132,800	117,800	$ 117,800		$ -
Portland Cement Concrete Sidewalk	SY	$ 20		$ -		$ -	670	$ 13,400
HMA CL 1/2 IN. PG 64-22	TON	$ 90		$ -		$ -		$ -
Crushed Surfacing Base Course	TON	$ 25		$ -		$ -	148	$ 3,700
EROSION CONTROL AND PLANTING								
Temporary Water Pollution & Erosion Control (6%)	LS	$ 1	30,000	$ 30,000	10,000	$ 10,000	4,000	$ 4,000
TRAFFIC								
Project Traffic Control (10%)	EST	$ 1	49,000	$ 49,000	16,000	$ 16,000	7,000	$ 7,000
Traffic Signal Systems	EST	$ 1		$ -		$ -		$ -
Cement Conc Curb and Gutter	LF	$ 15	1,000	$ 15,000	1,000	$ 15,000	1,000	$ 15,000
Cement Conc Curb Ramps	EA	$ 1,500		$ -		$ -	2	$ 3,000
Illumination System	EST	$ 1		$ -		$ -		$ -
Striping	LF	$ 3	3,000	$ 9,000	3,000	$ 9,000	3,000	$ 9,000
OTHER								
Retaining Walls	SF	$ 60	5,000	$ 300,000		$ -		$ -
Beam Guardrail	LF	$ 100			300	$ 30,000		
CONSTRUCTION SUB TOTAL				**$ 631,000**		**$ 230,000**		**$ 103,000**
Construction Contingencies (30%)				$ 190,000		$ 70,000		$ 40,000
CONSTRUCTION TOTAL				**$ 821,000**		**$ 300,000**		**$ 143,000**
ENGINEERING SERVICES								
Preliminary Engineering (15%)				$ 130,000		$ 50,000		$ 30,000
Construction Engineering (12%)				$ 100,000		$ 40,000		$ 20,000
Total Preliminary Opinion of Cost				**$ 1,051,000**		**$ 390,000**		**$ 193,000**

550000 +$980000

**Creating the basic section would be $550K. Adding the multipurpose trail (second option below) would add apprx. $980K. See email below

Project Details	Location	Project Description
Project R3	NE 112th St to 79th Way NE	Widening of existing roadway cross section to accommodate the proposed thru lanes, bicycle lanes, and sidewalk on the east side of the roadway. Approximate length of project = 1000 LF | ~ Sta 180+00 to Sta 190+00
Project R4	79th Way NE to NE 120th St	Widening of existing roadway cross section to accommodate the proposed thru lanes, bicycle lanes, and sidewalk on the east side of the roadway. The existing beam guardrail will be replaced. Approximate length of project = 1000 LF | ~ Sta 190+00 to Sta 200+00
Project R4 SW	79th Way NE to South of NE 120th St	Installation of a sidewalk along the east side of the roadway. Approximate length of project = 1000 LF | ~ Sta 190+00 to Sta 200+00



Kurt Ahrensfeld, PE
Senior Project Manager
Perteet Inc.

From: Travis Rauscher
Sent: Friday, November 22, 2013 10:40 AM
To: Kurt Ahrensfeld
Subject: Juanita project overlaps

Kurt,

Here is a breakdown of potential cost overlaps in adjacent projects:

Project R4

79th Way NE to NE 120th St
Previously called project M7 this updates the cross section with bike lanes and sidewalk on the east side. Total estimated cost for this project was $1965k. Project length was ~2000 LF

79th Way NE to south of NE 120th St
Previously called project H3 this provided a couple of options for pedestrian facilities through this stretch of Juanita Dr.

-The first option is the addition of a 6' sidewalk, curb and gutter along the east side of the roadway. This improvement fits within the existing roadway width and has a price of $193k.
-Second option provides a 8' separated pedestrian pathway on the east side of the existing ditch line through this section. This option involves significant excavation, clearing and grubbing, and the construction of retaining walls due to the steep slopes. The cost is estimated at $1,140k.
-Third option provides a 10' separated pedestrian pathway on the east side of the existing ditch line through this section. Just as in the second option this has large impacts and includes large retaining walls. The cost is estimated at $1,864k

Combination of projects M7 and H3 (option 1) does have cost overlap in the percentage based items (Mobilization, Engineering, etc.). I would estimate the cost of construction for this combo at ~$50k.
Combining either of the second or third option for pedestrian facilities and the base roadway widening (M7) would result in a cost equal to the sum of the separate projects.

Project R5

NE 124th St to NE 124th St
Previously called project I2 this added a sidewalk to the east side of Juanita Dr for roughly 1300 LF. This required restriping of the roadway and some fill material to accommodate the sidewalk. Drainage was also addressed as widening may impact existing systems on the east side. The estimated cost for this project was $168k.

NE 124th St to NE 132nd St
Previously called project I-5 this updated the roadway section to allow for 6' bike lanes both directions, 11' through lanes. The length of this section is ~2000 LF. The estimated cost for this project was $925k.

Combining these two projects into one single project does contain some cost overlap. The two projects are different lengths but span the same general area. In addition to the $925k total discussed for the roadway widening I would recommend adding twice the amount for cement conc sidewalk and CSBC listed for I2 (~$0k). This would result in a combined estimate of $985k.

Preliminary Level Opinion of Cost						
City of Kirkland: Juanita Dr. Corridor Study						
13-Dec-13						
Perteet Project # 20110185						
ITEM	UNITS	UNIT PRICE	PROJECT R4B - QUANTITY	PROJECT R4B - AMOUNT	PROJECT R4C - QUANTITY	PROJECT R4C - AMOUNT
PREPARATION						
Mobilization (10%)	LS	$ 1	43,000	$ 43,000	70,000	$ 70,000
Roadway Surveying (2%)	LS	$ 1	9,000	$ 9,000	14,000	$ 14,000
Structure Surveying (5%)	LS	$ 1	18,000	$ 18,000	30,000	$ 30,000
Removal of Structures & Obstructions (1%)	LS	$ 1	20,000	$ 20,000	7,000	$ 7,000
Clearing and Grubbing	AC	$ 10,000	0.23	$ 2,300	0.35	$ 3,500
GRADING						
Roadway Excavation Incl. Haul	CY	$ 15	230	$ 3,500	750	$ 11,300
Gravel Borrow Incl. Haul	TON	$ 16	480	$ 7,700	780	$ 12,500
STORM SEWER						
Drainage Systems	LS	$ 1	10,000	$ 10,000	10,000	$ 10,000
SURFACING						
Portland Cement Concrete Sidewalk	SY	$ 20		$ -		$ -
HMA CL 1/2 IN. PG 64-22	TON	$ 100	230	$ 23,000	360	$ 36,000
Crushed Surfacing Base Course	TON	$ 35	148	$ 5,200	241	$ 8,500
EROSION CONTROL AND PLANTING						
Temporary Water Pollution & Erosion Control (6%)	LS	$ 1	26,000	$ 26,000	42,000	$ 42,000
TRAFFIC						
Project Traffic Control (10%)	EST	$ 1	43,000	$ 43,000	70,000	$ 70,000
Traffic Signal Systems	EST	$ 1		$ -		$ -
Cement Conc Curb and Gutter	LF	$ 15		$ -		$ -
Cement Conc Curb Ramps	EA	$ 1,500		$ -		$ -
Illumination System	EST	$ 1		$ -		$ -
Striping	LF	$ 3	3,000	$ 9,000	3,000	$ 9,000
OTHER						
Retaining Walls (SEW)	SF	$ 60	6,000	$ 360,000	10,000	$ 600,000
ROW Acquisition	SF	$ 20	5,000	$ 100,000	10,000	$ 200,000
Enhanced Pedestrian Crossing	EST	$ 1		$ -		$ -
CONSTRUCTION SUB TOTAL				**$ 680,000**		**$ 1,124,000**
Construction Contingencies (30%)				$ 210,000		$ 340,000
CONSTRUCTION TOTAL				**$ 890,000**		**$ 1,464,000**
ENGINEERING SERVICES						
Preliminary Engineering (15%)				$ 140,000		$ 220,000
Construction Engineering (12%)				$ 110,000		$ 180,000
Total Preliminary Opinion of Cost				**$ 1,140,000**		**$ 1,864,000**

Project Details	Location	Project Description
Project R4B	79th Way NE to South of NE 120th St	Installation of a 6' separated pedestrian walkway along the east side of the roadway. This pathway/sidewalk will be to the east of the existing open drainage ditch and will require tree removal and retaining walls in most areas. Approximate length of project = 1000 LF | ~ Sta 190+00 to Sta 200+00
Project R4C	79th Way NE to South of NE 120th St	Installation of a 10' separated pedestrian walkway along the east side of the roadway. This pathway/sidewalk will be to the east of the existing open drainage ditch and will require tree removal and retaining walls in most areas. Approximate length of project = 1000 LF | ~ Sta 190+00 to Sta 200+00

Preliminary Level Opinion of Cost				
City of Kirkland: Juanita Dr. Corridor Study				
13-Dec-13				
Perteet Project # 20110185				
ITEM	**UNITS**	**UNIT PRICE**	**PROJECT R5 - QUANTITY**	**PROJECT R5 - AMOUNT**
PREPARATION				
Mobilization (10%)	LS	$ 1	14,000	$ 14,000
Roadway Surveying (2%)	LS	$ 1	3,000	$ 3,000
Structure Surveying (5%)	LS	$ 1	3,000	$ 3,000
Removal of Structures & Obstructions (1%)	LS	$ 1	2,000	$ 2,000
Clearing and Grubbing	AC	$ 10,000	0.07	$ 700
GRADING				
Roadway Excavation Incl. Haul	CY	$ 15	60	$ 900
Gravel Borrow Incl. Haul	TON	$ 16		$ -
STORM SEWER				
Drainage Systems	LS	$ 1	2,000	$ 2,000
SURFACING				
Roadway Widening (Includes HMA, CSBC, CSTC, Sidewalk)	EST	$ 1	62,500	$ 62,500
Portland Cement Concrete Sidewalk	SY	$ 20		
HMA CL 1/2 IN. PG 64-22	TON	$ 120		$ -
Crushed Surfacing Base Course	TON	$ 35		$ -
EROSION CONTROL AND PLANTING				
Temporary Water Pollution & Erosion Control (6%)	LS	$ 1	9,000	$ 9,000
TRAFFIC				
Project Traffic Control (10%)	EST	$ 1	14,000	$ 14,000
Traffic Signal Systems	EST	$ 1		$ -
Cement Conc Curb and Gutter	LF	$ 15		$ -
Cement Conc Curb Ramps	EA	$ 1,500		$ -
Illumination System	EST	$ 1	10,000	$ 10,000
Striping	LF	$ 3	1,200	$ 3,600
OTHER				
Retaining Walls (SEW)	SF	$ 60	900	$ 54,000
Gateway Island	LS	$ 4,000		$ -
Property Restoration (1%)	EST	$ 1		$ -
CONSTRUCTION SUB TOTAL				**$ 179,000**
Construction Contingencies (30%)				$ 60,000
CONSTRUCTION TOTAL				**$ 239,000**
ENGINEERING SERVICES				
Preliminary Engineering (15%)				$ 40,000
Construction Engineering (12%)				$ 30,000
Total Preliminary Opinion of Cost				**$ 309,000**

Project Details	Location	Project Description
Project R5	NE 120th St. to NE 122nd Lane	This project widens the roadway to accommodate a SB LT lane on Juanita Dr. The existing sidewalk on the east side will be extended, roadway lighting will me improved. Approximate Length = 300

Preliminary Level Opinion of Cost						
City of Kirkland: Juanita Dr. Corridor Study						
13-Dec-13						
Perteet Project # 20110185						
ITEM	UNITS	UNIT PRICE	PROJECT R7A - QUANTITY	PROJECT R7A - AMOUNT	PROJECT R7B - QUANTITY	PROJECT R7B - AMOUNT
PREPARATION						
Mobilization (10%)	LS	$ 1	36,000	$ 36,000	79,000	$ 79,000
Roadway Surveying (2%)	LS	$ 1	9,000	$ 9,000	11,000	$ 11,000
Structure Surveying (5%)	LS	$ 1		$ -	5,000	$ 5,000
Removal of Structures & Obstructions (1%)	LS	$ 1	4,000	$ 4,000	10,000	$ 10,000
Clearing and Grubbing	AC	$ 10,000	0.17	$ 1,700	0.49	$ 4,900
GRADING						
Roadway Excavation Incl. Haul	CY	$ 15	680	$ 10,200	1,200	$ 18,000
Gravel Borrow Incl. Haul	TON	$ 16	270	$ 4,400	1,070	$ 17,200
STORM SEWER						
Drainage Systems	LS	$ 1	28,000	$ 28,000	28,000	$ 28,000
SURFACING						
Roadway Widening (Includes HMA, CSBC, CSTC, Sidewalk)	EST	$ 1	236,500	$ 236,500	203,800	$ 203,800
Portland Cement Concrete Sidewalk	SY	$ 20		$ -		$ -
HMA CL 1/2 IN. PG 64-22	TON	$ 100		$ -	490	$ 49,000
Crushed Surfacing Base Course	TON	$ 35		$ -	481	$ 16,900
EROSION CONTROL AND PLANTING						
Temporary Water Pollution & Erosion Control (6%)	LS	$ 1	22,000	$ 22,000	47,000	$ 47,000
TRAFFIC						
Project Traffic Control (10%)	EST	$ 1	36,000	$ 36,000	79,000	$ 79,000
Traffic Signal Systems	EST	$ 1		$ -		$ -
Cement Conc Curb and Gutter	LF	$ 15	1,400	$ 21,000	1,400	$ 21,000
Cement Conc Curb Ramps	EA	$ 1,500		$ -		$ -
Illumination System	EST	$ 1	30,000	$ 30,000	30,000	$ 30,000
Striping	LF	$ 3	4,200	$ 12,600	4,200	$ 12,600
OTHER						
Retaining Walls (SEW)	SF	$ 60		$ -	1,500	$ 90,000
ROW Acquisition	SF	$ 20			14,000	$ 280,000
Gateway Island	LS	$ 1	5,000	$ 5,000	5,000	$ 5,000
Trail Extention	LF	$ 20	200	$ 4,000	200	$ 4,000
CONSTRUCTION SUB TOTAL				**$ 461,000**		**$ 1,012,000**
Construction Contingencies (30%)				$ 140,000		$ 310,000
CONSTRUCTION TOTAL				**$ 601,000**		**$ 1,322,000**
ENGINEERING SERVICES						
Preliminary Engineering (15%)				$ 100,000		$ 200,000
Construction Engineering (12%)				$ 80,000		$ 160,000
Total Preliminary Opinion of Cost				**$ 781,000**		**$ 1,682,000**

Project Details	Location	Project Description
Project R7A	NE 133rd Pl to south of NE 138th St	This project involves widening the existing roadway section from just north of NE 133rd Pl to the entrance to Big Finn Hill Park to accommodate two through lanes, bicycle lanes, and sidewalk along the east side of Juanita Dr. Any impacts to the existing drainage systems will be mitigated. ~Sta 253+00 to Sta 267+00
Project R7B	NE 138th St intersection	This project involves widening the existing roadway section to accommodate two through lanes, bicycle lanes, and a 10' separated pathway along the east side of Juanita Dr. Any impacts to the existing drainage systems will be mitigated. ~Sta 267+00 to Sta 273+00

Preliminary Level Opinion of Cost								
City of Kirkland: Juanita Dr. Corridor Study								
13-Dec-13								
Perteet Project # 20110185								
ITEM	UNITS	UNIT PRICE	PROJECT R9A - QUANTITY	PROJECT R9A - AMOUNT	PROJECT R9B - QUANTITY	PROJECT R9B - AMOUNT		
PREPARATION								
Mobilization (10%)	LS	$ 1	20,000	$ 20,000	26,000	$ 26,000		
Roadway Surveying (2%)	LS	$ 1	5,000	$ 5,000	5,000	$ 5,000		
Structure Surveying (5%)	LS	$ 1		$ -	3,000	$ 3,000		
Removal of Structures & Obstructions (1%)	LS	$ 1	2,000	$ 2,000	3,000	$ 3,000		
Clearing and Grubbing	AC	$ 10,000	0.11	$ 1,100	0.11	$ 1,100		
GRADING								
Roadway Excavation Incl. Haul	CY	$ 15	750	$ 11,250	810	$ 12,150		
Gravel Borrow Incl. Haul	TON	$ 16	200	$ 3,200	290	$ 4,640		
STORM SEWER								
Drainage Systems	LS	$ 1	25,000	$ 25,000	25,000	$ 25,000		
SURFACING								
Roadway Widening (Includes HMA, CSBC, CSTC, Sidewalk)	EST	$ 1	107,100	$ 107,100	107,100	$ 107,100		
Portland Cement Concrete Sidewalk	SY	$ 35	110	$ 3,850		$ -		
HMA CL 1/2 IN. PG 64-22	TON	$ 100		$ -	80	$ 8,000		
Crushed Surfacing Base Course	TON	$ 25	37	$ 925	56	$ 1,388		
EROSION CONTROL AND PLANTING								
Temporary Water Pollution & Erosion Control (6%)	LS	$ 1	12,000	$ 12,000	16,000	$ 16,000		
TRAFFIC								
Project Traffic Control (10%)	EST	$ 1	20,000	$ 20,000	26,000	$ 26,000		
Traffic Signal Systems	EST	$ 1		$ -		$ -		
Cement Conc Curb and Gutter	LF	$ 15	900	$ 13,500	900	$ 13,500		
Cement Conc Curb Ramps	EA	$ 1,500		$ -		$ -		
Illumination System	EST	$ 1	20,000	$ 20,000	20,000	$ 20,000		
Striping	LF	$ 3	3,352	$ 10,056	3,352	$ 10,056		
OTHER								
Retaining Walls (SEW)	SF	$ 60		$ -	815	$ 48,900		
Gateway Island	LS	$ 1	4,000	$ 4,000	4,000	$ 4,000		
Enhanced Pedestrian Crossing	LS	$ 60,000		$ -		$ -		
						$ -		
CONSTRUCTION SUB TOTAL				**$ 259,000**		**$ 335,000**		
Construction Contingencies (30%)				$ 80,000		$ 110,000		
CONSTRUCTION TOTAL				**$ 339,000**		**$ 445,000**		
ENGINEERING SERVICES								
Preliminary Engineering (15%)				$ 60,000		$ 70,000		
Construction Engineering (12%)				$ 50,000		$ 60,000		
Total Preliminary Opinion of Cost				**$ 449,000**		**$ 575,000**		

Project Details	Location	Project Description
Project R9A	STA 276 to NE 141st St	This project involves the construction of a gateway island just south of the Juanita Dr & NE 141st St. intersection. The roadway section will be widened to accommodate this new feature. The roadway lighting will be improved throughout the project area. This project also involves widening the existing roadway section from just north of NE 138th Pl to NE 141st St. to accommodate two through lanes, bicycle lanes, Any impacts to the existing drainage systems will be mitigated. This project involves widening the existing roadway section to accommodate a sidewalk along the east side of Juanita Dr. Any impacts to the existing drainage systems will be mitigated.
Project R9B	STA 276 to NE 141st St	This project involves the construction of a gateway island just south of the Juanita Dr & NE 141st St. intersection. The roadway section will be widened to accommodate this new feature. The roadway lighting will be improved throughout the project area. This project also involves widening the existing roadway section from just north of NE 138th Pl to NE 141st St. to accommodate two through lanes, bicycle lanes, Any impacts to the existing drainage systems will be mitigated. This project involves widening the existing roadway section to accomodate a 10' separated pathway along the east side of Juanita Dr. Any impacts to the existing drainage systems will be mitigated.

Preliminary Level Opinion of Cost				
City of Kirkland: Juanita Dr. Corridor Study				
13-Dec-13				
Perteet Project # 20110185				
ITEM	**UNITS**	**UNIT PRICE**	**PROJECT R10 - QUANTITY**	**PROJECT R10 - AMOUNT**
PREPARATION				
Mobilization (10%)	LS	$ 1	1,000	$ 1,000
Roadway Surveying (2%)	LS	$ 1	1,000	$ 1,000
Structure Surveying (5%)	LS	$ 1		$ -
Removal of Structures & Obstructions (10%)	LS	$ 1	1,000	$ 1,000
Clearing and Grubbing	AC	$ 10,000		$ -
GRADING				
Roadway Excavation Incl. Haul	CY	$ 15		$ -
Gravel Borrow Incl. Haul	TON	$ 16		$ -
STORM SEWER				
Drainage Systems	LS	$ 1		$ -
SURFACING				
Portland Cement Concrete Sidewalk	SY	$ 20		$ -
HMA CL 1/2 IN. PG 64-22	TON	$ 100		$ -
Crushed Surfacing Base Course	TON	$ 35		$ -
EROSION CONTROL AND PLANTING				
Temporary Water Pollution & Erosion Control (6%)	LS	$ 1	1,000	$ 1,000
TRAFFIC				
Project Traffic Control (15%)	EST	$ 1	5,000	$ 5,000
Traffic Signal Systems	EST	$ 1		$ -
Cement Conc Curb and Gutter	LF	$ 15		$ -
Cement Conc Curb Ramps	EA	$ 1,500		$ -
Illumination System	EST	$ 1		$ -
Striping	LF	$ 6	4,000	$ 24,000
OTHER				
Retaining Walls (SEW)	SF	$ 60		$ -
ROW Acquisition	SF	$ 20		$ -
Enhanced Pedestrian Crossing	EST	$ 1		$ -
CONSTRUCTION SUB TOTAL				**$ 33,000**
Construction Contingencies (30%)				$ 10,000
CONSTRUCTION TOTAL				**$ 43,000**
ENGINEERING SERVICES				
Preliminary Engineering (15%)				$ 10,000
Construction Engineering (12%)				$ 10,000
Total Preliminary Opinion of Cost				**$ 63,000**

Project Details	Location	Project Description
Project R10	NE 141st to NE 143rd ~1000 LF	Cross Section upgrades. Roadway is restriped with buffer strips for bike lanes

Preliminary Level Opinion of Cost					
City of Kirkland: Juanita Dr. Corridor Study					
13-Dec-13					
Perteet Project # 20110185					
ITEM		UNITS	UNIT PRICE	PROJECT V2 - QUANTITY	PROJECT V2 - AMOUNT
PREPARATION					
Mobilization (10%)		LS	$ 1	1,000	$ 1,000
Roadway Surveying (2%)		LS	$ 1	1,000	$ 1,000
Removal of Structures & Obstructions (10%)		LS	$ 1	1,000	$ 1,000
Roadway Excavation (10%)		EST	$ 1	1,000	$ 1,000
SURFACING					
Pavement Repair (15%)		EST	$ 1	1,000	$ 1,000
TRAFFIC					
Project Traffic Control (15%)		EST	$ 1	1,000	$ 1,000
Rumble Strip		LF	$ 0.35	3,700	$ 1,300
Double Yellow Center Stripe		LF	$ 5	0	$ -
Removing Existing Striping		LF	$ 2	0	$ -
OTHER					
Guide Posts		EA	$ 50	0	$ -
Permanent Signing		LS	$ 1	0	$ -
CONSTRUCTION SUB TOTAL					**$ 8,000**
Construction Contingencies (15%)					$ 10,000
CONSTRUCTION TOTAL					**$ 18,000**
ENGINEERING SERVICES					
Preliminary Engineering (15%)					$ 10,000
Construction Engineering (12%)					$ 10,000
Total Preliminary Opinion of Cost					**$ 38,000**

Project Details	Location	Project Description
Project V2	Corridor	Add Centerline Rumble Strips- 3700 feet total throughout corridor

Preliminary Level Opinion of Cost				
City of Kirkland: Juanita Dr. Corridor Study				
13-Dec-13				
Perteet Project # 20110185				
ITEM	**UNITS**	**UNIT PRICE**	**PROJECT V3 - QUANTITY**	**PROJECT V3 - AMOUNT**
PREPARATION				
Mobilization (10%)	LS	$ 1	1,000	$ 1,000
Roadway Surveying (2%)	LS	$ 1	1,000	$ 1,000
Structure Surveying (5%)	LS	$ 1		$ -
Removal of Structures & Obstructions (1%)	LS	$ 1		$ -
Clearing and Grubbing	AC	$ 10,000	0.10	$ 1,000
GRADING				
Roadway Excavation Incl. Haul	CY	$ 15		$ -
Gravel Borrow Incl. Haul	TON	$ 16		$ -
STORM SEWER				
Drainage Systems	LS	$ 1		$ -
SURFACING				
Roadway Widening (Includes HMA, CSBC, CSTC, Sidewalk)	EST	$ 1		
Portland Cement Concrete Sidewalk	SY	$ 20		$ -
HMA CL 1/2 IN. PG 64-22	TON	$ 90		$ -
Crushed Surfacing Base Course	TON	$ 25		$ -
EROSION CONTROL AND PLANTING				
Temporary Water Pollution & Erosion Control (6%)	LS	$ 1	1,000	$ 1,000
TRAFFIC				
Project Traffic Control (10%)	EST	$ 1	1,000	$ 1,000
Traffic Signal Systems	EST	$ 1		$ -
Cement Conc Curb and Gutter	LF	$ 15		$ -
Cement Conc Curb Ramps	EA	$ 1,500		$ -
Illumination System	EST	$ 1		$ -
Striping	LF	$ 3	2,000	$ 6,000
OTHER				
Retaining Walls	SF	$ 60		$ -
Enhanced Pedestrian Crossing	LS	$ 60,000		$ -
CONSTRUCTION SUB TOTAL				**$ 11,000**
Construction Contingencies (30%)				$ 10,000
CONSTRUCTION TOTAL				**$ 21,000**
ENGINEERING SERVICES				
Preliminary Engineering (15%)				$ 10,000
Construction Engineering (12%)				$ 10,000
Total Preliminary Opinion of Cost				**$ 41,000**

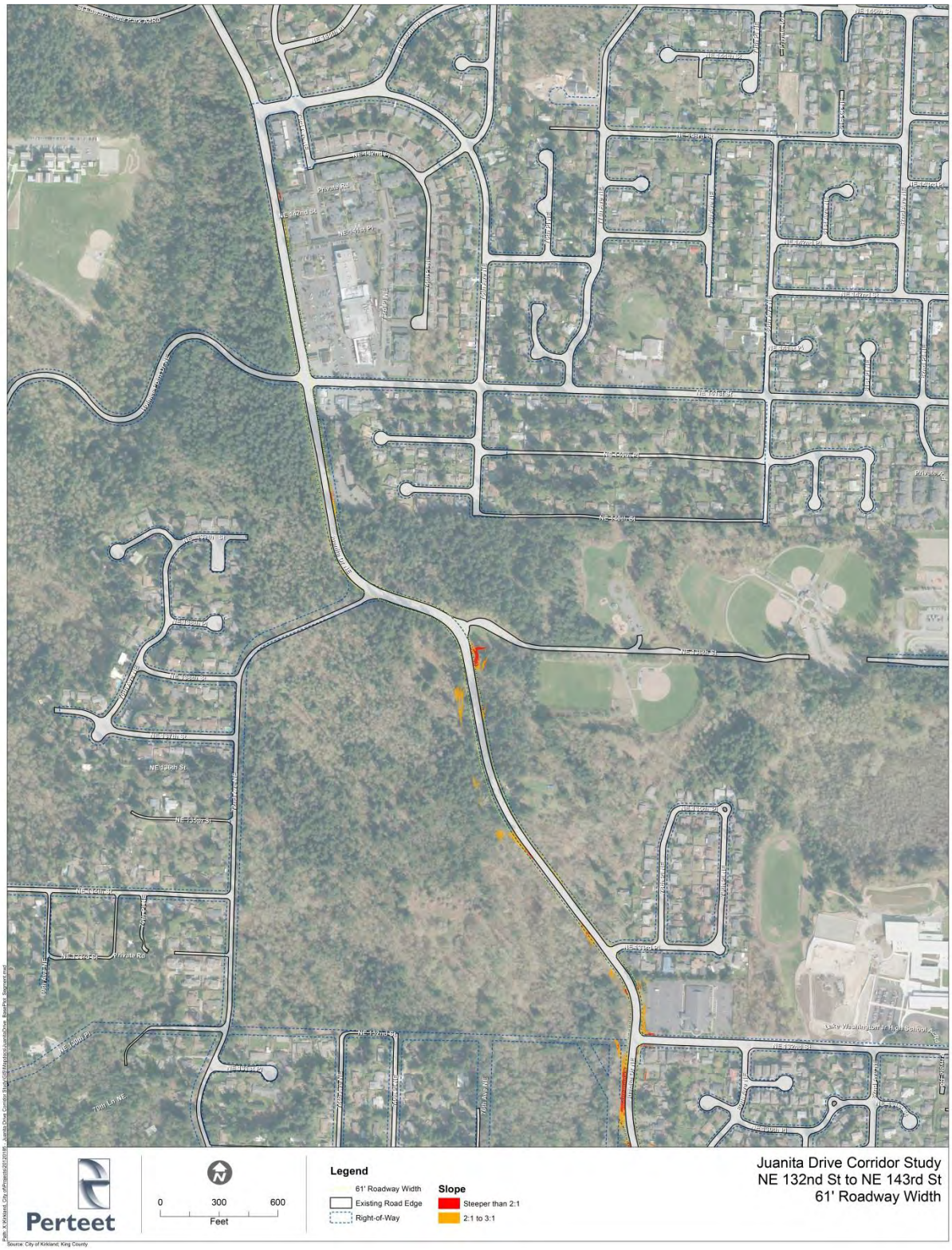
Project Details	Location	Project Description
Project V3	NE 138th Pl Intersection	This project involves the restriping of the NE 138th Pl & Juanita Dr. intersection. Striping will be done to improve sight distance for drivers turning onto Juanita Dr. from NE 138th Pl and will also provide a protected area on Juanita Dr. allowing drivers to join traffic safetly.

Appendix C

Corridor Profile Details

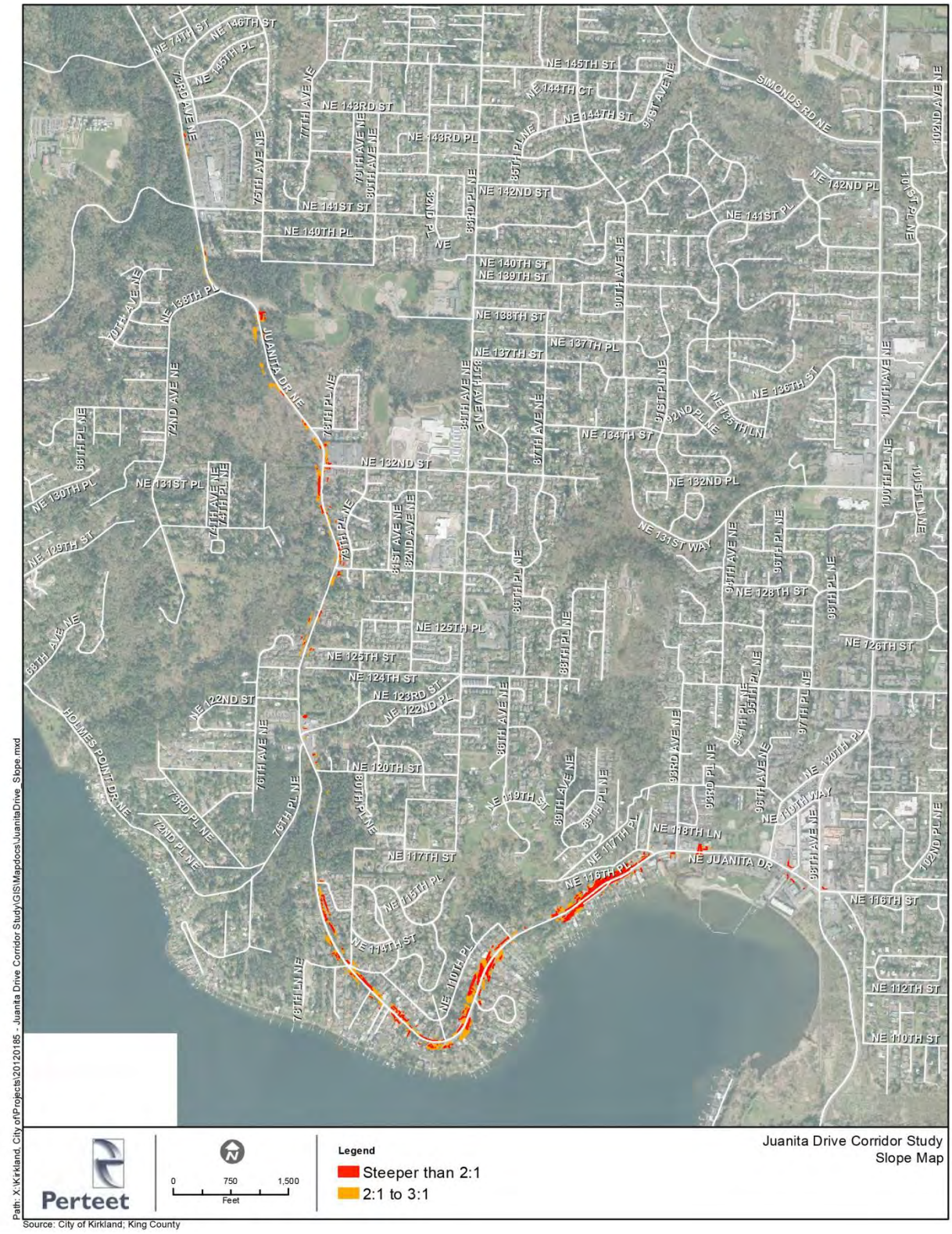
PHYSICAL CONDITIONS

This section contains detailed figures of existing physical conditions along Juanita Drive. Figures related to sub-sections in the "Physical Conditions" section of the report include:

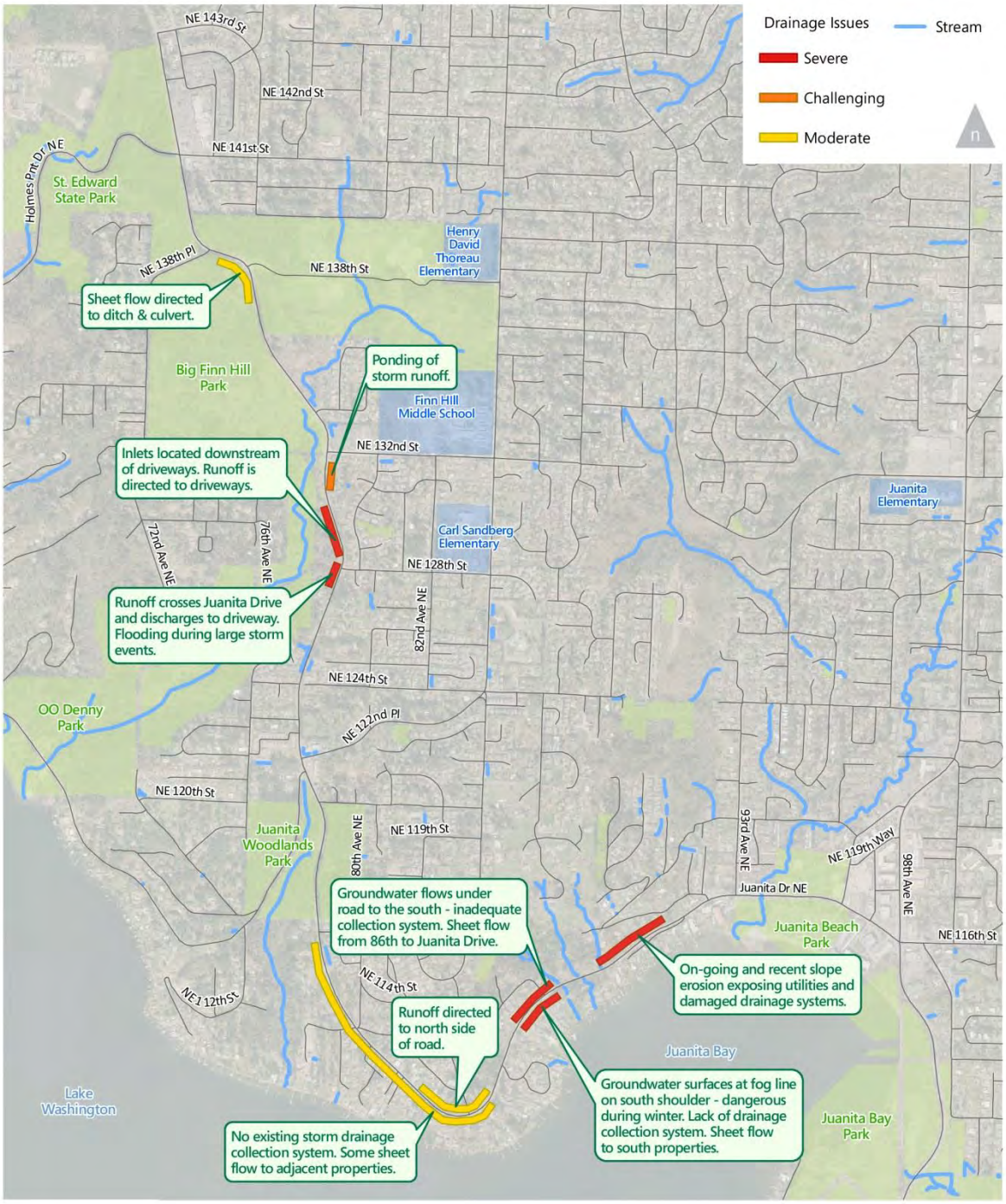

Perteet
0
300
600
Feet
Legend
61' Roadway Width
Existing Road Edge
Right-of-Way
Slope
Steeper than 2:1
2:1 to 3:1
Juanita Drive Corridor Study
NE 132nd St to NE 143rd St
61' Roadway Width
Source: City of Kirkland, King County


Perteet
0
300
600
Feet
Legend
61' Roadway Width
Existing Road Edge
Right-of-Way
Slope
Steeper than 2:1
2:1 to 3:1
Juanita Drive Corridor Study
NE 117th St to NE 132nd St
61' Roadway Width
Source: City of Kirkland, King County


Perteet
0
300
600
Feet
Legend
61' Roadway Width
Existing Road Edge
Right-of-Way
Slope
Steeper than 2:1
2:1 to 3:1
Juanita Drive Corridor Study
93rd Ave NE to NE 117th St
61' Roadway Width
Source: City of Kirkland, King County


NE 146TH ST
NE 145TH PL
NE 145TH ST
NE 144TH CT
NE 144TH ST
NE 143RD ST
NE 143RD PL
NE 142ND ST
NE 142ND PL
NE 141ST ST
NE 141ST PL
NE 140TH PL
NE 140TH ST
NE 139TH ST
NE 138TH ST
NE 138TH PL
NE 137TH ST
NE 137TH PL
NE 136TH ST
NE 135TH LN
NE 134TH ST
NE 132ND ST
NE 132ND PL
NE 131ST PL
NE 131ST WAY
NE 130TH PL
NE 129TH ST
NE 128TH ST
NE 126TH ST
NE 125TH PL
NE 125TH ST
NE 124TH ST
NE 123RD ST
NE 122ND PL
NE 122ND ST
NE 120TH ST
NE 120TH PL
NE 119TH ST
NE 118TH LN
NE 117TH PL
NE 117TH ST
NE 116TH ST
NE 115TH PL
NE 114TH ST
NE 112TH ST
NE 110TH PL
NE 110TH ST
NE JUANITA DR
JUANITA DR NE
SIMONDS RD NE
HOLMES POINT DR NE
77TH AVE NE
75TH AVE NE
79TH AVE NE
80TH AVE NE
82ND PL NE
83RD PL NE
85TH PL NE
91ST AVE NE
90TH AVE NE
91ST PL NE
92ND PL NE
84TH AVE NE
87TH AVE NE
86TH PL NE
88TH PL NE
81ST AVE NE
82ND AVE NE
78TH PL NE
73RD PL NE
72ND AVE NE
70TH AVE NE
68TH PL NE
74TH AVE NE
74TH PL NE
68TH AVE NE
76TH AVE NE
76TH PL NE
73RD PL NE
72ND PL NE
78TH LN NE
80TH PL NE
85TH AVE NE
89TH PL NE
93RD AVE NE
93RD PL NE
94TH PL NE
95TH PL NE
96TH AVE NE
97TH PL NE
98TH AVE NE
102ND AVE NE
102ND PL NE
101ST LN NE
100TH PL NE
100TH AVE NE
94TH AVE NE
96TH PL NE
Path: X:\Kirkland, City of\Projects\20120185 - Juanita Drive Corridor Study\GIS\Mapdocs\JuanitaDrive_Slope.mxd
Perteet
0
750
1,500
Feet
Legend
Steeper than 2:1
2:1 to 3:1
Juanita Drive Corridor Study
Slope Map
Source: City of Kirkland; King County

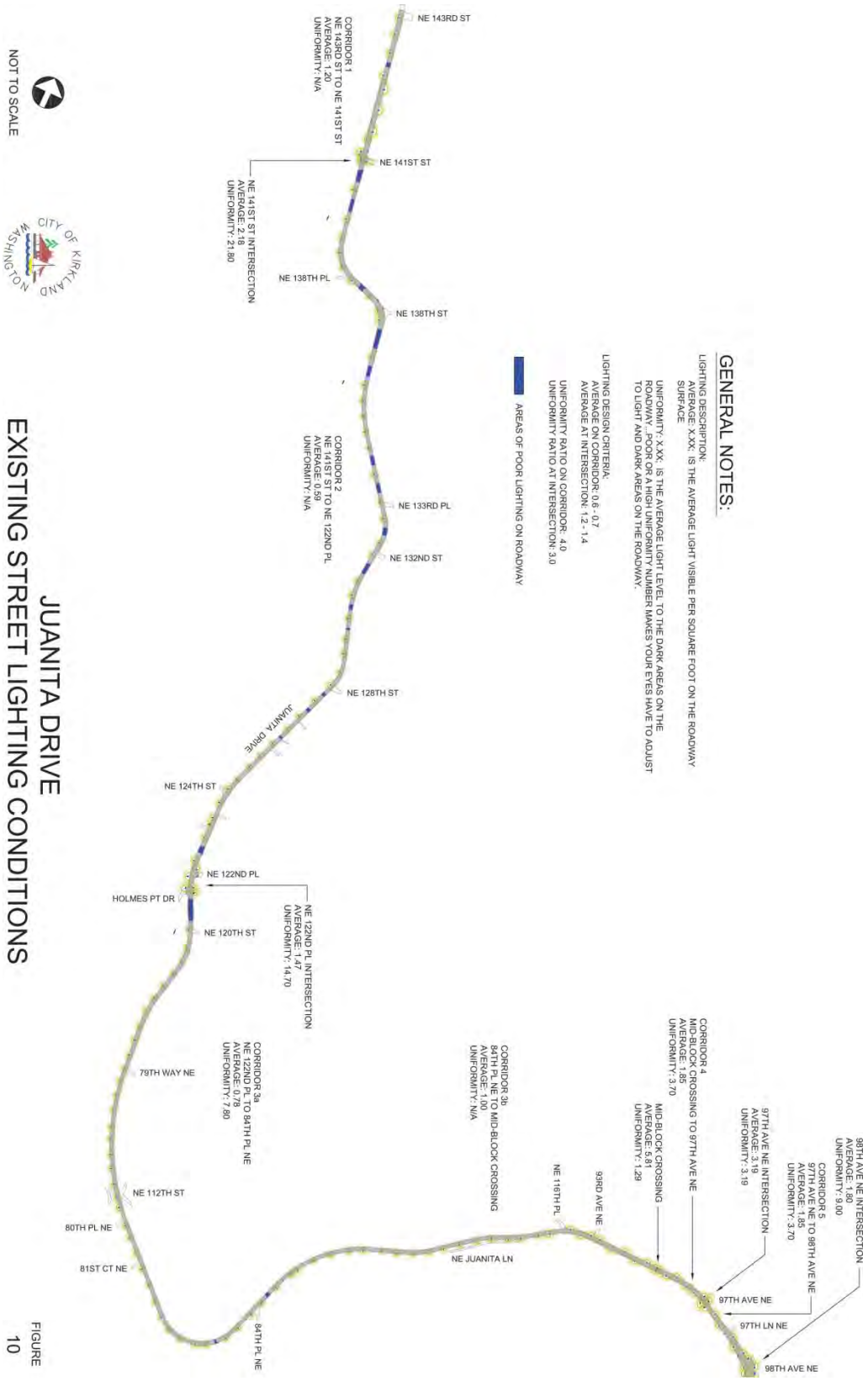

Sight Distance Issues
Side Street/Driveway
Juanita Drive
Severe
Challenging
Moderate
Severe
Challenging
Moderate
n
NE 143rd St
NE 142nd St
NE 141st St
Holmes Pnt Dr NE
St. Edward State Park
78th Ave NE
Henry David Thoreau Elementary
NE 138th St
NE 138th Pl
Big Finn Hill Park
Finn Hill Middle School
NE 132nd St
Juanita Elementary
72nd Ave NE
76th Ave NE
Carl Sandberg Elementary
NE 128th St
82nd Ave NE
NE 124th St
OO Denny Park
NE 122nd Pl
NE 120th St
93rd Ave NE
Juanita Woodlands Park
80th Ave NE
NE 119th St
NE 119th Way
NE 117th St
Juanita Beach Park
Juanita Dr NE
NE 116th St
NE 114th St
NE 112th St
Juanita Bay
Lake Washington
Juanita Bay Park



Juanita Drive Corridor Study
Drainage Issues and Concerns

\\Fpse03\fpse2\Data2\2013Projects\SE13-0292_JuanitaDrive_MP_Corridor_Study\Graphics\Draft\GIS\MXD\Figures\Drainage.mxd

FEHR PEERS



JUANITA DRIVE
EXISTING STREET LIGHTING CONDITIONS

FIGURE 10

NE JUANITA DRIVE CORRIDOR STUDY

City of Kirkland

Existing Sign Schedule

SIGN NO.	POST TYPE	SIGN SIZE	SIGN TEXT	SIGN DESCRIPTION	FIELD OBSERVATIONS
351	STEEL POST	WD: 30, HT: 30	<Null>	PEDESTRIAN ADVANCE	
353	STEEL POST	WD: 30, HT: 30	<Null>	PEDESTRIAN ADVANCE	
358	STEEL POST	WD: 30, HT: 30	<Null>	PEDESTRIAN ADVANCE	
969	STEEL POST	WD: 24, HT: 30	<Null>	KEEP RIGHT (BULL NOSE W/ ARROW)	
972	STEEL POST	WD: 24, HT: 30	<Null>	KEEP RIGHT (BULL NOSE W/ ARROW)	
973	STEEL POST	WD: 30, HT: 30	<Null>	PEDESTRIAN ADVANCE	
974	OVERHEAD	WD: 48, HT: 48	<Null>	PED CROSS SYMBOL O/H	
975	LIGHT POLE	WD: 30, HT: 30	<Null>	PEDESTRIAN ADVANCE	
976	OVERHEAD	WD: 48, HT: 48	<Null>	PED CROSS SYMBOL O/H	
977	STEEL POST	WD: 24, HT: 30	<Null>	KEEP RIGHT (BULL NOSE W/ ARROW)	
981	LIGHT POLE	WD: 30, HT: 30	<Null>	PEDESTRIAN ADVANCE	
1420	LIGHT POLE	WD: 30, HT: 30	<Null>	PEDESTRIAN ADVANCE	
1441	LIGHT POLE	WD: 30, HT: 30	<Null>	PEDESTRIAN ADVANCE	
1511	LIGHT POLE	WD: 30, HT: 30	<Null>	RIGHT LANE ENDS AHEAD (SYMBOL)	
5979	STEEL POST	WD: 24, HT: 24	<Null>	NO LEFT TURN (SYMBOL)	
5980	LIGHT POLE	WD: 30, HT: 30	<Null>	PEDESTRIAN ADVANCE	
8544	WOOD	WD: 24, HT: 24	<Null>	NO LEFT TURN (SYMBOL)	
8546	WOOD	UNKNOWN	<Null>	DEER CROSSING (SYMBOL)	
8580	WOOD	UNKNOWN	<Null>	HAIRPIN CURVE (L)	
8583	WOOD	UNKNOWN	<Null>	HAIRPIN CURVE (R)	
8586	WOOD	WD: 30, HT: 30	<Null>	INTERSECTION SYMBOL	
8601	WOOD	WD: 30, HT: 30	<Null>	PEDESTRIAN ADVANCE	
8606	WOOD	UNKNOWN	<Null>	DEER CROSSING (SYMBOL)	
8629	WOOD	WD: 30, HT: 30	<Null>	INTERSECTION SYMBOL	
8646	WOOD	WD: 30, HT: 18	<Null>	DIAGONAL ARROW POINTING TO GROUND (L)	
8647	WOOD	WD: 30, HT: 30	<Null>	PEDESTRIAN ADVANCE	
8651	WOOD	WD: 30, HT: 18	<Null>	DIAGONAL ARROW POINTING TO GROUND (L)	
8652	WOOD	WD: 30, HT: 30	<Null>	PEDESTRIAN ADVANCE	
8734	WOOD	WD: 24, HT: 24	<Null>	NO RIGHT TURN	
8774	STEEL POST	WD: 24, HT: 24	<Null>	NO TRUCKS - SYMBOL	
8861	WOOD	WD: 30, HT: 30	<Null>	SIDE ROAD 90 DEGREE (D)	
8869	WOOD	WD: 30, HT: 30	<Null>	SIGNAL AHEAD (SYMBOL)	
8881	WOOD	WD: 30, HT: 30	<Null>	FIRE STATION (SYMBOL)	
8982	WOOD	WD: 30, HT: 30	<Null>	SIGNAL AHEAD (SYMBOL)	SIGN COMPLETELY COVERED BY VEGETATION
9237	WOOD	WD: 30, HT: 30	<Null>	SIDE ROAD 90 DEGREE (D)	
9248	WOOD	WD: 30, HT: 30	<Null>	PEDESTRIAN ADVANCE	
9285	OVERHEAD	UNKNOWN	<Null>	NO LEFT TURN (WORDS)	
9289	WOOD	UNKNOWN	<Null>	SINGLE ARROW (SYMBOL)	
9290	LIGHT POLE	WD: 18, HT: 18	<Null>	NO PEDESTRIAN CROSSING SYMBOL	
9298	WOOD	WD: 18, HT: 18	<Null>	NO PEDESTRIAN CROSSING SYMBOL	
9301	WOOD	WD: 18, HT: 18	<Null>	NO PEDESTRIAN CROSSING SYMBOL	
9304	STEEL POST	WD: 18, HT: 18	<Null>	NO PEDESTRIAN CROSSING SYMBOL	
9658	WOOD	WD: 30, HT: 30	<Null>	SIDE ROAD 90 DEGREE (D)	
9695	WOOD	WD: 30, HT: 30	<Null>	SIDE ROAD 90 DEGREE (D)	
9852	WOOD	WD: 30, HT: 30	<Null>	CURVE - LEFT	
10115	WOOD	WD: 30, HT: 30	<Null>	SIDE ROAD 90 DEGREE (D)	
10357	WOOD	WD: 30, HT: 30	<Null>	CURVE - RIGHT	
10778	WOOD	WD: 30, HT: 30	<Null>	REVERSE TURN - LEFT	
11181	WOOD	WD: 30, HT: 30	<Null>	SIDE ROAD 90 DEGREE (D)	
11453	WOOD	WD: 30, HT: 30	<Null>	SIDE ROAD 90 DEGREE (D)	
11593	WOOD	WD: 30, HT: 30	<Null>	SIGNAL AHEAD (SYMBOL)	
11615	WOOD	WD: 30, HT: 30	<Null>	REVERSE TURN - LEFT	COVERED BY VEGETATION
12212	WOOD	WD: 30, HT: 30	<Null>	SIGNAL AHEAD (SYMBOL)	
12449	WOOD	WD: 30, HT: 30	<Null>	SIDE ROAD 90 DEGREE (D)	
982	STEEL POST	WD: 12, HT: 18	<null>	HOW TO USE CROSSWALK FLAGS	
983	STEEL POST	WD: 12, HT: 18	<null>	HOW TO USE CROSSWALK FLAGS	
8587	WOOD	UNKNOWN	80 AVE NE / NE 112 ST	STREET SIGN ADVANCE	
8628	WOOD	UNKNOWN	80 AVE NE / NE 112 ST	STREET SIGN ADVANCE	
8600	WOOD	UNKNOWN	AHEAD	AHEAD (PLAQUE) - ADVANCED WARNING	
9247	WOOD	UNKNOWN	AHEAD	AHEAD (PLAQUE) - ADVANCED WARNING	
11084	WOOD	WD: 78, HT: 18	BIG FINN HILL PARK	STREET SIGN PANEL - KING COUNTY STYLE	
9293	WOOD	WD: 78, HT: 18	CHAMPAGNE PT.	STREET SIGN PANEL - KING COUNTY STYLE	
10329	WOOD	WD: 18, HT: 24	DENNY CREEK	INFO SIGN - CREEK W/FISH SYM	
8891	WOOD	WD: 24, HT: 30	DO NOT BLOCK INTERSECTION	DO NOT BLOCK INTERSECTION	
8919	WOOD	WD: 24, HT: 30	DO NOT BLOCK INTERSECTION	DO NOT BLOCK INTERSECTION	
970	STEEL POST	WD: 30, HT: 30	DO NOT ENTER	DO NOT ENTER	
5825	LIGHT POLE	WD: 24, HT: 48	ENTERING KIRKLAND	ENTERING KIRKLAND	
9565	WOOD	WD: 30, HT: 30	HIDDEN DRIVEWAY	HIDDEN DRIVEWAY	
11592	WOOD	UNKNOWN	HOLMES PT DR / NE 141 ST	STREET SIGN ADVANCE	
8868	WOOD	UNKNOWN	HOLMES PT. DR / NE 122 PL	STREET SIGN ADVANCE	
12213	WOOD	UNKNOWN	HOLMES PT. DR NE / NE 141 ST	STREET SIGN ADVANCE	
356	STEEL POST		LANE ENDS	<Null>	
1070	OVERHEAD	WD: 24, HT: 30	LEFT TURN YIELD ON GREEN	LEFT TURN MUST YIELD ON GREEN	
1071	OVERHEAD	WD: 24, HT: 30	LEFT TURN YIELD ON GREEN	LEFT TURN MUST YIELD ON GREEN	
8656	WOOD	WD: 30, HT: 30	NARROW ROAD	NARROW ROAD AHEAD	

NE JUANITA DRIVE CORRIDOR STUDY

City of Kirkland

Existing Sign Schedule

SIGN NO.	POST TYPE	SIGN SIZE	SIGN TEXT	SIGN DESCRIPTION	FIELD OBSERVATIONS
8860	WOOD	UNKNOWN	NE 120 ST	STREET SIGN ADVANCE	
8981	WOOD	UNKNOWN	NE 122 PL / HOLMES PT DR	STREET SIGN ADVANCE	
9238	WOOD	UNKNOWN	NE 128 ST	STREET SIGN ADVANCE	
9659	WOOD	UNKNOWN	NE 128 ST	STREET SIGN ADVANCE	
9694	WOOD	UNKNOWN	NE 132 ST	STREET SIGN ADVANCE	
10117	WOOD	UNKNOWN	NE 132 ST	STREET SIGN ADVANCE	
11180	WOOD	UNKNOWN	NE 138 PL	STREET SIGN ADVANCE	
11454	WOOD	UNKNOWN	NE 138 PL	STREET SIGN ADVANCE	DIFFICULT TO SEE. DIRTY
12448	WOOD	UNKNOWN	NE 143 ST	STREET SIGN ADVANCE	PARTIALLY COVERED BY VEGETATION
9252	WOOD	WD: 12, HT: 18	NO PARKING	NO PARKING (NO ARROWS) - OLD STYLE	
8644	WOOD	UNKNOWN	NO PARKING ANY TIME	NO PARKING ANY TIME - OLD STYLE	
8653	WOOD	UNKNOWN	NO PARKING ANY TIME	NO PARKING ANY TIME - OLD STYLE	
9335	WOOD	WD: 12, HT: 18	NO PARKING ANY TIME	NO PARKING ANY TIME - OLD STYLE	
9339	WOOD	WD: 12, HT: 18	NO PARKING ANY TIME	NO PARKING ANY TIME - OLD STYLE	
9353	WOOD	WD: 12, HT: 18	NO PARKING ANY TIME	NO PARKING ANY TIME - OLD STYLE	
9987	WOOD	WD: 12, HT: 18	NO PARKING ANY TIME	NO PARKING ANY TIME - OLD STYLE	
10012	WOOD	WD: 12, HT: 18	NO PARKING ANY TIME	NO PARKING ANY TIME - OLD STYLE	
10145	WOOD	WD: 12, HT: 18	NO PARKING ANY TIME	NO PARKING ANY TIME - OLD STYLE	
10156	WOOD	WD: 12, HT: 18	NO PARKING ANY TIME	NO PARKING ANY TIME - OLD STYLE	
9956	WOOD	UNKNOWN	NO PARKING AREA BICYCLES PEDESTRIANS ONLY	NO CODE	
8639	WOOD	WD: 12, HT: 18	NO PARKING EAST OF HERE	NO PARKING (E,W,N,S) OF HERE	
12327	WOOD	WD: 12, HT: 18	NO PARKING NORTH OF HERE	NO PARKING (E,W,N,S) OF HERE	
8725	WOOD	WD: 12, HT: 18	NO PARKING ON PAVEMENT	NO PARKING ON PAVEMENT - OLD STYLE	
8733	WOOD	WD: 12, HT: 18	NO PARKING ON PAVEMENT	NO PARKING ON PAVEMENT - OLD STYLE	
8682	LIGHT POLE	UNKNOWN	NO PARKING ON WALKWAY	NO PARKING IN/ON ( )	
8662	WOOD	WD: 12, HT: 18	NO PARKING WEST OF HERE	NO PARKING (E,W,N,S) OF HERE	
9047	WOOD	UNKNOWN	NO SHOULDER DRIVING	NO DRIVING ON SHOULDER	
9509	WOOD	UNKNOWN	NO SHOULDER DRIVING	NO DRIVING ON SHOULDER	
10049	WOOD	UNKNOWN	NO SHOULDER DRIVING	NO DRIVING ON SHOULDER	
9310	OVERHEAD	UNKNOWN	NO TURN ON RED	NO TURN ON RED (WORDS)	
1423	OVERHEAD	WD: 30, HT: 36	ONLY	RIGHT ARROW ONLY	
1424	OVERHEAD	WD: 24, HT: 30	ONLY	LEFT ARR ONLY	
5995	STEEL POST	WD: 30, HT: 36	ONLY	RIGHT ARROW ONLY	
1389	LIGHT POLE	WD: 18, HT: 24	PEDESTRIANS LOOK FOR TURNING VEHICLES	LOOK FOR TURNING VEHICLES	
1421	LIGHT POLE	WD: 18, HT: 24	PEDESTRIANS LOOK FOR TURNING VEHICLES	LOOK FOR TURNING VEHICLES	
1442	LIGHT POLE	WD: 18, HT: 24	PEDESTRIANS LOOK FOR TURNING VEHICLES	LOOK FOR TURNING VEHICLES	
7583	LIGHT POLE	WD: 18, HT: 24	PEDESTRIANS LOOK FOR TURNING VEHICLES	LOOK FOR TURNING VEHICLES	
8698	WOOD	UNKNOWN	REDUCED SPEED 25	REDUCED SPEED __ M.P.H. (SPECIFY MILES)	
968	LIGHT POLE	WD: 30, HT: 30	RIGHT LANE ENDS	RIGHT LANE ENDS (WORDS)	
1074	STEEL POST	WD: 30, HT: 30	RIGHT LANE MUST TURN RIGHT	RIGHT LANE MUST TURN RIGHT	
355	STEEL POST	WD: 24, HT: 30	RIGHT LANE ONLY	RIGHT LANE BIKE ONLY	
1073	LIGHT POLE	WD: 24, HT: 30	RIGHT LANE ONLY	RIGHT LANE BIKE ONLY	
8549	WOOD	WD: 30, HT: 30	SCHOOL BUS STOP AHEAD	SCHOOL BUS STOP AHEAD	
8569	WOOD	WD: 30, HT: 30	SCHOOL BUS STOP AHEAD	SCHOOL BUS STOP AHEAD	
9291	LIGHT POLE	WD: 18, HT: 12	USE CROSSWALK	USE CROSSWALK W/ARR (D)	
9297	WOOD	WD: 18, HT: 12	USE CROSSWALK	USE CROSSWALK W/ARR (D)	
9300	WOOD	WD: 18, HT: 12	USE CROSSWALK	USE CROSSWALK W/ARR (D)	
9305	STEEL POST	WD: 18, HT: 12	USE CROSSWALK	USE CROSSWALK W/ARR (D)	
8953	WOOD	WD: 18, HT: 24	WARNING THIS IS A BLOCK WATCH COMMUNITY / WE IMMEDIATELY REPORT ALL SUSPICIOUS PERSONS AND ACTIVITIES TO OUR POLICE DEPARTMENT	CRIME WATCH	
11895	LIGHT POLE	WD: 24, HT: 48	WELCOME TO KIRKLAND	ENTERING KIRKLAND	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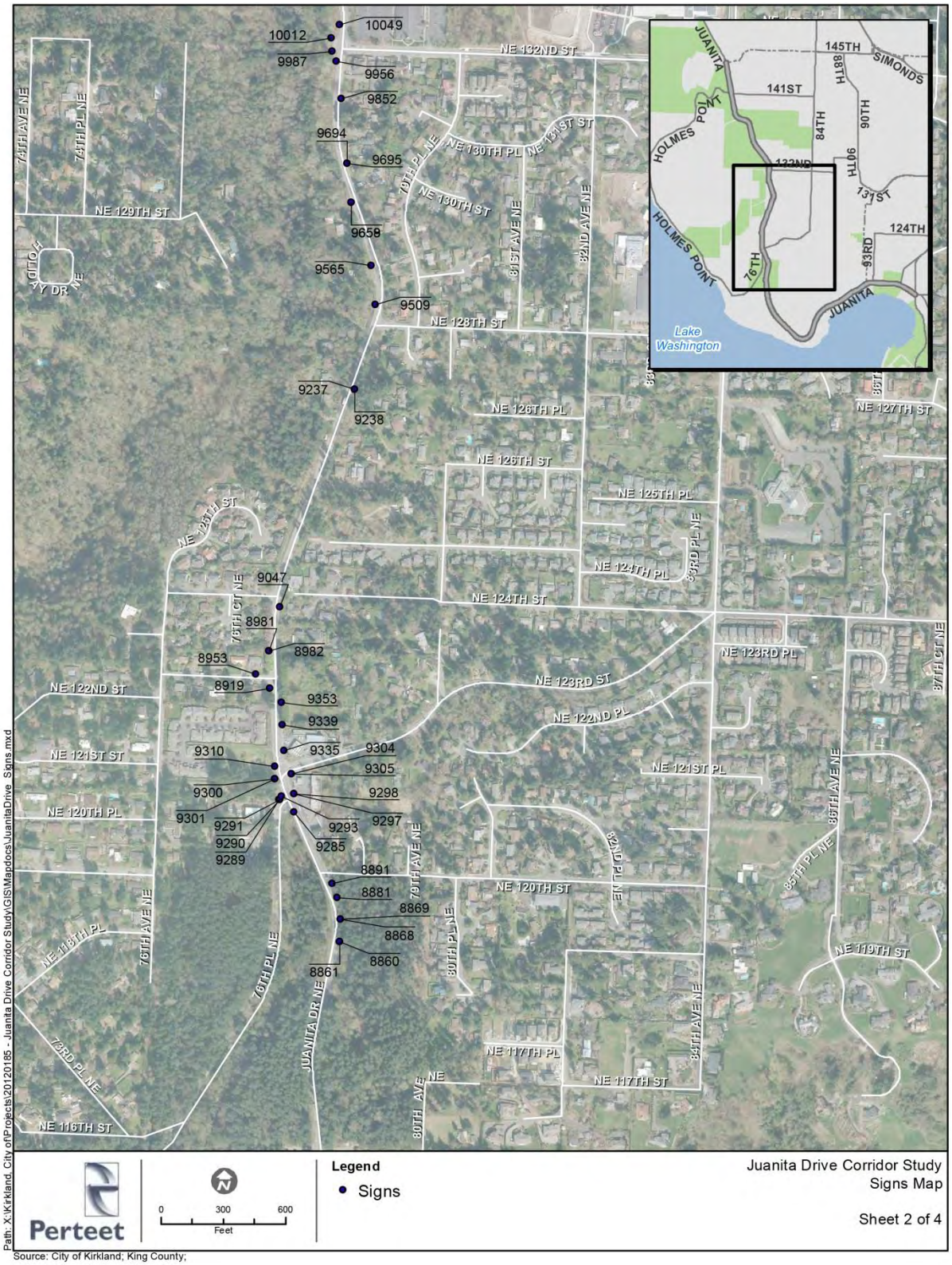
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Juanita Drive Corridor Study
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TRANSPORTATION OPERATIONS

This section provides detailed information about existing transportation operations along Juanita Drive, including traffic flow, safety, and vehicle speeds. The section is organized as follows:

TRAFFIC FLOW

Traffic flow operations were characterized by two measures, corridor traffic volume and intersection level of service.

CORRIDOR TRAFFIC VOLUMES

Data Collection and Methodology

Traffic counts were collected by tube counter at five locations along Juanita Drive:

- West of 98th Avenue NE (February 2013; collected for City of Kirkland)
- West of 93rd Avenue NE (May 2013; collected for Fehr & Peers)
- North of NE 112th Street / 80th Avenue NE (May 2013; collected for Fehr & Peers)
- North of NE 138th Street (May 2013; collected for Fehr & Peers)
- North of NE 141st Street (February 2013; collected for City of Kirkland)

These counts occurred for consecutive 24-hour periods on Tuesday, Wednesday, and Thursday, which represent the most typical weekday traffic conditions. Daily traffic totals for the three days were averaged to obtain the average weekday traffic (AWDT) volumes. AM and PM peak hour traffic counts were calculated by identifying the highest traffic volume each day over a one-hour period between 6 to 9 AM

for AM peak and 3 to 6 PM for PM peak. As with the AWDT measure, peak hour volumes were averaged for the three-day collection period.

Existing 2013 Volumes

The traffic counts show that the southern portion of the corridor experiences the highest traffic demand, with 17,700 AWDT in the vicinity of Juanita Village. Continuing north, demand decreases to 11,100 AWDT in the vicinity of Big Finn Hill Park before increasing to 12,700 AWDT near the shopping center at NE 141st Street.

Peak hour traffic counts show that morning commute traffic on Juanita Drive is heaviest in the southbound direction. Comparable demand occurs northbound during the PM peak hour. In accordance with the daily counts, AM and PM peak hour demand is heaviest near Juanita Village.

2030 Forecast Volumes

By 2030, the number of households in the vicinity of Juanita Drive is expected to increase from 8,000 to 8,700, representing a total increase of 9%. The household growth will be spread throughout the greater Finn Hill area. Employment is expected to increase by a total of 34%, from 1,120 in 2013 to 1,500 in 2030. Most of this employment growth will be concentrated along 100th Avenue NE rather than Juanita Drive.

Based on the expected land use growth, traffic demand along Juanita Drive could grow by 15 to 20 percent during the peak commute period by 2030. It should be noted that traffic growth along the central portion of the corridor will be constrained by the traffic throughput capacity at the southern and northern ends of the corridor. Because traffic demand is already saturated entering Juanita Drive at the 98th Avenue NE intersection at the southern end of the corridor and at Simonds Road NE (in the City of Kenmore) at the northern end, total peak period traffic demand on most portions of the corridor would likely increase by only 5 to 10 percent.

INTERSECTION LEVEL OF SERVICE

Data Collection and Methodology

Intersection turning movement counts were collected at the following Juanita Drive intersections during the AM and PM peak hours:

- NE 141st Street / Holmes Point Drive NE
- NE 132nd Street *(PM peak only)*

- NE 128th Street *(PM peak only)*
- NE 122nd Street
- 76th Place NE / Holmes Point Drive NE
- NE 112th Street/80th Avenue NE
- 97th Avenue NE
- 98th Avenue NE

The counts at NE 132nd Street, NE 128th Street, and NE 112th Street/80th Avenue NE were commisioned in Summer 2013. All other counts were collected in 2011. Collectively, these volumes were used to calculate the level of service (LOS) for each intersection by the methods described below.

The City of Kirkland Comprehensive Plan establishes peak hour intersection level of service (LOS) standards based on a ratio of entering traffic volume to intersection capacity (V/C ratio). The calculation of these V/C ratios has been determined by the City using planning methods from *Transportation Research Circular 212*. For development proposals that stand to add more than a small amount of traffic to City streets, the accompanying traffic impact analysis must use the City's V/C ratio LOS system. By contrast, the Juanita Drive Master Plan is not a development-driven project, so a formal traffic impact analysis with V/C ratio-based is not necessary. Instead, intersection operations along Juanita Drive were calculated in terms of Highway Capacity Manual (HCM) LOS. This measure ranks intersection operating conditions from A to F in terms of total delay per entering vehicle. **Table C-1** provides a detailed summary of these rankings for signal and all-way stop-controlled intersections. It should be noted that LOS at side-street stop-controlled intersections is determined by the movement with the highest average delay per vehicle.

The HCM LOS rankings were calculated using a software package called Syncrho/SimTraffic 7. The Synchro program component calculates delay on an individual intersection basis, while SimTraffic is a more labor-intensive program used to simulate traffic flow through a system of adjacent intersection. Between NE 122nd Street and 98th Avenue NE, intersections were analyzed using SimTraffic because we observed that peak period vehicle queues at certain intersections along this segment often back-up to adjacent intersections. The remaining intersections were analyzed with Synchro.

TABLE C-1: SIGNALIZED AND ALL-WAY STOP INTERSECTION LOS CRITERIA

Level of Service	Description	Delay in Seconds per vehicle
A	Progression is extremely favorable and most vehicles arrive during the green phase. Most vehicles do not stop at all. Short cycle lengths may also contribute to low delay.	< 10.0
B	Progression is good, cycle lengths are short, or both. More vehicles stop than with LOS A, causing higher levels of average delay.	> 10.0 to 20.0
C	Higher congestion may result from fair progression, longer cycle lengths, or both. Individual cycle failures may begin to appear at this level, though many still pass through the intersection without stopping.	> 20.0 to 35.0
D	The influence of congestion becomes more noticeable. Longer delays may result from some combination of unfavorable progression, long cycle lengths, or high V/C ratios . Many vehicles stop, and the proportion of vehicles not stopping declines. Individual cycle failures are noticeable.	> 35.0 to 55.0
E	This level is considered by many agencies to be the limit of acceptable delay. These high delay values generally indicate poor progression, long cycle lengths, and high V/C ratios. Individual cycle failures are frequent occurrences.	> 55.0 to 80.0
F	This level is considered unacceptable with oversaturation, which is when arrival flow rates exceed the capacity of the intersection. This level may also occur at high V/C ratios below 1.0 with many individual cycle failures. Poor progression and long cycle lengths may also be contributing factors to such delay levels.	> 80.0

Source: 2000 Highway Capacity Manual.

Existing 2013 Operations

Results from the existing-year intersection LOS analysis are summarized in **Table C-2**.

The LOS analysis confirms high levels of congestion near Juanita Village. During the AM peak hour, 98th Avenue NE and 97th Avenue NE operate at LOS E and F, respectively. In most jurisdictions that use HCM-based LOS standards, these rankings would exceed the acceptable LOS threshold. During the PM peak hour, the 98th Avenue NE intersection is also heavily congested, but the delay is not as heavy at 97th Avenue NE. This occurs because peak-direction traffic is metered by the heavy congestion at 98th Avenue NE. All other intersections operate at reasonable congestion levels during the AM and PM peak hours, though slow moving, rolling traffic queues are commonly encountered heading southbound towards Juanita Village in the AM peak period and northbound towards the traffic signal at 76th Place NE / Holmes Point Drive NE during the PM peak period.

TABLE C-2: INTRSECTION LEVEL OF SERVICE AND DELAY – EXISTING AM/PM PEAK PERIOD

#	Intersection	AM		PM	
		LOS/Delay[1]	Highest Delay Approach[2]	LOS/Delay[1]	Highest Delay Approach[2]
1	NE 141st Street / Holmes Point Drive NE	B/15		B/14	
2	NE 132nd Street	no data	-	C/19	Westbound
3	NE 128th Street	no data	-	C/21	Westbound
4	NE 122nd Street	**C/28**		**B/13[4]**	
5	76th Pl NE / Holmes Point Drive NE	**A/8**		**C/23[5]**	
6	NE 112th Street/80th Avenue NE	**C/23**	**Westbound**	**C/24**	**Westbound**
7	97th Avenue NE	**F/130**		**B/19**	
8	98th Avenue NE	**E/63**		**E/61**	

[1] In seconds.
[2] Used to calculate LOS and delay at side-street stop sign controlled intersections.
Bolded results were calculated with SimTraffic simulation analysis. Non-bolded results were calculated with Synchro7.

2030 PM Forecast Operations

Based on existing year counts and traffic data from the 2010 and 2030 BKR models, Fehr & Peers developed PM peak hour turning movement forecast for the eight study intersections. The final 2030 turning movement forecasts were calculated by adding the growth between the 2010 and 2030 models to the existing year counts. **Table C-3** summarizes 2030 intersection LOS compared to existing year results.

In 2030, the signalized intersections at 98th Avenue NE and 97th Avenue NE are expected to continue operating at LOS E. Congestion at the 76th Place NE / Holmes Point Drive NE intersection would increase during the commute peak, resulting in longer traffic queues approaching the signal.

TABLE C-3: INTRSECTION LEVEL OF SERVICE AND DELAY – EXISTING AND 2030 PM PEAK HOUR

#	Intersection	Existing		2030 Forecast[3]	
		LOS/Delay[1]	Highest Delay Approach[2]	LOS/Delay[1]	Highest Delay Approach[2]
1	NE 141st Street / Holmes Point Drive NE	B/14		B/17	
2	NE 132nd Street	C/19	Westbound	C/23	Westbound
3	NE 128th Street	C/21	Westbound	D/26	Westbound
4	NE 122nd Street	**B/13**[4]		**B/18**[4]	
5	76th Pl NE / Holmes Point Drive NE	**C/23**[5]		**D/44**[5]	
6	NE 112th Street/80th Avenue NE	**C/24**	**Westbound**	**D/27**	**Westbound**
7	97th Avenue NE	**B/19**		**E/51**	
8	98th Avenue NE	**E/61**		**E/66**	

[1] In seconds.
[2] Used to calculate LOS and delay at side-street stop sign controlled intersections.
[3] Estimate based on corridor travel demand growth in 2030 model compared to 2010 model.
Bolded results were calculated with SimTraffic simulation analysis. Non-bolded results were calculated with Synchro7.

SAFETY – COLLISION ANALYSIS

Juanita Drive traverses steep topography with many twists and turns. The existing roadway geometry, multiple driveway access points, and limited sight distance complicate overall safety conditions along the corridor. Vehicle collision data were collected to determine where these design concerns might translate into safety deficiencies.

DATA COLLECTION AND METHODOLOGY

Vehicle collision data were obtained from the Washington State Department of Transportation (WSDOT) and the City of Kirkland for the entire portion of the Juanita Drive corridor within City limits. The reports provided collision data over a period of four years (January 2009 – December 2012), indicating a total of 142 collisions, an average of 36 collisions per year. The reports also provided various details about the individual collisions, including type, probable cause, severity, time of day, and weather conditions.

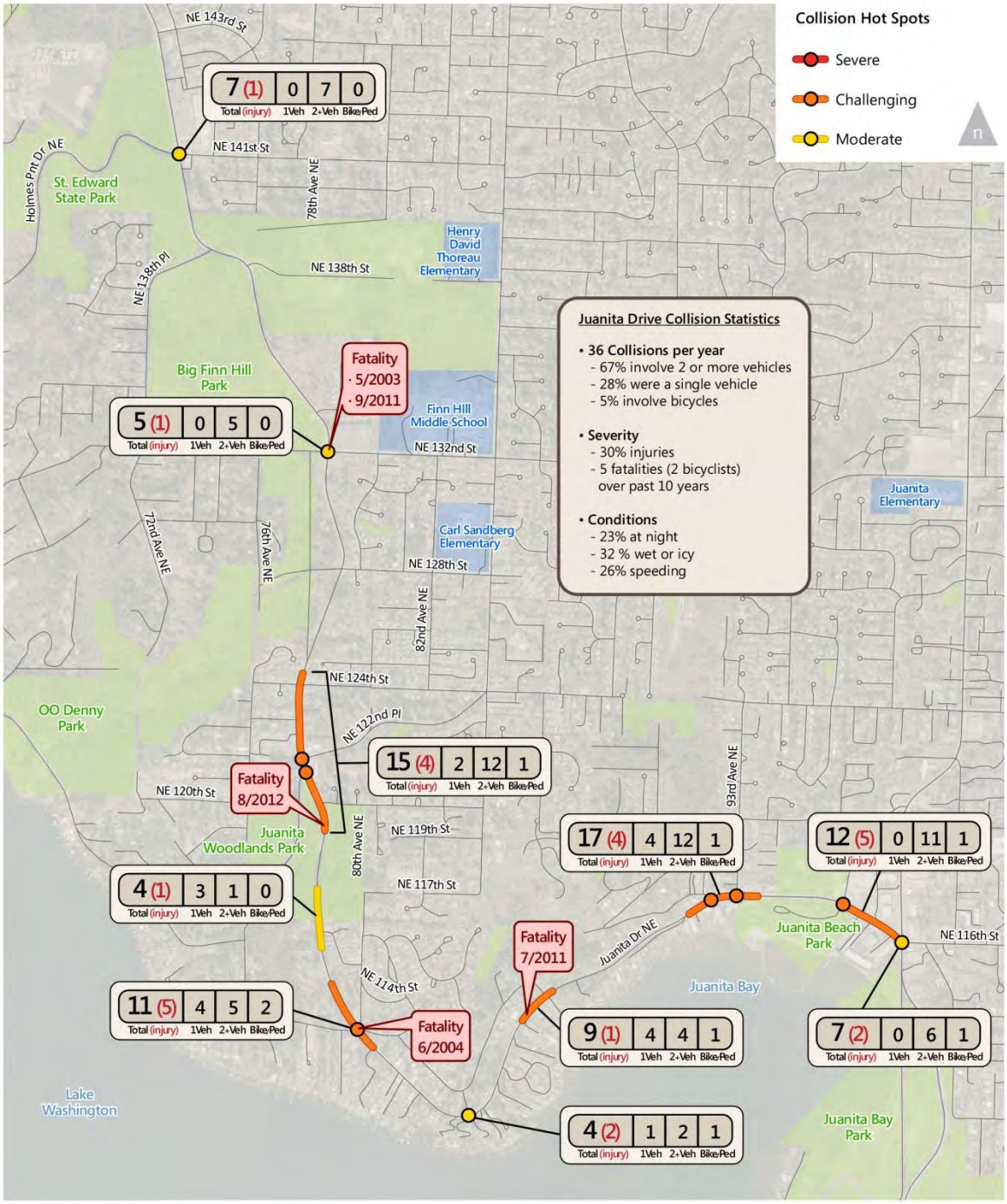
RESULTS

Roadway segments and intersections with at least four collision events over the four year data period are shown as collision "hot spots" in the figure on page C-23. For each hot spot location, the total number of collisions is broken down by the parties involved (i.e., single vehicle; two or more vehicles; or at least one bicycle and/or pedestrian). The number of collisions resulting in at least one injury is listed for each hot spot location. Collisions from 2001 to 2012 that resulted in a fatality are also pinpointed along the corridor. The dates, locations, and contributing circumstances of these collisions are listed below:

- **August 7, 2012, 8:45 PM** – 280 feet S. of NE 120th Street; dry, nighttime conditions; driver under influence traveling southbound, head-on collision with northbound vehicle.
- **September 28, 2011, 11:19 PM** – Near NE 132nd Street intersection; dry, nighttime conditions; single vehicle, exceeding safe speed limit, collides with fixed object outside roadway.
- **July 22, 2011, 3:45 PM** – 400 feet SW of 86th Avenue NE; dry, daylight conditions; heavy vehicle traveling eastbound collides with bicyclist.
- **June 19, 2004, 3:10 PM** – At 112th Street/80th Avenue intersection; dry, daylight conditions; motorcyclist traveling northbound, exceeding safe speed limit, collides with stopped northbound vehicle.
- **May 10, 2003, 3:23 PM** – At NE 132nd Street intersection; dry, daylight conditions; vehicle traveling southbound, exceeding safe speed limit, collides with bicyclist.

Additional corridor-wide collision statistics are summarized in **Table C-4**, including measures of collision severity, collision type, probable cause, weather conditions, and time of day.

The preceding results suggest a number of specific issues that the Corridor Master Plan could address. For example, most of the rear-end collisions occurred at major cross streets where vehicles on Juanita Drive were stopped, waiting to turn left. Examples include the NE 132nd Street and NE 112th Street intersections. Angle collisions occur throughout the corridor where drivers attempt to turn out of side streets or driveways onto Juanita Drive, facing high speed traffic and limited sight distance. Single vehicle and head-on collisions often occurred along segments where speeds exceed safe conditions (see next section). One example location is along the Juanita Woodlands Park.



DRAFT (June 12, 2013)

Juanita Drive Corridor Study Collisions (2009 - 2012)

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FEHR PEERS

TABLE C-4: JUANITA DRIVE COLLISION STATISTICS

Measure	Number of Collisions (January 2009 – December 2012)	Percent of Total
Total collisions	142	100.0%
Single vehicle collisions	38	26.8%
Rear-end collisions	62	43.7%
Collisions due to speeding	37	26.1%
Bike collisions	7	4.9%
Pedestrian collisions	1	0.7%
Injury collisions	42	29.6%
Fatality collisions	3	2.1%
Driving under the influence (DUI)	9	6.3%
Nighttime collisions	32	23%
Wet/ice/snow conditions	45	32%

Sources: WSDOT (January 2009 – December 2011) and City of Kirkland (January 2012 – December 2012).

SPEED

DATA COLLECTION AND METHODOLOGY

Speed studies were conducted at three locations along Juanita Drive in both the northbound and southbound directions – west of 93rd Avenue NE, north of NE 112th Street / 80th Avenue NE, and north of NE 138th Street. In general, northbound travel is uphill and southbound is downhill.

The raw speed data was used to calculate the following measures:

- **Average daily speed –** average travel speed of all motorists over the course of 24 hour day
- **50th percentile speed** – half of motorists travel below this speed, and half of motorists exceed this speed.
- **85th percentile speed** – 85 percent of motorists travel below this speed, and 15 percent of motorists exceed this speed. Typically, the 85th percentile speed is used to establish posted speed limits.

- **Percent of drivers exceeding the speed limit**
- **Percent of drivers traveling at extreme speed** – the percentage of motorists exceeding the speed limit by at least 10 mph)

RESULTS

The figure on page C-26 summarizes directional speed measures at the three data collection locations, including the variation of the 85th percentile speed over the course of 24 hours, the occurrence of drivers traveling at extreme speeds, and the average daily speed. **Table C-5** summarizes the posted speed limit and daily observed 50th and 85th percentile speeds.

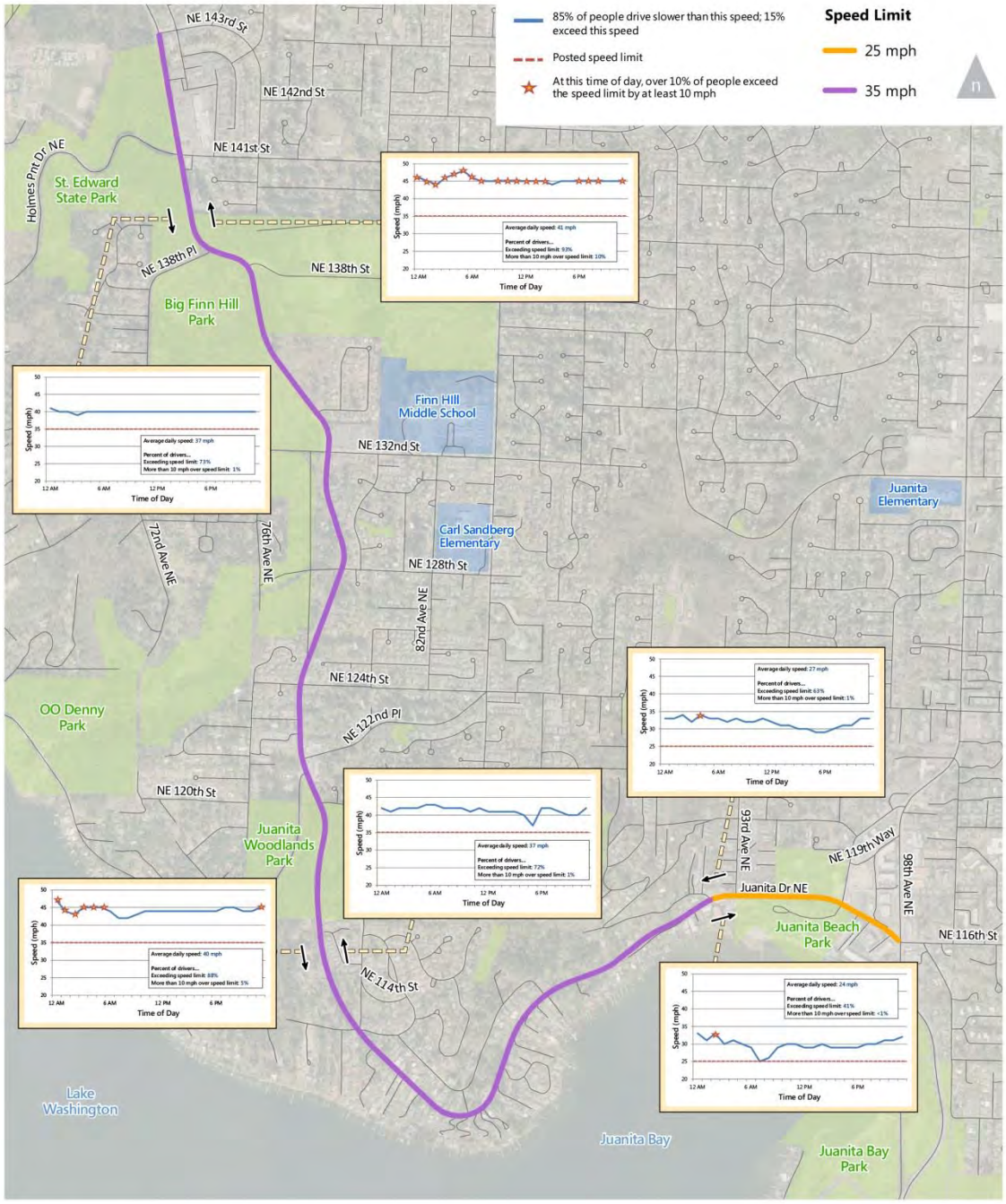
TABLE C-5: OBSERVED CORRIDOR SPEEDS

Location on Juanita Drive	Posted Speed Limit (mph)	50th Percentile Speed (mph)		85th Percentile Speed (mph)	
		Southbound	Northbound	Southbound	Northbound
North[1]	35	37	41	40	45
Central[2]	35	39	38	44	41
South / Juanita Village[3]	25	25	27	29	31

[1] Recorded directly north of NE 138th Street
[2] Recorded directly north of NE 112th Street / 80th Avenue NE
[3] Recorded directly west of NE 93rd Street
Source: Fehr & Peers, 2013.

Results show that the majority of drivers exceed the posted speed limit throughout the study area. Speeding is particularly prevalent in the north and central areas of the corridor, where over 70 percent of drivers exceed the posted speed. Over 10 percent of drivers travel at extreme speeds (10 mph or more over the posted speed) northbound near Big Finn Hill Park and southbound (downhill) in the vicinity of Juanita Woodlands Park. Time of day data associated with the observations indicate that most extreme speeding occurs at night.

The large share of drivers exceeding 40 mph conflicts with the established 35 mph posted speed of Juanita Drive. All of the horizontal curves meet the safety standards of the established 35 mph posted speed, but several curves do not meet the standards for 40 mph travel.



DRAFT (June 12, 2013)

Juanita Drive Corridor Study
Weekday Vehicle Speeds

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FEHR PEERS

CITY OF KIRKLAND
Planning and Community Development Department
123 Fifth Avenue, Kirkland, WA 98033
425.587-3225 - www.kirklandwa.gov

MEMORANDUM

To: Kurt Triplett, City Manager

From: Eric Shields, Planning Director
David Barnes, Planner

Date: July 24, 2014

Subject: VINTNER'S WEST SUBDIVISION AND PUD, PCD FILE NO. SUB13-01508

RECOMMENDATION

Consider the Hearing Examiner recommendation for the proposed Vintner's West preliminary and final planned unit development (PUD), Subdivision application and revised ordinance and either:

- Grant the application as recommended by the Hearing Examiner with changes made to the ordinance to clarify the public use, signage, maintenance and liability of the Common Open Space; or
- Modify and grant the application; or
- Deny the application.

An Ordinance reflecting the recommendation of the Hearing Examiner and the Council's discussion on July 15th is enclosed and the Hearing Examiner decision is Exhibit A of the Ordinance.

RULES FOR CITY COUNCIL CONSIDERATION

The City Council shall consider the Process IIB Zoning Permit for the PUD and Subdivision application based on the record before the Hearing Examiner and recommendation of the Hearing Examiner. Process IIB does not provide for testimony and oral arguments. However, the City Council in its discretion may ask questions of the applicant and staff regarding facts in the record, and may request oral argument on legal issues.

BACKGROUND DISCUSSION

At the July 15, 2014 meeting, the City Council considered the Hearing Examiner recommendation for the proposed Vintner's West preliminary and final planned unit development (PUD) and Subdivision application by Quadrant Homes. Council requested written clarification of the Public's Use of the Common Open Space, signage to inform the public about use of Common Open Space, the maintenance of the Common Open Space and the liability of the public's use of the Common Open Space. To address the

Council's request, the Ordinance has been revised to include the following language:

1. Signage will be posted indicating that the Common Open Space is open for public use.
2. A public access and use easement is to be recorded over the Common Open Space.
3. The Common Open Space will be maintained by the Development's homeowners association who will be responsible for any claims arising from the use of the Common Open Space.

Council directed staff to return to the August 6, 2014 meeting with an amended ordinance that could considered for approval.

ORDINANCE O-4449

AN ORDINANCE OF THE CITY OF KIRKLAND RELATING TO LAND USE, APPROVING A PRELIMINARY (AND FINAL) PLANNED UNIT DEVELOPMENT AND PRELIMINARY SUBDIVISION APPLIED FOR BY QUADRANT HOMES IN DEPARTMENT OF PLANNING AND COMMUNITY DEVELOPMENT FILE NO. SUB13-01508, AND SETTING FORTH CONDITIONS OF APPROVAL.

WHEREAS, the Department of Planning and Community Development has received an application, pursuant to Process IIB, for a preliminary (and final) planned unit development (PUD) and preliminary subdivision filed by Quadrant Homes as Department of Planning and Community Development File No. SUB13-01508 for a 35 lot development within a RSA 8 Zone known as Vintner's West ("Development"); and

WHEREAS, pursuant to the City of Kirkland's Concurrency Management System, KMC Title 25, a concurrency application has been submitted to the City of Kirkland, reviewed by the responsible Public Works official, the concurrency test has been passed, and a concurrency test notice issued; and

WHEREAS, pursuant to the State Environmental Policy Act, RCW 43.21C, and the Administrative Guidelines and local ordinance adopted to implement it, an environmental checklist was submitted to the City of Kirkland, reviewed by the responsible official of the City of Kirkland, and a determination of non-significance was issued; and

WHEREAS, the environmental checklist and determination have been available and accompanied the application through the entire review process; and

WHEREAS, the application was submitted to the Kirkland Hearing Examiner who held a hearing on May 30, 2014; and

WHEREAS, the Kirkland Hearing Examiner, after her public hearing and consideration of the recommendations of the Department of Planning and Community Development, adopted certain Findings, Conclusions and Recommendations and recommended approval of the Process IIB Permit subject to the specific conditions set forth in those recommendations; and

WHEREAS, the City Council, in open meeting, considered the environmental documents received from the responsible official, together with the recommendation of the Hearing Examiner; and

WHEREAS, the Kirkland Zoning Code requires approval of this application for PUD to be made by ordinance.

NOW, THEREFORE, the City Council of the City of Kirkland ordains as follows:

Section 1. The Findings, Conclusions, and Recommendations of the Kirkland Hearing Examiner ("Recommendations"), as signed by her and filed in the Department of Planning and Community Development File No. SUB13-01508, a copy of which is attached to this Ordinance as Exhibit A and incorporated herein, are adopted by the Kirkland City Council, with the following clarifications and modifications:

A. Open Space Tracts A, B, C and D of the Development shall be open to public access and use. Appropriate signage shall be posted indicating that the open space is available for public use.

B. As part of the recording of the final plat for the Development, the Applicant shall dedicate a public access and use easement over Open Space Tracts A, B, C and D.

C. Open Space Tracts A, B, C and D of the Development shall be maintained by the Development homeowner's association. The homeowner's association shall be responsible for any claims arising from use of Open Space Tracts A, B, C and D, subject to the protections of RCW 4.24.210, the Washington recreational use statute.

Section 2. The City Council hereby approves the application for a preliminary and final PUD and a preliminary subdivision, subject to the conditions set forth in the Recommendations and Section 1 of this Ordinance.

Section 3. The Process IIB Permit shall be issued to the applicant subject to the conditions set forth in the Recommendations adopted by the City Council and Section 1 of this Ordinance.

Section 4. Nothing in this ordinance shall be construed as excusing the applicant from compliance with any federal, state or local statutes, ordinances or regulations applicable to this project, other than expressly set forth herein.

Section 5. Failure on the part of the applicant to initially meet or maintain strict compliance with the standards and conditions to which the Process IIB Permit is subject shall be grounds for revocation in accordance with the Kirkland Zoning Code.

Section 6. This ordinance shall be in force and effect five days from and after its passage by the Kirkland City Council and publication pursuant to Section 1.08.017, Kirkland Municipal Code in the summary form attached to the original of this ordinance and by this reference approved by the City Council.

Section 7. A complete copy of this ordinance, including Findings, Conclusions and Recommendations adopted by reference,

shall be certified by the City Clerk, who shall then forward the certified copy to the King County Department of Assessments.

Section 8. A certified copy of this ordinance, together with the Findings, Conclusions, and Recommendations herein adopted shall be attached to and become a part of the Process IIB Permit or evidence thereof delivered to the applicant.

Passed by majority vote of the Kirkland City Council in open meeting this ____ day of _____, 2014.

Signed in authentication thereof this _____ day of _____, 2014.

_____
MAYOR

Attest:

_____
City Clerk

Approved as to Form:

_____
City Attorney

CITY OF KIRKLAND
HEARING EXAMINER FINDINGS,
CONCLUSIONS AND RECOMMENDATION

APPLICANT: Mike Behn of Quadrant Homes

FILE NO: SUB13-01508/ZON13-01509

APPLICATION:

1. Site Location: 13007 136th Avenue NE

2. Requests: The applicant requests approval of a preliminary subdivision and planned unit development (PUD) as follows:

a. Preliminary Subdivision: A proposal to subdivide six parcels totaling 5.84 acres into 35 separate lots with a single access from 136th Avenue NE. *See* Exhibit A, Staff Advisory Report and Recommendation (Staff Report), Attachments 2 and 3.

b. PUD: A request for a preliminary and final Planned Unit Development (PUD) and modification of the following Zoning Code and Municipal Code requirements:

(1) Provide smaller lot sizes than the minimum lot size of 3,800 square feet in the RSA 8 Zone for 11 of the 35 lots, with an average lot size of 3,929 square feet.
(2) Provide lot widths less than the minimum 50' as measured from the back of the required front yard.
(3) Reduce minimum required front yards to 10 feet and provide a garage setback of 18 feet as measured from the front property line.
(4) Request to calculate the 50% floor area ratio (FAR) maximum based on the entire site, including open space tracts, rather than on an individual lot basis.
(5) Request to calculate the 50% lot coverage maximum based on the entire site, including open space tracts, rather than on an individual lot basis.

Pursuant to Chapter 125 KZC, the proposal includes the following proposed benefits to the City beyond the improvements that would typically be required under City Code and implementing regulations:

(1) Increased open space, onsite recreation and landscaping. Common open space equal to approximately 30% of the property is planned in Tracts A through D. Tract A has an underground stormwater detention vault and on the surface, a bocce ball court and picnic area with seating and landscaping and trees around its perimeter are proposed. Tract B is connected to Tract A by a path, and a swing set and children's play structure are proposed. For Tract C a p-patch, orchard trees, open space and separate dog runs for small and large breeds are proposed. Tract D is proposed as common open space with a connecting path to the development to the south.

A six foot tall wood fence lined with evergreen trees is planned for screening along the west property line of lots 25 through 29, and existing evergreen trees will be retained for screening along the north property line of lots 21 through 24.

(2) Superior architectural home design. The applicant points to a broad mix of home designs varying in width from 30-40 feet and offering options such as hipped roofs, flat entry canopies, generous asymmetrical window configurations and appropriate massing that offer a contemporary take on the prairie style. Use of gables and a well-executed hierarchy of forms and detailing are seen on the northwest craftsman style. Additionally, elevations that reflect a farmhouse style are achieved with a little more height on street facing gables, strategically placed shed roofs and brackets and welcoming front porches. A diverse collection of materials, such as stone and brick enhance the modulation of the front façades facing the street. *See* Staff Report, Attachment 2.

(3) Superior circulation patterns. Access points on 136th Avenue NE have been reduced from three to one, and all lots take access from interior roads or private access tracts. The two interior roads will be dedicated by the applicant.

3. Review Process: Process IIB, the Hearing Examiner conducts a public hearing and makes a recommendation to the City Council, which makes a final decision.

4. Key Issues:
   - Compliance with subdivision criteria
   - Compliance with PUD approval criteria
   - Compliance with applicable development regulations
   - Compliance with Process IIB Zoning Permit approval criteria

SUMMARY OF RECOMMENDATIONS:

Department	Approve with conditions
Hearing Examiner	Approve with conditions

PUBLIC HEARING:

The Hearing Examiner held a public hearing on the applications on May 30, 2014, in the Council Chambers, City Hall, 123 Fifth Avenue, Kirkland, Washington. A verbatim recording of the hearing is available at the City Clerk's office. The minutes of the hearing and the exhibits are available for public inspection in the Department of Planning and Community Development. The Examiner visited the site following the hearing.

TESTIMONY AND PUBLIC COMMENT:

A list of those who testified at the public hearing, and a list of the exhibits offered at the hearing are included at the end of this Recommendation. The testimony is summarized in the hearing minutes.

For purposes of this recommendation, all section numbers refer to the Kirkland Zoning Code (KZC or Code) unless otherwise indicated.

FINDINGS, CONCLUSIONS AND RECOMMENDATION

Having considered the evidence in the record and reviewed the site, the Hearing Examiner enters the following:

Findings of Fact and Conclusions:

A. Site Description

The Facts and Conclusions on this matter set forth at Subsection II.A of the Staff Report are accurate and supported by the record, and therefore are adopted by reference as the Hearing Examiner's Findings and Conclusions.

There are drainage structures to the north of proposed lots 23 through 25, and a drainage easement crosses the subject property along the west side from north to south. *See* Staff Report, Attachment 3, page 3 of 12. The applicant proposes to collect and reroute the drainage across the property to the cul de sac and then to the detention facility on Tract A. *See* Staff Report, Attachment 3, page 6 of 12.

The proposed lot line alteration referenced in Subsection II.A.1.a (1) of the Staff Report will occur along the south boundary of the property prior to City action on the proposed subdivision. Thus, the total acreage within the subdivision will be 5.84 acres.

B. Public Comment
C. State Environmental Policy Act and Concurrency

The Facts and Conclusions on this matter set forth at Subsections II.B and II.C of the Staff Report are accurate and supported by the record, and therefore are adopted by reference as the Hearing Examiner's Findings and Conclusions.

Public comments at the hearing generally mirrored those in the comment letters included in the record as Attachment 6 to the Staff Report. As noted above, the applicant has responded to concerns expressed about retaining trees and providing screening along the west boundaries of lots 25 through 29 and the north boundaries of lots 21 through 24. Two members of the public expressed concern about the dangers of two trees slated for retention, and the applicant and department agreed to review them.

Other public comments at the hearing included concern about protection of the root structures of remaining trees, the drainage easement along the western property boundary, additional traffic on two-lane roads, and the fact that the open

space and recreational facilities on the proposed open space tracts would not be dedicated to the City and thus, available to the public.

As noted above, the drainage along the western side of the property will be rerouted to the street and then to the detention facility on Tract A. The plan for protecting the root structure of the significant trees being retained is shown in the Integrated Development Plan, Attachment 5 to the Staff Report.

As noted in Subsection C of the Staff Report, the proposal passed concurrency review and was not appealed. Further, the localized transportation impacts of the proposal are reviewed pursuant to SEPA, and the SEPA Determination of Nonsignificance issued for the proposal also was not appealed.

As noted in Subsection D of the Staff Report, the provision of open space and recreational facilities to residents in the subdivision is considered a public benefit. Further, the testimony from the applicant showed that although the open space and facilities will not be dedicated to the City, they will not be gated and thus, will be open to neighborhood residents.

D. Approval Criteria

The Facts and Conclusions on this matter set forth at Subsection II.D of Exhibit A are accurate and supported by the record, and therefore are adopted by reference as the Hearing Examiner's Findings and Conclusions.

The proposed subdivision will create infill residential development and is consistent with the Comprehensive Plan's goals and density designation for the subject property.

The proposed subdivision complies with KMC 22.12.230 and KZC 150.65. With the proposed PUD, and as conditioned, the subdivision is consistent with zoning and subdivision regulations and makes adequate provision for open spaces, drainage ways, rights-of-way, easements, water supplies, sanitary waste, power service, parks, playgrounds, and schools. The proposed subdivision will serve the public use and interest and is consistent with the public health, safety and welfare.

E. Development Regulations

The Facts and Conclusions on this matter set forth at Subsection II.E of Exhibit A are accurate and supported by the record, and therefore are adopted by reference as the Hearing Examiner's Findings and Conclusions.

F. Comprehensive Plan

A. The Facts and Conclusions on this matter set forth at Subsection II.F of Exhibit A are accurate and supported by the record, and therefore are adopted by reference as the Hearing Examiner's Findings and Conclusions.

G. Development Standards

The Facts and Conclusions on this matter set forth at Subsection II.G of Exhibit A are accurate and supported by the record, and therefore are adopted by reference as the Hearing Examiner's Findings and Conclusions with one revision:

> On page 6 of 7 of the Development Regulations (page 56 of the total Staff Report packet), paragraph 5 states that the "driveway for each lot shall be long enough so that parked cars do not extend into the access easement or right-of-way (20 ft. min.)." In fact, the Department of Public Works has agreed to the applicant's request to reduce the minimum length for the parking pads from 20 feet to 18 feet.

H. Process IIB Decisional Criteria

The application for the subdivision and PUD is consistent with all applicable development regulations and, to the extent there is no applicable development regulation, with the Comprehensive Plan. As noted above, it is also consistent with the public health, safety and welfare.

Recommendation:

Based upon the foregoing findings of fact and conclusions, the Hearing Examiner recommends that the City Council approve the Preliminary Subdivision and PUD subject to the conditions set forth in the Staff Report, as revised in paragraph G above.

Entered this 3rd day of June, 2014.

Sue A. Tanner
Hearing Examiner

EXHIBITS:
The following exhibit was entered into the record:

Exhibit A	Department's Advisory Report with Attachments 1 through 11;
Exhibit B	Letter dated May 29, 2014 to David Barnes, from Alex Naparu re: Vintner's West Subdivision
Exhibit C	Nine Photographs showing trees and vegetation along the west property line of proposed lots 27 and 28

PARTIES OF RECORD:
Mike Behn, Applicant
John Mirante, Applicant
Corey Watson, Applicant
Jill McCallum
Elaine L. Berryman
Kevin L. Smith
Liz Parks
Karen Conzen
Parties of Record prior to hearing
Department of Planning and Community Development
Department of Public Works
Department of Building and Fire Services

CHALLENGES AND JUDICIAL REVIEW

The following is a summary of the deadlines and procedures for challenges and appeals. Any person wishing to file or respond to a challenge or appeal should contact the Planning Department for further procedural information.

CHALLENGE

Section 152.85 of the Zoning Code allows the Hearing Examiner's recommendation to be challenged by the applicant or any person who submitted written or oral comments or testimony to the Hearing Examiner. A party who signed a petition may not challenge unless such party also submitted independent written comments or information. The challenge must be in writing and must be delivered, along with any fees set by ordinance, to the Planning Department by 5:00 p.m., June 13, 2014, seven (7) calendar days following distribution of the Hearing Examiner's written recommendation on the application. Within this same time period, the person making the challenge must also mail or personally deliver to the applicant and all other people who submitted comments or testimony to the Hearing Examiner, a copy of the challenge together with notice of the deadline and procedures for responding to the challenge.

Any response to the challenge must be delivered to the Planning Department within seven (7) calendar days after the challenge letter was filed with the Planning Department. Within the same time period, the person making the response must deliver a copy of the response to the applicant and all other people who submitted comments or testimony to the Hearing Examiner.

Proof of such mail or personal delivery must be made by affidavit, available from the Planning Department. The affidavit must be attached to the challenge and response letters, and delivered to the Planning Department. The challenge will be considered by the City Council at the time it acts upon the recommendation of the Hearing Examiner.

JUDICIAL REVIEW

Section 152.110 of the Zoning Code allows the action of the City in granting or denying this zoning permit to be reviewed in King County Superior Court. The petition for review must be filed within twenty-one (21) calendar days of the issuance of the final land use decision by the City.

LAPSE OF APPROVAL

Under KZC 152.115:

The applicant must begin construction or submit to the City a complete building permit application for the development activity, use of land or other actions approved under this chapter within seven (7) years after the final approval of the City of Kirkland on the matter, or the decision becomes void; provided, however, that in the event judicial review is initiated per KZC 152.110, the running of the seven (7) years is tolled for any period of time during which a court order in said judicial review proceeding prohibits the required development activity, use of land, or other actions.

The applicant must substantially complete construction for the development activity, use of land, or other actions approved under this chapter and complete the applicable conditions listed on the notice of decision within nine (9) years after the final approval on the matter, or the decision becomes void.

Under KMC 22.16.010 Final Plat – Submittal – Time limits

If the Final Plat is not submitted to the City Council within the time limits set forth in RCW 58.17.140 it shall be void.

SUBSEQUENT MODIFICATIONS

Modifications to the approval may be requested and reviewed pursuant to the applicable modification procedures and criteria in effect at the time of the requested modification.

CITY OF KIRKLAND
Planning and Community Development Department
123 Fifth Avenue, Kirkland, WA 98033
425.587-3225 - www.kirklandwagov

ADVISORY REPORT
FINDINGS, CONCLUSIONS, AND RECOMMENDATIONS

To: Kirkland Hearing Examiner

From: David Barnes, Project Planner

_____ Eric R. Shields, AICP, Planning Director

Date: May 27, 2014

File: Vintner's West Subdivision and PUD, File SUB13-01508 & ZON13-01509

Hearing Date and Place: May 30, 2014 – 9AM
City Hall Council Chamber
123 Fifth Avenue, Kirkland

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CITY OF KIRKLAND
Hearing Examiner Exhibit
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Department ____
Public ____
FILE # SUB13-01508/ZON13-01509

A

I. INTRODUCTION

A. APPLICATION

1. Applicant: Mike Behn, Quadrant Homes

2. Site Location: 13007 136th Avenue NE (see Attachment 1)

3. Request: The applicant requests approval of a preliminary subdivision and planned unit development (PUD) described below.

   a. Preliminary Subdivision - Proposal to subdivide 6 parcels totaling 5.84 acres into 35 separate lots (see Attachment 2 and 3).

   b. PUD - A request for a preliminary and final Planned Unit Development (PUD) and modification of the following Zoning Code and municipal code requirements:

      (1) Provide smaller lot sizes than the minimum lot size of 3,800 square feet in the RSA 8 Zone for 11 of the 35 lots, with an average lot size of 3,929 square feet.

      (2) Provide lot widths less than the minimum 50' as measured from the back of the required front yard.

      (3) Reduce minimum required front yards to 10 feet and provide a garage setback of 18 feet as measured from the front property line.

      (4) Request to calculate the 50% floor area ratio (FAR) maximum based on the entire site, including open space tracts, rather than on an individual lot basis.

      (5) Request to calculate the 50% lot coverage maximum based on the entire site, including open space tracts, rather than on an individual lot basis.

   Proposed Benefits to the City - Pursuant to Kirkland Zoning Code Chapter 125, Planned Unit Development (PUD) approval criteria (discussed further in Section II.D.2), the applicant's proposal includes the following improvements to address potential impacts or undesirable effects of the PUD and provide benefits to the community that would not typically be required for a subdivision under city codes and regulations. Attachment 2 includes the applicant's analysis, which is summarized as follows:

   (1) Increased Open Space, onsite recreation area and landscaping-

   Common open space is planned with a variety of amenities and is located within tracts A through D. Tract A has an underground stormwater detention vault and on the surface proposes a bocce ball court and picnic area with seating and landscaping and trees around its perimeter. Tract B is connected to Tract A by a path and proposes a swing set and a children's play structure. Tract C proposes a p-patch, orchard trees, open space and separate dog runs for both small and large breeds. Tract D proposes common open space with a connecting path to the development to the south.

   (2) Superior architectural design of homes include a broad mix of homes varying in width from 30-40 feet in width and that offer with options such as hipped roofs, flat entry canopies along with

generous asymmetrical window configurations and appropriate massing offers a contemporary take on the prairie style. Use of gables and well executed hierarchy of forms and detailing is seen on the familiar northwest craftsman. Additionally, elevations that reflect a farmhouse style is achieved with a little more height on street facing gables strategically placed shed roofs and brackets along with welcoming front porches. A diverse collection of materials, such as stone and brick also enhance the modulation of the front façade facing the street.

(3) Superior circulation patterns have been designed along with proposed roadway modifications to only have one access point from 136th Avenue NE. The reduction of access points helps minimize traffic conflicts, while maintaining traffic flow and reducing pedestrian and automobile interactions.

Review Process: Process IIB, Hearing Examiner conducts public hearing and makes recommendation to City Council for final decision.

4. Summary of Key Issues and Conclusions:

Compliance with Kirkland Municipal Code for subdivision requirements, with Zoning Code Approval Criteria for the PUD (see Section II.D), and with applicable development regulations in Attachment 4 (see Section II.E).

B. RECOMMENDATIONS

Based on Statements of Fact and Conclusions (Section II), and Attachments in this report, we recommend approval of this application subject to the following conditions:

1. This application is subject to the applicable requirements contained in the Kirkland Municipal Code, Zoning Code, and Building and Fire Code. It is the responsibility of the applicant to ensure compliance with the various provisions contained in these ordinances. Attachment 4, Development Standards, is provided in this report to familiarize the applicant with some of the additional development regulations. This attachment does not include all of the additional regulations. When a condition of approval conflicts with a development regulation in Attachment 4, the condition of approval shall be followed (see Conclusion II.G).

2. Trees shall not be removed or altered following the plat approval except as approved by the Planning Department. Attachment 4, Development Standards, contains specific information concerning tree retention requirements. Additionally, the applicant is proposing an Integrated Development Plan (IDP) pursuant to KZC 95.30.4 and 95.30.5. The trees that are shown to be saved on the IDP shall be protected and retained (see Attachment 5). The trees not shown as being protected may be removed with an approved grading permit (see Conclusion II.E.4.b).

3. Prior to recording the subdivision, the applicant shall:

   a. Record a covenant on the face of the plat that restricts the total lot coverage to not exceed 45% for all 35 lots and Tracts A, B, C and D. The applicant shall provide tracking of total lot coverage with each building permit in the plat (see Conclusion II.D.4.b).

   b. Record a covenant on the face of the plat that restricts the total floor area ratio (FAR) of all homes to 50% of the area of the 35 lots and Tracts A, B, C and D and all dedicated roads. The applicant shall provide tracking of total floor area with each building permit in the plat

(see Conclusion II.D.4.b).

c. Record on the face of the plat language that establishes equal maintenance responsibilities for all lots served by access Tract E and F.

d. Record a lot line alteration with the development to the south to adjust the project site's boundaries to match the applicant's site plan (see Conclusion II.A.1.b)

e. As part of the land surface modification, the applicant shall:

(1) Install the required improvements as described in Attachment 4 Public Works Comments.

(a) Prior to installing these improvements, plans must be submitted for approval by the Department of Public Works.

(b) In lieu of completing these improvements, the applicant may submit to the Department of Public Works a security device to cover the cost of installing the improvements and guaranteeing installation within one year of the date of final plat approval (see Conclusion II.E.3.b).

(2) Provide a summary sheet for the subdivision illustrating the proposed lot coverage and FAR for each lot and for the overall development to demonstrate that the allowed totals are not being exceeded (see Conclusion II.D.4.b).

(3) As part of the building permit applications for Lots 25 through 29, include plans to install a 6 foot high wood fence along the west property lines and planting plans that indicate that the minimum required tree credits for each lot are generally located along the east property line (see Conclusion II.D.4.b).

II. FINDINGS OF FACT AND CONCLUSIONS

A. SITE DESCRIPTION

1. Site Development and Zoning:

a. Facts:

(1) Size: Currently 6.2 Acres prior to proposed lot line alteration (City File No. LLA14-00720) with property to the south; 5.84 acres after proposed lot line alteration is recorded.

(2) Land Use: The subject property contains 5 dwelling units, overhead PSE towers, and the underground Olympic Pipeline.

(3) Zoning: RSA 8, Residential Single Family with a density of 8 units per acre and a minimum lot size of 3,800 square feet. Based on the parcel size of 254,370 square feet (5.84 acres), the maximum density is 47 units. The proposal includes 35 units.

(4) Terrain: The multi-parcel site slopes gently from the northwest to the southeast.

(5) Vegetation: There are 237 significant on-site trees and 20 significant trees in the right-of-way adjacent to the eastern boundary of the site.

b. Conclusions: Size, Zoning, Terrain and Vegetation are not constraining factors in the review of this application. The lot line alteration will need

to be recorded prior to recording of the proposed subdivision. Land Use is a constraining factor because overhead and underground utilities force the applicant to cluster lots and request the modifications addressed in Section II.D.3.

2. Neighboring Development and Zoning:

   a. Facts: The neighboring properties to the north and south are zoned RSA 8, and the east and west are zoned RSA 6. Most neighboring properties either contain or are in the process of being redeveloped for single- family homes. The property to the south is currently proposed for a 36 lot subdivision (File No. SUB13-02088).

   b. Conclusion: The neighboring development and zoning are not constraining factors in the review of this application. Pedestrian connections are proposed to connect with the proposed subdivision to the south.

B. PUBLIC COMMENT

Fact: The public comment period ran from January 16, 2014 to February 3, 2014. Three public comments were received (see Attachment 6). The comments are summarized and the staff response is below.

Public Comments:

Two citizens that live to the west of the proposed development signed a petition that requests that a privacy screening buffer easement be established in the rear of proposed lots 25 - 29. They suggest that a 15 foot wide buffer should be established and be planted with Leyland cypress trees, six feet on center and located 10 feet to the east of the west property lines of the above referenced lots. The rationale for their request is that King County required a 20 foot screening easement on the rear of their lots when they were developed in the 1980's and they should receive the same consideration with this development proposal.

A second comment was received from a citizen to the north of proposed development and asks about the location of a retaining wall, tree protection for trees on their property and for trees in the rear of proposed lots 21-24. There is concern that wildlife will be affected by their removal.

Staff Response:

The applicant has agreed with a staff request to provide a six foot tall wood fence and plant required trees on the western property lines of lots 25, 26, 27, 28 and 29 to provide additional privacy and screening.

An Integrated Development Plan for tree retention was evaluated by the City's Urban Forester. Through the review of this plan, it was recommended that the applicant modify the retaining wall and protect the offsite trees and the trees located in the rear of proposed lots 21-24. The applicant has since removed the retaining wall on the plans and has shown tree fencing to protect the trees in question as part of the proposed IDP.

C. STATE ENVIRONMENTAL POLICY ACT (SEPA) AND CONCURRENCY

1. Facts: A Determination of Nonsignificance (DNS) was issued on February 20, 2014. This application passed Concurrency on October 9th 2013. The comment and appeal period for both SEPA and Concurrency ended on March 7, 2014. No appeals were received. The Environmental Determination is included

as Attachment 7.

2. Conclusion: The applicant and the City have satisfied the requirements of SEPA.

D. APPROVAL CRITERIA

1. PRELIMINARY PLATS

   a. Facts: Municipal Code section 22.12.230 states that the Hearing Examiner may approve a proposed plat only if:

      (1) There are adequate provisions for open spaces, drainage ways, rights-of-way, easements, water supplies, sanitary waste, power service, parks, playgrounds, and schools; and

      (2) It will serve the public use and interest and is consistent with the public health, safety, and welfare. The Hearing Examiner shall be guided by the policy and standards and may exercise the powers and authority set forth in RCW 58.17.

      (3) Zoning Code section 150.65 states that the Hearing Examiner may approve a proposed plat only if: It is consistent with the all applicable development regulations, including but not limited to the Zoning Code and Subdivision Code, and to the extent there is no applicable development regulation, the Comprehensive Plan.

   b. Conclusion: The proposal complies with Municipal Code section 22.12.230 and Zoning Code section 150.65. It is consistent with the Comprehensive Plan (see Section II.F). With the recommended conditions of approval, it is consistent with the Zoning Code and Subdivision regulations (see Sections II.D) and there are adequate provisions for open spaces, drainage ways, rights-of-way, easements, water supplies, sanitary waste, power service, parks, playgrounds, and schools. It will serve the public use and interest and is consistent with the public health, safety, and welfare because the proposal will create infill residential development while meeting the goals of the Comprehensive Plan.

2. PLANNED UNIT DEVELOPMENT (PUD)

   a. Fact: Zoning Code section 125.35 establishes four decisional criteria with which a PUD request must comply in order to be granted. The applicant's response to these criteria can be found in Attachment 2. Sections 3 through 6 contain the staff's findings of fact and conclusions based on these four criteria.

   b. Conclusions: Based on the following analysis, the application meets the established criteria for a PUD.

3. PUD Criterion 1: The proposed PUD meets the requirements of Zoning Code Chapter 125. Section 125.20 establishes the code provisions that may or may not be modified.

   a. Facts: This PUD proposal seeks the following Zoning and Municipal Code modifications:

      (1) Lot sizes smaller than the minimum lot size of 3,800 square feet.

      (2) Reduce required lot width as measured at the back of the front

yard from 50 feet to 40 feet.

(2) Reduce required front yard setback from 20 feet with garaged setback 28 feet to 10 feet with garages setback 18 feet.

(3) Calculate the maximum 50% lot coverage over the entire site rather than on a lot by lot basis.

(4) Calculate the maximum 50% floor area ratio over the entire site rather than on a lot by lot basis.

b. Conclusion: The requested modifications are not restricted pursuant to KZC Chapter 125.20 and therefore this proposal meets the requirements of KZC Chapter 125.

4. PUD Criterion 2: Any adverse impacts or undesirable effects of the proposed PUD are clearly outweighed by specifically identified benefits to the residents of the city.

a. Facts:

(1) The PUD proposes clustering the lots outside of the utility corridors along the east side of the property and consolidating project open space into large common tracts. The proposed clustering results in reducing the minimum lot size below 3,800 square feet for 11 of the 35 proposed lots. The 11 reduced lots range in size from 2,882 to 3,764 square feet and are located facing internal roads in the subdivision. The remaining lots range in size from 3,826 to 5,545 square feet. The average size of the 35 proposed lots is 3,929 square feet. This clustering also results in lots that are narrower than required by KMC Section 22.28.050.

This clustering could be considered an undesirable design by locating more lots to the west side of the development site.

(2) The setbacks for garages are proposed at 18 feet and the remainder of the structure would be at least 10 feet from the front property line. The potential effect is homes that are closer to the proposed internal street that other homes in the area. However, the proposed homes are setback approximately 125 feet from the external street (136th Avenue NE).

(3) Lot coverage is proposed to be calculated over entire site, less dedicated roads, at a maximum of 45% which will have the effect of more coverage on each lot than the 50% maximum. The individual lots may exceed the allowable lot coverage, but the project as a whole will not.

(4) Floor area ratio (the amount of gross floor area) per lot is limited to 50% of the lot size. Floor area is proposed to be calculated over the entire site, which may have the effect of greater massing on individual lots. The total gross floor area for the development site would not be exceeded.

b. Conclusions:

(1) The proposed reduction in lot sizes, lot width, front yard setbacks, and calculation of lot coverage and floor area ratio over the entire site all allow this proposed development efficiently cluster lots. In turn, clustering allows more flexibility

in creating large usable common open recreational space in tracts A, B, C and D. The potential impacts of smaller, narrower lots and reduced front yards is mitigated by the 125 foot separation from the existing public street. These effects are primarily internal to the proposed development.

Where the result is a concentration of more lots to the west side of the development site, a request from neighbors to the west for screening and planting (see Attachment 6) should be addressed with fencing along the west property line and locating tree credit plantings required by KZC Chapter 95 to be located along the west property line.

(2) With the proposed common open space, the calculation of lot coverage based on the 35 lots and the Open Space tracts A, B, C D and floor area ratio on a project-wide basis results in minimal effect compared to the standard code requirement. Restrictions should be recorded on the face of the plat to limit the amount of impervious surface to 45% as calculated based on the 35 lots and Open Space tracts A, B, C and D the floor area ratio to limited to 50% based on the entire site.

In summary, the adverse or undesirable effects of the proposed PUD are minimal when considered on a project basis. These impacts are clearly outweighed by the identified benefits discussed below.

5. PUD Criterion 3: The applicant is providing one or more of the following benefits to the City as part of the proposed PUD:

- The applicant is providing public facilities that could not be required by the City for development of the subject property without a PUD.

  Staff Response: Not applicable.

- The proposed PUD will preserve, enhance or rehabilitate natural features of the subject property such as significant woodlands, wildlife habitats or streams that the City could not require the applicant to preserve, enhance or rehabilitate through development of the subject property without a PUD.

  Staff Response: Not applicable.

- The design of the PUD incorporates active or passive solar energy systems.

  Staff Response: Not applicable.

- The design of the proposed PUD is superior in one or more of the following ways to the design that would result from development of the subject property without a PUD:

  - Increased provision of open space or recreational facilities.

    Staff Response: This proposal meets this criteria. See discussion below.

  - Superior circulation patterns or location or screening of parking facilities.

    Staff Response: This proposal meets this criteria. See discussion below.

  - Superior landscaping, buffering, or screening in or around the

proposed PUD.

Staff Response: Not applicable.

- Superior architectural design, placement, relationship orientation of structure.

  Staff Response: The proposal does not meet this criteria. See discussion below.

- Minimum use of impervious surfacing materials.

  Staff Response: Not applicable.

a. Facts: The design of the proposed subdivision is superior in the following ways to the design that would result from development of the subject property without a PUD:

(1) The subdivision and PUD proposal provides increased open space and recreation facilities. A subdivision does not require common open space or recreational facilities. This proposal is a providing a combination of both and providing approximately 64,252 square feet of open space (30% of the site) that will include common amenities for the homeowners such as dog runs, p-patch garden, fruit bearing trees, a children's play area, open grassed lined areas, a zip line along with a bocce ball court and significant internal plantings and landscaping.

(2) The subdivision and PUD proposal provides superior circulation. The applicant has limited access to 136th Avenue NE to a single consolidated access street rather than multiple curb-cuts and driveways.

(3) *The PUD proposal provides superior architecture and site design.* The application includes an assessment that that the PUD proposal meets this criteria (see Attachment 2). Attachment 8 shows the home plan design options submitted for the home sites. Staff does not find that the single family architecture of the proposed PUD is notable superior to what occurs in the community without a PUD.

b. Conclusion: Staff concludes that the proposal includes superior plat design that would not be required in a subdivision. The proposed benefits to the neighborhood and the city outweigh the impacts of the requested modifications and therefore, the PUD should be approved.

6. PUD Criterion 4: Any PUD which is proposed as special needs housing shall be reviewed for its proximity to existing or planned services (i.e., shopping centers, medical centers, churches, parks, entertainment, senior centers, public transit, etc.

a. Fact: Not applicable. Special needs housing is not proposed.

E. DEVELOPMENT REGULATIONS

1. Provisions for Public and Semi-Public Land

a. Facts: Municipal Code section 22.28.020 states that the City may require dedication of land for school sites, parks and open space, rights-of-way, utilities infrastructure, or other similar uses if this is reasonably necessary as a result of the subdivision.

(1) Zoning Code section 110.60 states that the Public Works Director may require the applicant to make land available, by dedication, for new rights-of-way and utility infrastructure if this is reasonably necessary as a result of the development activity.

(2) Attachment 4, Development Regulations (Public Works) describes the required dedications for rights-of-way for this subdivision.

b. Conclusion: Pursuant to Municipal Code section 22.28.020 and Zoning Code section 110.60, the applicant should follow Public Works requirements for Street and Pedestrian improvements as described in Attachment 4, Development Regulations. These improvements are necessary as a result of the proposed development activity.

2. General Lot Layout and Site Development Standards

a. Facts:

(1) Municipal Code section 22.28.030 requires all lots to meet the minimum size requirements established for the property in the Kirkland Zoning Code or other regulatory documents. The applicant has requested through the PUD process to provide lots smaller than the minimum lot size of 3,800 square feet (lots range in size from 2,882 to 5,545 square feet with an average of 3,929 square feet). See Section II.D regarding the PUD request for smaller lot sizes.

(2) Municipal Code section 22.28.050 states that lots must be of a shape so that reasonable use and development may be made of the lot. Generally, the depth of the lot should not be more than twice the width of the lot. In no case should a lot be less than fifteen feet in width where it abuts the right-of-way, vehicular access easement or tract providing vehicular access to subject lot. For lots smaller than 5,000 square feet in size located in "low density zones" as defined in the Zoning Code, the lot width at the back of the required front yard shall be no less than 50' (unless the lot is a flag lot or a covenant is signed prior to plat recording ensuring that the garage will be located at the rear of the lot). The applicant has requested through the PUD process to provide lots that are at least 40' in width at the back of the required front yard (lot widths range from 40' to 57'). See Section II.D regarding the PUD request for smaller lot widths.

(3) Municipal Code section 22.28.070 states that, generally, blocks should not exceed five hundred feet in length.

(4) The fundamental site development standards pertaining to a detached dwelling unit in a low density zone are set forth in Zoning Code section 18.10.010.

b. Conclusion: With the approval of the PUD requests for a reduction in the minimum lot size and width, the proposal complies with the lot and dimension regulations as set forth in Municipal Code section 22.28.050 and the special regulations of KZC section 18.10.010.

3. Bonds and Securities

a. Facts:

(1) Municipal Code section 22.32.080 states that in lieu of installing

all required improvements and components as part of a plat or short plat, the applicant may propose to post a bond for a period of one year to ensure completion of these requirements within one year of the decision approving the plat or short plat.

(2) Zoning Code section 175.10.2 establishes the circumstances under which the City may consider the use of a performance security in lieu of completion of certain site work prior to occupancy. The City may consider a performance security only if: the inability to complete work is due to unavoidable circumstances beyond the control of the applicant; there is certainty that the work can be completed in a reasonable period of time; and occupancy prior to completion will not be materially detrimental to the City or properties adjacent to the subject site.

b. Conclusions:

(1) Site and right-of-way improvements required as a result of the plat should be completed prior to recording, unless a security device to cover the cost of installing the improvements and guaranteeing installation within one year of the date of final plat approval is submitted.

(2) In order to ensure timely completion of all required site and right-of-way improvements, such improvements should be completed prior to occupancy, unless the applicant can demonstrate compliance with the criteria in Zoning Code section 175.10.2.

4. Natural Features - Significant Vegetation

a. Facts:

(1) The applicant has submitted a Tree Plan, prepared by a certified arborist (see Attachment 9). Specific information regarding the tree density on site and the viability of each tree can be found in Attachment 4, Development Standards.

(2) The applicant has opted to submit an Integrated Development Plan (KZC 95.30.4) rather than applying for Phased review (KZC 95.30.6.a), which allows the City to consider specific tree retention and removals at the time of Plat approval.

(3) The City's Arborist has reviewed this plan and the specific recommendations concerning tree retention, removals and site modifications have been incorporated into the applicant's IDP (see Attachment 5 for IDP and Attachment 10 for City Arborist Memorandum).

(4) KZC 95.33 requires that all lots individually meet the tree density minimum.

b. Conclusions:

With the recommended conditions of approval, the proposed tree

retention plan complies with applicable City requirements. The applicant should retain all viable trees as shown on the IDP through the completion of all phases of development and meet the tree density requirements for each lot.

F. COMPREHENSIVE PLAN

1. Fact: The subject property is located within the Kingsgate neighborhood. Figure LU-1, Comprehensive Land Use Map, on page VI-5 designates the subject property as LDR-8, low density residential use, 8 dwelling units per acre (see Attachment 11). The proposed density is 5.98 dwelling units per acre.

2. Conclusion: The proposal meets the goals and intent of the Comprehensive Plan.

G. DEVELOPMENT STANDARDS

1. Fact: Additional comments and requirements placed on the project are found on the Development Standards, Attachment 4.

2. Conclusion: The applicant should follow the requirements set forth in Attachment 4.

III. SUBSEQUENT MODIFICATIONS

Modifications to the approval may be requested and reviewed pursuant to the applicable modification procedures and criteria in effect at the time of the requested modification.

IV. CHALLENGES AND JUDICIAL REVIEW

The following is a summary of the deadlines and procedures for challenges and judicial review. Any person wishing to file or respond to a challenge should contact the Planning Department for further procedural information.

A. CHALLENGE

Section 152.85 of the Zoning Code allows the Hearing Examiner's recommendation to be challenged by the applicant or any person who submitted written or oral comments or testimony to the Hearing Examiner. A party who signed a petition may not challenge unless such party also submitted independent written comments or information. The challenge must be in writing and must be delivered, along with any fees set by ordinance, to the Planning Department by 5:00 p.m., _____, seven (7) calendar days following distribution of the Hearing Examiner's written recommendation on the application. Within this same time period, the person making the challenge must also mail or personally deliver to the applicant and all other people who submitted comments or testimony to the Hearing Examiner, a copy of the challenge together with notice of the deadline and procedures for responding to the challenge.

Any response to the challenge must be delivered to the Planning Department within seven (7) calendar days after the challenge letter was filed with the Planning Department. Within the same time period, the person making the response must deliver a copy of the response to the applicant and all other people who submitted comments or testimony to the Hearing Examiner.

Proof of such mail or personal delivery must be made by affidavit, available from the Planning Department. The affidavit must be attached to the challenge and response letters, and delivered to the Planning Department. The challenge will be considered by the City Council at the time it acts upon the recommendation of the Hearing Examiner.

B. JUDICIAL REVIEW

Section 152.110 of the Zoning Code allows the action of the City in granting or denying this zoning permit to be reviewed in King County Superior Court. The petition for review must be filed within twenty-one (21) calendar days of the issuance of the final land use decision by the City.

V. LAPSE OF APPROVAL

Under KZC 152.115:

The applicant must begin construction or submit to the City a complete building permit application for the development activity, use of land or other actions approved under this chapter within seven (7) years after the final approval of the City of Kirkland on the matter, or the decision becomes void; provided, however, that in the event judicial review is initiated per KZC 152.110, the running of the seven (7) years is tolled for any period of time during which a court order in said judicial review proceeding prohibits the required development activity, use of land, or other actions.

The applicant must substantially complete construction for the development activity, use of land, or other actions approved under this chapter and complete the applicable conditions listed on the notice of decision within nine (9) years after the final approval on the matter, or the decision becomes void.

Under KMC 22.16.010 Final Plat – Submittal – Time limits

If the Final Plat is not submitted to the City Council within the time limits set forth in RCW 58.17.140 it shall be void.

VI. APPENDICES

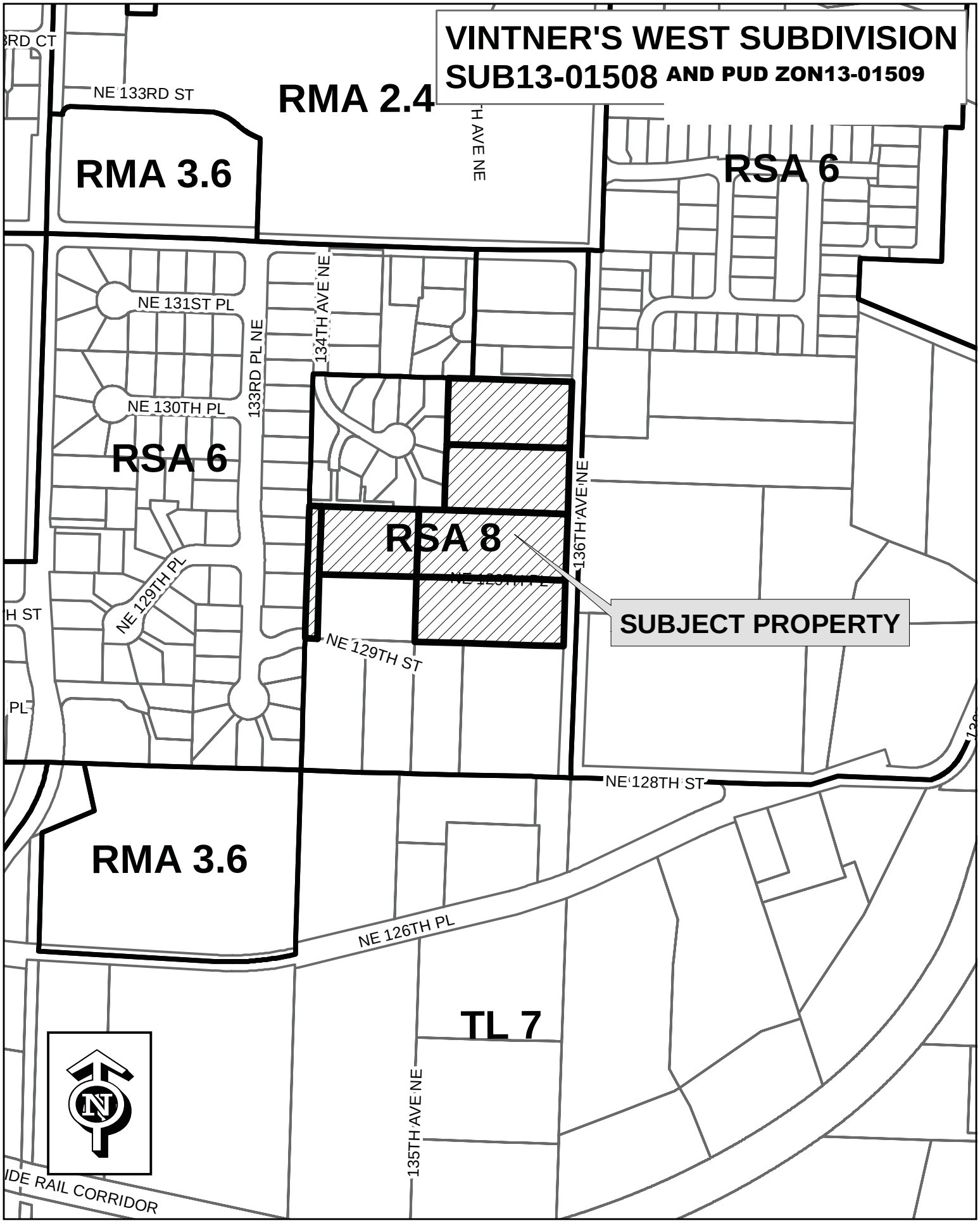
Attachments 1 through 11 are attached.

1. Vicinity Map
2. Project Description and Response to PUD approval criteria
3. Project Plans (revised 04/30/14)
4. Development Standards
5. Integrated Development Plan (IDP)
6. Comment letters
7. SEPA Determination
8. House Floor Plans
9. Arborist Report from Susan Prince, revised 04/29/14
10. Memorandum from Tom Early, City Arborist dated May 12, 2014
11. City of Kirkland Land Use Map

VII. PARTIES OF RECORD

Applicant Mike Behn, Quadrant Homes
Parties of Record
Department of Planning and Community Development
Department of Public Works
Department of Building and Fire Services

A written recommendation will be issued by the Hearing Examiner within eight calendar days of the date of the open record hearing.


VINTNER'S WEST SUBDIVISION
SUB13-01508 AND PUD ZON13-01509
RMA 2.4
RMA 3.6
RSA 6
RSA 6
RSA 8
RMA 3.6
TL 7
SUBJECT PROPERTY
NE 133RD ST
NE 131ST PL
NE 130TH PL
133RD PL NE
134TH AVE NE
136TH AVE NE
NE 129TH PL
NE 129TH ST
NE 128TH ST
NE 126TH PL
135TH AVE NE
IDE RAIL CORRIDOR
N

Vintners West

Planned Unit Development – Preliminary Plat

Project Narrative / Benefit Analysis
November 18, 2013
(rev. May 15, 2014)

I. Project Description

Site Description

Quadrant Homes is redeveloping the Vintners West site into a 35 lot single family Planned Unit Development (PUD). The site consists of 5.84 acres, and is comprised of five parcels, with five existing homes, and numerous outbuildings. The project is bounded by 136th Ave NE to the east, and developed single family residences to the north, and west. The eastern 100 feet of the site is encumbered by overhead power lines and underground gas lines as part of the Olympic Pipeline. The site gently slopes primarily from the north to the south. Vegetation consists primarily of a combination of residential landscaping with some forested areas. Existing trees are a combination of evergreen, deciduous with some fruit and ornamental trees. There are no critical areas (stream, wetlands or steep slopes) on or adjacent to the site. Access to the site is currently obtained via three private gravel driveways directly off of 136th Ave NE. The site is currently served by public water. The existing residences all have septic drain fields.

The site boundary as depicted on the maps and other submittal materials is based upon completion of a Lot Line Adjustment (LLA) between three different properties. The LLA involves portions of properties off site associated with the adjacent development to the south. The LLA is proposed in order to provide more efficient developments between the developer to the south and Quadrant Homes.

Neighborhood

The proposed development is within the Evergreen Hill neighborhood. Zoning for the site is RSA-8 as are properties to the south, north and west. Properties to the east across 136th Ave. N.E. are zoned RSA-6. Sites to the east are currently under development; one of which includes the MOMCO subdivision. Property to the south is currently in the planning stages and is anticipated to have a subdivision application in with the City shortly. Existing developments to the west include Meadowview, and Wethersfield. To the north is the existing Allison Estates subdivision.

Proposed Site Plan

The proposed PUD has been carefully designed to include a variety of homes, on a variety of lots. Lot sizes range in size from 3,178 up to 5,666. Housing types include standard two story, Daylight Basement, and Drop Garage units. Home widths vary throughout the development from smaller 30' wide product up to widths of 40' in order to provide a wide variety of product throughout the street scape, avoiding the "cookie cutter" approach to development.

Home designs have been included in the submittal material. You will note that the proposed homes provide alternate streetscapes, elevations and appearances such that the development provides a visually interesting yet unified cohesive community. While these detailed plans have been incorporated into the site design, specific plans may vary depending on the buyer's wishes and demands.

Parks and Open Space

A large amount, 1.5 acres (27%), of passive and active open space has been provided by the development. The project has taken an aggressive approach to utilizing the existing utility easements amenities for not just the residents of the proposal, but for the whole neighborhood. This includes open space recreation elements such as:

- Dog Run
- Orchards
- Pea Patch
- Open, grassed Play Areas
- Bocce / Horseshoe court
- Picnic areas
- Walking trails
- Play Equipment
- Zip Line

Architectural Design

Quadrant's latest offering of *Built Your Way* plans are thoughtfully designed with superior livability in mind. Always designed for comfort, usability and flexibility, this latest offering expresses a contemporary aesthetic take on the traditional styles of Prairie, Craftsman and Farm House. Particular attention has been paid to ensure a diverse collection of elevations will result in an interesting and relatable community. Hipped roofs and flat entry canopies along with generous asymmetrical window configurations and appropriate massing result in contemporary take on the prairie style. Use of gables and well executed hierarchy of forms and detailing is seen in our current take on the familiar northwest craftsman. Additionally, elevations that reflect a farmhouse style is achieved with a little more height on street facing gables strategically placed shed roofs and brackets along with welcoming front porches. The underlying premise of our newest designs can be seen throughout the homes in their openness, clean lines and connection to the neighborhoods we create.

Landscaping

The Site contains many significant trees, with stands existing along the projects frontage of 136th Ave N.E., and along the northern and western boundaries. Mass site grading will make it quite difficult to save and stands of trees, and leaving trees in a singular fashion will only present potential dangers to the neighbors and the future home owners. The best opportunity to save existing trees is under the power lines and along the project frontage. The proposal also includes making aggressive adjustments to the sidewalk along 136th in order to assist in the retention of 8 mature trees, providing a wooded buffer adjacent to the proposed recreation areas and the existing road frontage.

In addition to saving these trees the development will be planting

Circulation and Parking

Access to the site has been proposed in common with the proposed development across the street. Site improvements will include 24' of pavement which allows for parking on one side. A planter and sidewalk is proposed along the north side of Road A, and west side of Road B. Frontage improvements within 136th include widening to provide 32 feet of pavement from curb line to curb line, a variable width planter, and a 5' meandering sidewalk placed in order to retain as many of the existing trees as feasible.

Most of the homes will front internal public streets. 4 homes will be provided access via proposed tract roads. These tract roads (Tracts E and F) consist of a 21' wide tract with 16 and 20 feet of pavement respectively. These tract roads will be privately owned and maintained jointly by the lots they serve.

Internal access will terminate with a cul-de-sac to the west in Road B and a hammerhead type turnaround to the north in Road A. While both of these roads provide no through connection for vehicular traffic, through connections for pedestrians is provided for to the south and north. A pedestrian trail is provided at the terminus of Road B, within Tract D. This walkway will connect the proposed Vintners West project to the existing developments to the west, and to the proposed

development to the south. A pedestrian connection is also provided at the end of Road A, connecting it with the recreation elements within Tract C and the proposed walkway along 136th Ave NE.

Each home will provide a minimum of 2 off street parking spaces in the garage. Garages will be set back a minimum of 18' from the right of way there for allowing for an additional two stalls in front of each home.

The project has passed traffic concurrency and level of service is not diminished.

Safe walk conditions are available to school children.

Utilities

Site utilities are easily incorporated into the regional systems already in place. Drainage from the proposal will be collected and routed to a storm detention and water quality system to be constructed with proposed Tract A. The Facility will include a storm vault, that is covered, which will allow the area above to be utilized as recreation area as well.

Sewer for the development will be provided through the extension of a sewer main proposed as part of the MOMCO development. Water will be connected from to the existing line within 136th Ave NE, run through the site and provide a connection to the water main located in the Meadowview development to the southwest through the proposed development to the south.

II- Modifications Proposed through the PUD Process

City of Kirkland Zoning Code (KZC) section 125.20 details what elements may be modified with a PUD application. The following elements are requested as modifications to the PUD that would otherwise not be allowed in a standard subdivision:

- Minimum Lot Size
- Minimum Lot Width
- Front Building Setbacks
- Floor Area Ratio (FAR)
- Lot Coverage

The City may modify any of the provisions of the code for a PUD except:

1. The City may not modify any of the provisions of this chapter; and
2. The City may not modify any provision of this code that specifically states that its requirements are not subject to modifications under a PUD; and
3. The City may not modify any of the procedural provisions of this code; and
4. The City may not modify any provision that specifically applies to development on a regulated slope; and
5. The City may not modify any provision pertaining to the installation and maintenance of storm water retention/detention facilities; and
6. The City may not modify any provision pertaining to the installation of public improvements; and
7. The City may not modify any provision regulating signs; and
8. The City may not modify any provision regulating the construction of one (1) detached dwelling unit.

Minimum Lot Size

Requested Modification: Minimum lot size be measured as an average of the total lot area, plus all open space not encumbered by existing easements or the proposed detention facility.

The minimum lot size for the RSA-8 zone is 3,800 square feet.

Allowing this average allows the development to provide additional area for recreation, and common use by the residents and the public, while not reducing the lot yield allowed by the underlying zone. This also allows for smaller lots below the average to be developed adjacent to larger lots above the average which provides for a diverse development, with cohesive elements.

Please refer to the attached spreadsheet showing how the project as proposed will comply.

Minimum Lot Width

Requested Modification: The lot width at the back of the required front yard shall not be less than forty feet.

The required lot width per KZC 22.28.50 is 50 feet. We are requesting it be reduced by 10 feet.

The existing utility easements of 100' and the required additional building setback of 25' from the gas pipe line, have hindered this projects ability to be developed to its full potential. This has entailed development of lots closer to the minimum allowed in the zone.

The minimum lot area (3,800 sf) for the RSA 8 zone would seem to lend itself to a general reduction in the lot width, but the code does not allow for this.

Allowing this reduction allows the development to provide additional area for recreation, and common use by the residents and the public, while not reducing the lot yield allowed by the underlying zone. This also allows for smaller lots to be developed adjacent to larger lots which provides for a diverse development, with cohesive elements.

Front Building Setbacks

Requested Modification: We are requesting that the front building setbacks be reduced as follows:

- 18' for garage
- 10' for living spaces

Site constraints in conjunction with Public Works requirements greatly impact the ability of the site to be developed to its maximum potential, in a cohesive and attractive manner.

Existing site constraints in the northern portion of the site include the following; Existing utility easements of 100' and the required additional building setback of 25' from the gas pipe line. These elements in conjunction with Public Works desire to have a north south road only allow for a total of 72' of effective lot depth on either side of the road. The requested reduction will allow, but not require, up to 10 additional feet of living space or covered porch along each lots frontage, while also allowing for projections in front of the garage, therefor avoiding predominately garage door frontages for every lot. Design details in the homes' architecture including columns, trellises, windows, and / or surface treatments, would also serve to minimize the dominant appearance of the garage.

Quadrant Homes would minimize the appearance of the garage in its use of materials and massing on each of the elevations for each product width. The attached sample home plans show the use of horizontal and vertical siding as well as stone and brick in different heights to provide visual interest.

Multiple roof lines, porches, and cantilevered projections over the garage also reduce its prominence. In some cases, portions of the homes or their porches extend beyond the front of the garage. Combining all of these elements together will provide a wide and unique range of homes in the community.

Floor Area Ratio (FAR)

Requested Modification: We are requesting that the FAR for the project be evaluated and measured on a site wide basis, including all open space tracts, at 50%.

Chapter 125.20 of the KZC allow for provisions of the code to be modified when a PUD is proposed that is innovative or includes amenities that are otherwise beneficial to the project. Our request that the FAR be measured on a site wide basis, including the Open Space Tracts, reflects the fact that the areas within the proposed tracts are not required to be provided under a standard subdivision. The project includes over 1.5 acres of common open space that is not required. Included within the open space are multiple benefits as listed previously, which are also not required.

The applicant also recognizes that a more holistic approach would provide for a better community. A standard subdivision would most likely yield a number of lots that would be larger, and others that are substantially smaller. Application of the FAR on an individual lots basis would promote significantly large homes on some lots, and significantly smaller homes on others. This approach would promote a fragmented neighborhood. Application of the FAR on an individual lot basis would also promote far more mass in the project as a whole.

The proposed modification actually would promote a more unified, yet diverse development promoting a progressive neighborhood atmosphere.

Lot Coverage

Requested Modification: We are requesting that the Lot Coverage be evaluated and measured on a site wide basis, including all open space tracts, at 45%.

As detailed and explained previously a large amount of area has been provided in open space tracts that would not be required as part of a standard subdivision. The requested modification to allow the percentage to be calculated using the provided open space tracts actually provides less impervious area in comparison to what would be allowed under a standard subdivision where 50% is allowed, but on a lot by lot basis.

III PUD Conformance Criteria

KZC 125.35 states that the City may approve a PUD only if it finds all of the following requirements are met:

1. *The proposed PUD meets the requirements of this chapter.*
2. *Any adverse impacts or undesirable effects of the proposed PUD are clearly outweighed by specifically identified benefits to the residents of the City.*
3. *The applicant is providing one or more of the following benefits to the City as part of the proposed PUD:*
    a. *The applicant is providing public facilities that could not be required by the City for development of the subject property without a PUD.*
    b. *The proposed PUD will preserve, enhance or rehabilitate natural features of the subject property such as significant woodlands, wildlife habitats or streams that the*

City could not require the applicant to preserve enhance or rehabilitate through development of the subject property without a PUD.

c. *The design of the PUD incorporates active or passive solar energy systems.*
d. *The Design of the proposed PUD is superior in one or more of the following ways to the design that would result from development of the subject property without a PUD:*
    i. *Increased provision of open space or recreational facilities.*
    ii. *Superior circulation patterns or location of screening of parking facilities.*
    iii. *Superior landscaping, buffering, or screening in or around the PUD.*
    iv. *Superior architectural design, placement, relationship or orientation of structure.*
    v. *Minimum use of impervious surfacing materials.*

4. *Any PUD which is proposed as special needs housing shall be reviewed for its proximity to existing or planned services (i.e. shopping centers, medical centers, churches, parks, entertainment, senior centers, public transit, etc.)*

Consistency with the PUD Criteria:

1. *The proposed PUD meets the requirements of this chapter*

    The following responses to the approval criteria, in concert with the submittal materials will demonstrate that the project meets the requirements or the chapter.

2. *Any adverse impacts or undesirable effects of the proposed PUD are clearly outweighed by specifically identified benefits to the residents of the City.*

    The terms that we need to analyze are "impacts" or "undesirable effects." In order to approve the PUD as a subdivision overlay, public benefits must exceed the level of impact from the differing component.

    An impact is the effect of the differing component, not the component itself. In the Case of Vintners West the differing components are:

    - Minimum Lot Size
    - Minimum Lot Width
    - Front Building Setbacks
    - Floor Area Ratio (FAR)
    - Lot Coverage

    The effect of the above is that the homes will be closer to the internal project streets (Roads A and B.) Existing properties along the project boundaries are not affected by the request. What is the effect of the reduced separation? While there may be a visual difference it is minor and un-noticeable.

    This difference must be weighed in comparison to the identified benefits of the PUD. The proposed benefits have been identified are publically accessible and improved open space. The project is providing over 1.5 acres of improved open space. Improvements include the following elements:

    - Dog Run
    - Orchards
    - Pea Patch
    - Open, grassed Play Areas

- Bocce / Horseshoe court
- Picnic areas
- Walking trails
- Play Equipment
- Zip Line

None of the above elements are required as part of a standard subdivision, and clearly outweigh the negligible impacts associated with the requested modifications.

KMC 27.06.010 Findings and Authority
The city council finds and determines that new residential growth and development in the city will create additional demand and need for public facilities (parks) in the city and finds that new residential growth and development should pay a proportionate share of the cost of new public facilities needed to serve the new growth and development. The city has conducted an extensive study documenting the procedures for measuring the impact of new residential development on public facilities and has prepared a rate study. The city council accepts the methodology and data contained in the rate study. Therefore, pursuant to Chapter 82.02 RCW, the city council adopts this chapter to assess impact fees for public facilities.

Pursuant to the above code section The City of Kirkland recognizes that public parks are a finite resource to be scaled up with population. The City has established an impact fee system. Park Impact Fees fund the parks needs of a growing City.

By providing substantial on site recreation, the proposed park areas will reduce use and impacts on other City facilities. It should also be noted that the project will also pay mitigation fees for impacts to parks, with no requested credit.

Tract A also serves as a detention facility with an underground vault. Some may argue that it would be required anyway and no additional benefit is provided. The same facility could be built as a pond, with no lid, therefore providing no opportunity for recreation in the same area. In addition the area would be fenced and access eliminated for the public.

Some may say that Tracts B and C are encumbered with power lines and gas mains and are not able to be developed. This is true, but there is no requirement that they be set aside for public use, or have public improvements as proposed. These areas could just as easily be incorporated into the lots allowing for large lots, with expansive building s dwarfing in scale the surrounding homes.

Architectural Excellence

Quadrant Homes has been a part of building great neighbors and delivering quality homes in the Puget Sound for more than forty years. Over the years Quadrant has listened and adapted to buyer's needs. It is with that mindset that we created the Built Your Way brand to offer home buyer and unparalleled choice of plans, personalization through product and feature selections and even customization. As described above, Quadrant Homes' proposed product line would feature a mix of 30', 35', and 40' wide homes with a variety of siding, materials, massing and articulation. In addition, windows, casings, and grids are used for complementary effect. The variety of types and designs will ensure an appealing streetscape. We look forward to working with city staff to bring these compelling new homes to the Vintners project and future locations in the city.

3. *The applicant is providing one or more of the following benefits to the City as part of the proposed PUD:*

   a. *The applicant is providing public facilities that could not be required by the City for development of the subject property without a PUD.*

      N/A

   b. *The proposed PUD will preserve, enhance or rehabilitate natural features of the subject property such as significant woodlands, wildlife habitats or streams that the City could not require the applicant to preserve enhance or rehabilitate through development of the subject property without a PUD.*

      N/A

   c. *The design of the PUD incorporates active or passive solar energy systems.*

      N/A

   d. *The Design of the proposed PUD is superior in one or more of the following ways to the design that would result from development of the subject property without a PUD:*

      i. *Increased provision of open space or recreational facilities.*

         If the project was not developed as a PUD, the 1.5 acres of open space would not be provided. In addition the public access would not be made available, and the proposed improvements would not be a part of the application

      ii. *Superior circulation patterns or location of screening of parking facilities.*

         The specific elements we have requested modification to, in conjunction with the proposed roadway modification are allowing the development to occur with only one access point off of 136th Ave. NE. This reduction of access points helps minimize potential traffic situations, and maintains the flow for vehicular traffic. This configuration also minimizes interaction between traffic and pedestrians.

      iii. *Superior landscaping, buffering, or screening in or around the PUD.*

         N/A

      iv. *Superior architectural design, placement, relationship or orientation of structure.*

         Home Design are of high quality and preliminary designs for the homes are provided for staff review. None of the homes are oriented toward perimeter streets. The designs of the homes and the neighborhood will be an asset to the area.

      v. *Minimum use of impervious surfacing materials.*

         N/A

4. *Any PUD which is proposed as special needs housing shall be reviewed for its proximity to existing or planned services (i.e. shopping centers, medical centers, churches, parks, entertainment, senior centers, public transit, etc.)*

   N/A

Closing

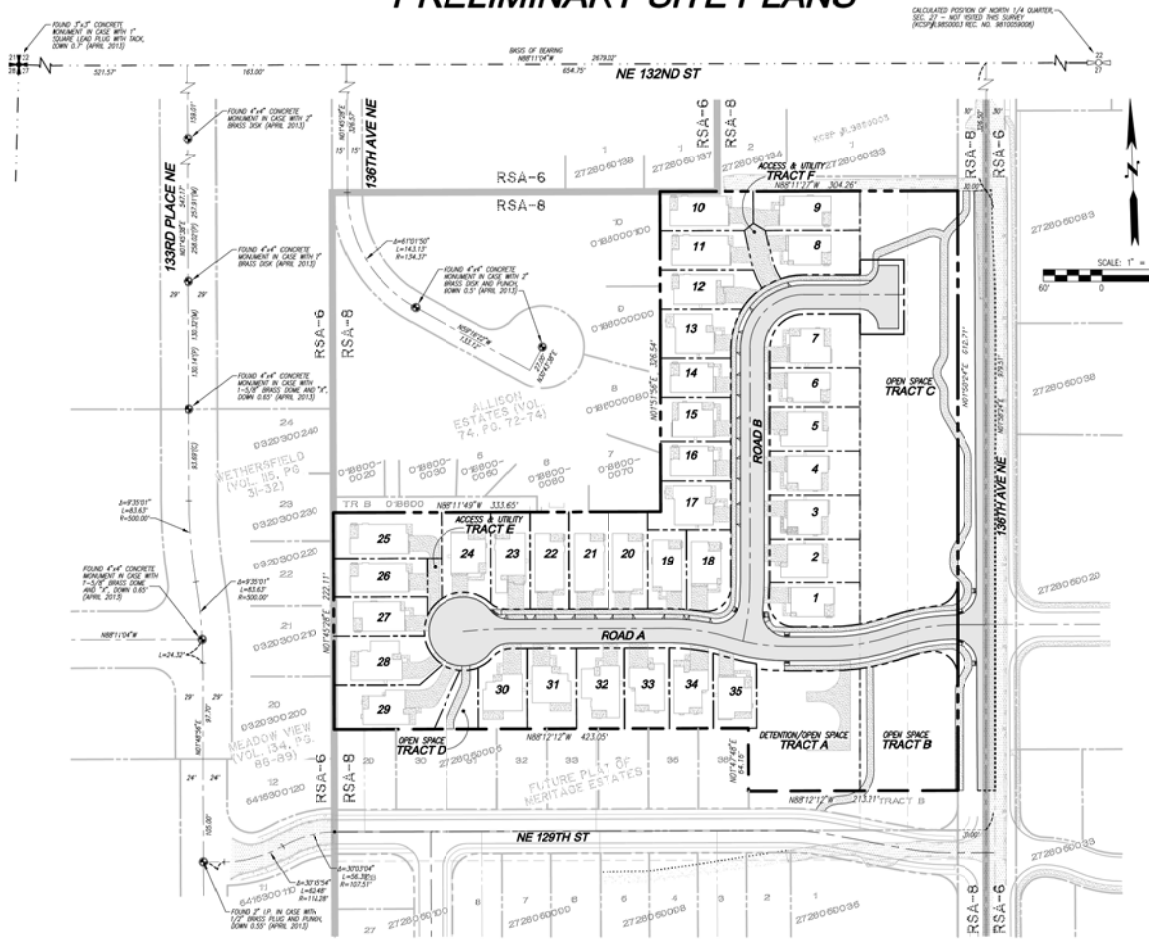
As proposed, and demonstrated in the submitted materials, the Vintners West PUD will provide many assets to the residents of the project, the neighborhood, and the City. The provided open space will be available for use in both passive and active uses. These elements will be ad to the character of the neighborhood and go beyond those elements required as part of a standard subdivision. As such is should be approved.

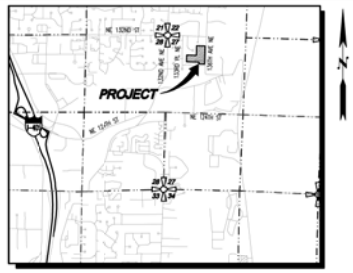
John Mirante
Senior Planner

NW 1/4, NW 1/4, SEC 27, TWN 26 N, RGE 5 E, W.M., CITY OF KIRKLAND, KING COUNTY, WASHINGTON

VINTNERS WEST PUD

PRELIMINARY SITE PLANS





VICINITY MAP
SCALE: 1"=2000'

LEGEND AND ABBREVIATIONS

EXISTING SYMBOLS

SYMBOL	DESCRIPTION
•	IRON PIPE FOUND
○	IRON PIPE SET
	MONUMENT FOUND
	MONUMENT CALC'D
	REBAR & CAP
	SECTION CORNER FOUND
	SECTION CORNER CALC'D
	SECTION QTR CORNER FOUND
	SECTION QTR CORNER CALCED
MB	MAILBOX
	POST
	SIGN
±X' ROCKERY	ROCKERY
100	TREE CONIFEROUS
101	TREE DECIDUOUS
AV	AIR VALVE
BO	BLOW-OFF
CB	CATCH BASIN
SDMH	STORM MANHOLE
	CULVERT
FH	FIRE HYDRANT
	GAS VALVE
	GUY ANCHOR
PT	POWER TRANSFORMER
	SEWER MANHOLE
TEL	TELCO RISER
UP	UTILITY POLE
WM	WATER METER
	WATER VALVE
PV	POWER VAULT

PROPOSED STORM SYMBOLS

SYMBOL	DESCRIPTION
C	SD CAP
	TYPE 1 CATCH BASIN, GRATED LID
	TYPE 1 CATCH BASIN, SOLID LID
	TYPE 2 CATCH BASIN, GRATED LID
	TYPE 2 CATCH BASIN, SOLID LID
	BEEHIVE MANHOLE COVER
	SQUARE YARD DRAIN
	ROUND YARD DRAIN
	STORM CLEAN OUT
	STORM PIPE

PROPOSED SEWER SYMBOLS

SYMBOL	DESCRIPTION
C	SEWER CAP
	SEWER CLEANOUT
	SEWER MANHOLE
	SEWER PIPE

PROPOSED WATER SYMBOLS

SYMBOL	DESCRIPTION
C	WATER CAP
	CONCRETE BLOCKING
	BUTTERFLY VALVE
	BEND
	VALVE
	HYDRANT ASSEMBLY
	BLOW-OFF VALVE
	REDUCER
	AIR-VAC ASSEMBLY
	WATER METER
	WATER PIPE

PROPOSED SURVEY SYMBOLS

SYMBOL	DESCRIPTION
	SURVEY MONUMENT IN PROPOSED ROAD

ABBREVIATIONS

CB	CATCH BASIN	MON	MONUMENT AS NOTED
℄	CENTERLINE	℗	PROPERTY LINE
CLF	CHAIN LINK FENCE	PP	POWER POLE
CMP	CORRUGATED METAL PIPE	PVC	POLYVINYL CHLORIDE PIPE
CONC	CONCRETE	R/C	REBAR AND CAP AS NOTED
CP	CONCRETE PIPE	R/W	RIGHT-OF-WAY
CPEP	CORRUGATED POLYETHYLENE PIPE	RCP	REINFORCED CONCRETE PIPE
EL	ELEVATION	STA	STATION
EXIST.	EXISTING	SD	STORM DRAIN
FND	FOUND	SFR	SINGLE FAMILY RESIDENCE
℄	FLOWLINE	SS	SANITARY SEWER
I.P	IRON PIPE #5 NOTED	SSMH	SANITARY SEWER MANHOLE
IE	INVERT ELEVATION	SWPE	SOLID WALL POLYETHYLENE PIPE
		TYP	TYPICAL

CONTACT LIST

OWNER/APPLICANT:
QUADRANT CORPORATION
14725 SE 36TH ST, STE 100
BELLEVUE, WASHINGTON 98006
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PHONE: (425) 452-6563
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SURVEYOR:
LDC, INC.
14201 NE 200TH ST #100
WOODINVILLE, WASHINGTON 98072
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ANDREWS LANDSCAPE ARCHITECTS
911 WESTERN AVE, SUITE 301
SEATTLE, WASHINGTON 98104
CONTACT: DAVE ANDREWS, RLA
PHONE: (206) 405-2547

PROJECT INFORMATION

SITE ADDRESSES:	13520 NE 129TH PL, KIRKLAND, WA 98034 13027 136 AVE NE, KIRKLAND, WA 98034 13007 136 AVE NE, KIRKLAND, WA 98034 13512 NE 129TH PL, KIRKLAND, WA 98034 13521 NE 129TH PL, KIRKLAND, WA 98034
TAX PARCELS:	2726059036, 2726059087, 2726059088, 2726059094, 2726059096, AND 2726059095
GROSS SITE AREA:	254,370 5.84 AC
CURRENT ZONING:	RSA-8
ADJACENT DEVELOPMENT:	SINGLE FAMILY
PROPOSED USE:	SINGLE FAMILY RESIDENTIAL
DENSITY:	5.99 DU/ACRE
PROPOSED ROW AREA (ROADS A AND B):	45,273 SF
NET SITE AREA (GROSS SITE AREA, LESS PROPOSED ROW AREA):	209,097 SF
ACCESS/UTILITY TRACTS	
TRACT E:	1,089 SF
TRACT F:	1,261 SF
TOTAL LOT AREA:	137,521 SF
TOTAL LOTS:	35
SMALLEST LOT SIZE:	2,882 SF (LOT 16)
AVERAGE LOT SIZE:	3,929 SF
SETBACKS:	18' FRONT (DRIVEWAY), 10' FRONT (LIVING AREA), 5' SIDE, 10' REAR
WATER:	WOODINVILLE WATER DISTRICT
SEWER:	NORTHSHORE UTILITY DISTRICT
SCHOOL DISTRICT:	LAKE WASHINGTON
FIRE DISTRICT:	CITY OF KIRKLAND
TELEPHONE SERVICE PROVIDER:	FRONTIER
POWER PROVIDER:	PUGET SOUND ENERGY
CABLE TV PROVIDER:	COMCAST

TABLE OF CONTENTS

NOTES

1. SEE SHEET CS-02 FOR HORIZONTAL DATUM, VERTICAL DATUM, LEGAL DESCRIPTION AND SURVEY INFORMATION.

SURVEY DISCLAIMER

TOPOGRAPHIC SURVEY FOR TAX LOT NUMBER 2726059095 WAS PERFORMED BY DR STRONG.

THE TOPOGRAPHIC SURVEY WAS PERFORMED BY LDC, INC. IN APRIL 2013. ANY CHANGES TO THE SITE AFTER THIS DATE WILL NOT BE REFLECTED IN THE PLANS. ANY DISCREPANCIES FOUND BETWEEN WHAT IS SHOWN ON THE PLANS AND WHAT IS NOTED IN THE FIELD SHOULD BE BROUGHT IMMEDIATELY TO THE ATTENTION OF THE ENGINEER.

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2	4-2-14	REVISED PER CITY/ARBORIST COMMENTS	MEV
3	4-29-14	REVISED PER CITY/ARBORIST COMMENTS	MEV

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GLS LLC

VINTNERS WEST PUD

COVER SHEET

MARK E. VILLWOCK
STATE OF WASHINGTON
20009
REGISTERED PROFESSIONAL ENGINEER

JOB NUMBER:	13-115
DRAWING NAME:	13115P-CS
DESIGNER:	MEV
DRAFTING BY:	BPC
DATE:	11-20-13
SCALE:	1"=60'
JURISDICTION:	KIRKLAND

CS-01
SHEET 1 OF 12

Drawing: P:\2013\13-115 Vintners West\Drawings\Preliminary\13115P-CS.dwg Plotted: Apr 29, 2014 - 2:56pm

NW 1/4, NW 1/4, SEC 27, TWN 26 N, RGE 5 E, W.M., CITY OF KIRKLAND, KING COUNTY, WASHINGTON

SURVEY INFORMATION

VERTICAL DATUM

NORTH AMERICAN VERTICAL DATUM-1988

HORIZONTAL DATUM:

NAD 83/91
WASHINGTON STATE COORDINATES-NORTH ZONE. THIS SURVEY HAS HELD THE CITY OF KIRKLAND LOCATIONS FOR THE CONTROLLING MONUMENTATION FOR THE NORTH LINE OF THE NORTHWEST QUARTER OF SECTION 27, TOWNSHIP 26 NORTH, RANGE 5 WEST, WILLAMETTE MERIDIAN.

BENCHMARK

PROJECT BENCHMARK:
CITY OF KIRKLAND SURVEY MONUMENT DESIGNATION NUMBER 53.

FOUND TACK IN LEAD IN 3"X3" CONCRETE MONUMENT IN CASE, DOWN 0.7', LOCATED AT THE INTERSECTION OF NE 132ND ST AND 132ND AVE NE.

PUBLISHED ELEVATION = 310.156 FEET.

BASIS OF BEARING

THE MONUMENTED NORTH LINE OF SECTION 27, TOWNSHIP 26 NORTH, RANGE 5 EAST, W.M., AS THE BEARING N 88°11'04" W, PER THE KING COUNTY SHORT PLAT L98S0003 RECORDED UNDER RECORDING NUMBER 9810059008.

SURVEY NOTES

1. LEGAL DESCRIPTION, EASEMENTS, COVENANTS, CONDITIONS AND RESTRICTIONS ARE FROM CHICAGO TITLE COMPANY, COMMITMENT ORDER NO. 1358778, 1358775 AND 1358777. IT SHOULD BE NOTED THAT IN PREPARING THIS SURVEY MAP, LDC INCORPORATED (LDC) HAS NOT CONDUCTED AN INDEPENDENT TITLE SEARCH NOR IS LDC AWARE OF ANY TITLE ISSUES AFFECTING THE PROPERTY OTHER THAN THOSE SHOWN ON THIS MAP. LDC HAS WHOLLY RELIED ON THE ABOVE REFERENCED TITLE REPORT TO PREPARE THIS SURVEY AND THEREFORE QUALIFIES THE MAP'S ACCURACY AND COMPLETENESS TO THAT EXTENT.
2. PARCEL NUMBERS 2726059094 AND 2726059097 AS DEPICTED WERE COMPUTED WITHOUT THE USE OF A TITLE REPORT.
3. CONTOUR INTERVAL IS 2 FOOT.
4. THE MONUMENTS SHOWN HEREON WERE VISITED IN THE FIELD DURING THE COURSE OF THIS SURVEY DURING 16-29, 2013). ANGULAR AND LINEAR MEASUREMENTS WERE MADE WITH A TOPCON GPT-9005A ROBOTIC TOTAL STATION MAINTAINED IN ADJUSTMENT TO MANUFACTURES SPECIFICATIONS AS REQUIRED BY WAC 332-130-100.

REFERENCES

KING COUNTY SHORT PLAT, RECORDING NO. 9810059008, BOOK 124, PAGE 290, RECORDS OF KING COUNTY, WASHINGTON

KING COUNTY SHORT PLAT NUMBER 1177715, RECORDED UNDER RECORDING NUMBER 7805300830, RECORDS OF KING COUNTY, WASHINGTON

KING COUNTY SHORT PLAT NUMBER 575053, RECORDED UNDER RECORDING NUMBER 7508110510, RECORDS OF KING COUNTY, WASHINGTON

PLAT OF ALLISON ESTATES, BOOK 174, PAGE 72-71, RECORDS OF KING COUNTY, WASHINGTON

PLAT OF MEADOW VIEW, BOOK 134, PAGE 88-89, RECORDS OF KING COUNTY, WASHINGTON

PLAT OF TOTEM VISTA, BOOK 106, PAGE 78-79, RECORDS OF KING COUNTY, WASHINGTON

PLAT OF VINTNER'S RIDGE, RECORDING NO. 20130118000686, BOOK 261, PAGE 86-90, RECORDS OF KING COUNTY, WASHINGTON

PLAT OF WETHERSFIELD, BOOK 115, PAGE 31-32, RECORDS OF KING COUNTY, WASHINGTON

EQUIPMENT & PROCEDURES

METHOD OF SURVEY:
SURVEY PERFORMED BY FIELD TRAVERSE
INSTRUMENTATION:
TOPCON GPT-9005A ROBOTIC TOTAL STATION WITH DATA COLLECTOR AND TOPCON GPS MAINTAINED IN ADJUSTMENT TO MANUFACTURES SPECIFICATIONS AS REQUIRED BY WAC 332-130-100
PRECISION:
MEETS OR EXCEEDS STATE STANDARDS WAC 332-130-090

LEGAL DESCRIPTION

PARCEL NO. 2726059087

PARCEL C OF KING COUNTY SHORT PLAT NUMBER 575053, RECORDED UNDER RECORDING NUMBER 7508110510, IN KING COUNTY, WASHINGTON; MORE PARTICULARLY DESCRIBED AS FOLLOWS:

THE EAST HALF OF THE NORTH HALF OF THE SOUTH HALF OF THE NORTHEAST QUARTER OF THE NORTHWEST QUARTER OF THE NORTHWEST QUARTER OF SECTION 27, TOWNSHIP 26 NORTH, RANGE 5 EAST, WILLAMETTE MERIDIAN, IN KING COUNTY, WASHINGTON; EXCEPT THE EAST 30.00 FEET THEREOF FOR ROAD PURPOSES.

PARCEL NO. 2726059088

PARCEL D OF KING COUNTY SHORT PLAT NUMBER 575053, RECORDED UNDER RECORDING NUMBER 7508110510, IN KING COUNTY, WASHINGTON; MORE PARTICULARLY DESCRIBED AS FOLLOWS:

THE EAST HALF OF THE SOUTH HALF OF THE SOUTH HALF OF THE NORTHEAST QUARTER OF THE NORTHWEST QUARTER OF THE NORTHWEST QUARTER OF SECTION 27, TOWNSHIP 26 NORTH, RANGE 5 EAST, WILLAMETTE MERIDIAN, IN KING COUNTY, WASHINGTON; EXCEPT THE EAST 30.00 FEET THEREOF FOR ROAD PURPOSES.

PARCEL NO. 2726059036

LOT 2, KING COUNTY SHORT PLAT NUMBER 1177115, RECORDED UNDER RECORDING NUMBER 7805300830, IN KING COUNTY, WASHINGTON, BEING A PORTION OF:

THE NORTHWEST QUARTER OF THE NORTHWEST QUARTER OF SECTION 27, TOWNSHIP 26 NORTH, RANGE 5 EAST, WILLAMETTE MERIDIAN, IN KING COUNTY, WASHINGTON;

TOGETHER WITH AN EASEMENT FOR INGRESS, EGRESS AND UTILITIES OVER, UNDER AND ACROSS A PARCEL LYING 15 FEET AS MEASURED AT RIGHT ANGLES ON EACH SIDE OF THE FOLLOWING DESCRIBED LINE:

COMMENCING AT THE THE SOUTHEAST CORNER OF THE NORTH HALF OF THE NORTH HALF OF THE SOUTH HALF OF THE EAST HALF OF THE NORTHWEST QUARTER OF THE NORTHWEST QUARTER OF SAID SECTION 27;
THENCE NORTH 88°12'02" WEST ALONG THE SOUTH LINE THEREOF FOR 30.0 FEET TO THE TRUE POINT OF BEGINNING;
THENCE CONTINUE NORTH 88°12'02" WEST FOR 370.0 FEET TO THE TERMINUS OF SAID LINE; ALSO

TOGETHER WITH AN EASEMENT FOR INGRESS, EGRESS AND UTILITIES OVER, UNDER AND ACROSS A PARCEL LYING SOUTHEASTERLY OF A CURVE HAVING A RADIUS OF 25.00 FEET, BEING TANGENT WITH THE NORTH LINE OF SAID 30.00 FOOT STRIP AND TANGENT WITH THE WEST LINE OF THE EAST 30.00 FEET OF SAID EAST HALF; AND

A PARCEL LYING NORTHEASTERLY OF A CURVE HAVING A RADIUS OF 25.00 FEET, BEING TANGENT WITH THE SOUTH LINE OF SAID 30.00 FOOT STRIP AND TANGENT WITH THE WEST LINE OF THE EAST 30.00 FEET OF SAID EAST HALF;

EXCEPT ANY PORTIONS THEREOF LYING WITHIN THE MAIN TRACT.

PARCEL NO. 2726059096

LOT 4, KING COUNTY SHORT PLAT NUMBER 1177115, RECORDED UNDER RECORDING NUMBER 7805300830, IN KING COUNTY, WASHINGTON, BEING A PORTION OF:

THE NORTHWEST QUARTER OF THE NORTHWEST QUARTER OF SECTION 27, TOWNSHIP 26 NORTH, RANGE 5 EAST, WILLAMETTE MERIDIAN, IN KING COUNTY, WASHINGTON;

TOGETHER WITH AN EASEMENT FOR INGRESS, EGRESS AND UTILITIES OVER, UNDER AND ACROSS A PARCEL LYING 15 FEET AS MEASURED AT RIGHT ANGLES ON EACH SIDE OF THE FOLLOWING DESCRIBED LINE:

COMMENCING AT THE THE SOUTHEAST CORNER OF THE NORTH HALF OF THE NORTH HALF OF THE SOUTH HALF OF THE EAST HALF OF THE NORTHWEST QUARTER OF THE NORTHWEST QUARTER OF SAID SECTION 27;
THENCE NORTH 88°12'02" WEST ALONG THE SOUTH LINE THEREOF FOR 30.0 FEET TO THE TRUE POINT OF BEGINNING;
THENCE CONTINUE NORTH 88°12'02" WEST FOR 370.0 FEET TO THE TERMINUS OF SAID LINE; ALSO

TOGETHER WITH AN EASEMENT FOR INGRESS, EGRESS AND UTILITIES OVER, UNDER AND ACROSS A PARCEL LYING SOUTHEASTERLY OF A CURVE HAVING A RADIUS OF 25.00 FEET, BEING TANGENT WITH THE NORTH LINE OF SAID 30.00 FOOT STRIP AND TANGENT WITH THE WEST LINE OF THE EAST 30.00 FEET OF SAID EAST HALF; AND

A PARCEL LYING NORTHEASTERLY OF A CURVE HAVING A RADIUS OF 25.00 FEET, BEING TANGENT WITH THE SOUTH LINE OF SAID 30.00 FOOT STRIP AND TANGENT WITH THE WEST LINE OF THE EAST 30.00 FEET OF SAID EAST HALF;

EXCEPT ANY PORTIONS THEREOF LYING WITHIN THE MAIN TRACT.

PARCEL NO. 2726059094
NO TITLE PROVIDED

PARCEL NO. 2726059097
NO TITLE PROVIDED

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Planning
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Bellevue, WA 98007
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www.LDCcorp.com

GLS LLC

VINTNERS WEST PUD

COVER SHEET

MARK E. VILLWOCK
STATE OF WASHINGTON
40060
REGISTERED
PROFESSIONAL ENGINEER

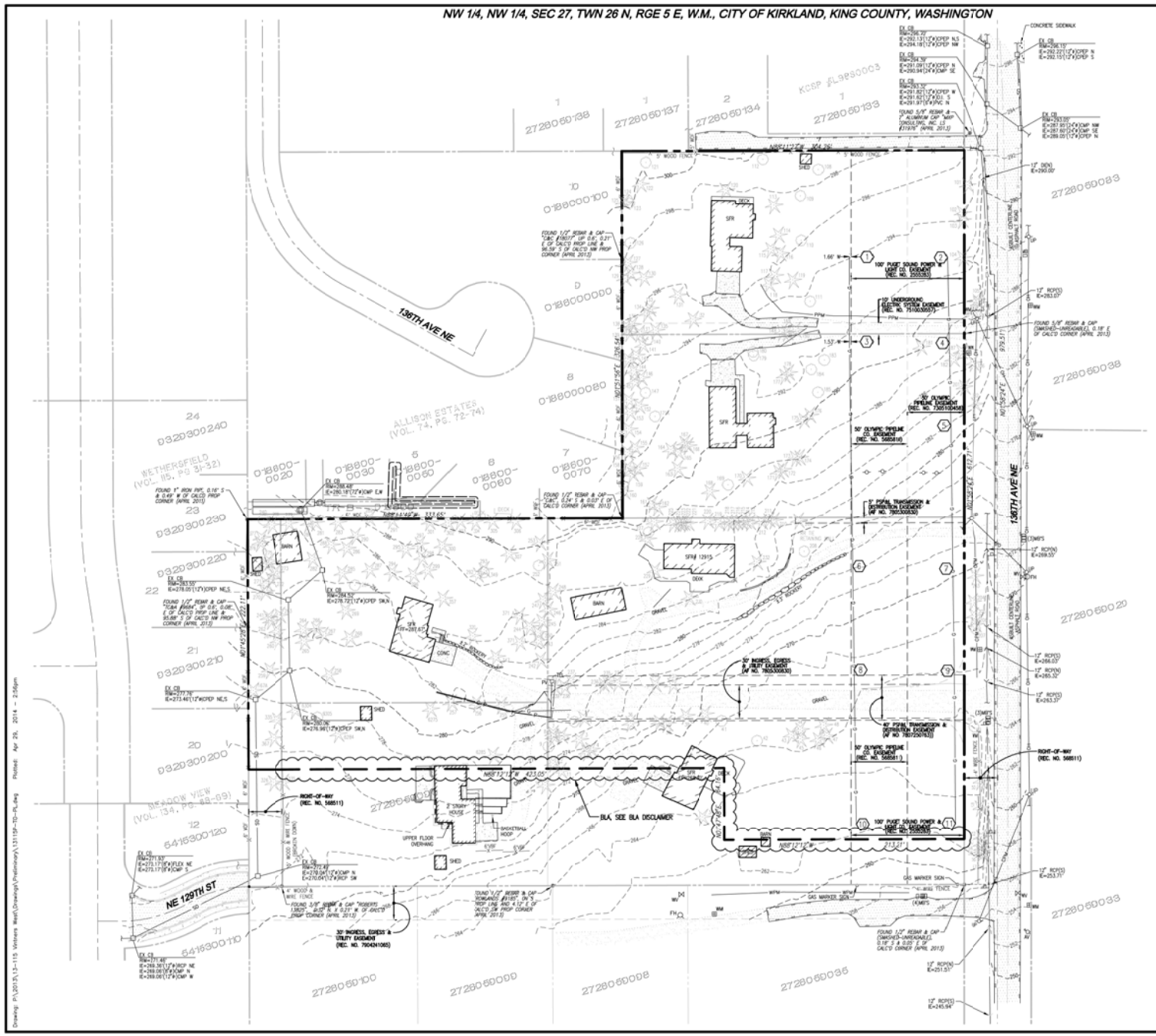
JOB NUMBER:	13-115
DRAWING NAME:	13115P-CS
DESIGNER:	MEV
DRAFTING BY:	BPC
DATE:	11-20-13
SCALE:	AS NOTED
JURISDICTION:	KIRKLAND

CS-02

SHEET 2 OF 12

Drawing: P:\2013\13-115 Vintners West\Drawings\Preliminary\13115P-CS.dwg Plotted: Apr 29, 2014 - 2:56pm

NW 1/4, NW 1/4, SEC 27, TWN 26 N, RGE 5 E, W.M., CITY OF KIRKLAND, KING COUNTY, WASHINGTON



SCALE: 1" = 40'

LEGEND

EXISTING SYMBOLS

SYMBOL	DESCRIPTION
●	IRON PIPE FOUND
○	IRON PIPE SET
◉	MONUMENT FOUND
◎	MONUMENT CALC'D
●	REBAR & CAP
MB	MAILBOX
●	POST
	SIGN
8.5' ROCKERY	ROCKERY
100	TREE CONIFEROUS
101	TREE DECIDUOUS
AV	AIR VALVE
BO	BLOW-OFF
CB	CATCH BASIN
SDMH	STORM MANHOLE
	CULVERT
FH	FIRE HYDRANT
	GAS VALVE
	GUY ANCHOR
TF	POWER TRANSFORMER
	SEWER MANHOLE
TEL	TELCO RISER
UP	UTILITY POLE
WM	WATER METER
WV	WATER VALVE
VI	POWER VAULT

GAS POTHOLE TABLE

	PIPE SIZE	TOP OF PIPE ELEVATION	EXISTING COVER
1	24"	290.63	3.4'
2	16"	287.98	4.6'
3	24"	288.22	3.4'
4	16"	283.79	4.0'
5	16"	276.99	4.8'
6	24"	271.46	2.8'
7	16"	265.82	4.8'
8	24"	264.55	3.0'
9	16"	260.39	5.6'
10	24"	259.35	3.2'
11	16"	258.77	3.8'

BLA DISCLAIMER

THE BOUNDARY AND TOPOGRAPHIC INFORMATION DEPICTED HAS BEEN PREPARED BY TWO SEPARATE SURVEYING COMPANIES. PARCEL NUMBERS 2726059036, 2726059087, 2726059088, 2726059094, 2726059091 AND 2726059095 HAVE BEEN COMPLETED BY LDC INC. PARCEL NUMBERS 2726059095 HAS BEEN SURVEYED BY DR STRONG INC. THE BOUNDARY AS GRAPHICALLY DEPICTED IS BASED ON THE FUTURE COMPLETION, APPROVAL, AND RECORDING OF A LOT LINE ADJUSTMENT CURRENTLY IN FOR REVIEW BY THE CITY.

SURVEY DISCLAIMER

TOPOGRAPHIC SURVEY FOR TAX LOT NUMBER 2726059095 WAS PERFORMED BY DR STRONG.

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REVISIONS

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WOODINVILLE, WA 98072
Ph. 425.806.1869
Fx. 425.806.2881
www.LDCinc.com

GLS LLC

VINTNERS WEST PUD

EXISTING CONDITIONS MAP

VANCE V. BIRK
STATE OF WASHINGTON
20744
REGISTERED
PROFESSIONAL LAND SURVEYOR

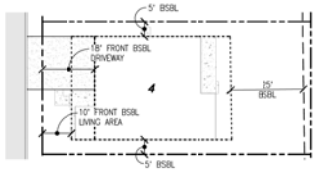
JOB NUMBER:	13-115
DRAWING NAME:	13115P-TO-PL
DESIGNER:	MEV
DRAFTING BY:	BPC
DATE:	11-20-13
SCALE:	1"=40'
JURISDICTION:	KIRKLAND

TO-01

SHEET 3 OF 12

Drawing: P:\2013\13-115 Vintners West\Drawings\Preliminary\13115P-TO-PL.dwg Plotted: Apr 29, 2014 - 2:56pm

NW 1/4, NW 1/4, SEC 27, TWN 26 N, RGE 5 E, W.M., CITY OF KIRKLAND, KING COUNTY, WASHINGTON



BSBL DETAIL
SCALE: 1" = 20'

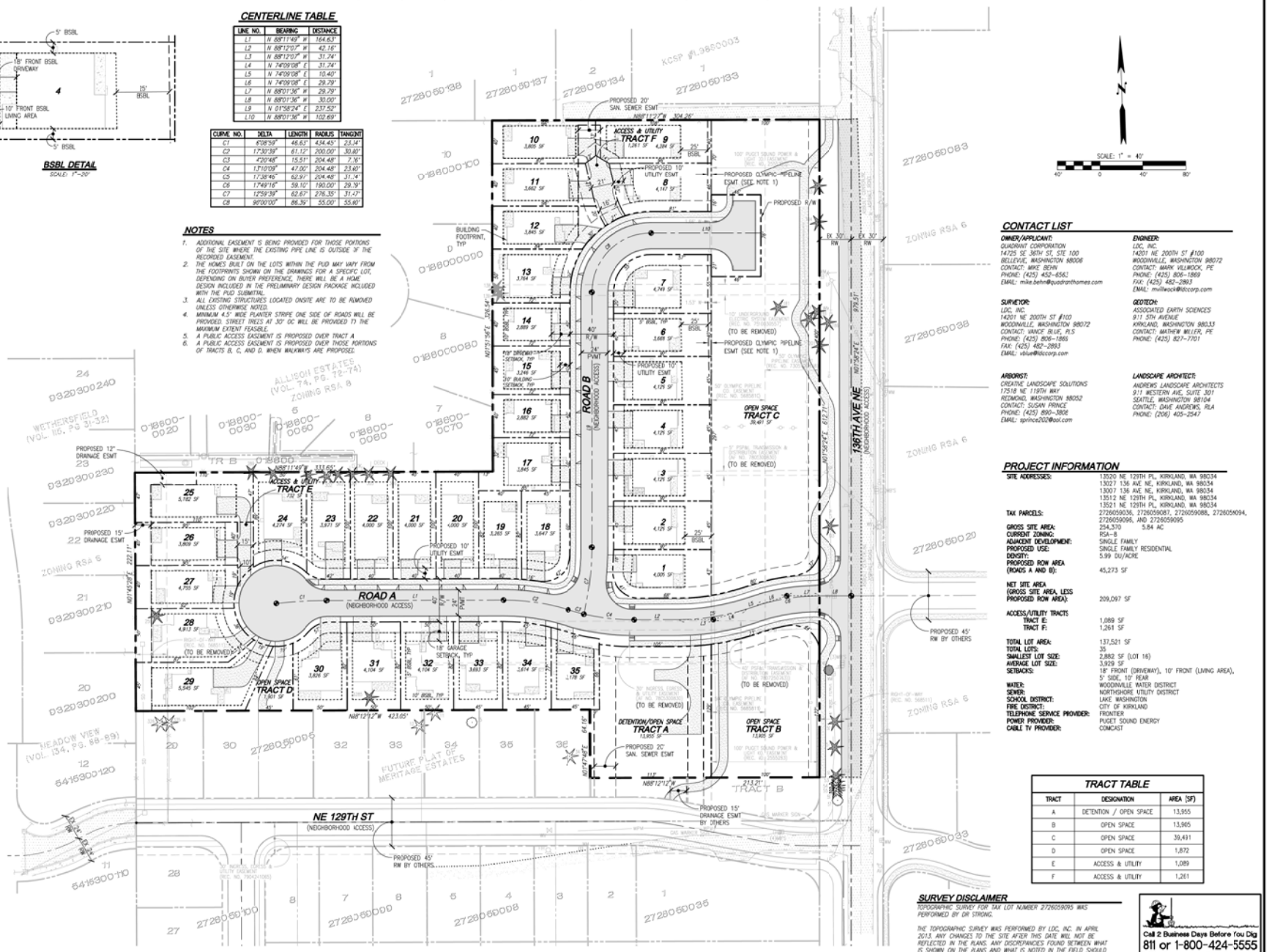
CENTERLINE TABLE

LINE NO.	BEARING	DISTANCE
L1	N 88°11'49" W	164.63'
L2	N 88°12'07" W	42.16'
L3	N 88°12'07" W	31.74'
L4	N 74°09'08" E	31.74'
L5	N 74°09'08" E	10.40'
L6	N 74°09'08" E	29.79'
L7	N 88°01'36" W	29.79'
L8	N 88°01'36" W	30.00'
L9	N 01°58'24" E	237.52'
L10	N 88°01'36" W	102.69'

CURVE NO.	DELTA	LENGTH	RADIUS	TANGENT
C1	6°08'59"	46.63'	434.45'	23.34'
C2	17°30'39"	61.12'	200.00'	30.80'
C3	4°20'48"	15.51'	204.48'	7.76'
C4	17°10'09"	47.00'	204.48'	23.60'
C5	17°38'46"	62.97'	204.48'	31.74'
C6	17°49'16"	59.10'	190.00'	29.79'
C7	12°59'39"	62.67'	276.35'	31.47'
C8	90°00'00"	86.39'	55.00'	55.00'

NOTES

1. ADDITIONAL EASEMENT IS BEING PROVIDED FOR THOSE PORTIONS OF THE SITE WHERE THE EXISTING PIPE LINE IS OUTSIDE OF THE RECORDED EASEMENT.
2. THE HOMES BUILT ON THE LOTS WITHIN THE PUD MAY VARY FROM THE FOOTPRINTS SHOWN ON THE DRAWINGS FOR A SPECIFIC LOT, DEPENDING ON BUYER PREFERENCE, THERE WILL BE A HOME DESIGN INCLUDED IN THE PRELIMINARY DESIGN PACKAGE INCLUDED WITH THE PUD SUBMITTAL.
3. ALL EXISTING STRUCTURES LOCATED ONSITE ARE TO BE REMOVED UNLESS OTHERWISE NOTED.
4. MINIMUM 4.5' WIDE PLANTER STRIPE ONE SIDE OF ROADS WILL BE PROVIDED. STREET TREES AT 30' OC WILL BE PROVIDED TO THE MAXIMUM EXTENT FEASIBLE.
5. A PUBLIC ACCESS EASEMENT IS PROPOSED OVER TRACT A
6. A PUBLIC ACCESS EASEMENT IS PROPOSED OVER THOSE PORTIONS OF TRACTS B, C, AND D. WHEN WALKWAYS ARE PROPOSED.



CONTACT LIST

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14725 SE 36TH ST, STE 100
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CREATIVE LANDSCAPE SOLUTIONS
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ANDREWS LANDSCAPE ARCHITECTS
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SEATTLE, WASHINGTON 98104
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PROJECT INFORMATION

SITE ADDRESSES:	13520 NE 129TH PL, KIRKLAND, WA 98034 13027 136 AVE NE, KIRKLAND, WA 98034 13007 136 AVE NE, KIRKLAND, WA 98034 13512 NE 129TH PL, KIRKLAND, WA 98034 13521 NE 129TH PL, KIRKLAND, WA 98034
TAX PARCELS:	2726059036, 2726059087, 2726059088, 2726059094, 2726059096, AND 2726059095
GROSS SITE AREA:	254,370 5.84 AC
CURRENT ZONING:	RSA-8
ADJACENT DEVELOPMENT:	SINGLE FAMILY
PROPOSED USE:	SINGLE FAMILY RESIDENTIAL
DENSITY:	5.99 DU/ACRE
PROPOSED ROW AREA (ROADS A AND B):	45,273 SF
NET SITE AREA (GROSS SITE AREA, LESS PROPOSED ROW AREA):	209,097 SF
ACCESS./UTILITY TRACTS	
TRACT E:	1,089 SF
TRACT F:	1,261 SF
TOTAL LOT AREA:	137,521 SF
TOTAL LOTS:	35
SMALLEST LOT SIZE:	2,882 SF (LOT 16)
AVERAGE LOT SIZE:	3,929 SF
SETBACKS:	18' FRONT (DRIVEWAY), 10' FRONT (LIVING AREA), 5' SIDE, 10' REAR
WATER:	WOODINVILLE WATER DISTRICT
SEWER:	NORTHSHORE UTILITY DISTRICT
SCHOOL DISTRICT:	LAKE WASHINGTON
FIRE DISTRICT:	CITY OF KIRKLAND
TELEPHONE SERVICE PROVIDER:	FRONTIER
POWER PROVIDER:	PUGET SOUND ENERGY
CABLE TV PROVIDER:	COMCAST

TRACT TABLE

TRACT	DESIGNATION	AREA (SF)
A	DETENTION / OPEN SPACE	13,955
B	OPEN SPACE	13,965
C	OPEN SPACE	39,491
D	OPEN SPACE	1,872
E	ACCESS & UTILITY	1,089
F	ACCESS & UTILITY	1,261

SURVEY DISCLAIMER

TOPOGRAPHIC SURVEY FOR TAX LOT NUMBER 2726059095 WAS PERFORMED BY DR STRONG.

THE TOPOGRAPHIC SURVEY WAS PERFORMED BY LDC, INC. IN APRIL 2013. ANY CHANGES TO THE SITE AFTER THIS DATE WILL NOT BE REFLECTED IN THE PLANS. ANY DISCREPANCIES FOUND BETWEEN WHAT IS SHOWN ON THE PLANS AND WHAT IS NOTED IN THE FIELD SHOULD BE BROUGHT IMMEDIATELY TO THE ATTENTION OF THE ENGINEER.

Call 2 Business Days Before You Dig
811 or 1-800-424-5555
Utilities Underground Location Center

NO.	DATE	DESCRIPTION	BY
1	12-31-13	REVISED PER CITY/ARBORIST COMMENTS	WB
2	4-2-14	REVISED PER CITY/ARBORIST COMMENTS	WB
3	4-29-14	REVISED PER CITY/ARBORIST COMMENTS	WB

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WOODINVILLE, WA 98072
Ph. 425.806.1869
Fx. 425.482.2893
www.LDCcorp.com

GLS LLC

VINTNERS WEST PUD

PRELIMINARY SITE PLAN

VANCE V. BLUE 17944 STATE OF WASHINGTON REGISTERED LAND SURVEYOR

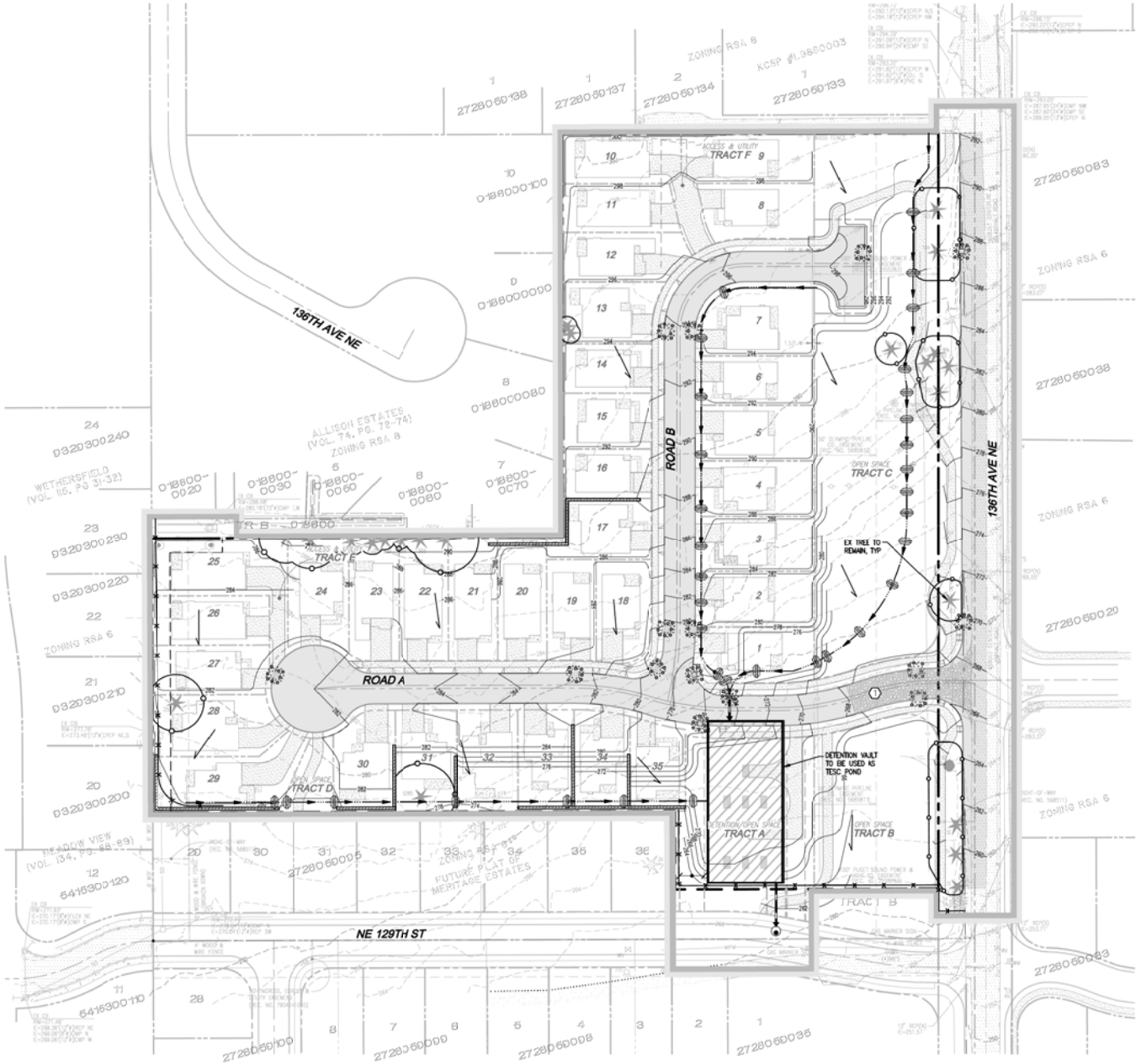
JOB NUMBER:	13-115
DRAWING NAME:	13115P-PP-PL
DESIGNER:	MEV
DRAFTING BY:	BPC
DATE:	11-20-13
SCALE:	1"=40'
JURISDICTION:	KIRKLAND

SP-01

SHEET 4 OF 12

Drawing: P:\2013\13-115 Vintners West\Drawings\Preliminary\13115P-PP-PL.dwg Plotted: Apr 29, 2014 - 2:57pm

NW 1/4, NW 1/4, SEC 27, TWN 26 N, RGE 5 E, W.M., CITY OF KIRKLAND, KING COUNTY, WASHINGTON



LEGEND

- CLEARING LIMITS
- SILT FENCE
- CHAIN LINK FENCE
- CONVEYANCE SWALE
- ROCK CONSTRUCTION ENTRANCE
- CATCH BASIN PROTECTION
- PRE DEVELOPMENT DRAINAGE PATTERN
- POST DEVELOPMENT DRAINAGE PATTERN
- INSTALL CHECK DAM EVERY 100' OR 2' OF ELEVATION CHANGE

SURVEY DISCLAIMER

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Fx. 425.806.2881
www.LDCcorp.com

GLS LLC

VINTNERS WEST PUD

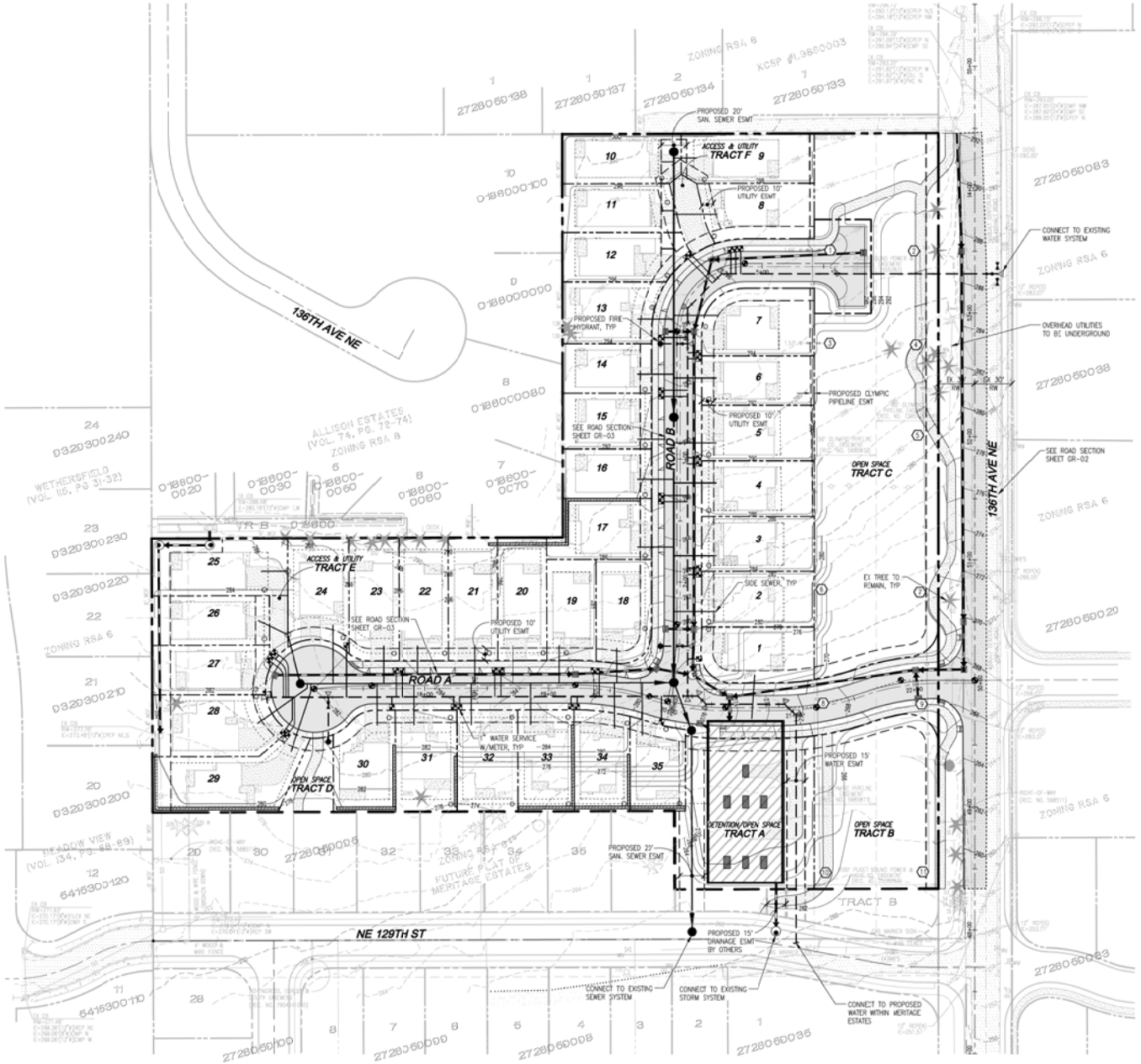
TESC PLAN

JOB NUMBER:	13-115
DRAWING NAME:	13115P-ER-PL
DESIGNER:	MEV
DRAFTING BY:	BPC
DATE:	11-20-13
SCALE:	1"=40'
JURISDICTION:	KIRKLAND

ER-01

SHEET 5 OF 12

NW 1/4, NW 1/4, SEC 27, TWN 26 N, RGE 5 E, W.M., CITY OF KIRKLAND, KING COUNTY, WASHINGTON



SCALE: 1" = 40'

LEGEND

- STORM PIPE
- SEWER PIPE
- WATER PIPE

GAS POTHOLE TABLE

	PIPE SIZE	TOP OF PIPE ELEVATION	EXISTING COVER
1	24"	290.63	3.4'
2	16"	287.98	4.6'
3	24"	288.22	3.4'
4	16"	283.79	4.0'
5	16"	276.99	4.8'
6	24"	271.46	2.8'
7	16"	265.82	4.8'
8	24"	264.55	3.0'
9	16"	260.39	5.6'
10	24"	259.35	3.2'
11	16"	258.77	3.8'

SURVEY DISCLAIMER

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Bellevue, WA 98007
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Fx. 425.885.1902
www.LDCcorp.com

GLS LLC

VINTNERS WEST PUD

PRELIMINARY UTILITY PLAN

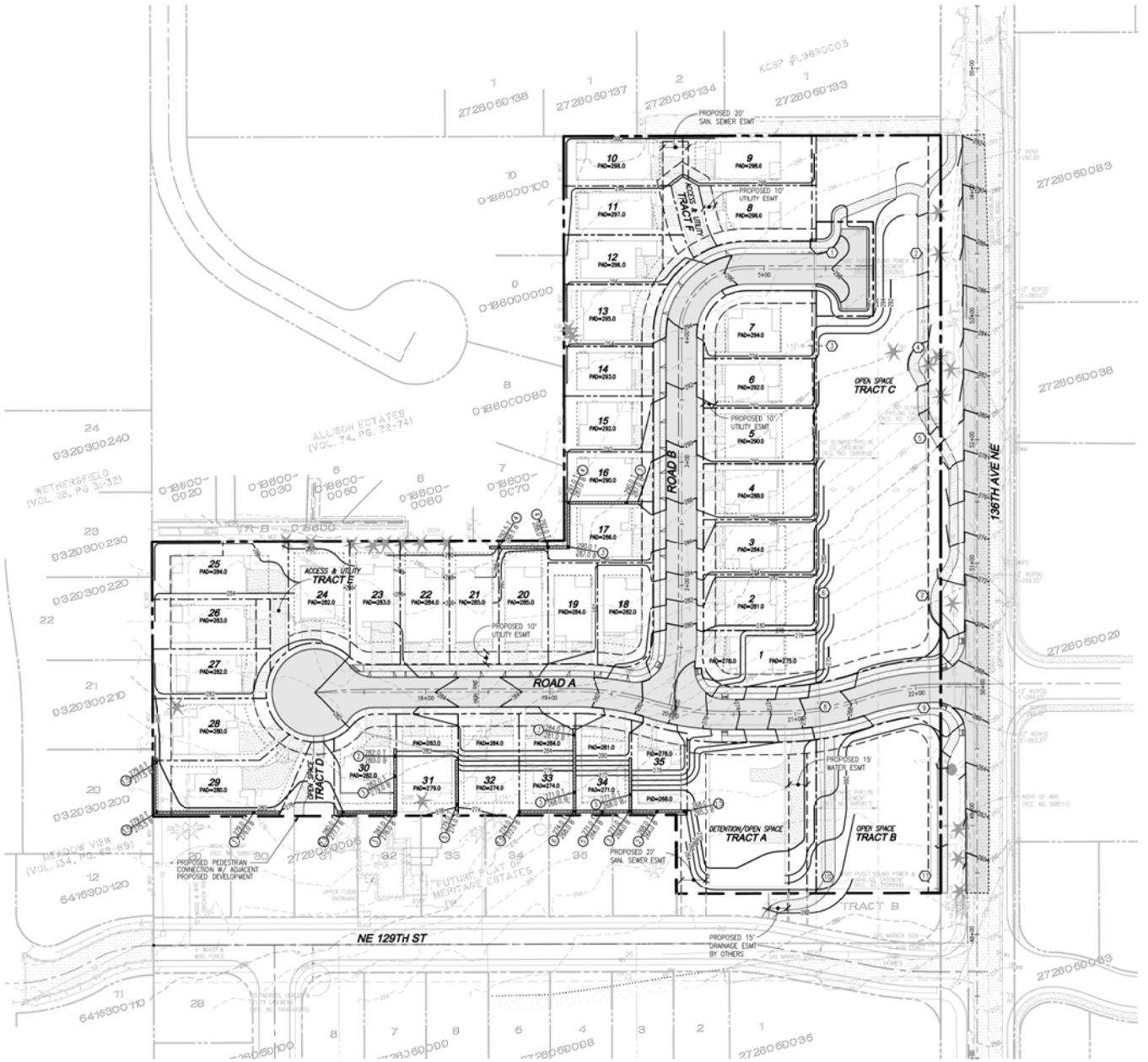
MARK E. VILLWOCK
STATE OF WASHINGTON
21605
REGISTERED PROFESSIONAL ENGINEER

JOB NUMBER:	13-115
DRAWING NAME:	13115P-RD-PL
DESIGNER:	MEV
DRAFTING BY:	BPC
DATE:	1-20-13
SCALE:	1"=40'
JURISDICTION:	KIRKLAND

RD-01

SHEET 6 OF 12

NW 1/4, NW 1/4, SEC 27, TWN 26 N, RGE 5 E, W.M., CITY OF KIRKLAND, KING COUNTY, WASHINGTON



GAS POTHOLE TABLE

	PIPE SIZE	TOP OF PIPE ELEVATION	EXISTING COVER
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8	24"	264.55	3.0'
9	16"	260.39	5.6'
10	24"	259.35	3.2'
11	16"	258.77	3.8'

EARTHWORK QUANTITIES

CUT: 3,500 CY
FILL: 9,700 CY
NET: 6,200 CY (FILL)

SPECIAL NOTE

PLEASE NOTE TWO EXISTING OLYMPIC GAS LINES AS WELL AS PUGET SOUND ENERGY (PSE) ELECTRIC TRANSMISSION LINES. A CONSENT FOR USE AGREEMENT SHALL BE IN PLACE WITH OLYMPIC PIPELINE COMPANY AND PUGET SOUND ENERGY PRIOR TO START OF CONSTRUCTION. DURING CONSTRUCTION ALL CONDITIONS OF THIS AGREEMENT SHALL BE FOLLOWED.

SURVEY DISCLAIMER

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Ph. 425.806.1869
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www.LDCinc.com

GLS LLC

VINTNERS WEST PUD

PRELIMINARY GRADING PLAN

MARK E. VILLWOCK
STATE OF WASHINGTON
20005
REGISTERED PROFESSIONAL ENGINEER

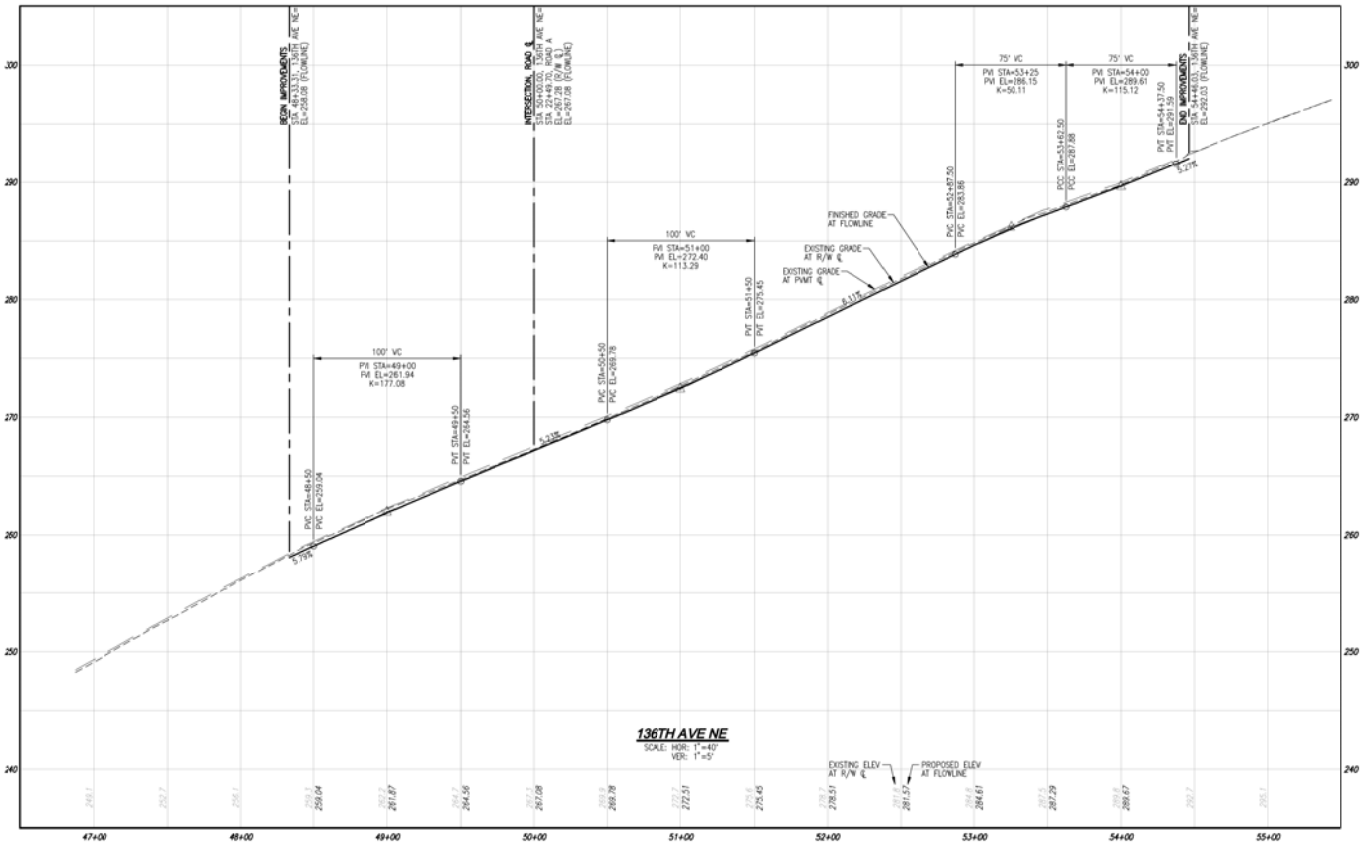
JOB NUMBER:	13-115
DRAWING NAME:	13115P-GR-PL
DESIGNER:	MEV
DRAFTING BY:	BPC
DATE:	11-20-13
SCALE:	1"=40'
JURISDICTION:	KIRKLAND

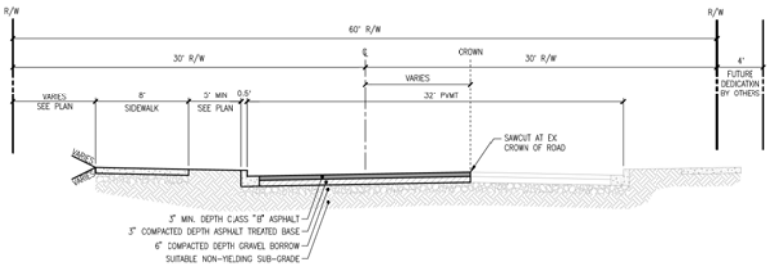
GR-01

SHEET 7 OF 12

Drawing: P:\2013\13-115 Vintners West\Drawings\Preliminary\13115P-GR-PL.dwg Plotted: Apr 29, 2014 - 2:58pm

NW 1/4, NW 1/4, SEC 27, TWN 26 N, RGE 5 E, W.M., CITY OF KIRKLAND, KING COUNTY, WASHINGTON





136TH AVE NE
TYPICAL SECTION
SCALE: 1"=5'

REVISIONS

NO.	DATE	DESCRIPTION	BY
1	12-23-13	REVISED PER CITY/AGENCY COMMENTS	MEV
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3	4-29-14	REVISED PER CITY/AGENCY COMMENTS	MEV

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Kirkland, WA 98034
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Fx. 425.825.8050
www.LDCcorp.com

GLS LLC

VINTNERS WEST PUD

PRELIMINARY ROAD PROFILES AND SECTIONS

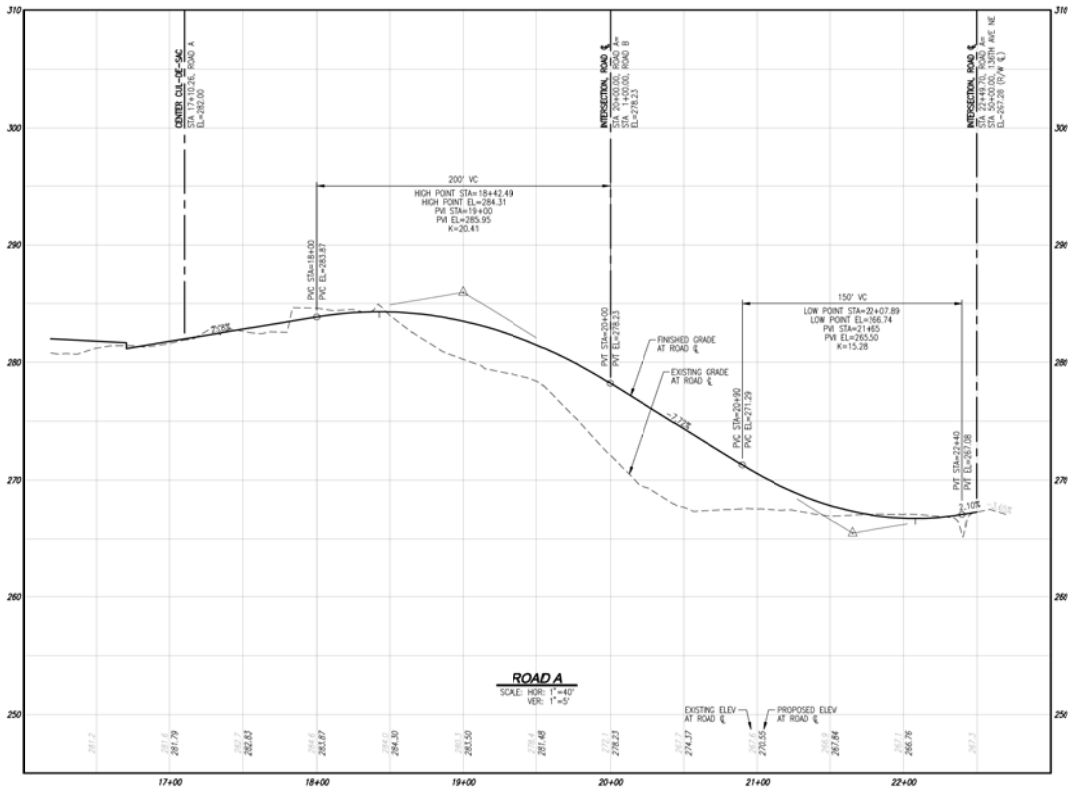
JOB NUMBER:	13-115
DRAWING NAME:	115P-RD-PR
DESIGNER:	MEV
DRAFTING BY:	BPC
DATE:	11-20-13
SCALE:	1"=40'
JURISDICTION:	KIRKLAND

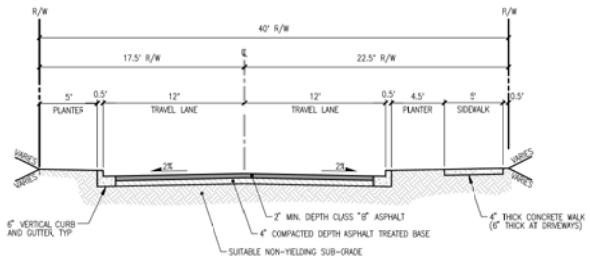
GR-02

SHEET 8 OF 12

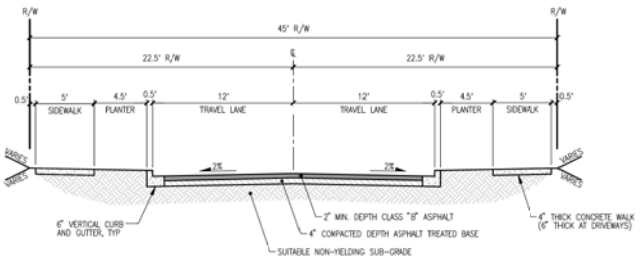
Drawing: P:\2013\13-115 Vintners West\Drawings\Preliminary\13115P-RD-PR.dwg Plotted: Apr 29, 2014 - 2:58pm

NW 1/4, NW 1/4, SEC 27, TWN 26 N, RGE 5 E, W.M., CITY OF KIRKLAND, KING COUNTY, WASHINGTON





ROAD A (STA. 17+10 - STA. 20+21)
AND ROAD B TYPICAL SECTION
SCALE: 1"=5'



ROAD A (STA. 20+21 - STA. 22+40)
TYPICAL SECTION
SCALE: 1"=5'

REVISIONS

NO.	DATE	DESCRIPTION	BY
1	12-31-13	REVISED PER CITY/AGENCY COMMENTS	MEV
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Fx. 425.806.2881
www.LDCcorp.com

GLS LLC

VINTNERS WEST PUD

PRELIMINARY ROAD PROFILES AND SECTIONS

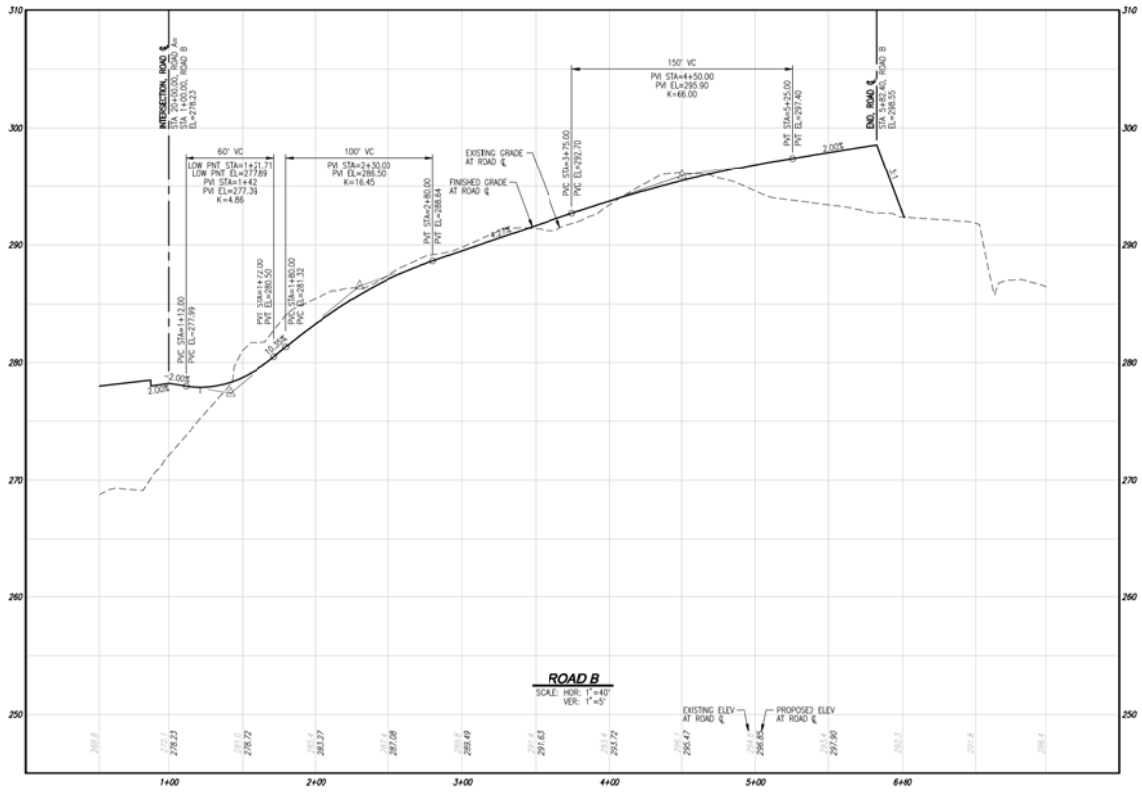
MARK E. VILLWOCK
STATE OF WASHINGTON
21060
REGISTERED
PROFESSIONAL ENGINEER

JOB NUMBER:	13-115
DRAWING NAME:	3115P-RD-PR
DESIGNER:	MEV
DRAFTING BY:	BPC
DATE:	11-20-13
SCALE:	1"=40'
JURISDICTION:	KIRKLAND

GR-03

SHEET 9 OF 12

NW 1/4, NW 1/4, SEC 27, TWN 26 N, RGE 5 E, W.M., CITY OF KIRKLAND, KING COUNTY, WASHINGTON



REVISIONS

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GLS LLC

VINTNERS WEST PUD

PRELIMINARY ROAD PROFILES

JOB NUMBER:	13-115
DRAWING NAME:	115P-RD-PR
DESIGNER:	MEV
DRAFTING BY:	BPC
DATE:	11-20-13
SCALE:	1"=40'
JURISDICTION:	KIRKLAND

GR-04

SHEET 10 OF 12

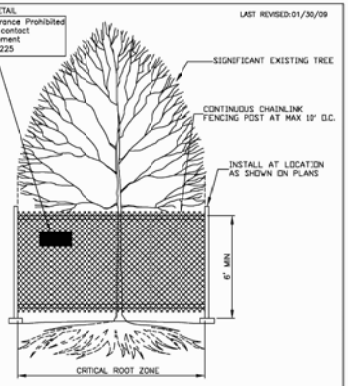
Drawing: P:\2013\13-115 Vintners West\Drawings\Preliminary\13115P-RD-PR.dwg Plotted: Apr 29, 2014 - 2:56pm

NW 1/4, NW 1/4, SEC 27, TWN 26 N, RGE 5 E, W.M., CITY OF KIRKLAND, KING COUNTY, WASHINGTON

FENCING SIGN DETAIL

LAST REVISED:01/30/09

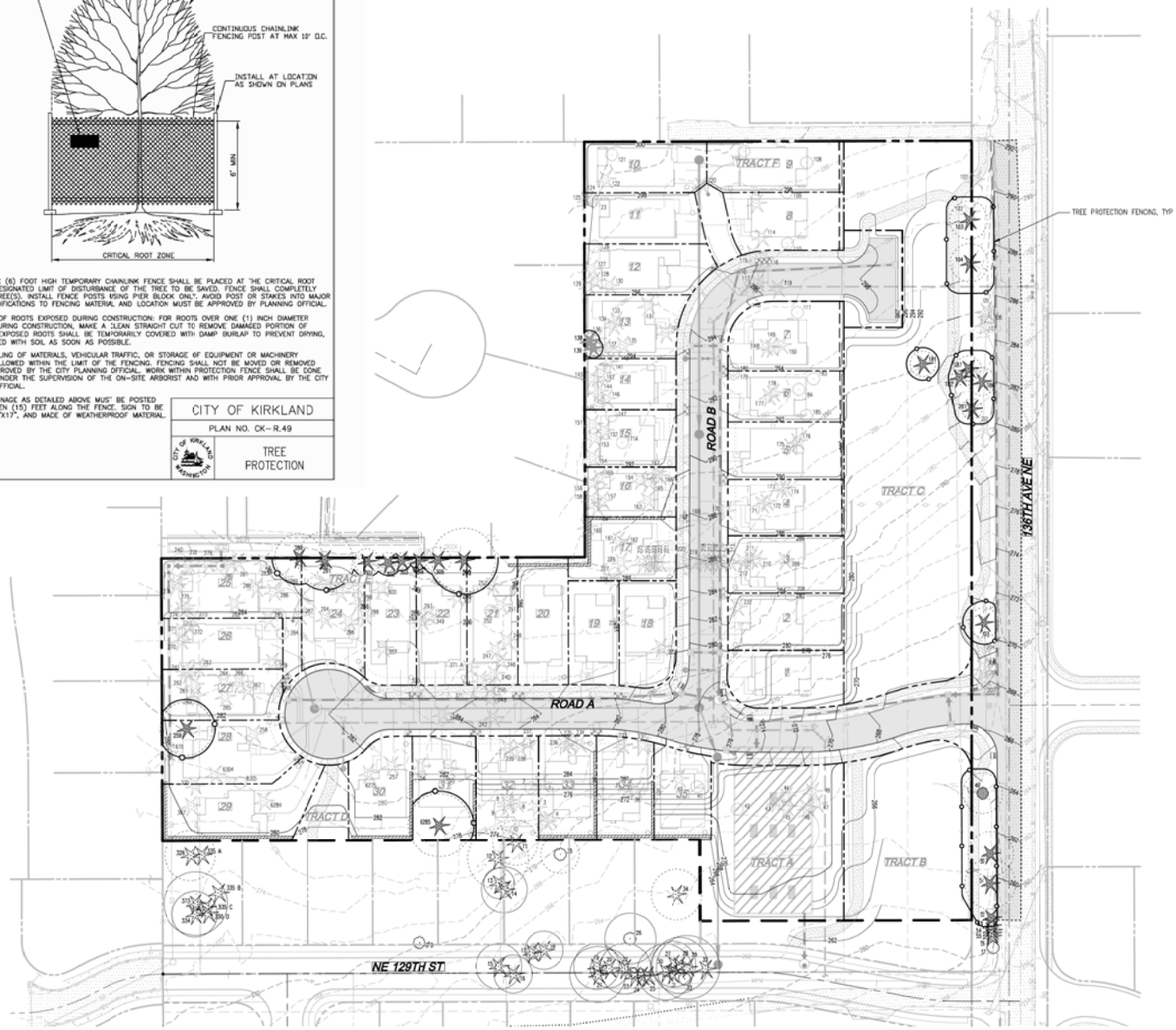
Tree Protection Area, Entrance Prohibited
To report violations contact
City Code Enforcement
at (425) 587-3225



NOTES

1. MINIMUM SIX (6) FOOT HIGH TEMPORARY CHAINLINK FENCE SHALL BE PLACED AT THE CRITICAL ROOT ZONE OR DESIGNATED LIMIT OF DISTURBANCE OF THE TREE TO BE SAVED. FENCE SHALL COMPLETELY ENCIRCLE TREE(S). INSTALL FENCE POSTS USING PIER BLOCK ONLY. AVOID POST OR STAKES INTO MAJOR ROOTS. MODIFICATIONS TO FENCING MATERIAL AND LOCATION MUST BE APPROVED BY PLANNING OFFICIAL.
2. TREATMENT OF ROOTS EXPOSED DURING CONSTRUCTION: FOR ROOTS OVER ONE (1) INCH DIAMETER DAMAGED DURING CONSTRUCTION, MAKE A CLEAN STRAIGHT CUT TO REMOVE DAMAGED PORTION OF ROOT. ALL EXPOSED ROOTS SHALL BE TEMPORARILY COVERED WITH DAMP BURLAP TO PREVENT DRYING, AND COVERED WITH SOIL AS SOON AS POSSIBLE.
3. NO STOCKPILING OF MATERIALS, VEHICULAR TRAFFIC, OR STORAGE OF EQUIPMENT OR MACHINERY SHALL BE ALLOWED WITHIN THE LIMIT OF THE FENCING. FENCING SHALL NOT BE MOVED OR REMOVED UNLESS APPROVED BY THE CITY PLANNING OFFICIAL. WORK WITHIN PROTECTION FENCE SHALL BE DONE MANUALLY UNDER THE SUPERVISION OF THE ON-SITE ARBORIST AND WITH PRIOR APPROVAL BY THE CITY PLANNING OFFICIAL.
4. FENCING SIGNAGE AS DETAILED ABOVE MUST BE POSTED EVERY FIFTEEN (15) FEET ALONG THE FENCE. SIGN TO BE MINIMUM 11"X17", AND MADE OF WEATHERPROOF MATERIAL.

CITY OF KIRKLAND
PLAN NO. CK-R.49
TREE PROTECTION



SCALE: 1" = 40'

LEGEND

- EXISTING TREE TO BE REMOVED
- EXISTING TREE TO REMAIN
- EXISTING OFFSITE TREE

TREE DENSITY CALCULATIONS

SIGNIFICANT TREES ON SITE=	237 - 1348.5 CREDITS
VIABLE SIGNIFICANT TREES ONSITE=	87 - 539
NON-VIABLE SIGNIFICANT TREES ONSITE=	150 - 809.5
TREES TO BE SAVED=	20 - 91 CREDITS
TREE CREDITS REQUIRED=	186
TREES TO BE PLANTED=	95

NOTES

1. SEE LANDSCAPE PLANS FOR TREES TO BE PLANTED.
2. SEE SHEET TR-02 FOR ARBORIST REPORT AND DETAILS.

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Bellevue, WA 98007
Ph. 425.885.1900
Fx. 425.885.2822
www.LDCinc.com

GLS LLC

VINTNERS WEST PUD

INTEGRATED DEVELOPMENT PLAN

MARK E. VILLWOCK
STATE OF WASHINGTON
20060
REGISTERED
PROFESSIONAL ENGINEER

JOB NUMBER:	13-115
DRAWING NAME:	3115P-TR-PL
DESIGNER:	MEV
DRAFTING BY:	BPC
DATE:	11-20-13
SCALE:	1"=40'
JURISDICTION:	KIRKLAND

TR-01

SHEET 11 OF 12

Drawing: P:\2013\13-115 Vintners West\Drawings\Preliminary\13115P-TR-PL.dwg Plotted: Apr 29, 2014 - 2:58pm

NW 1/4, NW 1/4, SEC 27, TWN 26 N, RGE 5 E, W.M., CITY OF KIRKLAND, KING COUNTY, WASHINGTON

ARBORIST REPORT (COMPILED BY: CREATIVE LAND SOLUTIONS)

#	Tree Tag #	Species ID	DBH (in)	Dripline Radius (ft)	Health	Defects/Comments	Proposed Action: Viable Retain	Proposed Action: Nonviable Remove	Proposed Action: Viable Remove (for improvement only)	Limits of Disturbance	Tree Credits
1	101	*Douglas-fir*	23	15'	Poor	Cracked dead wood, topped		X			7.5
2	102	*Douglas-fir*	22	15	Poor	Self-corrected lean, asym. canopy		X			7
3	103	*Douglas-fir*	23	15	fair	Dead wood, Necrotic tissue		X			7.5
4	104	*Western red cedar*	24	15	fair	Drought stress, topped		X			8
5	105	*Douglas-fir*	22	22	fair	Topped, 1 tight leader, dead wood		X			7
6	106	*Western hemlock*	12	15	Poor	Topped, Dead wood, reduced canopy		X			2
7	107	*Douglas-fir*	20	18	Poor	Multiple tops, rock		X			6
8	108	*Red alder*	10	22	Poor	Top cleaf an broken off		X			1
9	109	*Red alder*	18 & 19	20	Poor	½ of tree is dead, co-dominant leaders with unclaedbark, decay at root crown		X			7
10	110	*Plum*	6,6 &9	15	fair	Grown in area of too much shade		X			2
11	111	*Red alder*	9	10	Poor	Insects, Birdhicles Habitat tree at top		X			1
12	112	*Red alder*	24	15	Dead/ very	No structur d, environmental issues			X	10'	0
13	113	*Douglas-fir*	30	25	fair	Topped, 5 co-dom leaders		X			11
14	114	*Western red cedar*	42	25	Good	Some Drought stress			X	35'	17
15	115	*Douglas-fir*	17	25	Good	Dead wood			X	35'	4.5
16	116	*Douglas-fir*	16	22	Good	Dead wood			X	35'	13
17	117	*Douglas-fir*	16	20	Good	Some Poggingbark			X	30'	13
18	118	*Douglas-fir*	19	26	fair	Multiple lathers, popping bark		X			5.5
19	119	*Douglas-fir*	6	7	fair	Shoring tree		X			1
20	120	*Western red cedar*	36	20	Good	Some stress			X	30'	14
21	121	*Bigleaf maple*	1 trunk 50	30	Poor	Topping, all leaders rorted to habitat		X			21
22	122	*Layland cypress*	8	6	fair	Insects, necrotic tissue		X			1
23	123	*Bigleaf maple*	16	25	Good	Tree has minimal structural or situational defects			X	37'	4
24	124	*Bigleaf maple*	19	25	Good	Tree has minimal structural or situational defects			X	35'	5.5
25	125	*Douglas-fir*	17		Poor	Dead		X			4.5
26	126	*Bigleaf maple*	22	20	Good	Large cavity under roots - probable marse tree, though tree i healthy; long term viability is questionable		X			7
27	127	*Leyland cypress*	8	6	Good	Tree has minimal structural or situational defects			X	10'	1
28	128	*Leyland cypress*	7	6	Good	Tree has minimal structural or situational defects			X	10'	1
29	129	*Leyland cypress*	9	6	Good	Tree has minimal structural or situational defects			X	10'	1
30	130	*Douglas-fir*	20	15	Poor	Crack's, Broken limbs, dead wood pogging bark		X			6
31	131	*Douglas-fir*	30	15	Poor	T'gn's hollow dead wood Prev. failure		X			11
32	132	*Western red cedar*	17	18	Good	Tree has minimal structural or situational defects			X	27'	4.5
33	133	*Western red cedar*	14	12	fair	Lean, necrotic tissue, no foliage		X			3
34	134	*Western red cedar*	12	15	fair	Co-dom leader, necrotic tissue no foliage		X			2
35	135	*Leyland cypress*	16"	10	fair	Grown in shade, Little foliage		X			4
36	136	*Leyland cypress*	8	6	fair	Grown in shade; little foliage		X			1
37	137	*Leyland cypress*	8	6	fair	Grown in shade; little foliage		X			1
38	138	*Leyland cypress*	8	6	fair	Grown in shade; little foliage	X			6	1
39	139	*Leyland cypress*	8	6	fair	Grown in shade; little foliage	X			6	1
40	140	*Leyland cypress*	6	6	fair	Grown in shade; little foliage		X			1
41	141	*Red alder*	8	6	Good	Tree has minimal structural or situational defects			X	9'	1
42	142	*Western red cedar*	6	6	fair	Grown in shade; little foliage	X				1
43	143	*Leyland cypress*	8	6	fair	Grown in shade; little foliage		X			1
44	144	*Leyland cypress*	9	6	fair	Grown in shade; little foliage		X			1
45	145	*Leyland cypress*	7	6	fair	Grown in shade; little foliage		X			1
46	146	*Leyland cypress*	6	6	fair	Grown in shade; little foliage		X			1
47	147	*Bigleaf maple*	30+	20	Poor	1f me flux, decay		X			21
48	148	*Douglas-fir*	22	20	Poor	Wounds, deadwood, topped		X			6
49	149	*Douglas-fir*	18	10	Poor	Dead wood, gogging bark, leans, topped		X			5
50	150	*Douglas-fir*	22	25	Poor	Dead wood, sap, pog bark, crack at 10'		X			7
51	151	*Leyland cypress*	8	6	fair	Dieback from shade		X			1
52	152	*Leyland cypress*	6	7	fair	Dieback from shade		X			1
53	153	*Leyland cypress*	6	6	fair	Dieback from shade		X			1
54	154	*Western red cedar*	20	15	Good	Needs light			X	22'	6
55	155	*Douglas-fir*	27	15	fair	Pog bar, dead wood top failure		X			9.5
56	156	*Leyland cypress*	6	6	Good	Tree has minimal structural or situational defects			X	9'	1
57	157	*Western red cedar*	22	15	Good?	No obvious flaws but could not see top			X	22'	7
58	158	*Douglas-fir*	23	10	Good?	Self-corrected lean, no obvious flaws			X	15'	7.5
59	159	*Western red cedar*	14	8	Poor	No foliage; too shady		X			3
60	160	*Western red cedar*	33	25	Fair?	Thin foliage ic of shade, roots healthy can't see top		X			12.5
61	161	*Western red cedar*	23	15	Good?	Roots good up to 40' OE, can't see top			X	22'	7.5
62	162	*Western red cedar*	11	15	fair	Suppressed canopy , self-corrected lean, can't see top		X			1.5
63	163	*Western red cedar*	21" & 14"	25	Fair/G sod	Structure more inclined to fail but tree is in overall good health			X	37'	1.5
64	164	*Western red cedar*	24	15	fair	Growing as a nurse tree		X			6
65	165	*Western red cedar*	22	15	fair	Sparse asym canopy		X			7
66	166	*Western red cedar*	23	26	Good	Tree has minimal structural or situational defects			X	39'	22.5
67	167	*Western red cedar*	13	15	Poor	Sparse foliage; suppressed canopy		X			2.5
68	168	*Western red cedar*	32	25	Good	Tree has minimal structural or situational defects			X	37'	12
69	169	*Locust*	5" & 6"	10	Poor	Leggy, poor branch attachments		X			1
70	170	*Western hemlock*	6	18	Good	Wooly aphid, flagging			X	27'	1
71	171	*Douglas-fir*	24	26	fair	Goning, Dead wood, Previous failure		X			6
72	172	*Douglas-fir*	18	15	Poor	Cracked trunk, multiple failure		X			5
73	173	*Holly*	6	8	Good	Tree has minimal structural or situational defects			X	12'	1
74	174	*Holly*	6	8	Good	Tree has minimal structural or situational defects			X	12'	1
75	175	*Douglas-fir*	29	20	Poor	Dead wood, coning necrotic tissue		X			11
76	176	*Douglas-fir*	24	20	Poor	Dead wood, sap, bird holes		X			11
77	177	*Douglas-fir*	30	22	Good	Pogging bark; dead wood			X	33'	11

#	Tree Tag #	Species ID	DBH (in)	Dripline Radius (ft)	Health	Defects/Comments	Proposed Action: Viable Retain	Proposed Action: Nonviable Remove	Proposed Action: Viable Remove (for improvement only)	Limits of Disturbance	Tree Credits
78	178	*Douglas-fir*	18	19	Fair	Multi top failure, dead wood, asym canopy		X			5
79	179	*Bigleaf maple*	20	26	Good	Some spacies typical dead wood			X	36'	6
80	180	*Bigleaf maple*	20	26	Good	Some spacies typical dead wood			X	36'	6
81	181	*Colorado blue spruce*	6	13	Dead/ very		X			15'	1
82	182	*Western red cedar*	7	4	Fair	Health is OE but acts as one tree with 107	X				1
83	183	*Bitter cherry*	12	10	Fair	Dead wood, multiple failure		X			2
84	184	*Bitter cherry*	10	13	Fair	Dead wood, mul tple failure; sparse leaf		X			1
85	185	*Bitter cherry*	12	22	Poor	Non self-corrected lean, soil heaved		X			1
86	186	*Western red cedar*	10	11	Fair	Sparse needle and branch growth	X				1
87	187	*Western red cedar*	110" & 97"	19	Fair	Tree healthy acts as single with 182	X				1
88	201	*Douglas-fir*	8	8	Poor	Restricted root zone, girdled; sap dead wood		X			1
89	202	*Douglas-fir*	36	25	Poor	Carpenter ants!		X			14
90	203	*Douglas-fir*	14	12	Fair/G sod	Sonic dead wood	X				3
91	204	*Douglas-fir*	24	21	Fair	Dead wood; top failure; sap		X			8
92	205	*Douglas-fir*	18	21	Fair	Dead wood; top failure; sap		X			5
93	206	*Douglas-fir*	14	15	Fair	Dead wood; top failure; sap		X			3
94	207	*Bigleaf maple*	14	13	Good	Multiple tops, crossinent with species			X	32'	3
95	208	*Red alder*	6	15	Good				X	23'	1
96	209	*Douglas-fir*	38	25	Fair/G sod	Dead wood, sap, multiple leaders bat healthy for age			X	37'	15
97	210	*Douglas-fir*	13	8	Poor	Top suppressed, lost top; sap		X			2.5
98	211	*Douglas-fir*	19	12	Fair	Suppressed, sap, dead wood		X			3.5
99	212	*Douglas-fir*	16	6	Poor	Dead wood, suppressed, asym; canopy		X			4
100	213	*Douglas-fir*	18	12	Poor	Lean, hazard crack @ 35'		X			5
101	214	*Douglas-fir*	23	18	Poor	Sap infection		X			7.5
102	215	*Douglas-fir*	14	12	Poor	Sap blister planted too close		X			3
103	216	*Douglas-fir*	14	13	Poor	Sap blister planted too close		X			3
104	217	*Douglas-fir*	14	13	Poor	Sap blister planted too close		X			3
105	218	*Douglas-fir*	19	13	Poor	Sap blister planted too close		X			5.5
106	219	*Douglas-fir*	14	13	Poor	Sap blister planted too close		X			3
107	220	*Douglas-fir*	32	20	Poor	Bulge at 5'; bird holes					12
108	221	*Douglas-fir*	22	18	Poor	Non corrected lean, asym canopy from growing in a tight space		X			7
109	222	*Douglas-fir*	6	5	Poor	Suppressed, dead wood, no meedles from growing in tight space		X			1
110	223	*Douglas-fir*	6	5	Poor	Suppressed, dead wood, no meedles from growing in tight space Dead wood, crack, little taper		X			1
111	224	*Douglas-fir*	6	5	Poor	Suppressed, dead wood, no meedles from		X			1
112	225	*Douglas-fir*	22	25	Poor	growing in tight space		X			7
113	226	*Western red cedar*	19" & 15"	25	Fair	Dead wood, crack, little taper Co-dom leaders with included bark, sorre dead wood but fairly healthy		X			3.5
114	227	*Bigleaf maple*	13	25	Fair	F healed wound		X			2.5
115	228	*Western red cedar*	17	25	Good	Tree has minimal structural or situational defects			X	37'	4.5
116	229	*Western red cedar*	42	29	Dead/ very	No visually noticeable defects			X	30'	17
117	230	*Lodgepole pine*	33	18	Fair	Dead needles on old growth		X			12.5
118	231	*Douglas-fir*	10	21	Fair	Dead wood, sap, coning, diminished taper; Best of two: 231 & 233		X			5
119	232	*Lodgepole pine*	30	18	Good	Some sap, dead wood, neglect			X	27'	11
120	233	*Douglas-fir*	17	18	Fair/G sod	Dead wood, sap, coning, diminished taper		X			4.5
121	234	*Douglas-fir*	15	22	Fair/G sod	Necrotic tissue, coad wood, coning; Best of tiees DOUGLAS FIR: 234, 235, 236			X	33'	3.5
122	235	*Douglas-fir*	15	15	Fair	Necrotic tissue, dead wood, coning		X			3.5
123	236	*Douglas-fir*	16	15	Fair	Necrotic tissue, dead wood, coning, lean to west		X			4
124	237	*Douglas-fir*	12	15	Poor	Co-dom leaders 6" apart		X			2
125	238	*Douglas-fir*	16	12	Poor	Multiple failures		X			4
126	239	*Douglas-fir*	19	15	Poor	Crack, dead wood		X			5.5
127	240	*Walnut*	8	12	Poor	Decay at crotch		X			1
128	241	*Douglas-fir*	16	15	Poor	Multiple failure, suppressed		X			4
129	242	*Weeping Alaskan cedar*	10	4	Dead/ very	No visually discernible defects			X	13'	1
130	243	*Weeping Alaskan cedar*	6"	5"	Dead/ very	No visually discernible defects			X	8'	1
131	244	*Vine maple*	13	13	Good	Tree has minimal structural or situational defects			X	20'	2.5
132	245	*Vine maple*	16	18	Good	Tree has minimal structural or situational defects			X	27'	4
133	246	*Vine maple*	12	13	Good	Tree has minimal structural or situational defects			X	20'	2.5
134	247	*Grand fir*	7	10	Good	Tree has minimal structural or situational defects			X	15'	1
135	248	*Weeping Alaskan cedar*	7	10	Good	Considering small area it is growing in			X	15'	1
136	249	*Weeping Alaskan cedar*	15	12	Fair	Asym crown, dead wood		X			3.5
137	250	*Vine maple*	11	15	Good	Tree has minimal structural or situational defects			X	22'	1.5
138	251	*Douglas-fir*	14	15	Poor	Multiple top failure, dead wood		X			3
139	252	*Acer Palmatum*	6	15	Dead/ very	No visually discernible defects			X	22'	1
140	253	*Douglas-fir*	36	25	Good	Some pogging bark, some dead wood			X	37'	14
141	254	*Douglas-fir*	10	15	Fair	Previous failure, dead wood, short candle tree growth		X			5
142	255	*Douglas-fir*	23	15	Poor	C-dom leader reduced to one, sparse, decay		X			7.5
143	256	*Douglas-fir*	13	15	Good	Self-corrected lean, dead wood, needle loss			X	22'	3.5
144	257	*Douglas-fir*	23	15	Fair	Sap, coning, necrotic tissue, 2 spurs		X			7
145	258	*Douglas-fir*	39	25	Good	Some decay, bird holes, dead wood			X	37'	15.5
146	259	*Douglas-fir*	28	21	Fair?	Multiple failures, sloughing bark, crack and self-corrected lean. The canopy of this tree needs to cleaned of dead wood and barging branches	X			23'	10
147	260	*Douglas-fir*	19	15	Poor	Multiple top failures, asym canopy, crack		X			5.5
148	261	*Douglas-fir*	33	25	Fair	Self-corrected lean pogging, bark, dead wood,girdling root		X			12.5
149	262	*Douglas-fir*	30	25	Fair	If leant with 261		X			11
150	263	*Douglas-fir*	17	20	Poor	Multiple failure pogging bark dead wood		X			4.5
151	264	*Douglas-fir*	38	29	Fair	Dead wood, pogging bark, needle drop		X		To retain: need 264,7 65,10 7 36'	15
152	265	*Douglas-fir*	38	30	Fair	Pogging bark, no taper			X	36'	15
153	266	*Douglas-fir*	10	15	Poor	Multiple top failure, sap, pogging bark dead wood		X			5
154	267	*Douglas-fir*	40	20	Fair	Dead wood, pogging bark		X			16
155	268	*Douglas-fir*	24	20	Poor	Pogging bark, asym lean crack at 40'		X			11
156	269	*Douglas-fir*	27	25	Fair/g sod	Dead wood, co-dom reduced to one			X	32'	9.5

#	Tree Tag #	Species ID	DBH (in)	Dripline Radius (ft)	Health	Defects/Comments	Proposed Action: Viable Retain	Proposed Action: Nonviable Remove	Proposed Action: Viable Remove (for improvement only)	Limits of Disturbance	Tree Credits
157	270	*Douglas-fir*	32	20	Good	Dead wood			X if kept with 271, 272	30'	12
158	271	*Douglas-fir*	21	20	Good	Dead wood			X if kept with 270&272	30'	6.5
159	272	*Douglas-fir*	17	15	Poor	Previous multi; failure, lean; pogging bark		X			4.5
160	273	*Douglas-fir*	17	15	Good	Dead wood			X if kept with 270&271	22'	4.5
161	274	*Douglas-fir*	33	20	Fair/G sod	Dead wood, some coning			X if kept with 273	30'	12.5
162	275	*Douglas-fir*	14	15	Fair/G sod	Dead wood, coning			X if kept with#274	22'	3
163	276	*Douglas-fir*	26	15	Fair	Dead wood		X			9
164	277	*Douglas-fir*	20	15	Poor	Lean, multiple failure, previous hedge		X			6
165	278	*Douglas-fir*	17	12	Fair	Pogging bark, dead wood		X			4.5
166	279	*Douglas-fir*	17	12	Poor	Poorly fanned roof crown wound		X			4.5
167	280	*Douglas-fir*	25	15	Poor	Lean in multi; previous failure		X			8.5
168	281	*Douglas-fir*	6	5	Poor	Suppressed canopy, sap,		X			1
169	282	*Western hemlock*	24	30	Poor	Coning, rocia cuit for foundation		X			8
170	283	*Douglas-fir*	18	15	Poor	Sloughing bark, popping bark, dead wood		X			5
171	284	*Douglas-fir*	12	10	Poor	Cracked trunk, badly decayed		X			2
172	285	*Douglas-fir*	30	18	Good	Co-dom leader reduced to one, dead wood			X	27'	11
173	286	*Douglas-fir*	26	20	Good	Dead wood, pogging bark			X	35'	9
174	287	*Douglas-fir*	38	25	Good	Dead wood, pogging bark			X	35'	15
175	288	*Douglas-fir*	30	20	Poor	Unbcaked wound, popping bark, dead wood		X			11
176	289	*Douglas-fir*	29	19	Poor	Dead wood, pogging bark		X			10.5
177	290	*Douglas-fir*	32	18	Poor	Dead wood, pogging bark, previous		X			7.5
178	291?	*Douglas-fir*	30	22	Fair	Dead wood pogging bark, previous failures	x			25	11
179	292	*Western hemlock*	17	25	Poor	Coning, asymm. canopy, lean roots entangled with 293		X			4.5
180	293	*Douglas-fir*	27	25	Fair	Multi failure at top, re dome reduced to 1 dead wood		X			9.5
181	294	*Douglas-fir*	17	15	Poor	Dead wood, crack at 12', spar at crack 33'		X			4.5
182	295	*Western hemlock*	13	14	Poor	Mult failure with spur, dead wood		X			2.5
183	296	*Douglas-fir*	23	18	Poor	Slime flux, pogging bc k		X			7.5
184	297	*Douglas-fir*	26	24	Fair	Self-corrected lean, pogging bark; multi failure		X			9
185	298	*Douglas-fir*	24	20	Poor	Dead wood, pogging ark, multi failure co-dom reduced to single		X			8
186	299	*Douglas-fir*	32	20	Poor	Black fungal with fruiting bodies		X			12
187	300	*Western hemlock*	24	20	Fair	Dead wood, insects, coning, interior needles dead		X			8
188	301?	*Douglas-fir*	13	10	Fair	Dead wood, coning	x			0	2.5
189	302?	*Douglas-fir*	14	8	Fair	Spar at root crown, sap bulge	x			0	3
190	303?	*Douglas-fir*	11	6	Poor	Sap, dead wood	x			0	1.5
191	304?	*Douglas-fir*	6	6	Fair	Dead wood, necrotic tissue	x			0	1
192	305	*Douglas-fir*	14	10	Good	Very little structural or environmental defects	x			15'	3
193	306?	*Douglas-fir*	34	25	Poor	Dead wood, necrotic tissue, coning, multi top failure	x			0	13
194	307	*Douglas-fir*	30	25	Poor	Decay, bird holes		1			11
195	349	*Native dogwood*	4 5run k 6" each	18	Fair	Anthracnose, few leaves		X			1
196	357	*Western red cedar*	17	9	Good	Drought stress			X	15'	4.5
197	320	*Douglas-fir*	27	20	Poor	Multiple unhealed wounds, pogging bark, self-corrected lean		X			9.5
198	347	*Douglas-fir*	28	20	Fair	Dead wood, crack, multiple failure		X			10
199	371	*Douglas-fir*	27	18	Good	Some pogging bark			X	27'	9.5
200	333	*Douglas-fir*	33	17	Fair	Dead wood, broken branches		X			13.5
201	367	*Douglas-fir*	32	18	Fair	Dead wood, broken branches,pogging bark		X			12
202	1	*Douglas-fir*	20	18	Fair	Asym canopy, dead branches, necrotic tissue		X			6
203	2	*Cottonwood*	11" & 11"	15	Poor	½ in dead		X			1.5
204	3	*Douglas-fir*	16	15	Fair	3-5 acts in 1 asymm. crown, dead wood		X			4
205	4	*Douglas-fir*	14	13	Fair	3-5 acts in 1 asymm. crown, dead wood		X			3
206	5	*Douglas-fir*	16	15	Fair/G sod	3-5 acts in 1 asymm. crown, dead wood		X			4
207	6	*Douglas-fir*	20	15	Poor	Suppressed canopy, shade, no needles		X			6
208	7	*Douglas-fir*	12	8	Fair	Grown in small space, no taper, dead wood		X			1
209	8	*Douglas-fir*	10	8	Fair	Grown in small space, no taper, dead wood		X			1
210	9	*American arborvitae*	8	12	Good	Few visually discernible defects or negative environmental problems			X	10'	8
211	10	*Douglas-fir*	24	15	Good	Few visually discernible defects or negative environmental problems			X	22'	6
212	34	*Western red cedar*	50	20	Good	Few visually discernible defects or negative environmental problems			X	25'	4
213	35	*Prunus*	8	15	Fair	Typical of older plum watersprouts, dead wood		X			4
214	36	*Lodgepole pine*	22		Fair	Co-dom leaders, dead wood, necrotic needle		X			1
215	37	*Western red cedar*	12		Fair	Needles die back, asym. Canopy		X			3.5
216	38	*Western red cedar*	10		Fair	Lean, previous top failure		X			6
217	39	*Lodgepole pine*	20	26	Good	Woodpecker damage, dead wood, needle dieback, typical of species, or. dom			X	30'	3
218	40	*Lodgepole pine*	20	20	Good	Few visually discernible defects or negative environmental problems			X	25'	1
219	41	*Nootkan cedar*	10	16	Fair/g sod	Asym, Canopy, with pruning ok			X with pruning	22'	1
220	42	*Apple*	18	24	Good	Dieback and dead wood typical of species,			X	27'	16
221	43	*Douglas-fir*	30					X			11
222	44	*Douglas-fir*	24					X			8
223	45	*Douglas-fir*	24		Fair	Topped		X			8
224	46	*Douglas-fir*	24		Fair	Co-dom reduced to one		X			8
225	47	*Douglas-fir*	21		Fair	2 large spurs		X			6.5
226	48	*Douglas-fir*	23		Fair	As a group OE individually severe asym		X			7.5
227	49	*Populus deltoides*	10	16	Good	Typical for species	X			15	1
228	50	*Douglas-fir*	20	18	Fair/G sod		X			30	6
229	51	*Douglas-fir*	18	20	Good	Dead wood	X			27	5
230	52	*Douglas-fir*	18	20	Good		X			25	5
231	+285	*Douglas-fir*	30	25	Fair	Pogging bark, bird holes, previous top failure, sap, grade lowered		X			11
232	+304	*Holly*	3 6" trunk 5	15	Good					X 15	1
233	+305	*Red Alder*	7		Poor	Multiple dead trunks, decay		X			1
234	+306	*Douglas-fir*	20"	18	Good				X	20	6
235	+273	*Douglas-fir*	22"	18	Good				X	20	7
236	307A	*Douglas-fir*	6"	6	Good				X	6	1
237	71A	*Dogwood*	10		Dead	Dead		X			1

Total number of tree credits	**1350.5**
Non-Viable Tree credits	**832.5**
Viable Tree Credits	**519**
Viable tree credits removed for improvements	**448**
Retained tree credits	**71**
Tree credits for 6.2 acres @ 30/ acre=	**186**
Replanting	**115**

***I have upgraded the health of this tree from "poor" to "fair" (previous remarks, now retained) deferring to the opinion of the City of Kirkland's consulting arborist Tom Early. We do not dispute the previous failures the tree has experienced nor the quantity of dead wood the tree currently has; our opinions differ as to whether the tree is overall improving in health or declining.**
***Retained per RH City of Kirkland 2014.03.25**
The limits of data furnce that I have assigned on this spreadsheet are estimates only for the purpose of planning, to comply with code recommendations they are on the high side. Actual LODs will need to be consistent and established at the time removal prior to grading to determine specific measures.

Call 2 Business Days Before You Dig
811 or 1-800-424-5555
Utilities Underground Location Center

REVISIONS

NO.	DATE	DESCRIPTION	BY
1	12-23-13	REVISED PER CITY/ARBORIST COMMENTS	MEV
2	4-2-14	REVISED PER CITY/ARBORIST COMMENTS	MEV
3	4-29-14	REVISED PER CITY/ARBORIST COMMENTS	MEV

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GLS LLC

VINTNERS WEST PUD

INTEGRATED DEVELOPMENT NOTES AND DETAILS

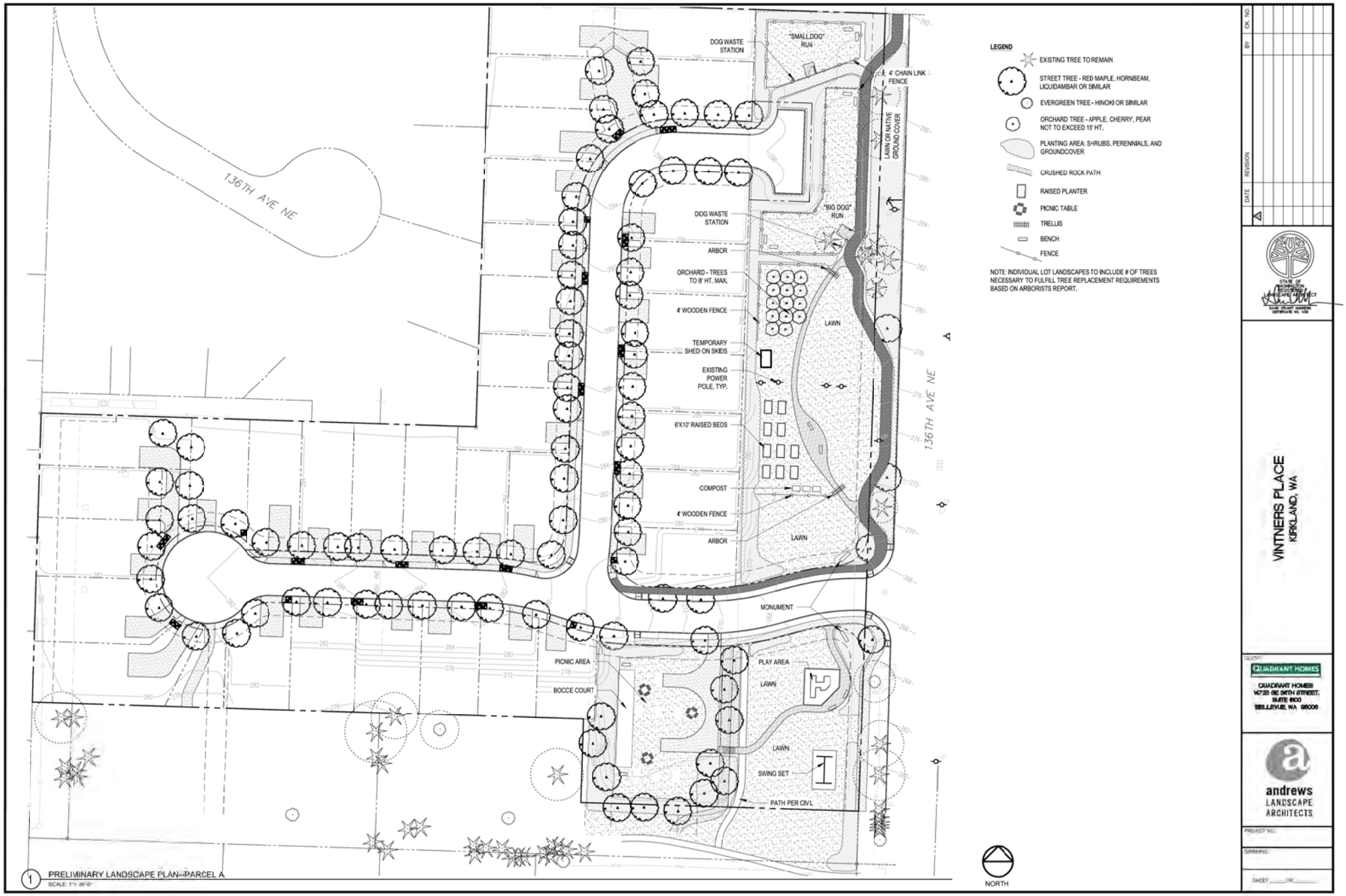
MARK E. VILLWOCK
STATE OF WASHINGTON
21060
REGISTERED PROFESSIONAL ENGINEER

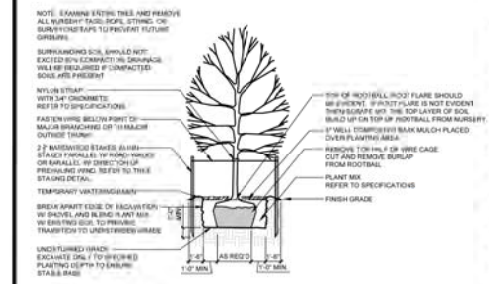
JOB NUMBER: 13-115
DRAWING NAME: 13115P-TR-PL
DESIGNER: MEV
DRAFTING BY: BFC
DATE: 1-20-13
SCALE: AS NOTED
JURISDICTION: KIRKLAND

TR-02

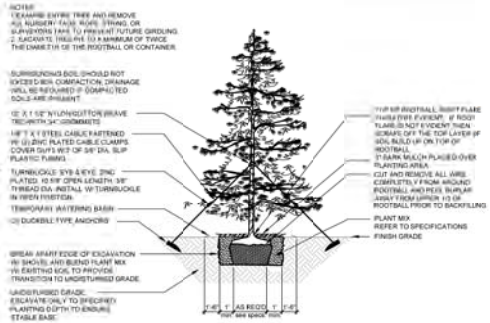
SHEET 12 OF 12

Drawing: P:\2013\13-115 Vintners West\Drawings\Preliminary\13115P-TR-PL.dwg Plotted: Apr 29, 2014 - 3:02pm

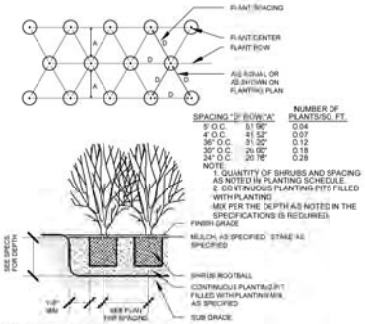

136TH AVE NE
DOG WASTE STATION
"SMALL DOG" RUN
4' CHAIN LINK FENCE
LAWN OR NATIVE GROUND COVER
"BIG DOG" RUN
DOG WASTE STATION
ARBOR
ORCHARD - TREES TO 8' HT. MAX.
4' WOODEN FENCE
TEMPORARY SHED ON SKIDS
EXISTING POWER POLE, TYP.
6'X10' RAISED BEDS
COMPOST
4' WOODEN FENCE
ARBOR
LAWN
LAWN
136TH AVE NE
MONUMENT
PICNIC AREA
BOCCE COURT
PLAY AREA
LAWN
LAWN
SWING SET
PATH PER CIVIL
LEGEND
EXISTING TREE TO REMAIN
STREET TREE - RED MAPLE, HORNBEAM, LIQUIDAMBAR OR SIMILAR
EVERGREEN TREE - HINOKI OR SIMILAR
ORCHARD TREE - APPLE, CHERRY, PEAR NOT TO EXCEED 15' HT.
PLANTING AREA: SHRUBS, PERENNIALS, AND GROUNDCOVER
CRUSHED ROCK PATH
RAISED PLANTER
PICNIC TABLE
TRELLIS
BENCH
FENCE
NOTE: INDIVIDUAL LOT LANDSCAPES TO INCLUDE # OF TREES NECESSARY TO FULFILL TREE REPLACEMENT REQUIREMENTS BASED ON ARBORISTS REPORT.
NORTH
1 PRELIMINARY LANDSCAPE PLAN--PARCEL A
SCALE: 1" = 20'-0"
CK. NO.
BY
DATE REVISION
VINTNERS PLACE
KIRKLAND, WA
QUADRANT HOMES
14725 SE 36TH STREET, SUITE #100
BELLEVUE, WA 98006
andrews LANDSCAPE ARCHITECTS
PROJECT NO.
DRAWING
SHEET



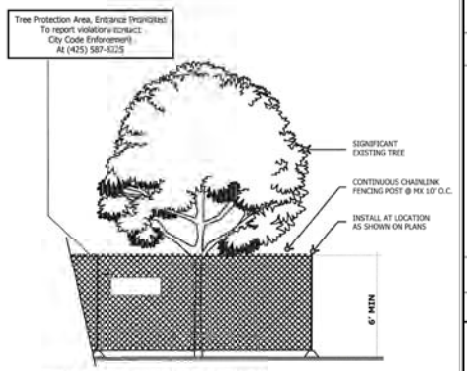
1 TREE PLANTING
SCALE: 1/4" = 1'-0"



2 EVERGREEN PLANTING
SCALE: 1/4" = 1'-0"



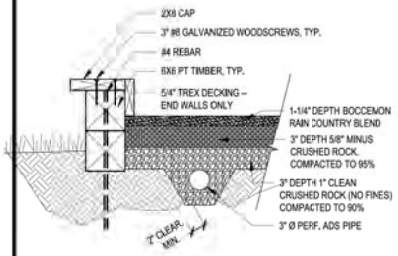
3 SHRUB PLANTING
SCALE: 1/2" = 1'-0"



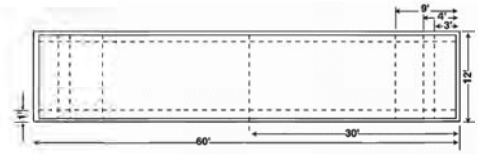
4 TREE PROTECTION FENCING
SCALE: NTS

TREE PROTECTION FENCING DETAIL
(for public and private trees)

1. MINIMUM SIX (6) FOOT HIGH TEMPORARY CHAIN LINK FENCE SHALL BE PLACED AT THE CRITICAL ROOT ZONE OR DESIGNATED LIMIT OF DISTURBANCE OF THE TREE TO BE SAVED. FENCE SHALL COMPLETELY ENCIRCLE TREE(S). INSTALL FENCE POSTS USING PIER BLOCK ONLY. AVOID ROOT OR STAKES INTO MAJOR ROOTS. MODIFICATIONS TO FENCING MATERIAL AND LOCATION MUST BE APPROVED BY PLANNING OFFICIAL.
2. TREATMENT OF ROOT(S) EXPOSED DURING CONSTRUCTION: ANY ROOTS OVER ONE (1) INCH DIAMETER DAMAGED DURING CONSTRUCTION, MAKE A CLEAN STRAIGHT CUT TO REMOVE DAMAGED PORTION OF ROOT. ALL EXPOSED ROOTS SHALL BE TEMPORARILY COVERED WITH DAMP BURLAP TO PREVENT DRYING AND COVERED WITH SOIL AS SOON AS POSSIBLE.
3. NO STOCKPILING OF MATERIALS, VEHICLE TRAFFIC, OR STORAGE OF EQUIPMENT OR MACHINERY SHALL BE ALLOWED WITHIN THE LIMIT OF THE FENCING. FENCING SHALL NOT BE MOVED OR REMOVED UNLESS APPROVED BY THE CITY PLANNING OFFICIAL. WORK WITHIN PROTECTION FENCE SHALL BE DONE MANUALLY UNDER THE SUPERVISION OF THE ON-SITE ARBORIST AND WITH PRIOR APPROVAL BY THE CITY PLANNING OFFICIAL.
4. FENCING SIGNAGE AS DETAILED ABOVE MUST BE POSTED EVERY FIFTEEN (15) FEET ALONG THE FENCE.

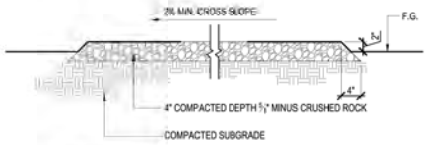


5 BOCCE COURT SECTION
SCALE: 3/4" = 1'-0"

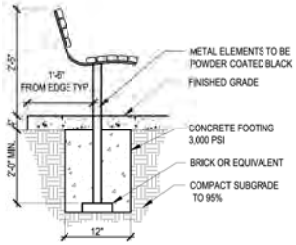


6 BOCCE COURT LAYOUT
SCALE: NTS

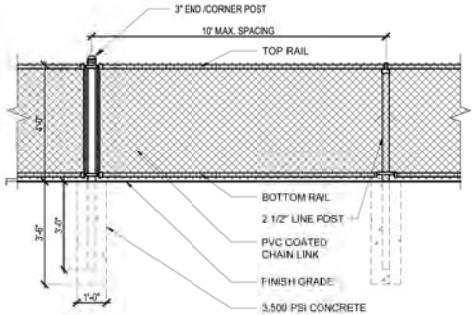
7 DOG WASTE STATION
SCALE: NTS



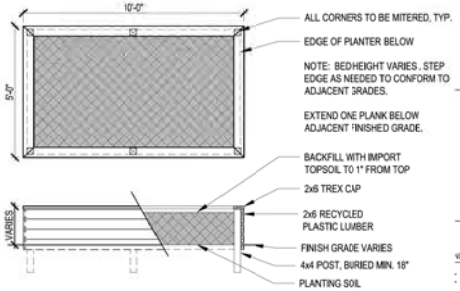
8 CRUSHED ROCK PATH
SCALE: 1" = 1'-0"



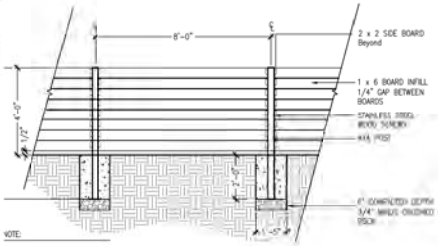
9 BENCH
SCALE: 3/4" = 1'-0"



10 CHAIN LINK FENCE
SCALE: 1/2" = 1'-0"



11 RAISED PLANTING BEDS
SCALE: 3/8" = 1'-0"



12 WOOD FENCE
SCALE: 3/8" = 1'-0"

DRAFT PLANTING AND SITE DETAILS

VINTNERS PLACE
KIRKLAND, WA

Owner:
QUADRANT HOMES
14725 SE 36TH STREET, SUITE 100
BELLEVUE, WA 98006

andrews LANDSCAPE ARCHITECTS

PROJECT NO.

DRAWING: L1.02

SHEET 2 OF 2

CITY OF KIRKLAND
Planning and Community Development Department
123 Fifth Avenue, Kirkland, WA 98033
425.587-3225 ~ www.kirklandwa.gov

David Barnes, Planner
425-587-3250
dbarnes@kirklandwa.gov

DEVELOPMENT STANDARDS LIST
VINTNER'S WEST SUBDIVISION AND PUD
File: SUB13-01508 and PUD ZON13-01509

SUBDIVISION STANDARDS

22.28.030 Lot Size. Unless otherwise approved in the preliminary subdivision or short subdivision approval, all lots within a subdivision must meet the minimum size requirements established for the property in the Kirkland zoning code or other land use regulatory document.

22.28.050 Lot Dimensions. For lots smaller than 5,000 square feet in low density zones, the lot width at the back of the required front yard shall not be less than 50 feet unless the garage is located at the rear of the lot or the lot is a flag lot.

22.28.130 Vehicular Access Easements. The applicant shall comply with the requirements found in the Zoning Code for vehicular access easements or tracts.

22.28.210 Significant Trees. A Tree Retention Plan was submitted with the plat in which the location of all proposed improvements were known. Therefore KZC 95.30.4 & 95.30.5 applies and the applicant has submitted an Integrated Development Plan (IDP) which staff and the City's Arborist, Tom Early have evaluated and recommend approval. Tom Early's Memorandum is attached below. The IDP is included as Attachment 5 of the staff report and shows the trees that must be retained and those that may be removed. There are 237 significant trees on the site, 210 of which are viable and 17 trees on site trees are proposed for retention. These trees have been assessed by the City's Urban Forester. They are identified by number in the following chart.

Significant Trees:	**High Retention Value**	**Moderate Retention Value**	**Low Retention Value** **(V)** – viable **(NV)** – not viable
102			Viable
103	✓		
104			Viable
108			Not viable
109			Not viable
110			Viable

111			Not viable
112		✓	
113			Not viable
114		✓	
115		✓	
116		✓	
117		✓	
118		✓	
119		✓	
120			Viable
121			Not viable
122		✓	
123		✓ - crowded with #124	
124			Viable
125			Not viable
126		✓	
127			Viable
128			Viable
129			Viable
130			Not viable
131			Viable
132			Viable
133		✓	
134		✓	
135		✓	
136		✓	
137		✓	
138	✓		
139	✓		
140			Viable
141			Viable
142		✓	
143			viable
144		✓	
145		✓	
146		✓	
147			Not viable
148			Viable
149			Viable
150			Viable
151			Viable
152		✓	
153			Viable
154			Viable
155			Viable

156			Viable
157		✓	
158			Viable
159			Viable
160			Viable
161		✓	
162		✓	
163		✓	
164		✓	
165		✓	
166		✓	
167		✓	
168		✓	
169			viable
170		✓ - minor disease	
171		✓	
172			Not viable
173		✓	
174		✓	
175		✓	
176		✓	
177		✓	
178			Not viable
179		✓ - included bark	
180		✓ - included bark	
181		✓	
182		✓	
183		✓	
184			Viable
185			Not viable
187		✓	
201			Not viable
208			Viable
209		✓	
210			Not viable
211		✓	
212		✓	
213			Not viable
214			Viable
215			Viable
216			Viable
217			Viable
218			viable
219			viable
220		✓	
221			Viable

222			Not viable
223			Not viable
224			Not viable
225			Not viable
226			Viable
227		✓	
228			Viable
229			Viable
230		✓	
231			Viable
232			Viable
233			Viable
234			Viable
235			Viable
236			Viable
237		✓ - included bark at top	
238			Viable
239		✓	
240			Viable
241		✓	
242			Viable
243			Viable
244			Viable
245			Viable
246		✓	
247		✓	
248		✓	
249			
250			Viable
251			Viable
252		✓	
253		✓	
254			
255			Viable
256		✓	
257		✓	
258		✓	
259			Viable
260			Viable
261		✓	
262		✓	
263		✓	
264		✓	
265		✓	
266			Viable

267		✓	
268			Not viable
269			Viable
270		✓	
271		✓	
272			Viable
273		✓	
274			Viable
275			Viable
276		✓	
277			Not viable
278		✓	
279			Viable
280			Viable
281		✓	
282		✓	
283			Viable
284			Viable
285		✓	
286		✓	
287		✓	
288			Viable
289	✓		
290		✓	
291	✓		
292			Viable
293			Viable
294			Not viable
295		✓	
296		✓	
297		✓	
298		✓	
299			Not viable
300		✓	
301	✓		
302	✓		
303	✓		
304	✓		
305	✓		
306	✓		
307			Not viable
349		✓	
357		✓	
320			Not viable
347			Viable
371			Viable

335			Viable
367		✓	
1			Viable
2			Not viable
3			Viable
4		✓	
5		✓	
6		✓	
7		✓	
8		✓	
9		✓	
10			Viable
36			Viable
37		✓	
38		✓	
39			Viable
40		✓	
41		✓	
42		✓	
43		✓	
44		✓	
45			Viable
46		✓	
47		✓	
48		✓	
6285	✓		
6304		✓	
6305			Not viable
6284		✓	
6275			Viable
167A	✓		
171A			Not viable

See Attachment 5 from Staff report for the Approved Integrated Development Plan (IDP) and the corresponding City Arborist memorandum regarding the IDP review (Attachment 10).

22.32.010 Utility System Improvements. All utility system improvements must be designed and installed in accordance with all standards of the applicable serving utility.

22.32.030 Stormwater Control System. The applicant shall comply with the construction phase and permanent stormwater control requirements of the Municipal Code.

22.32.050 Transmission Line Undergrounding. The applicant shall comply with the utility lines and appurtenances requirements of the Zoning Code.

22.32.060 Utility Easements. Except in unusual circumstances, easements for utilities should be at least ten feet in width.

27.06.030 Park Impact Fees. New residential units are required to pay park impact fees prior to issuance of a building permit. Please see KMC 27.06 for the current rate. Exemptions and/or credits may apply pursuant to KMC 27.06.050 and KMC 27.06.060. If a property

contains an existing unit to be removed, a "credit" for that unit shall apply to the first building permit of the subdivision.

Prior to Recording:

22.16.030 Final Plat - Lot Corners. The exterior plat boundary, and all interior lot corners shall be set by a registered land surveyor.

22.16.040 Final Plat - Title Report. The applicant shall submit a title company certification which is not more than 30 calendar days old verifying ownership of the subject property on the date that the property owner(s) (as indicated in the report) sign(s) the subdivision documents; containing a legal description of the entire parcel to be subdivided; describing any easements or restrictions affecting the property with a description, purpose and reference by auditor's file number and/or recording number; any encumbrances on the property; and any delinquent taxes or assessments on the property.

22.16.150 Final Plat - Improvements. The owner shall complete or bond all required right-of-way, easement, utility and other similar improvements.

22.32.020 Water System. The applicant shall install a system to provide potable water, adequate fire flow and all required fire-fighting infrastructure and appurtenances to each lot created.

22.32.040 Sanitary Sewer System. The developer shall install a sanitary sewer system to serve each lot created.

22.32.080 Performance Bonds. In lieu of installing all required improvements and components as part of a plat or short plat, the applicant may propose to post a bond, or submit evidence that an adequate security device has been submitted and accepted by the service provider (City of Kirkland and/or Northshore Utility District), for a period of one year to ensure completion of these requirements within one year of plat approval.

Prior to occupancy:

22.32.020 Water System. The applicant shall install a system to provide potable water, adequate fire flow and all required fire-fighting infrastructure and appurtenances to each lot created.

22.32.040 Sanitary Sewer System. The developer shall install a sanitary sewer system to serve each lot created.

22.32.090 Maintenance Bonds. A two-year maintenance bond may be required for any of the improvements or landscaping installed or maintained under this title.

ZONING CODE STANDARDS

85.25.1 Geotechnical Report Recommendations. The geotechnical recommendations contained in the report by AES dated April 26, 2013 shall be implemented.

95.51.2.a Required Landscaping. All required landscaping shall be maintained throughout the life of the development. The applicant shall submit an agreement to the city to be recorded with King County which will perpetually maintain required landscaping. Prior to issuance of a certificate of occupancy, the proponent shall provide a final as-built landscape plan and an agreement to maintain and replace all landscaping that is required by the City.

95.44 Parking Area Landscape Islands. Landscape islands must be included in parking areas as provided in this section.

95.45 Parking Area Landscape Buffers. Applicant shall buffer all parking areas and driveways from the right-of-way and from adjacent property with a 5-foot wide strip as

provided in this section. If located in a design district a low hedge or masonry or concrete wall may be approved as an alternative through design review.

95.50 Tree Installation Standards. All supplemental trees to be planted shall conform to the Kirkland Plant List. All installation standards shall conform to Kirkland Zoning Code Section 95.45.

95.52 Prohibited Vegetation. Plants listed as prohibited in the Kirkland Plant List shall not be planted in the City.

105.20 Required Parking. 2 parking spaces are required for each dwelling unit.

105.47 Required Parking Pad. Except for garages accessed from an alley, garages serving detached dwelling units in low density zones shall provide a minimum 20-foot by 20-foot parking pad between the garage and the access easement, tract, or right-of-way providing access to the garage. Applicant has requested through the PUD process for a depth of 18 feet for the parking pad.

110.60.5 Street Trees. All trees planted in the right-of-way must be approved as to species by the City. All trees must be two inches in diameter at the time of planting as measured using the standards of the American Association of Nurserymen with a canopy that starts at least six feet above finished grade and does not obstruct any adjoining sidewalks or driving lanes.

115.25 Work Hours. It is a violation of this Code to engage in any development activity or to operate any heavy equipment before 7:00 am. or after 8:00 pm Monday through Friday, or before 9:00 am or after 6:00 pm Saturday. No development activity or use of heavy equipment may occur on Sundays or on the following holidays: New Year's Day, Memorial Day, Independence Day, Labor Day, Thanksgiving, and Christmas Day. The applicant will be required to comply with these regulations and any violation of this section will result in enforcement action, unless written permission is obtained from the Planning official.

115.40 Fence Location. Fences over 6 feet in height may not be located in a required setback yard. A detached dwelling unit abutting a neighborhood access or collector street may not have a fence over 3.5 feet in height within the required front yard. No fence may be placed within a high waterline setback yard or within any portion of a north or south property line yard, which is coincident with the high waterline setback yard.

A detached dwelling unit may not have a fence over 3.5 feet in height within 3 feet of the property line abutting a principal or minor arterial except where the abutting arterial contains an improved landscape strip between the street and sidewalk. The area between the fence and property line shall be planted with vegetation and maintained by the property owner.

115.42 Floor Area Ratio (F.A.R.) Limits. Floor area for detached dwelling units is limited to a maximum floor area ratio in low density residential zones. See Use Zone charts for the maximum percentages allowed. This regulation does not apply within the disapproval jurisdiction of the Houghton Community Council. FAR has been requested to be modified with the PUD request.

115.43 Garage Requirements for Detached Dwelling Units in Low Density Zones. Detached dwelling units served by an open public alley, or an easement or tract serving as an alley, shall enter all garages from that alley. Whenever practicable, garage doors shall not be placed on the front façade of the house. Side-entry garages shall minimize blank walls. For garages with garage doors on the front façade, increased setbacks apply, and the garage width shall not exceed 50% of the total width of the front façade. These regulations do not apply within the disapproval jurisdiction of the Houghton Community Council. Section 115.43 lists other exceptions to these requirements.

115.75.2 Fill Material. All materials used as fill must be non-dissolving and non-decomposing. Fill material must not contain organic or inorganic material that would be detrimental to the water quality, or existing habitat, or create any other significant adverse impacts to the environment.

115.85 Rose Hill Business District Lighting Standards: See this section for specific requirements that apply to all exterior lighting on buildings, all open air parking areas and

equipment storage yards within this business district. The intent of this section is to discourage excessive lighting and to protect low density residential zones from adverse impacts that can be associated with light trespass from nonresidential and medium to high density residential development.

115.90 Calculating Lot Coverage. The total area of all structures and pavement and any other impervious surface on the subject property is limited to a maximum percentage of total lot area. See the Use Zone charts for maximum lot coverage percentages allowed. Section 115.90 lists exceptions to total lot coverage calculations See Section 115.90 for a more detailed explanation of these exceptions. The applicant has asked for a modification to the lot coverage with the PUD request.

115.95 Noise Standards. The City of Kirkland adopts by reference the Maximum Environmental Noise Levels established pursuant to the Noise Control Act of 1974, RCW 70.107. See Chapter 173-60 WAC. Any noise, which injures, endangers the comfort, repose, health or safety of persons, or in any way renders persons insecure in life, or in the use of property is a violation of this Code.

115.115 Required Setback Yards. This section establishes what structures, improvements and activities may be within required setback yards as established for each use in each zone.

115.115.3.g Rockeries and Retaining Walls. Rockeries and retaining walls are limited to a maximum height of four feet in a required yard unless certain modification criteria in this section are met. The combined height of fences and retaining walls within five feet of each other in a required yard is limited to a maximum height of 6 feet, unless certain modification criteria in this section are met.

115.115.3.n Covered Entry Porches. In residential zones, covered entry porches on dwelling units may be located within 13 feet of the front property line if certain criteria in this section are met. This incentive is not effective within the disapproval jurisdiction of the Houghton Community Council.

115.115.3.o Garage Setbacks. In low density residential zones, garages meeting certain criteria in this section can be placed closer to the rear property line than is normally allowed in those zones.

115.115.3.p HVAC and Similar Equipment: These may be placed no closer than five feet of a side or rear property line, and shall not be located within a required front yard; provided, that HVAC equipment may be located in a storage shed approved pursuant to subsection (3)(m) of this section or a garage approved pursuant to subsection (3)(o)(2) of this section. All HVAC equipment shall be baffled, shielded, enclosed, or placed on the property in a manner that will ensure compliance with the noise provisions of KZC 115.95.

115.115.5.a Driveway Width and Setbacks. For a detached dwelling unit, a driveway and/or parking area shall not exceed 20 feet in width in any required front yard, and shall be separated from other hard surfaced areas located in the front yard by a 5-foot wide landscape strip. Driveways shall not be closer than 5 feet to any side property line unless certain standards are met.

115.115.5.b Driveway Setbacks. For attached and stacked dwelling units in residential zones, driveways shall have a minimum 5' setback from all property lines except for the portion of any driveway, which connects with an adjacent street. Vehicle parking areas shall have a minimum 20-foot setback from all front property lines and meet the minimum required setbacks from all other property lines for the use.

115.120 Rooftop Appurtenance Screening. New or replacement appurtenances on existing buildings shall be surrounded by a solid screening enclosure equal in height to the appurtenance. New construction shall screen rooftop appurtenances by incorporating them in to the roof form.

115.135 Sight Distance at Intersection. Areas around all intersections, including the entrance of driveways onto streets, must be kept clear of sight obstruction as described in this section.

152.22.2 Public Notice Signs. Within seven (7) calendar days after the end of the 21-day period following the City's final decision on the permit, the applicant shall remove all public notice signs.

Prior to recording:

110.60.5 Landscape Maintenance Agreement. The owner of the subject property shall sign a landscape maintenance agreement, in a form acceptable to the City Attorney, to run with the subject property to maintain landscaping within the landscape strip and landscape island portions of the right-of-way (see Attachment). It is a violation to pave or cover the landscape strip with impervious material or to park motor vehicles on this strip.

110.60.6 Mailboxes. Mailboxes shall be installed in the development in a location approved by the Postal Service and the Planning Official. The applicant shall, to the maximum extent possible, group mailboxes for units or uses in the development.

Prior to issuance of a grading or building permit:

85.25.1 Geotechnical Report Recommendations. A written acknowledgment must be added to the face of the plans signed by the architect, engineer, and/or designer that he/she has reviewed the geotechnical recommendations and incorporated these recommendations into the plans.

85.45 Liability. The applicant shall enter into an agreement with the City, which runs with the property, in a form acceptable to the City Attorney, indemnifying the City for any damage resulting from development activity on the subject property which is related to the physical condition of the property

95.30(4) Tree Protection Techniques. A description and location of tree protection measures during construction for trees to be retained must be shown on demolition and grading plans. The Integrated Development Plan (IDP) shows the trees that must be protected and those that may be removed (see Attachment 5).

95.34 Tree Protection. Prior to development activity or initiating tree removal on the site, vegetated areas and individual trees to be preserved shall be protected from potentially damaging activities. Protection measures for trees to be retained shall include (1) placing no construction material or equipment within the protected area of any tree to be retained; (2) providing a visible temporary protective chain link fence at least 6 feet in height around the protected area of retained trees or groups of trees until the Planning Official authorizes their removal; (3) installing visible signs spaced no further apart than 15 feet along the protective fence stating "Tree Protection Area, Entrance Prohibited" with the City code enforcement phone number; (4) prohibiting excavation or compaction of earth or other damaging activities within the barriers unless approved by the Planning Official and supervised by a qualified professional; and (5) ensuring that approved landscaping in a protected zone shall be done with light machinery or by hand.

27.06.030 Park Impact Fees. New residential units are required to pay park impact fees prior to issuance of a building permit. Please see KMC 27.06 for the current rate. Exemptions and/or credits may apply pursuant to KMC 27.06.050 and KMC 27.06.060. If a property contains an existing unit to be removed, a "credit" for that unit shall apply to the first building permit of the subdivision.

DEVELOPMENT STANDARDS
SUB13-01508

PLANNING DEPARTMENT

BUILDING DEPARTMENT

BUILDING DEPARTMENT CONDITIONS TOM JENSEN (425) 587-3611

1. Prior to issuance of Building, Demolition or Land surface Modification permit applicant must submit a proposed rat baiting program for review and approval. Kirkland Municipal Ordinance 9.04.040
2. Currently, building permits must comply with the 2009 editions of the International Building, Residential and Mechanical Codes and the Uniform Plumbing Code as adopted and amended by the State of Washington and the City of Kirkland. Permit applications received on or after July 1, 2013 will need to comply with the 2012 editions as amended.
3. Currently, structures must comply with the 2009 Washington State Energy Code. Permit applications received on or after July 1, 2013 will need to comply with the 2012 edition.
4. Structures to be designed for seismic design category D, wind speed of 85 miles per hour and exposure B.
5. Plumbing meter and service line shall be sized in accordance with the current UPC.
6. Demolition permit required for removal of existing structures, if applicable.

FIRE DEPARTMENT

Contact: Grace Steuart at 425-587-3660; or gsteuart@kirklandwa.gov

New hydrants are required to be installed as shown on the plans submitted. They shall be equipped with 5" Storz fittings.

The fire flow requirement for this project is 1,000 gpm. The property is in Woodinville Water District. Certificate of water availability shall be provided from Woodinville Water.

Per Kirkland Municipal Code, all new buildings which are 5,000 gross square feet or larger require fire sprinklers. This requirement also applies to single family homes; the garage, porches, covered decks, etc, are included in the gross square footage. (This comment is included in the shortplat conditions for informational purposes only.)

PUBLIC WORKS DEPARTMENT

Permit #: SUB13-01508
Project Name: Vintner's West 35 lot Subdivision
Project Address: NE 129th Place and 136th Ave. NE
Date: May 9, 2014

General Conditions:

1. All public improvements associated with this project including street and utility improvements, must meet the City of Kirkland Public Works Pre-Approved Plans and Policies Manual. A Public Works Pre-Approved Plans and Policies manual can be purchased from the Public Works Department, or it may be retrieved from the Public Works Department's page at the City of Kirkland's web site at www.kirklandwa.gov.

2. This project will be subject to Public Works Permit and Connection Fees. It is the applicant's responsibility to contact the Public Works Department by phone or in person to determine the fees. The fees can also be review the City of Kirkland web site at www.kirklandwa.gov The applicant should anticipate the following fees:
- o Surface Water Connection Fees (paid with the issuance of a Building Permit)
- o Right-of-way Fee
- o Review and Inspection Fee (for utilities and street improvements).

o Traffic, Park and School Impact Fee (paid with the issuance of Building Permit). Any existing single family homes within this project which are demolished will receive a Traffic Impact Fee credit, Park Impact Fee Credit and School Impact Fee Credit. This credit will be applied to the first Building Permits that are applied for within the subdivision The credit amount for each demolished single family home will be equal to the most currently adopted Fee schedule

3. All street and utility improvements shall be permitted by obtaining a Land Surface Modification (LSM) Permit.

4. Submittal of Building Permits within a subdivision prior to recording:

• Submittal of a Building Permit with an existing parcel number prior to subdivision recording: A Building Permit can be submitted prior to recording of the subdivision for each existing parcel number in the subject project, however in order for the Building Permit to be deemed a complete application, all of the utility and street improvements for the new home must be submitted with application. However, the Building Permit will not be eligible for issuance until after the Land Surface Modification Permit is submitted, reviewed, and approved to ensure the comprehensive storm water design required by the subdivision approval is reviewed and approved, and then shown correctly on the Building Permit plans to match the Land Surface Modification Permit.

• Submittal of Building Permits within an Integrated Development Plan (IDP): If this subdivision is using the IDP process, the Building Permits for the new homes can only be applied for after the Land Surface Modification Permit has been submitted, reviewed, and approved.

• Submittal of a Building Permit within a standard subdivision (non IDP): If this subdivision is not using the IDP process, the Building Permits for the new houses can be applied for after the subdivision is recorded and the Land Surface Modification permit has been submitted, reviewed, and approved.

• Review of Expedited or Green Building Permits: A new single family home Building Permit within a subdivision can only be review on an expedited or green building fast track if submitted electronically through MBP and the Land Surface Modification permit has been submitted, reviewed, and approved.

• Review of detached multi-family building permits: Detached multi-family building permits can only be applied for after the Land Surface Modification permit submitted, reviewed, and approved.

5. Subdivision Performance and Maintenance Securities:
• The subdivision can be recorded in advance of installing all the required street and utility improvements by posting a performance security equal to 130% of the value of work. This security amount will be determined by using the City of Kirkland's Improvement Evaluation Packet. Contact the Development Engineer assigned to this project to assist with this process.
• If the Developer will be installing the improvements prior to recording of the subdivision, there is a standard right of way restoration security ranging from $10,000.00 to 30,000.00 (value determined based on amount of right-of-way disruption). This security will be held until the project has been completed. Once the subdivision has been completed there will be a condition of the permit to establish a two year Maintenance security.

6. This project received Concurrency on August 29, 2013

CERTIFICATE OF CONCURRENCY: This project has been reviewed and approved for water, sewer, and traffic concurrency. Any water and sewer mitigating conditions are listed within the conditions below. Any traffic mitigating conditions will be found in an attached memorandum from the Public Works Traffic Engineering Analyst to the Planning Department Project Planner. Upon issuance of this permit, this project shall have a valid Certificate of Concurrency and concurrency vesting until the permit expires. This condition shall constitute issuance of a Certificate of Concurrency pursuant to chapter 25.12 of the Kirkland Municipal Code.

7. Building Permits associated with this proposed project will be subject to the traffic, park, and school impact fees per Chapter 27 of the Kirkland Municipal Code. The impact fees shall be paid prior to issuance of the Building Permit(s).

8. All civil engineering plans which are submitted in conjunction with a building, grading, or right-of-way permit must conform to the Public Works Policy titled ENGINEERING PLAN REQUIREMENTS. This policy is contained in the Public Works Pre-Approved Plans and Policies manual.

9. All street improvements and underground utility improvements (storm, sewer, and water) must be designed by a Washington State Licensed Engineer; all drawings shall bear the engineers stamp.

10. All plans submitted in conjunction with a building, grading or right-of-way permit must have elevations which are based on the King County datum only (NAVD 88).

11. A completeness check meeting is required prior to submittal of any Building Permit applications.

12. Puget Sound Energy (PSE) Easements: The applicant shall notify PSE by certified mail, return receipt requested, of their plans to subdivide the property or install improvements with a copy of the notice and the return receipt provided to the City. If the applicant does not provide documentation of PSE approval before recording of the plat or installation of the improvement in a form acceptable to the City, the property owner shall also sign an agreement to defend, indemnify and hold the City harmless in the event that a dispute arises between PSE and the developer, property owner, or any future property owners.

15. Olympic Pipe Line: See Per KZC 118.40 for full code language:

- The applicant shall show the hazardous pipeline corridor and applicable setbacks on site plans, subdivisions and short subdivisions for proposed development.
- The applicant shall provide verification that the pipeline operator has received and reviewed the development notice required in section KZC 115.52.030. All comments provided by the operator shall be submitted or the operator shall confirm in writing that the operator has no comments.
- No landfilling or excavation and no construction or expansion of structures is allowed within the corridor other than those authorized by the pipeline operator. All development activity, landfilling, excavation and construction shall be setback a minimum of 25 feet from the edge of the corridor. However, streets, utilities, trails and similar uses shall be exempt from the setback and construction requirements above, provided that the pipeline operator shall be notified prior to landfilling, excavation or construction.

16. Because this project is within 150' of the Olympic Pipe Line (Gas), the applicant is required to locate the eastern edged of the pipeline easement on all plans and is required to give notice to Olympic Pipeline prior to any construction on this property. The City will not issue any construction related permits until proof of notice has been given and acknowledged by Olympic Pipe Line. Contact Information:
Holly Williamson
Olympic Pipe Line Field Project Coordinator
2319 Lind AVE SW
Renton, WA 98057
Holly.Williamson@bp.com
425-235-7767

17. The required tree plan shall include any significant tree in the public right-of-way along the property frontage.

18. All subdivision recording documents shall include the following language:

Utility Maintenance: Each property owner shall be responsible for maintenance of the sanitary sewer, storm water stub, rain garden, permeable pavement, or any infiltration facilities (known as Low Impact Development) from the point of use on their own property to the point of connection in the City sanitary sewer main or storm water main. Any portion of a sanitary sewer, surface water stub, rain garden, permeable pavement, or any infiltration facilities, which jointly serves more than one property, shall be jointly maintained and repaired by the property owners sharing such stub. The joint use and maintenance shall "run with the land" and will be binding on all property owners within this subdivision, including their heirs, successors and assigns.

Public Right-of-way Sidewalk and Vegetation Maintenance: Each property owner shall be responsible for keeping the sidewalk abutting the subject property clean and litter free. The property owner shall also be responsible for the maintenance of the vegetation within the abutting landscape strip. The maintenance shall "run with the land" and will be binding on all property owners within this subdivision, including their heirs, successors and assigns.

If the lots have on-site private storm water facilities, include this language on the subdivision recording document:

Maintenance of On-site Private Stormwater Facilties: Each Lot within the Subdivision has a stormwater facility (infiltration

trench, dry wells, dispersion systems, rain garden, and permeable pavement) which is designed to aid storm water flow control for the development. The stormwater facility within the property shall be owned, operated and maintained by the Owner. The City of Kirkland shall have the right to ingress and egress the Property for inspection of and to reasonable monitoring of the performance, operational flows, or defects of the stormwater/flow control facility.
If the City of Kirkland determines related maintenance or repair work of the stormwater facility is required, the City of Kirkland shall give notice to the Owner of the specific maintenance and/or repair work required. If the above required maintenance or repair is not completed within the time set by the City of Kirkland, the City of Kirkland may perform the required maintenance or repair, or contract with a private company capable of performing the stormwater facility maintenance or repair and the Owner will be required to reimburse the City for any such work performed.
The Owner is required to obtain written approval from the City of Kirkland prior to replacing, altering, modifying or maintaining the storm water facility.

Water and Sanitary Sewer Conditions:

1. Northshore Utility District approval required for sewer service and Woodinville Water District approval required for water service. A letter of utility availability has been submitted from each Utility District.

Surface Water Conditions:

1. Provide temporary and permanent storm water control per the 2009 King County Surface Water Design Manual and the Kirkland Addendum. See Policies D-2 and D-3 in the PW Pre-Approved Plans for drainage review information, or contact city of Kirkland Surface Water staff at (425) 587-3800 for help in determining drainage review requirements. Summarized below are the levels of drainage review based on site and project characteristics:

Full Drainage Review
A full drainage review is required for any proposed project, new or redevelopment, that will:
Add or replaces 5,000ft2 or more of new impervious surface area,
Propose 7,000ft2 or more of land disturbing activity, or,
Be a redevelopment project on a single or multiple parcel site in which the total of new plus replaced impervious surface area is 5,000ft2 or more and whose valuation of proposed improvements (including interior improvements but excluding required mitigation and frontage improvements) exceeds 50% of the assessed value of the existing site improvements.

2. Evaluate the feasibility and applicability of dispersion, infiltration, and other stormwater low impact development facilities on-site (per section 5.2 in the 2009 King County Surface Water Design Manual). If feasible, stormwater low impact development facilities are required. See PW Pre-Approved Plan Policy L-1 for more information on this requirement.

3. Because this project site is one acre or greater, the following conditions apply:
- Amended soil requirements (per Ecology BMP T5.13) must be used in all landscaped areas.
- If the project meets minimum criteria for water quality treatment (5,000ft2 pollution generating impervious surface area), the enhanced level of treatment is required if the project is multi-family residential, commercial, or industrial. Enhanced treatment targets the removal of metals such as copper and zinc.
- The applicant is responsible to apply for a Construction Stormwater General Permit from Washington State Department of Ecology. Provide the City with a copy of the Notice of Intent for the permit. Permit Information can be found at the following website: http://www.ecy.wa.gov/programs/wq/stormwater/construction/
  - Among other requirements, this permit requires the applicant to prepare a Storm Water Pollution Prevention Plan (SWPPP) and identify a Certified Erosion and Sediment Control Lead (CESCL) prior to the start of construction. The CESCL shall attend the City of Kirkland PW Dept. pre-construction meeting with a completed SWPPP.
- Turbidity monitoring by the developer/contractor is required if a project contains a lake, stream, or wetland.
- A Stormwater Pollution Prevention and Spill (SWPPS) Plan must be kept on site during all phases of construction and shall address construction-related pollution generating activities. Follow the guidelines in the 2009 King County Surface Water Design Manual for plan preparation.

4. The storm water detention system shall be designed to Level II standards. Historic (forested) conditions shall be used as the pre-developed modeling condition.

5. This project is creating or replacing more than 5000 square feet of new impervious area that will be used by vehicles

(PGIS - pollution generating impervious surface). Provide storm water quality treatment per the 2009 King County Surface Water Design Manual. The enhanced treatment level is encouraged when feasible for multi-family residential, commercial, and industrial projects.

6. Provide a level one off-site analysis (based on the King County Surface Water Design Manual, core requirement #2).

7. This permit condition serves as notice that the developer has been notified that the Army Corps of Engineers (COE) has asserted jurisdiction over upland ditches draining to streams. Either an existing Nationwide COE permit or an Individual COE permit may be necessary for work within ditches, depending on the project activities.
Applicants should obtain the applicable COE permit; information about COE permits can be found at: U.S. Army Corps of Engineers, Seattle District Regulatory Branch http://www.nws.usace.army.mil/PublicMenu/Menu.cfm?sitename=REG&pagename=mainpage_NWPs

Specific questions can be directed to: Seattle District, Corps of Engineers, Regulatory Branch, CENWS-OD-RG, Post Office Box 3755, Seattle, WA 98124-3755, Phone: (206) 764-3495

8. Provide an erosion control report and plan with Building or Land Surface Modification Permit application. The plan shall be in accordance with the 2009 King County Surface Water Design Manual.

9. Construction drainage control shall be maintained by the developer and will be subject to periodic inspections. During the period from May 1 and September 30, all denuded soils must be covered within 7 days; between October 1 and April 30, all denuded soils must be covered within 12 hours. Additional erosion control measures may be required based on site and weather conditions. Exposed soils shall be stabilized at the end of the workday prior to a weekend, holiday, or predicted rain event.

10. As part of the roof and driveway drainage conveyance system for each new house, each lot shall contain a 10 ft. long (min.) perforated tight line connection with an overflow to the public storm drain system (COK Plan No. CK-D.39). The tight line connections shall be installed with the individual new houses.

11. Provide a separate storm drainage connection for each lot.

12. All roof and driveway drainage must be tight-lined to the storm drainage system or utilize low impact development techniques.

Street and Pedestrian Improvement Conditions:

1. The subject property abuts 136th Ave. NE. This street is a Collector type street. The project also has new internal streets that will be Neighborhood Access type streets Zoning Code sections 110.10 and 110.25 require the applicant to make half-street improvements in rights-of-way abutting the subject property. Section 110.30-110.50 establishes that this street must be improved with the following:

136th Ave. NE
A. Widen the street to 32 ft. from the face of the new curb being installed on the east side of the street (this cross section provides two 11 ft. travel lanes and two 5-ft wide bike lanes).
B. Install storm drainage collection and curb and gutter.
C. Install a meandering 8 ft. wide concrete sidewalk as shown on the plans or in areas where there is not a conflict with existing significant trees, install an 8 ft. wide sidewalk with street trees in 4x6 tree wells 30 ft. on-center. All landscaping in the areas from the back of the new curb to the west edge of the 136th Ave. NE right-of-way and in Tract C and B shall be maintained by the project HOA.

Neighborhood Access Road (new streets within the project) These streets shall be developed to R-24 standards:

Road A
-136th Ave NE to intersection with Road B
A. Dedicate 45 ft. of right-of-way
B. Install 24 ft. of pavement, storm drainage, curb and gutter, 4.5 ft. wide landscape strips with street trees 30 ft. on center and 5 ft. wide sidewalks along both sides.
-From intersection with Road B to Cul-de-sac

C. Dedicate 40 ft. of right-of-way
D. Install 24 ft. of pavement, storm drainage, curb and gutter, a 4.5 ft. wide landscape strip with street trees 30 ft. on center along both sides.
E. Install a 5 ft. sidewalk along one side (as shown).
F. The cul-de-sac shall be 70 ft. in diameter within an 80 ft. diameter dedication. Install vertical curb and gutter, storm drainage, and a 4.5 ft. wide landscape strips with street trees 30 ft. on center (where feasible) around the perimeter
G. At the west end of Road A, install an 8 ft. wide concrete sidewalk from the south edge of the cul-de-sac to the south edge of the plat (preliminary sidewalk location depicted on plans). The sidewalk shall terminate at the common property corner between lots 30 and 31 within the proposed plat to the south. The said sidewalk shall be encompassed in a 10 ft. wide public pedestrian easement.
H. At the south edge of Road A and at the east property line of lot 35, install an 8 ft. wide concrete sidewalk from the sidewalk along the south side of Road A across Tract A to the sidewalk installed along the north side of NE 129th Street by the proposed plat to the south. The said sidewalk shall be encompassed in a 10 ft. wide public pedestrian easement.
I. Developer is opting to construct sidewalk along one side of Road A and participate in Sidewalk Construction-in-lieu program; see sidewalk fee-in-lieu comments below.

Road B
-From intersection with Road A to the north end of Road B
A. Dedicate 40 ft. of right-of-way
B. Install 24 ft. of pavement, storm drainage, curb and gutter, a 4.5 ft. wide landscape strip with street trees 30 ft. on center along both sides.
C. Install a 5 ft. sidewalk along one side (as shown).
J. At the north end of the road, install a Fire Department standard hammerhead turn-around and encompass the turn-around with vertical curb and gutter and No-Parking anytime signs. Dedicate right-of-way at least 5 ft. wider than the face of the curb around the hammerhead. The hammerhead is being recommended in lieu of a cul-de-sac because no homes front on the turn-around and the hammerhead will result in less impervious area. Construct an 8 ft. wide concrete sidewalk from the east edge of the hammerhead to the sidewalk along 136th Ave. NE. The sidewalk shall be encompassed in a 10 ft. wide public pedestrian easement.
D. Developer is opting to construct sidewalk along one side of Road A and participate in Sidewalk Construction-in-lieu program; see sidewalk fee-in-lieu comments below.

Sidewalk Construction-in-lieu: The developer has asked to participate in the Sidewalk Construction-in-lieu program as outlined in KZC Chapter 110.70. In lieu of building sidewalk along both sides of Road A and Road B (and dedicating right-of-way to encompass the sidewalk), the developer will instead construct off-site sidewalk in the neighborhood at a location agreed to by the Public Works Department. The value of the off-site sidewalk improvements will be 75% of the value of sidewalk and right-of-way dedication that developer would have built within the project.

2. The private access tract shall meet requirements per KZC 105.

3. All lots located at an intersection shall meet the minimum driveway setbacks from an intersection; see Public Works Policy R-4.

4. A 2-inch asphalt street overlay will be required where three or more utility trench crossings occur within 150 lineal ft. of street length or where utility trenches parallel the street centerline. Grinding of the existing asphalt to blend in the overlay will be required along all match lines. The project should plan on an overlay of 136th Ave. NE.

5. The driveway for each lot shall be long enough so that parked cars do not extend into the access easement or right-of-way (20 ft. min.)

6. All street and driveway intersections shall not have any visual obstructions within the sight distance triangle. See Public Works Pre-approved Policy R.13 for the sight distance criteria and specifications.

7. Prior to the final of the building or grading permit, pay for the installation of stop and street signs at the new intersections.

8. Install "NO PARKING ANYTIME" signs along 136th Ave NE, around the perimeter of the Road A cul-de-sac, and around the perimeter of the Road B hammerhead.

9. Install new stop signs at intersections as directed by Public Works.

10. Install new monuments at all new street intersections and other points as directed by the land surveyor.

11. It shall be the responsibility of the applicant to relocate any above-ground or below-ground utilities which conflict with the project associated street or utility improvements.

12. Underground all new and existing on-site utility lines and overhead transmission lines.

13. Underground all overhead frontage lines along 136th Ave. NE.

14. New street lights are required per Puget Power design and Public Works approval. Contact the INTO Light Division at PSE for a lighting analysis. The lighting design must be submitted prior to issuance of a grading or building permit.

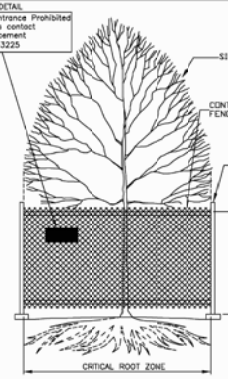
15. Street lights along Neighborhood Access type streets require a lighting district be established with serving utility district.

NW 1/4, NW 1/4, SEC 27, TWN 26 N, RGE 5 E, W.M., CITY OF KIRKLAND, KING COUNTY, WASHINGTON

FENCING SIGN DETAIL

LAST REVISED:01/30/09

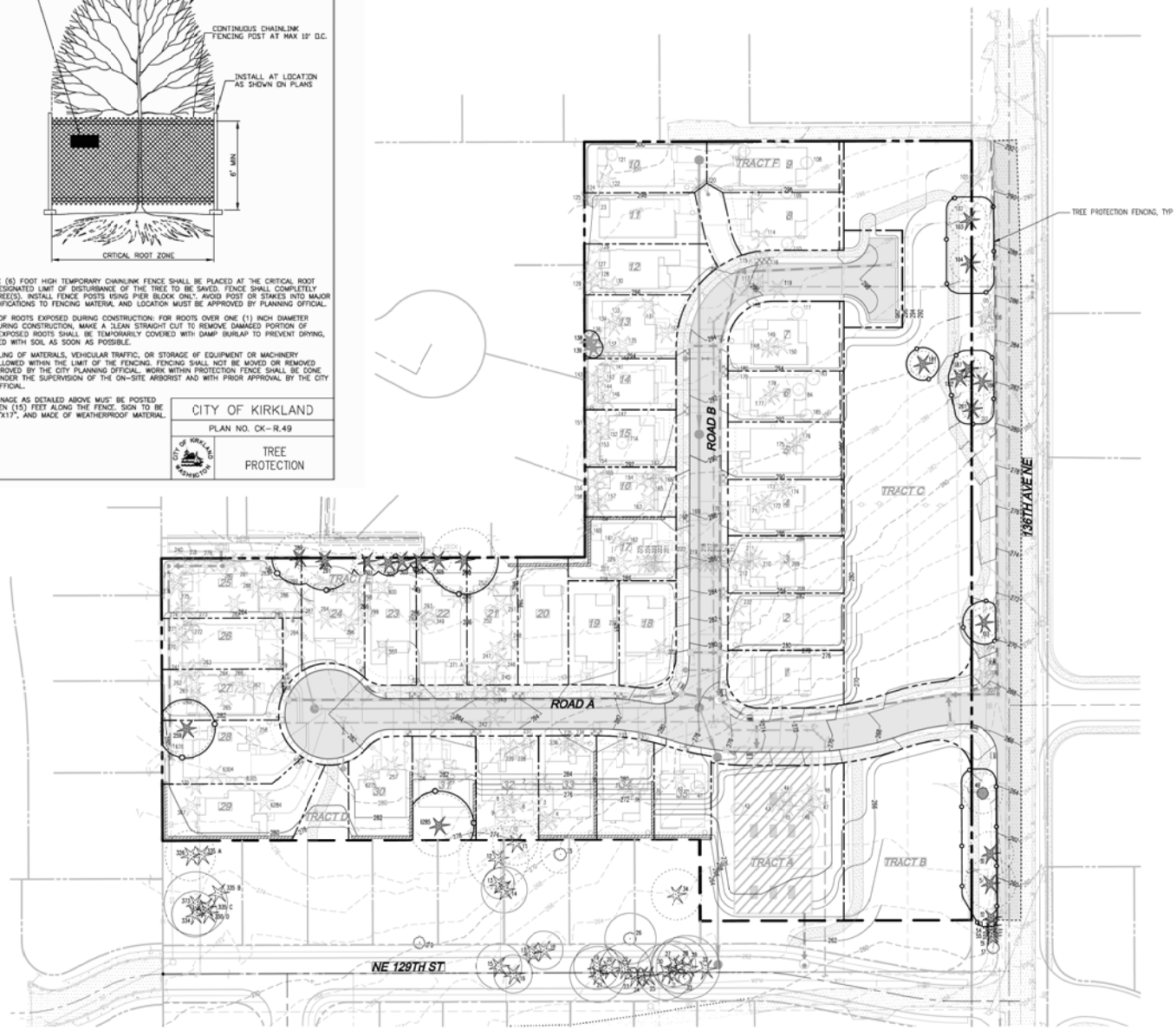
Tree Protection Area, Entrance Prohibited
To report violations contact
City Code Enforcement
at (425) 587-3225

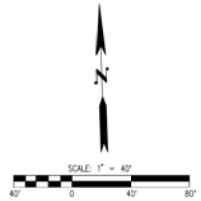


NOTES

1. MINIMUM SIX (6) FOOT HIGH TEMPORARY CHAINLINK FENCE SHALL BE PLACED AT THE CRITICAL ROOT ZONE OR DESIGNATED LIMIT OF DISTURBANCE OF THE TREE TO BE SAVED. FENCE SHALL COMPLETELY ENCIRCLE TREE(S). INSTALL FENCE POSTS USING PIER BLOCK ONLY. AVOID POST OR STAKES INTO MAJOR ROOTS. MODIFICATIONS TO FENCING MATERIAL AND LOCATION MUST BE APPROVED BY PLANNING OFFICIAL.
2. TREATMENT OF ROOTS EXPOSED DURING CONSTRUCTION: FOR ROOTS OVER ONE (1) INCH DIAMETER DAMAGED DURING CONSTRUCTION, MAKE A CLEAN STRAIGHT CUT TO REMOVE DAMAGED PORTION OF ROOT. ALL EXPOSED ROOTS SHALL BE TEMPORARILY COVERED WITH DAMP BURLAP TO PREVENT DRYING, AND COVERED WITH SOIL AS SOON AS POSSIBLE.
3. NO STOCKPILING OF MATERIALS, VEHICULAR TRAFFIC, OR STORAGE OF EQUIPMENT OR MACHINERY SHALL BE ALLOWED WITHIN THE LIMIT OF THE FENCING. FENCING SHALL NOT BE MOVED OR REMOVED UNLESS APPROVED BY THE CITY PLANNING OFFICIAL. WORK WITHIN PROTECTION FENCE SHALL BE DONE MANUALLY UNDER THE SUPERVISION OF THE ON-SITE ARBORIST AND WITH PRIOR APPROVAL BY THE CITY PLANNING OFFICIAL.
4. FENCING SIGNAGE AS DETAILED ABOVE MUST BE POSTED EVERY FIFTEEN (15) FEET ALONG THE FENCE. SIGN TO BE MINIMUM 11"X17", AND MADE OF WEATHERPROOF MATERIAL.

CITY OF KIRKLAND
PLAN NO. CK-R.49
TREE PROTECTION





LEGEND

- EXISTING TREE TO BE REMOVED
- EXISTING TREE TO REMAIN
- EXISTING OFFSITE TREE

TREE DENSITY CALCULATIONS

SIGNIFICANT TREES ON SITE=	237 - 1348.5 CREDITS
VIABLE SIGNIFICANT TREES ONSITE=	87 - 539
NON-VIABLE SIGNIFICANT TREES ONSITE=	150 - 809.5
TREES TO BE SAVED=	20 - 91 CREDITS
TREE CREDITS REQUIRED=	186
TREES TO BE PLANTED=	95

NOTES

1. SEE LANDSCAPE PLANS FOR TREES TO BE PLANTED.
2. SEE SHEET TR-02 FOR ARBORIST REPORT AND DETAILS.

SURVEY DISCLAIMER

TOPOGRAPHIC SURVEY FOR TAX LOT NUMBER 2726059095 WAS PERFORMED BY DR STRONG.

THE TOPOGRAPHIC SURVEY WAS PERFORMED BY LDC, INC. IN APRIL 2013. ANY CHANGES TO THE SITE AFTER THIS DATE WILL NOT BE REFLECTED IN THE PLANS. ANY DISCREPANCIES FOUND BETWEEN WHAT IS SHOWN ON THE PLANS AND WHAT IS NOTED IN THE FIELD SHOULD BE BROUGHT IMMEDIATELY TO THE ATTENTION OF THE ENGINEER.

Call 2 Business Days Before You Dig
811 or 1-800-424-5555
Utilities Underground Location Center

REVISIONS

NO.	DATE	DESCRIPTION	BY
1	12-31-13	REVISED PER CITY/ARBORIST COMMENTS	MEV
2	4-2-14	REVISED PER CITY/ARBORIST COMMENTS	MEV
3	4-29-14	REVISED PER CITY/ARBORIST COMMENTS	MEV

LDC
Engineering
Structural
Planning
Survey
THE CIVIL ENGINEERING GROUP
14301 NE 20th St., #100
Bellevue, WA 98007
Ph. 425.895.1900
Fx. 425.895.1908
www.LDCinc.com

GLS LLC

VINTNERS WEST PUD

INTEGRATED DEVELOPMENT PLAN

MARK E. VILLWOCK
STATE OF WASHINGTON
20060
REGISTERED PROFESSIONAL ENGINEER

JOB NUMBER:	13-115
DRAWING NAME:	3115P-TR-PL
DESIGNER:	MEV
DRAFTING BY:	BPC
DATE:	11-20-13
SCALE:	1"=40'
JURISDICTION:	KIRKLAND

TR-01

SHEET 11 OF 12

Drawing: P:\2013\13-115 Vintners West\Drawings\Preliminary\13115P-TR-PL.dwg Plotted: Apr 29, 2014 - 2:58pm

January 30, 2014

To: Mr. David Barnes

City of Kirkland Planning Department

123 Fifth Avenue

Kirkland, WA 98033

From: Concerned residents of Wethersfield Subdivision abutting proposed Vinter's West Subdivision

Re: Vinter's West SUB13-01508

We the undersigned home owners in the Wethersfield Subdivision, whose property abuts the proposed Vinter's West Subdivision, respectfully asks the City of Kirkland's Planning Department to require the developer to establish a privacy screening buffer/easement along the west edge of their property at the rear of proposed lots 25-29 to border the east property line of Wethersfield lots 20-24.

We note that there is an existing 15 ft. stormwater drainage easement along this same corridor as described above. It would seem reasonable to use this same easement for privacy screening. We ask that the developer be required to plant this strip with Leyland cypress trees planted 10 feet from the property line 6 feet on-center. The outcome of our discussions with a certified arborist suggest that these trees are very suitable for our climate, are inexpensive, and make an excellent "privacy tree hedge."

In so requesting, we note that in the Permit Details – General Conditions for SUB13-01508, No. 12. "Street and Pedestrian Improvement Conditions," the City of Kirkland is requiring sidewalks that do not "conflict with existing significant trees" and "street trees in 4 X 6 wells 30 ft. on-center" along 136th Avenue NE. Internally on Road A, the developer is required to provide "4.5 ft. wide landscape strips with street trees 30 ft. on center." This is nice for the future residents of Vinter's West and those who drive along 136th Ave. NE, but offers no such relief for the abutting property owners who are the ones directly impacted by this new development.

Rationale:

1. The City of Kirkland should protect, as much as possible, the existing life style, property values, noise levels, air pollution, traffic congestion, etc. of the current impacted home owners when large developers apply for a zoning permit and new subdivision.

2. When our Wethersfield subdivision was being built in 1980, King County required the developer to put in a "20' screening easement" along the property line referred to above. This was done because the neighbors on two of the large lots now being subsumed by the proposed Vinter's West subdivision complained that the new Wethersfield development would be a detriment to their privacy, solitude, and property value. Now that "the shoe is on the other foot," we ask that the City of Kirkland, now some 30 years later when planners are much more aware of the importance of such concerns, require a similar screening easement from the developer of Vinter's West.

3. The projected plans for Vinter's West will entail the removal of more than 50 mature Douglas fir trees along with numerous other vegetation and replace five homes with 35 homes. This will destroy our existing privacy, sound, and sight barrier from 136th NE and eastward where there is both ongoing and projected new construction along with increased traffic noise. Accordingly, and in trade, we ask for some public benefit in the form of the suggested screening/buffer easement as noted above.

We thank you for your consideration of our request:

	Name	**Address**	**Telephone**	**E-mail**
Printed:	Jack W. Berryman	12924 133rd Pl NE Kirkland, WA 98034	425-821-1774	
Signed:				cohojack@hotmail.com
Printed:	Szuchi Chen	12918 133rd Pl NE Kirkland, WA 98034		
Signed:				szuchichen@hotmail.com
Printed:	Hsien-yi Chen	12918 133rd Pl NE Kirkland, WA 98034		
Signed				szuchichen@hotmail.com

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From: Jill McCallum
To: David Barnes; Tony Leavitt
Cc: "Craig McCallum"
Subject: RE: Permit Numbers SUB13-02088 and SUB13-01508
Date: Tuesday, January 28, 2014 9:19:53 PM

Hello David, Thank you for the detailed information.

I am currently travelling but after a quick review I am very concerned at the outcome of the tree report. I need to be home to evaluate what trees are shown on the diagram. First I would like to comment that we will be hiring a professional surveyor for the back property line. I am concerned after I met the surveyor for the proposed track leaning over the back fence between the properties back in the Spring. He commented at that time our deck was within the 5 feet set back required from the property line, actually said it was within 3 feet which is completely wrong. King County actually came out to verify it was within code and met the five foot offset, after our discussions about the failing bios wale. This was about six years ago. This leads me to believe the new survey was incorrect as I am sure our deck or house did not move since 1999, and we need to evaluate about a two foot stretch that is now in contention of ownership.

I need to confirm when I return but I believe tree 306 has been mislabeled by the arborist. There is a very large over 100 year old tree that he has labeled as “hedge”. This tree specifically, certainly straddles the property line. It is at least 1 – 2 feet on our side and has displaced the fencing line by more than a foot. The other two trees I am concern about, given the survey, is 289 and 291. It is unclear if these are the two trees clearly on our side of the fence line or some of the smaller trees the lot owner behind us did plant as a “hedge”. The fence seems to not be displaced in that area so possibly the trees located in the Allison Estates (2 specific trees) are not even the ones in question. The existing home owner is not a friendly man and would never had allowed even an inch of property be given up. So I am confident in my stand.

I want to specifically understand which trees on our shared lot line are actually affected and based on the mapping that is hard to tell, especially with the surveyors report and lot line findings. Is each tree now marked with a number so I can review this on property? I do know the man behind us planted many trees in 1999 that are failing and need to be removed.

Another consideration that needs to be reviewed is the retaining wall planned for south of Allison estates. The water is a problem and disrupted land could create an issue with our property sliding south. Until you live through the amount of water that comes from our side it is hard to appreciate. Even King County was surprised by the amount that flows in this area when we showed them video. I would like more detail on the retaining wall, both in material and height please. Additionally we have 2 large Cedar trees that root systems are likely to be in this area. We need to understand the affect of cutting their roots systems to install the retaining wall.

We will certainly lose all of our privacy to the South that was afforded us by the property size and vegetation. While we appreciate the need for growth and housing in Kirkland we want to make sure our home and interests are secured.

I am not sure what I need to do next but until we can finalize a survey and determine the trees which will be extracted we need to formally state our disagreement with the existing plans as set to me by you. We want to take the actions to reconcile these issues. We will contact our attorney and have a surveyor recommended.

It is in our best interest to work with both Kirkland and the builders to make sure the plan works for all concerned, and again are not against the development of this property given the correct findings.

I will be returning on Monday, February 3. Following the Super bowl win by the Seahawks!

GO HAWKS!

Kind regards,
Jill

From: David Barnes [mailto:DBarnes@kirklandwa.gov]
Sent: Friday, January 24, 2014 3:29 PM
To: 'Jill McCallum'; Tony Leavitt
Subject: RE: Permit Numbers SUB13-02088 and SUB13-01508

Hi Jill,

I am the Project Planner for the Vintner's West development (File No. SUB13-01508). Thank you for submitting your questions about the proposed development.

1. I can comment on the proposed development, but not Allison Estates drainage because I don't have any information about it except that in the attached site plan it shows a "tract B" that connects to a storm water drainage easement that connects to a 10 foot wide drainage easement that runs south to across the rear of the proposed lots 25-29 (see attached survey and site plan). An easement on the Vintner's West property will be maintained. I will forward your comment to our Public Works Department to see if they have anything to add regarding the storm water swale on Allison Estates (your development)located to the north of the proposed Vintner's West Development.
2. The Trees on the Vintner's West site that are adjacent to your property are proposed to be removed. The trees have been surveyed and are shown on the Vintner's West property(see pages 11 & 12) of the attached Development proposal. The trees to be removed are not located on the Allison Estates property. The applicant is requesting that an Integrated Tree Plan be reviewed and approved with this subdivision application. I have attached the Integrated Development plan sheet and the arborist report for reference. The site will be required to plant trees to reach a reach a certain tree density of 144 tree credits. The City will review this proposal and will make a recommendation to the Hearing Examiner. The Hearing Examiner will hold a public hearing and afterwards make a recommendation to the City Council regarding the approval of this application.
3. Tree Removal and infrastructure placement (sewer, storm, gas, water and electricity) will likely come after the submittal and approval of grading permit. The grading permit cannot be issued until we are done processing the Subdivision and Planned Unit Development (PUB) application. As Tony Leavitt mentioned, we will require the rodents to be gone prior to any clearing or other development. Animals which are protected such as Salmon or Bald Eagles can be protected, but unfortunately other animal wildlife is not protected from development.

Please let me know if this email answers most of your questions.

Please feel free to call me as well.

Sincerely,

David Barnes, CSBA, **LEED AP BD + C**
Planner
Planning & Community Development
City of Kirkland
425-587-3250
dbarnes@kirklandwa.gov

From: Jill McCallum [mailto:jillmccallum@pacrimaero.com]
Sent: Wednesday, January 22, 2014 5:34 PM
To: Tony Leavitt; David Barnes
Subject: Permit Numbers SUB13-02088 and SUB13-01508

Hello David and Tony,

I am emailing you as our family home is one of the homes which back up to the planned projects.
Permit Numbers SUB13-02088 and SUB13-01508
(SUB13-01508 is most directly affected)

Craig and Jill McCallum
13057 134th AVE NE, Kirkland, formerly known as Allison Estates lot 13.

There are three specific issues that I want to make sure are fully considered and handled with care and concern during this process.

1) The water management system; Our property surrounds the Allison estates surface water drainage system (bio-swale). Our family has maintained this for all 13+ years, between clearing, mowing and seeding. It has been a very difficult system and one that was not designed or built to drawing as was discussed several times with the King County water management system. Each year (more than once) the grates plug and the system nearly overflows. The pipe that dumps into the system has been left open for years and is a concern for other neighbors with small children. We would support this system going to a closed system to mitigate all these problems.
2) The large trees/foliage which share the property line between our back yard and the proposed new development; There are several large tress that are on or very near the back property line of our home. We would like to understand the plan of which trees will remain and which ones are scheduled to be removed.
3) The displacement of a large amount of animals and birds. Often we see coyote, raccoon, the occasional deer, once a bobcat and a wide variety of birds daily. This is a general issue but one that needs to be understood as this is becoming one of the last eco systems for such a diverse animal population. Stages of clearing needs to be considered to coax the animals into the valley where they will develop new homes. Pests such as rats will also be an issue during clearing. We would like to know the counter measures that will be taken to protect our home and property.

In general we do not have issues with the development of Kirkland. We are Kirkland business owners and we are active members of the community. Growth is important as long as the proper diligence and

consideration is given to the development. I am happy to sit down with either or both of you and look forward to seeing the planning.

Thank you for your time.

Kind regards,
Jill

Jill McCallum
President
Pacific Rim Aerospace
+1.425.284.7300
www.PacRimAero.com

CITY OF KIRKLAND
Planning and Community Development Department
123 Fifth Avenue, Kirkland, WA 98033
425.587.3225 - www.kirklandwa.gov

MEMORANDUM

To: Eric R. Shields, AICP
Planning Director

From: David Barnes, Planner

Date: February 20, 2014

Subject: Environmental Determination – SEP13-01512 for Vintner's West Subdivision
Case No. SUB13-01508

I have had an opportunity to visit the site and review the environmental checklist for the project referenced above. The City's Traffic Engineer has recommended a stop sign for this project that is documented in the Public Works Development Standards. I have not identified any significant adverse environmental impacts. Therefore, I recommend that a Determination of Non-Significance be issued for this proposed action.

Should you have any questions, please contact me.

SEPA ENCLOSURES
1. Environmental Checklist
2. Vicinity Map
3. Site Plan
4. Traffic Impact Analysis, prepared by TENW, dated November 26, 2013
5. Memo from City's Traffic Engineer

Review by Responsible Official:
I concur x

I do not concur ☐

Comments: _____

_____

_____

Eric R. Shields, AICP
Planning Director

February 20, 2014
Date

Attachment 8

QUADRANT HOMES

14725 SE 36th Street, Suite 200
Bellevue, WA 98006
(425) 455-2900
QuadrantHomes.com

PRODUCT DESIGN BY
QUADRANT ARCHITECTURAL SERVICES DEPT.

PLAN SUMMARY

MATERIALS LIST

'A' ELEVATION MODERN PRAIRIE

- COMPOSITION ROOF SHINGLES
- WOOD COLUMNS (FRONT PORCH)
- PRE-PRIMED WHITE WOOD COLUMNS (COVERED PATIOS, TRIM COLOR)
- WOOD TRIM (COLOR AS SHOWN)
- 8" LAP SIDING (PRIMARY COLOR)
- 4" LAP SIDING (SECONDARY COLOR)
- TONGUE AND GROVE SOFFIT (FRONT PORCH)
- HARDI PANEL SOFFIT (COVERED PATIOS)
- 14"X28" FRENCH STONE VENEER
- 8' GARAGE DOOR (TRIM COLOR)
- 8' ENTRY DOOR (ACCENT COLOR)

'B' ELEVATION MODERN CRAFTSMAN

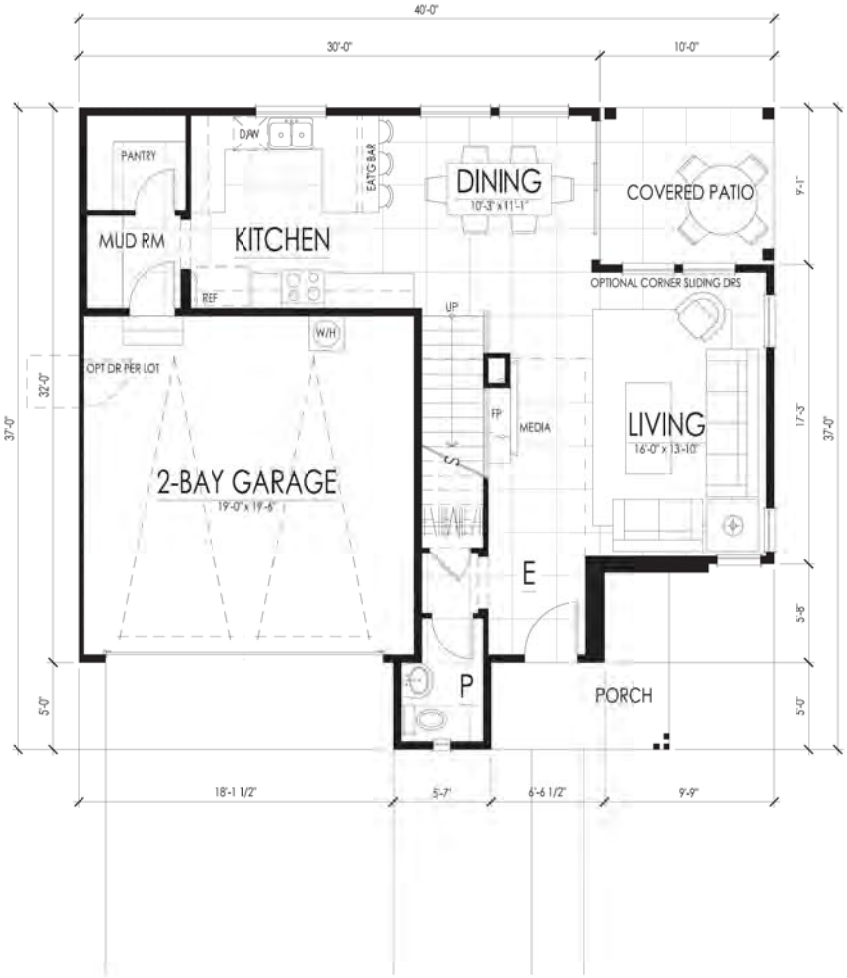
- COMPOSITION ROOF SHINGLES
- PRE-PRIMED WHITE WOOD COLUMNS (TRIM COLOR)
- WOOD TRIM (COLOR AS SHOWN)
- 8" LAP SIDING (PRIMARY COLOR)
- 4" LAP SIDING (SECONDARY COLOR)
- HARDI PANEL SOFFIT (TRIM COLOR)
- CULTURED STONE VENEER
- WOOD CORBELS (TRIM COLOR)
- 8' GARAGE DOOR (TRIM COLOR)
- 8' ENTRY DOOR (ACCENT COLOR)

'C' ELEVATION MODERN FARM HOUSE

- COMPOSITION ROOF SHINGLES
- METAL ROOFS
- PRE-PRIMED WHITE WOOD COLUMNS (TRIM COLOR)
- WOOD TRIM (COLOR AS SHOWN)
- 8" LAP SIDING (PRIMARY COLOR)
- BOARD & BATTEN SIDING (SECONDARY COLOR)
- HARDI PANEL SOFFIT (TRIM COLOR)
- WOOD CORBELS (TRIM COLOR)
- CEDAR VENTS (TRIM COLOR)
- SHED ROOF DETAIL (TRIM COLOR, METAL ROOF)
- KNEE BRACES (TRIM COLOR)
- 8' GARAGE DOOR (TRIM COLOR)
- 8' ENTRY DOOR (ACCENT COLOR)

Attachment 8

M7x FLOOR PLANS



Attachment 8

M7x ELEVATIONS

frontELEVATION A

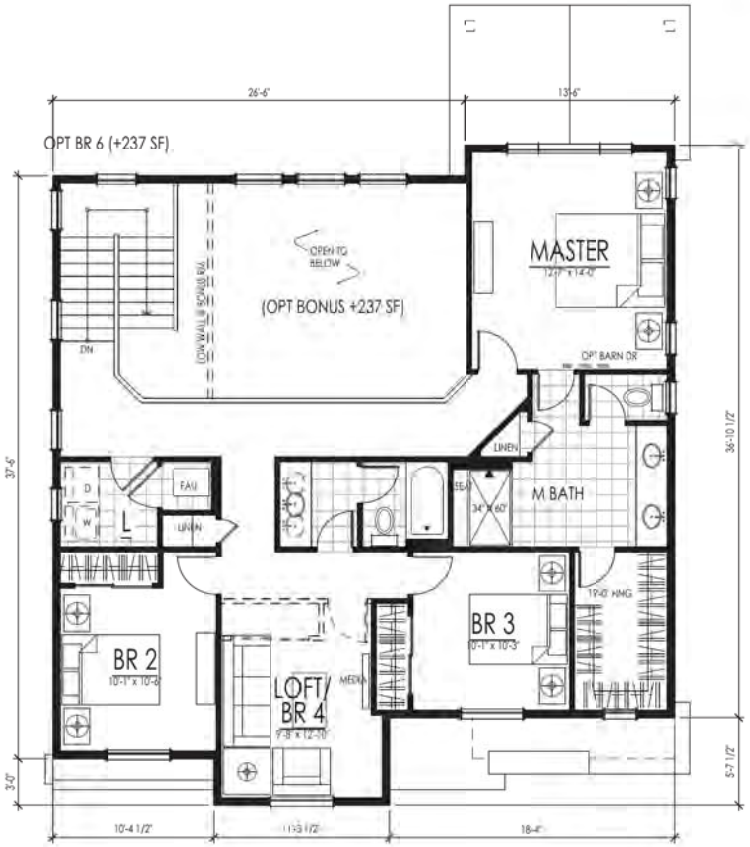
frontELEVATION B

frontELEVATION C

O-4449
Exhibit A

Attachment 8

H220 FLOOR PLANS



Attachment 8

H220 ELEVATIONS

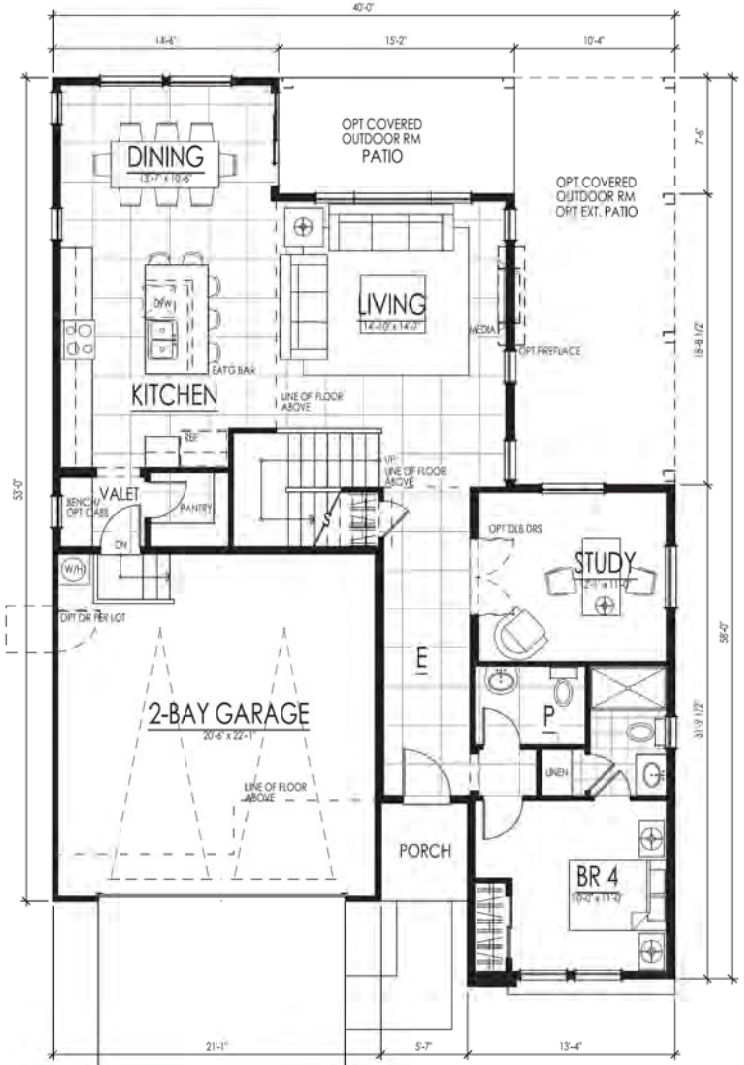
frontELEVATION A

frontELEVATION B

frontELEVATION C

Attachment 8

H240 FLOOR PLANS



Attachment 8

H240 ELEVATIONS

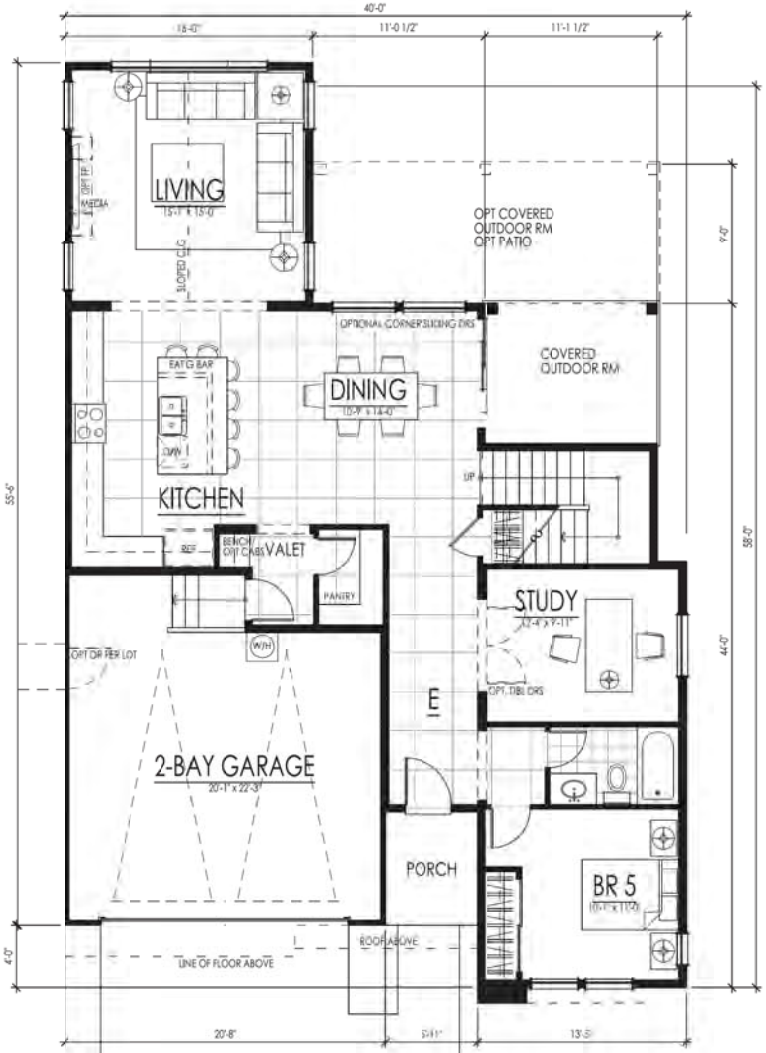
frontELEVATION A

frontELEVATION B

frontELEVATION C

Attachment 8

H280 FLOOR PLANS



Attachment 8

H280 ELEVATIONS

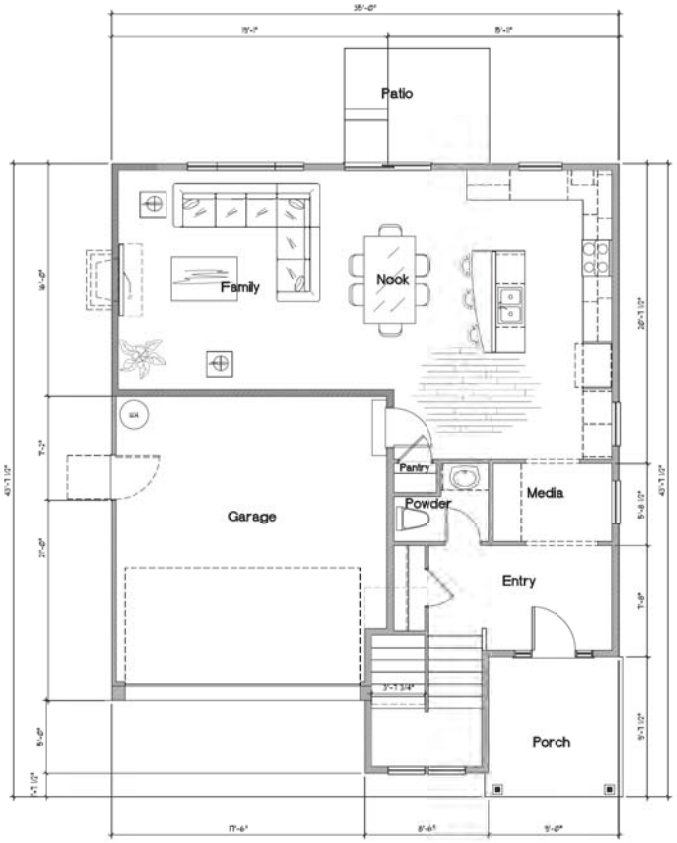
frontELEVATION A

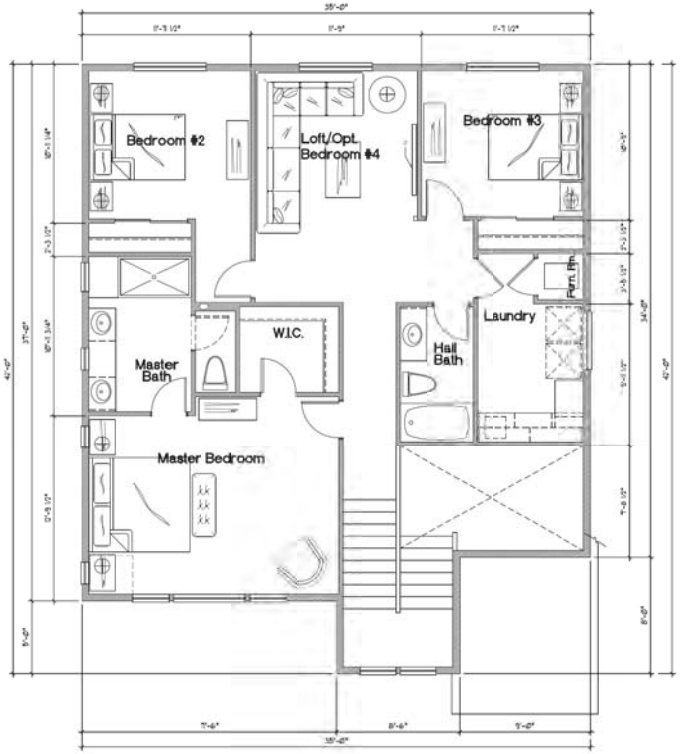
frontELEVATION B

frontELEVATION C

Attachment 8

P200 FLOOR PLANS





Attachment 8

P200 ELEVATIONS

scale: 1/4"=1'

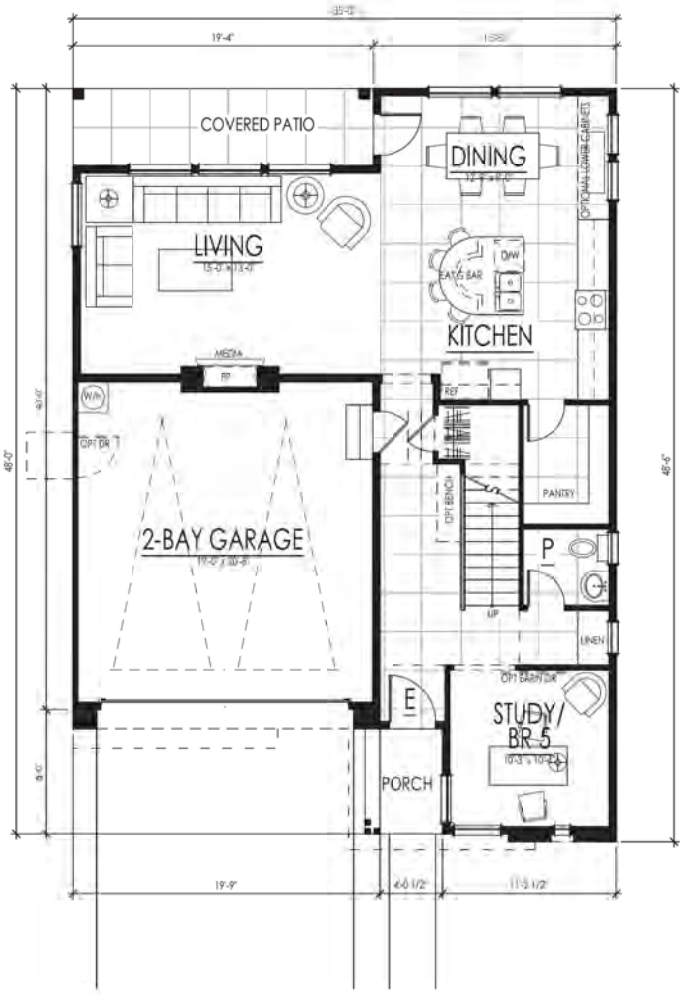
frontELEVATION A

scale: 1/4"=1'

frontELEVATION B

Attachment 8

M5 FLOOR PLANS



Attachment 8

M5 ELEVATIONS

frontELEVATION A

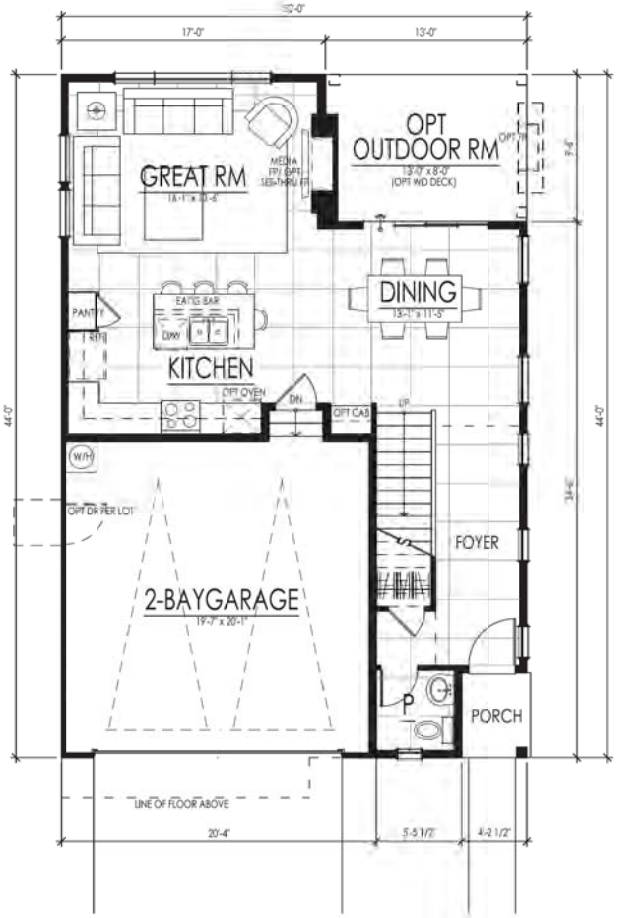
frontELEVATION B

frontELEVATION C

O-4449
Exhibit A

Attachment 8

G180 FLOOR PLANS



Attachment 8

G180 ELEVATIONS

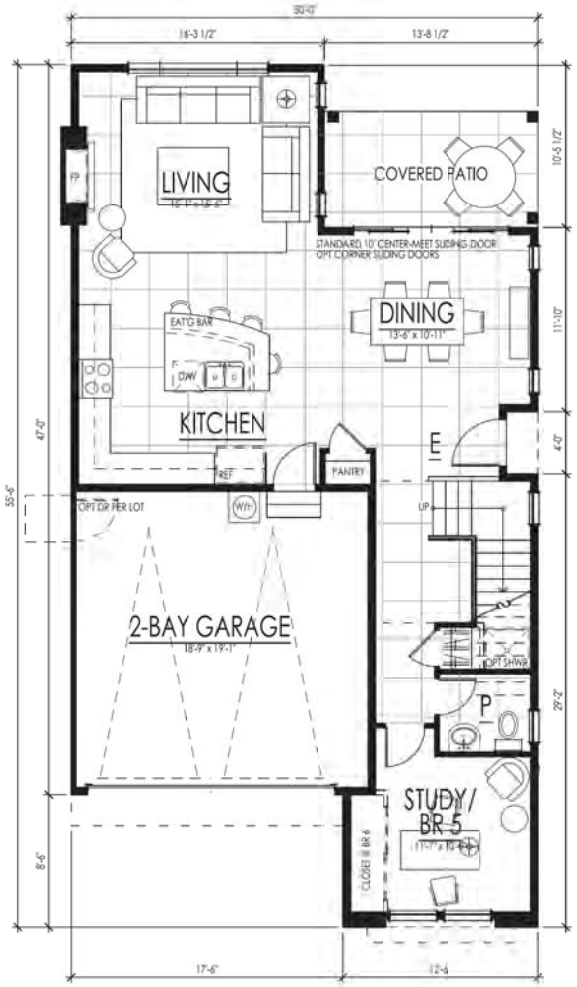
frontELEVATION A

frontELEVATION B

frontELEVATION C

Attachment 8

M3 FLOOR PLANS



Attachment 8

M3 ELEVATIONS

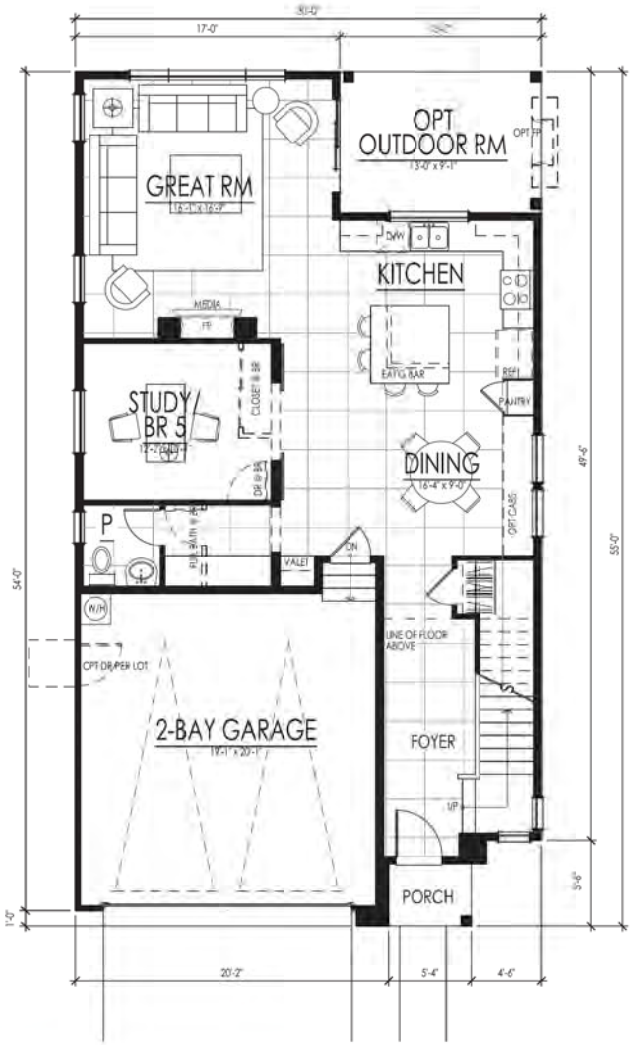
frontELEVATION A

frontELEVATION B

frontELEVATION C

Attachment 8

G220 FLOOR PLANS



Attachment 8

G220 ELEVATIONS

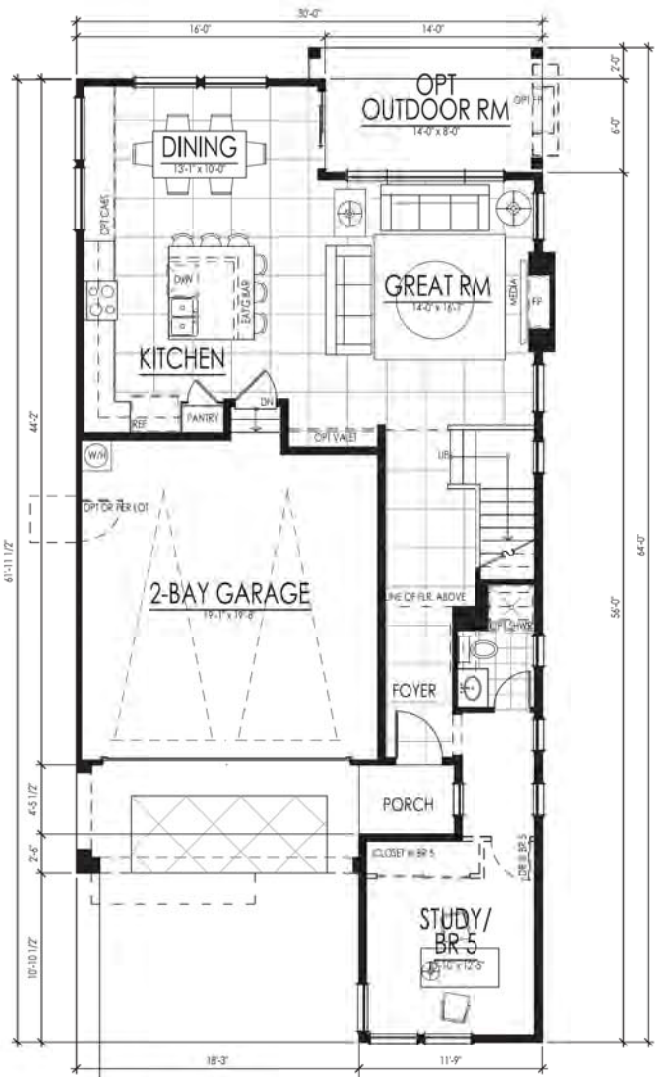
frontELEVATION A

frontELEVATION B

frontELEVATION C

Attachment 8

G240 FLOOR PLANS



Attachment 8

G240 ELEVATIONS

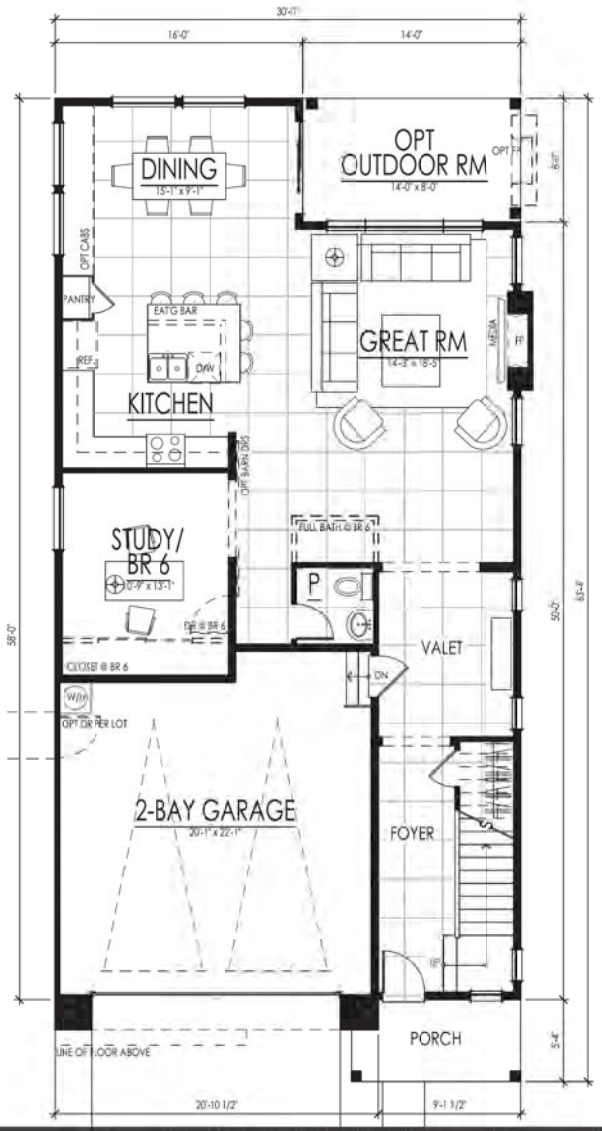
frontELEVATION A

frontELEVATION B

frontELEVATION C

Attachment 8

G270 FLOOR PLANS



Attachment 8

G270 ELEVATIONS

frontELEVATION A

frontELEVATION B

frontELEVATION C

April 29, 2014

Mike Behn
Senior Development Manager
Quadrant Homes
14725 SE 36th Street, Suite #100
Bellevue, WA 98006

Site: South of NE 132nd Street and west of 136TH Ave NE
Kirkland, WA 98033

Re: RFI meeting update

Dear Mike:

Thank you for requesting my services. Between June 25th and July 10th - I performed a Visual Risk Assessment (VRA) for all significant* trees located on the 6.2 acre site located off 136th Ave NE in Kirkland to obtain necessary information to prepare a Tree Plan III for a short plat submittal.

Also included is the City of Kirkland's" Tree Protection Specifications and Fencing Detail," necessary for submittal.

In summary:

- The site has 237 significant trees; 149 are not viable; 88 trees are significant viable trees
- 19 trees to be retained/71 tree credits
- Based on the City of Kirkland's tree density requirement of 30 tree credits/acre this site 186 requires tree credits.
- 115 trees to be replanted
- Limits of disturbance are noted on the Tree Inventory Spreadsheet

After discussion, the following was determined: the house on proposed lot 13 would be adjusted to accommodate two leylandii cypresses. Additionally, the retaining wall north of lots 20 – 24 will be modified to attempt to retain the following trees: #301, 302, 303, 304 and 305. The root zones of these trees will be impacted, so an ISA Certified arborist will be onsite during grading and excavation to evaluate and document the exact nature and extent of the disruption. At that time, all roots will be cleanly cut and must be covered with damp burlap until the time that they are covered with soil. The trees must be kept hydrated during this process.

If during the excavation and grading an ISA certified arborist determines that any of the trees have been compromised to the extent that they are unlikely to remain wind-firm, construction in the area will cease, and the city urban forester contacted to begin removal permitting.

I have included a detailed report of my findings. If you have any questions please call me. I can be reached on my cell phone: 425.890.3808 or by email: sprince202@aol.com.

Warm regards,

Susan Prince
Creative Landscape Solutions
ISA Certified Arborist: PN #1418A
TRACE Certified Arborist: #418
17518 NE 119th Way
Redmond, WA 98052
THE 2013.11.13 Vintners West

* Per city of Kirkland Municipal Code, a significant tree is one whose Diameter at Breast Height (DBH) is 6" or greater

Assignment

I was contacted by Mike Behn who requested that I gather the information specific to trees on the 6.2 acre site and prepare a Tree Retention Plan to submit for a proposed short plat.

Personal qualifications, scope of work and methodology

My examination was limited to a visual one, and did not involve any root excavation, trunk or limb coring, or any soil testing. To evaluate the trees and prepare the report, I drew on my formal college education in botany, preparation and training used to obtain my ISA certification in addition to my certification as a Tree Risk Assessor. I have been an ISA Certified Arborist for over fifteen years and have been TRACE/TRAQ certified for four years.

I followed protocol delineated by the International Society of Arboriculture (ISA) for Visual Risk Assessment (VRA). By doing so, I am examining each tree independently as well as collectively as groups or stands of trees provide stability and can lower risk of independent tree failure. This scientific process examines tree health (eg. size, vigor, and insect and disease process) as well as site conditions (soil moisture and composition, amount of impervious surfaces surrounding the tree etc.)

Introduction:

Identifying and managing the risks associated with trees is still largely a subjective process. Since the exact nature of tree failures remains largely unknown, our ability as scientists and arborists to predict which trees will fail and in what fashion remains limited. As currently practiced, the science of hazard tree evaluation involves examining a tree for structural defects, including genetic problems, those caused by the local environmental that the tree grows in and those attributed to man (pruning etc.).

The assessment process involves evaluating three components: 1) a tree with the potential to fail, 2) an environment that may contribute to that failure, and 3) a person or object that would be injured or damaged (the target). By definition a defective tree cannot be considered hazardous without the presence of a target.
All trees have a finite life-span though it is not pre-programmed internally in the same manner as annual plantings. As trees age they are less able to compartmentalize structural damage following injury from insects, disease or pruning. Trees in urban settings have a shorter life span than trees grown in an undisturbed habitat.

Different species of trees grow differently. Evergreen trees have a "reputation" of growing slowly and defensively. These trees allocate a high proportion of their resources to defending themselves from pathogens, parasites and wounds. As a rule, trees with this type of growth tend to be long lived. Though like all other living things, they have a fairly predictable life span. Examples of this type of tree include the northwest *Pseudotsuga menziesii* - Douglas fir, and *Thuja plicata* - Western red cedar.

Deciduous trees are trees that annually shed leaves or needles. These trees have a tendency to grow quickly and try to "outgrow" problems associated with insects, disease and wounds. They allocate a relatively small portion of their internal resources to defense and rely instead upon an ability to grow more quickly than the pathogens which infect them. However, as these trees age, their growth rate declines and the normal problems associated with decay begins to catch up and compromise the tree's structural integrity. Examples of this type of tree include *Salix, Populus* and *Alnus.*

Knowledge of the growth and failure patterns of individual tree species is critical to effective hazard analysis. Species vary widely in their rates of failure. The hazard tree evaluation rating system used by most arborists was developed by the Colorado Urban Forest Council and recognizes this variation in species failure and includes a species component as part of the overall hazard evaluation.

Site Observations:
The 6.2 acre site is composed of the following parcels no.: 2726059087; 2726059088; 2726059096; 2726059094; 2726059097. The tract lies west of 136th Ave NE in Kirkland, just south of NE 132nd St. The parcels each contain a home and some have additional barns and other outbuildings. Site is relatively flat, the western potions of the property being more heavily treed than the eastern portion which contains a power easement.

Offsite Trees Potentially Impacted by Development:
There are no offsite trees which would be impacted by development.

Method's used to determine tree location and tree health:
Trees were identified previously by numbered aluminum tags attached to the western side of the tree. All of the trees on site were examined using the Matheny and Clark[1] criteria for determining the potential hazard of trees in an urban environment as well as the Tree Risk Assessment in Urban Areas and The Urban/Rural Interface by Julian Dunster[2].

The tree diameter was measured using an aluminum "diameter tape measure." Tree canopy was measured from longest branch to longest branch with a cloth tape measure secured by a stake.

Spreadsheet Legend:
Tree tag #:……..Numbered aluminum tags attached to the trees in the field

Survey #:……..Numbers assigned to trees on the survey map by CP/H Consultants

DBH:…….. Diameter of the tree measured at 42" above grade

Dripline Radius: ……..Measurement in feet of the tree canopy from tree trunk to outermost branch tip

Health: ……..A measurement of overall tree vigor and vitality rated as excellent, good, fair or poor based on an assessment of crown density, leaf color and size, active callusing, shoot growth rate, extent of crown dieback, cambium layer health, and tree age

- Excellent: Tree is an ideal specimen for the species with no obvious flaws
- Good: Tree has minimal structural or situational defects
- Fair: Tree has structural or health issues that predispose it to failure if further stressed
- Poor: Tree has significant structural and/or health issues. It is exempt from total tree count.

Defects/Concerns: ……..a measure of the tree's structural stability and failure potential and rated as good, fair or poor based on assessment of specific structural features, eg., decay, conks, co-dominant trunks, included bark, abnormal lean, one-sided canopy, history of failure, prior construction impact, pruning history, etc.

Proposed action:

- Retain
- Remove due to viability
- Remove due to planned development (tree is otherwise healthy)

Limits of disturbance:……..The area surrounding the tree that defines the area that surrounds the trunk that cannot be encroached upon during construction. This may be a multiple of the trunk diameter (1 -1.5 times the trunk diameter converted to feet.) or it may be related to the width of the canopy. It is always determined by tree species and environment and is up to the discretion of the ISA Certified Arborist to determine

Stand of Trees: A stand of trees is a group of sufficiently uniform species composition, age, and condition to be considered a homogeneous unit for management purposes. In arboriculture the term has come to mean a group of trees that independently might be weaker than the trees are as a unit.

Tree Density Requirement:……..30 tree credits per acre, not including trees in the city easement (street trees)

Tree Density for Existing Significant Trees (Credits per minimum diameter – DBH)

DBH	Tree Credits	DBH	Tree Credits	DBH	Tree Credits
3 – 5"	0.5				

6 – 10"	1	24"	8	38"	15
12"	2	26"	9	40"	16
14"	3	28"	10	42"	17
16"	4	30"	11	44"	18
18"	5	32"	12	46"	19
20"	6	34"	13	48"	20
22"	7	36"	14	50"	21

Example: a 7,200-square-foot lot would need five (5) tree credits (7,200/43,560 = 0.165 X 30 = (4.9) or five (5)). The density for the lot could be met with one (1) existing 16-inch tree and one (1) existing 6-inch tree on site.

Species ID:……..Spreadsheet contains common names of trees which correspond to scientific names as follows:

- Apple: *Malus sp.*
- American sycamore: *Plantanus occidentalis*
- Austrian pine: *Pinus nigra*
- Bigleaf maple: *Acer macrophyllum*
- Birch: *Betula nigra*
- Bitter Cherry: *Prunus emarginata*
- Blue atlas cedar: *Cedrus atlantica 'Glauca'*
- Cedar: *Thuja plicata*
- Cherry: *Prunus sp.*
- Dawn redwood: *Chamaecyparis nootkatensis*
- Deodora cedar: *Cedrus deodara*
- Colorado blue spruce: *Picea pungens*
- Cottonwood*: Populus trichocarpa*
- Dogwood*: Cornus nuttallii*
- Douglas fir: *Pseudotsuga menziesii*
- English laurel: *Prunus laurocerasus*
- Filbert: *Corylus avellana var.*
- Grand fir: *Abies grandis*
- Hemlock: *Tsuga hetrophylla*
- Holly: *Ilex aquifolium*
- Japanese maple: *Acer palmatum*
- Leylandii cypress: *Cupressocyparis leylandii*
- Lodgepole pine*: Pinus contorta*
- Mountain ash: *Sorbus americana*
- Pear: *Pyrus sp.*
- Plum: *Prunus*
- Red Alder: *Alnus rubra*
- Red maple: *Acer rubrum*
- Walnut: *Juglans sp.*
- Western red cedar: *Thuja plicata*
- Weeping Alaska cedar*: Metasequoia glyptostrobides*
- White pine*: Pinus strobus*

Specific Tree Observations:

#	Tree Tag #	Species ID	DBH (in)	Dripline Radius (ft.)	Health	Defects/Comments	Proposed Action			***Limits of Distur-bance[3]***	Tree Credits
							Viable **Retain**	Nonviable **Remove**	Viable **Remove** (Site improvements)		
1	101	*Douglas fir*	23	15’	Poor	Cracked, dead wood, topped		X			7.5
2	102	*Douglas fir*	22	15	Poor	Self-corrected lean, assym. canopy		X			7
3	103	*Douglas fir*	23	15	Fair	Dead wood, Necrotic tissue		X			7.5
4	104	*Western red cedar*	24	15	Fair	Drought stress, topped		X			8
5	105	*Douglas fir*	22	22	Fair	Topped, single leader, dead wood		X			7
6	106	*Western hemlock*	12	15	Poor	Topped, Dead wood, reduced canopy		X			2
7	107	*Douglas fir*	20	18	Poor	Multiple tops, crack		X			6
8	108	*Red alder*	10	22	Poor	Top dead an broken off		X			1
9	109	*Red alder*	18 & 19	20	Poor	½ of tree is dead, co-dominant leaders with included bark, decay at root crown		X			7
10	110	*Plum*	6,6 & 9	15	Fair	Grown in area of too much shade		X			2
11	111	*Red alder*	6	10	Poor	Insects, Bird holes Habitat tree at top		X			1
12	112	*Red alder*	24	15	Excellent	No structural, environmental issues			X	18’	8
13	113	*Douglas fir*	30	25	Fair	Topped, 5 co-dom leaders		X			11
14	114	*Western red cedar*	42	25	Good	Some Drought stress			X	35’	17
15	115	*Douglas fir*	17	25	Good	Dead wood			X	35’	4.5
16	116	*Douglas fir*	34	25	Good	Dead wood			X	35’	13
17	117	*Douglas fir*	34	20	Good	Some Popping bark			X	30’	13
18	118	*Douglas fir*	19	26	Fair	Multiple failure, popping bark		X			5.5
19	119	*Douglas fir*	6	7	Fair	Oozing sap		X			1
20	120	*Western red cedar*	36	20	Good	Some stress			X	30’	14

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#	Tree Tag #	Species ID	DBH (in)	Dripline Radius (ft.)	Health	Defects/Comments	Proposed Action			***Limits of Distur-bance[3]***	Tree Credits
							Viable **Retain**	Nonviable **Remove**	Viable **Remove** (Site improvements)		
21	121	*Bigleaf maple*	4 trunk 50	30	Poor	Topping, all leaders rotted to habitat		X			21
22	122	*Leyland cypress*	8	6	Fair	Insects, necrotic tissue		X			1
23	123	*Bigleaf maple*	16	25	Good	Tree has minimal structural or situational defects			X	37’	4
24	124	*Bigleaf maple*	19	25	Good	Tree has minimal structural or situational defects			X	35’	5.5
25	125	*Douglas fir*	17		Poor	Dead		X			4.5
26	126	*Bigleaf maple*	22	20	Good	Large cavity under roots – probable nurse tree, though tree is healthy; long term viability is questionable		X			7
27	127	*Leyland cypress*	8	6	Good	Tree has minimal structural or situational defects			X	10’	1
28	128	*Leyland cypress*	7	6	Good	Tree has minimal structural or situational defects			X	10’	1
29	129	*Leyland cypress*	9	6	Good	Tree has minimal structural or situational defects			X	10’	1
30	130	*Douglas fir*	20	15	Poor	Crack’s, Broken limbs, dead wood popping bark		X			6
31	131	*Douglas fir*	30	15	Poor	Taps hollow, dead wood Prev. failure		X			11
32	132	*Western red cedar*	17	18	Good	Tree has minimal structural or situational defects			X	27’	4.5
33	133	*Western red cedar*	14	12	Fair	Lean, necrotic tissue, no foliage		X			3
34	134	*Western red cedar*	12	15	Fair	Co-dom leader, necrotic tissue no foliage		X			2
35	135	*Dawn redwood*	16”	10	Fair	Grown in shade; Little foliage		X			4
36	136	*Leyland cypress*	8	6	Fair	Grown in shade; little foliage		X			1
37	137	*Leyland cypress*	8	6	Fair	Grown in shade; little foliage		X			1

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Tree Inventory

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#	Tree Tag #	Species ID	DBH (in)	Dripline Radius (ft.)	Health	Defects/Comments	Proposed Action			***Limits of Distur-bance[3]***	Tree Credits
							Viable **Retain**	Nonviable **Remove**	Viable **Remove** (Site improvements)		
38	138	*Leyland cypress*	8	6	Fair	Grown in shade; little foliage	X			6	1
39	139	*Leyland cypress*	8	6	Fair	Grown in shade; little foliage	X			6	1
40	140	*Red alder*	8	6	Good	Tree has minimal structural or situational defects			X	9’	1
41	141	*Western red cedar*	6	4	Fair	Grown in shade; little foliage		X			1
42	142	*Leyland cypress*	8	6	Fair	Grown in shade; little foliage		X			1
43	143	*Leyland cypress*	9	6	Poor	Grown in shade; little foliage		X			1
44	144	*Leyland cypress*	7	6	Fair	Grown in shade; little foliage		X			1
45	145	*Leyland cypress*	7	6	Fair	Grown in shade; little foliage		X			1
46	146	*Leyland cypress*	6	6	Fair	Grown in shade; little foliage		X			1
47	147	*Bigleaf maple*	50+	20	Poor	Slime flux, decay		X			21
48	148	*Douglas fir*	22	20	Poor	Wounds, deadwood, topped		X			6
49	149	*Douglas fir*	18	10	Poor	Dead wood, popping bark, lean, topped		X			5
50	150	*Douglas fir*	22	25	Poor	Dead wood, sap, pop bark, crack at 18’		X			7
51	151	*Leyland cypress*	8	6	Fair	Dieback from shade		X			1
52	152	*Leyland cypress*	6	7	Fair	Dieback from shade		X			1
53	153	*Leyland cypress*	6	4	Fair	Dieback from shade		X			1
54	154	*Western red cedar*	20	15	Good	Needs light			X	22’	6
55	155	*Douglas fir*	27	15	Fair	Pop bar, dead wood, top failure		X			9.5
56	156	*Leyland cypress*	6	6	Good	Tree has minimal structural or situational defects			X	9’	1
57	157	*Western red cedar*	22	15	Good?	No obvious flaws but could not see top			X	22’	7
58	158	*Douglas fir*	23	10	Good?	Self-corrected lean, no obvious flaws			X	15’	7.5

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#	Tree Tag #	Species ID	DBH (in)	Dripline Radius (ft.)	Health	Defects/Comments	Proposed Action			***Limits of Distur-bance[3]***	Tree Credits
							Viable **Retain**	Nonviable **Remove**	Viable **Remove** (Site improvements)		
59	159	*Western red cedar*	14	8	Poor	No foliage; too shady		X			3
60	160	*Western red cedar*	33	25	Fair?	Thin foliage bc of shade, roots healthy can't see top		X			12.5
61	161	*Western red cedar*	23	15	Good?	Roots good up to 40' OK, can't see top			X	22'	7.5
62	162	*Western red cedar*	11	15	Fair	Suppressed canopy , self-corrected lean, can't see top		X			1.5
63	163	*Western red cedar*	21" & 14"	25	Fair/Good	Structure more inclined to fail but tree is in overall good health			X	37'	1.5
64	164	*Western red cedar*	20	15	Fair	Growing as a nurse tree		X			6
65	165	*Western red cedar*	22	15	Fair	Sparse assym canopy		X			7
66	166	*Western red cedar*	23	26	Good	Tree has minimal structural or situational defects			X	39'	22.5
67	167	*Western red cedar*	13	15	Poor	Sparse foliage; suppressed canopy		X			2.5
68	168	*Western red cedar*	32	25	Good	Tree has minimal structural or situational defects			X	37'	12
69	169	*Laurel*	5" & 6"	10	Poor	Leggy, poor branch attachments		X			1
70	170	*Western hemlock*	6	18	Good	Wooly aphid, flagging			X	27'	1
71	171	*Douglas fir*	24	26	Fair	Coning, Dead wood; Previous failure		X			8
72	172	*Douglas fir*	18	15	Poor	Cracked trunk; multiple failure		X			5
73	173	*Holly*	6	8	Good	Tree has minimal structural or situational defects			X	12'	1
74	174	*Holly*	6	8	Good	Tree has minimal structural or situational defects			X	12'	1
75	175	*Douglas fir*	29	20	Poor	Dead wood, coning necrotic tissue		X			11
76	176	*Douglas fir*	34	20	Poor	Dead wood; sap, bird holes		X			13
77	177	*Douglas fir*	30	22	Good	Popping bark; dead wood			X	33'	11

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							Viable **Retain**	Nonviable **Remove**	Viable **Remove** (Site improvements)		
78	178	*Douglas fir*	18	19	Fair	Multi top failure, dead wood, assym canopy		X			5
79	179	*Bigleaf maple*	20	24	Good	Some species typical dead wood			X	36’	6
80	180	*Bigleaf maple*	20	24	Good	Some species typical dead wood			X	36’	6
81	181	*Colorado blue spruce*	6	10	Excellent		**X**			15’	1
82	182	*Western red cedar*	7	6	Fair	Health is OK but acts as one tree with 187	**X**				1
83	183	*Bitter cherry*	12	10	Fair	Dead wood; multiple failure		X			2
84	184	*Bitter cherry*	10	10	Fair	Dead wood; multiple failure; sparse leaf		X			1
85	185	*Bitter cherry*	12	22	Poor	Non-self-corrected lean, soil heaved		X			1
86	186	*Western red cedar*	10	11	Fair	Sparse needle and branch growth	**X**				1
87	187	*Western red cedar*	10” & 8”	10	Fair	Tree healthy acts as single with 182	**X**				1
88	201	*Douglas fir*	8	8	Poor	Restricted root zone, girdled; sap dead wood		X			1
89	202	*Douglas fir*	36	25	Poor	Carpenter ants!		X			14
90	203	*Douglas fir*	14	12	Fair/Good	Some dead wood	**X**				3
91	204	*Douglas fir*	24	21	Fair	Dead wood; top failure; sap		X			8
92	205	*Douglas fir*	18	21	Fair	Dead wood; top failure; sap		X			5
93	206	*Douglas fir*	14	15	Fair	Dead wood; top failure; sap		X			3
94	207	*Bigleaf maple*	14	10	Good	Multiple tops, consistent with species			X	15’	3
95	208	*Red alder*	6	15	Good				X	22’	1
96	209	*Douglas fir*	38	25	Fair/Good	Dead wood, sap, multiple leaders but healthy for age			X	37’	15
97	210	*Douglas fir*	13	8	Poor	Too suppressed, lost top; sap		X			2.5
98	211	*Douglas fir*	19	12	Fair	Suppressed, sap, dead wood		X			5.5
99	212	*Douglas fir*	16	6	Poor	Dead wood; suppressed, assym/ canopy		X			4
100	213	*Douglas fir*	18	12	Poor	Lean, hazard crack @35’		X			5
101	214	*Douglas fir*	23	18	Poor	Sap blisters		X			7.5

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							Viable **Retain**	Nonviable **Remove**	Viable **Remove** (Site improvements)		
102	215	*Douglas fir*	14	12	Poor	Sap blister planted too close		X			3
103	216	*Douglas fir*	14	10	Poor	Sap blister planted too close		X			3
104	217	*Douglas fir*	14	10	Poor	Sap blister planted too close		X			3
105	218	*Douglas fir*	19	10	Poor	Sap blister planted too close		X			5.5
106	219	*Douglas fir*	14	10	Poor	Sap blister planted too close		X			3
107	220	*Douglas fir*	32	20	Poor	Bulge at 5', bird holes		X			12
108	221	*Douglas fir*	22	18	Poor	Non corrected lean, assym canopy from growing in a tight space		X			7
109	222	*Douglas fir*	6	5	Poor	Suppressed, dead wood, no needles from growing in tight space		X			1
110	223	*Douglas fir*	6	5	Poor	Suppressed, dead wood, no needles from growing in tight space Dead wood, crack, little taper		X			1
111	224	*Douglas fir*	6	5	Poor	Suppressed, dead wood, no needles from growing in tight space Dead wood, crack, little taper Co-dom leaders with included bark, some dead wood but fairly healthy		X			1
112	225	*Douglas fir*	22	25	Poor			X			7
113	226	*Western red cedar*	19" & 15"	25	Fair			X			3.5
114	227	*Bigleaf maple*	13	25	Fair	3' healed wound		X			2.5
115	228	*Western red cedar*	17	25	Good	Tree has minimal structural or situational defects			X	37'	4.5
116	229	*Western red cedar*	42	20	Excellent	No visually noticeable defects			X	30'	17
117	230	*Lodgepole pine*	33	18	Fair	Dead needles on old growth		X			12.5
118	231	*Douglas fir*	18	21	Fair	Dead wood, sap, coning, diminished taper: Best of two: 231 & 233		X			5
119	232	*Lodgepole pine*	30	18	Good	Some sap, dead wood, neglect			X	27'	11
120	233	*Douglas fir*	17	18	Fair/Good	Dead wood, sap, coning, diminished taper		X			4.5
121	234	*Douglas fir*	15	22	Fair/G	Necrotic tissue, dead wood, coning; Best			X	33'	3.5

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							Viable **Retain**	Nonviable **Remove**	Viable **Remove** (Site improvements)		
					ood	of three DOUGLAS FIR: 234, 235, 236					
122	235	*Douglas fir*	15	15	Fair	Necrotic tissue, dead wood, coning		X			3.5
123	236	*Douglas fir*	16	15	Fair	Necrotic tissue, dead wood, coning, lean to west		X			4
124	237	*Douglas fir*	12	15	Poor	Co-dom leaders 6" apart		X			2
125	238	*Douglas fir*	16	12	Poor	Multiple failures		X			4
126	239	*Douglas fir*	19	15	Poor	Crack, dead wood		X			5.5
127	240	*Walnut*	8	12	Poor	Decay at crotch		X			1
128	241	*Douglas fir*	16	15	Poor	Multiple failure, suppressed		X			4
129	242	*Weeping Alaskan cedar*	10	9	Excellent	No visually discernible defects			X	13'	1
130	243	*Weeping Alaskan cedar*	6"	5"	Excellent	No visually discernible defects			X	8'	1
131	244	*Dawn redwood*	13	13	Good	Tree has minimal structural or situational defects			X	20'	2.5
132	245	*Dawn redwood*	16	18	Good	Tree has minimal structural or situational defects			X	27'	4
133	246	*Dawn redwood*	12	13	Good	Tree has minimal structural or situational defects			X	20'	2.5
134	247	*Grand fir*	7	10	Good	Tree has minimal structural or situational defects			X	15'	1
135	248	*Deodora cedar*	7	10	Good	Considering small area it is gowning in			X	15'	1
136	249	*Deodora cedar*	15	12	Fair	Assym crown, dead wood		X			3.5
137	250	*Dawn redwood*	11	15	Good	Tree has minimal structural or situational defects			X	22'	1.5
138	251	*Douglas fir*	14	15	Poor	Multiple top failure, dead wood		X			3
139	252	*Acer Palmatum*	6	15	Excellent	No visually discernible defects			X	22'	1
140	253	*Douglas fir*	36	25	Good	Some popping bark, some dead wood			X	37'	14
141	254	*Douglas fir*	18	15	Fair	Previous failure, dead wood, short candle		X			5

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							Viable **Retain**	Nonviable **Remove**	Viable **Remove** (Site improvements)		
						new growth					
142	255	*Douglas fir*	23	15	Poor	C-dom leader reduced to one, sparse, decay		X			7.5
143	256	*Douglas fir*	15	15	Good	Self-corrected lean, dead wood, needle loss			X	22’	3.5
144	257	*Douglas fir*	22	15	Fair	Sap, coning, necrotic tissue, 2 spurs		X			7
145	258	*Douglas fir*	39	25	Good	Some decay, bird holes, dead wood			X	37’	15.5
146	259	*Douglas fir*	28	21	Fair[1]	Multiple failures, sloughing bark, crack and self-corrected lean. The canopy of this tree needs to cleaned of dead wood and hanging branches	X			21’	10
147	260	*Douglas fir*	19	15	Poor	Multiple top failures, assym canopy, crack		X			5.5
148	261	*Douglas fir*	33	25	Fair	Self-corrected lean popping bark, dead wood, girdling root		X			12.5
149	262	*Douglas fir*	30	25	Fair	If kept with 261		X			11
150	263	*Douglas fir*	17	20	Poor	Multiple failure popping back dead wood		X			4.5
151	264	*Douglas fir*	38	20	Fair	Dead wood, popping bark, needle drop		X		To retain need 264,265,267 30’	15
152	265	*Douglas fir*	38	20	Fair	Popping bark, no taper			X	20’	15
153	266	*Douglas fir*	18	15	Poor	Multiple top failure, sap, popping bark dead wood		X			5
154	267	*Douglas fir*	40	20	Fair	Dead wood, popping bark		X			16
155	268	*Douglas fir*	24	20	Poor	Popping bark, assym lean crack at 40’		X			8
156	269	*Douglas fir*	27	25	Fair/good	Dead wood, co-dom reduced to one			X	32’	9.5

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							Viable **Retain**	Nonviable **Remove**	Viable **Remove** (Site improvements)		
157	270	*Douglas fir*	32	20	Good	Dead wood			X if kept with 271, 273	30’	12
158	271	*Douglas fir*	21	20	Good	Dead wood			X if kept with 270,273	30’	6.5
159	272	*Douglas fir*	17	15	Poor	Previous multi failure, lean, popping bark		X			4.5
160	273	*Douglas fir*	17	15	Good	Dead wood			X if kept with 270,271	22’	4.5
161	274	*Douglas fir*	33	20	Fair/Good	Dead wood,, some coning			X if kept with 275	30’	12.5
162	275	*Douglas fir*	14	15	Fair/Good	Dead wood, coning			X if kept with274	22’	3
163	276	*Douglas fir*	26	19	Fair	Dead wood		X			9
164	277	*Douglas fir*	20	15	Poor	Lean, multiple failure; previous hedge		X			6
165	278	*Douglas fir*	17	12	Fair	Popping bark, dead wood		X			4.5
166	279	*Douglas fir*	17	12	Poor	Poorly healed root crown wound		X			4.5
167	280	*Douglas fir*	25	15	Poor	Lean to north previous failure		X			8.5
168	281	*Douglas fir*	6	5	Poor	Suppressed canopy, sap,		X			1
169	282	*Western hemlock*	24	30	Poor	Coning, roots cut for foundation		X			8
170	283	*Douglas fir*	18	15	Poor	Sloughing bark, popping bark, dead wood		X			5
171	284	*Native dogwood*	12	18	Poor	Braided trunk, badly decayed		X			2
172	285	*Douglas fir*	30	18	Good	Co-dom leader reduced to one, dead wood			X	27’	11
173	286	*Douglas fir*	26	20	Good	Dead wood, popping bark			X	30’	9
174	287	*Douglas fir*	38	25	Good	Dead wood, popping bark			X	35’	15
175	288	*Douglas fir*	30	20	Poor	Unhealed wound, popping bark, dead wood		X			11
176	289	*Douglas fir*	29	19	Poor	Dead wood, popping bark		X			10.5
177	290	*Douglas fir*	12	18	Poor	Dead wood, popping bark, previous		X			2

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							Viable **Retain**	Nonviable **Remove**	Viable **Remove** (Site improvements)		
						failures					
178	291[2]	*Douglas fir*	30	22	Fair	Dead wood popping bark, previous failures	x			25	11
179	292	*Western hemlock*	17	25	Poor	Coning, asymm. canopy, lean roots entangled with 293		X			4.5
180	293	*Douglas fir*	27	25	Fair	Multi failure at top, co dome reduced to l dead wood		X			9.5
181	294	*Douglas fir*	17	15	Poor	Dead wood, crack at 15', spur at crack 35'		X			4.5
182	295	*Western hemlock*	13	14	Poor	Multi failure with spur, dead wood		X			2.5
183	296	*Douglas fir*	23	18	Poor	Slime flux, popping bark		X			7.5
184	297	*Douglas fir*	26	24	Fair	Self-corrected lean, popping bark, multi failure		X			9
185	298	*Douglas fir*	24	20	Poor	Dead wood, popping ark, multi failure co-dom reduced to single		X			8
186	299	*Douglas fir*	32	20	Poor	Black fungal with fruiting bodies		X			12
187	300	*Western hemlock*	24	20	Fair	Dead wood, insects, coning, interior needles dead		X			8
188	301[2]	*Douglas fir*	13	10	Poor	Dead wood, coning	x			8	2.5
189	302[2]	*Douglas fir*	14	8	Fair	Spur at root crown, sap bulge	x			8	3
190	303[2]	*Douglas fir*	11	6	Poor	Sap, dead wood	x			8	1.5
191	304[2]	*Douglas fir*	6	5	Fair	Dead wood, necrotic tissue	x			8	1
192	305	*Douglas fir*	14	10	Good	Very little structural or environmental defects	x			15'	3
193	306[2]	*Douglas fir*	34	25	Poor	Dead wood, necrotic tissue, coning, multi top failure	x			8	13
194	307	*Douglas fir*	30	25	Poor	Decay, bird holes		X			11
195	349	*Native dogwood*	4 trunk 8" each	18	Fair	Anthracnose, few leaves		X			1

Susan Prince
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TRACE Certified Arborist # 481
Creative Landscape Solutions
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sprince202@aol.com

#	Tree Tag #	Species ID	DBH (in)	Dripline Radius (ft.)	Health	Defects/Comments	Proposed Action			***Limits of Distur-bance[3]***	Tree Credits
							Viable **Retain**	Nonviable **Remove**	Viable **Remove** (Site improvements)		
196	357	*Western red cedar*	17	9	Good	Drought stress			X	15’	4.5
197	320	*Douglas fir*	27	20	Poor	Multiple unhealed wounds, popping bark, self-corrected lean		X			9.5
198	347	*Douglas fir*	28	20	Fair	Dead wood, crack, multiple failure		X			10
199	371	*Douglas fir*	27	18	Good	Some popping bark,			X	27’	9.5
200	335	*Douglas fir*	35	17	Fair	Dead wood, broken branches		X			13.5
201	367	*Douglas fir*	32	18	Fair	Dead wood, broken branches popping bark		X			12
202	1	*Douglas fir*	20	18	Fair	Assym canopy, dead branches, necrotic tissue		X			6
203	2	*Cottonwood*	11” & 11”	15	Poor	½ is dead		X			1.5
204	3	*Douglas fir*	16	15	Fair	3-5 act as 1 asymm. crown, dead wood		X			4
205	4	*Douglas fir*	14	12	Fair	3-5 act as 1 asymm. crown, dead wood		X			3
206	5	*Douglas fir*	16	15	Fair/Good	3-5 act as 1 asymm. crown, dead wood		X			4
207	6	*Douglas fir*	20	15	Poor	Suppressed canopy, shade, no needles		X			6
208	7	*Douglas fir*	12	8	Fair	Grown in small space, no taper, dead wood		X			1
209	8	*Douglas fir*	10	8	Fair	Grown in small space, no taper, dead wood		X			1
210	9	*American sycamore*	8	12	Good	Few visually discernible defects or negative environmental problems			X	18’	8
211	10	*Douglas fir*	24	15	Good	Few visually discernible defects or negative environmental problems			X	22’	6
212	34	*Western red cedar*	50	20	Good	Few visually discernible defects or negative environmental problems			X	25’	4
213	35	*Prunus*	8	15	Fair	Typical of older plum waterspouts, dead wood		X			4
214	36	*Lodgepole*	22		Fair	Co-dom leaders, dead wood, necrotic		X			1

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#	Tree Tag #	Species ID	DBH (in)	Dripline Radius (ft.)	Health	Defects/Comments	Proposed Action			***Limits of Distur-bance[3]***	Tree Credits
							Viable **Retain**	Nonviable **Remove**	Viable **Remove** (Site improvements)		
		pine				needle					
215	37	*Blue atlas cedar*	12		Fair	Needles die back, assym. Canopy		X			3.5
216	38	*Blue atlas cedar*	10		Fair	Lean, previous top failure		X			6
217	39	*Lodgepole pine*	20	26	Good	Woodpecker damage, dead wood, needle dieback, typical of species, co- dom			X	30’	3
218	40	*Lodgepole pine*	20	20	Good	Few visually discernible defects or negative environmental problems			X	25’	1
219	41	*Mountain ash*	10	16	Fair/good	Assym. Canopy, with pruning ok			X with pruning	22’	1
220	42	*Apple*	18	24	Good	Dieback and dead wood typical of species,			X	27’	16
221	43	*Douglas fir*	30					X			11
222	44	*Douglas fir*	24					X			8
223	45	*Douglas fir*	24		Fair	Topped		X			8
224	46	*Douglas fir*	24		Fair	Co-dom reduced to one		X			8
225	47	*Douglas fir*	21		Fair	2 large spurs		X			6.5
226	48	*Douglas fir*	23		Fair	As a group OK individually severe assym		X			7.5
227	49	*Populus deltoides*	10	16	Good	Typical for species	**X**			15	1
228	50	*Douglas fir*	20	18	Excellent		**X**			30	6
229	51	*Douglas fir*	18	20	Good	Dead wood	**X**			27	5
230	52	*Douglas fir*	18	20	Good		**X**			25	5
231	6285	*Douglas fir*	30	25	Fair	Popping bark, bird holes, previous top failure, sap, grade lowered		X			11
232	6304	*Holly*	3 6” trunks	15	Good				X	15	1
233	6305	*Red Alder*	7		Poor	Multiple dead trunks, decay		X			1
234	6284	*Douglas fir*	20”	18	Good				X	20	6
235	6275	*Douglas fir*	22”	18	Good				X	20	7

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Vintners West
NE 132nd St. and 136th Ave NE, Kirkland, WA

Tree Inventory

Prepared by:
Susan Prince, ISA Certified Arborist

#	Tree Tag #	Species ID	DBH (in)	Dripline Radius (ft.)	Health	Defects/Comments	Proposed Action			***Limits of Distur-bance[3]***	Tree Credits
							Viable **Retain**	Nonviable **Remove**	Viable **Remove** (Site improvements)		
236	167A	*Douglas fir*	6"	6	Good				X	6	1
237	171A	Dogwood	10		Dead	Dead		X			1
Total number of tree credits											**1350.5**
Non-Viable Tree credits											**832.5**
Viable Tree Credits											**519**
Viable tree credits removed for improvements											**448**
Retained tree credits											**71**
Tree credits for 6.2 acres @ 30/ acre=											**186**
Replanting											**115**

[1]I have upgraded the health of this tree from "poor" to "fair" (previous remove, now retained) deferring to the opinion of the City of Kirkland's consulting arborist Tom Early. We do not dispute the previous failures the tree has experienced nor the quantity of dead wood the tree currently has; our opinions differ as to whether the tree is overall improving in health or declining.

[2]Retained per RFI City of Kirkland 2014.03.23

[3]The limits of disturbance that I have assigned on this spreadsheet are estimates only for the purpose of planning, to comply with code recommendations they are on the high side. Actual LOD's will need to be considered and established after tree removal prior to grading to determine specific measures.

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TRACE Certified Arborist # 481

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Discussion:
As a whole the trees on this site have not been well maintained. Many of the larger species trees (Western red cedar, hemlock and Douglas fir) were planted along the 136th street corridor or on the property perimeters as a privacy hedge. While the trees were young they were topped and sheared. As they grew larger, that practice was discarded and where topped, the trees developed multiple co-dominant leaders. As is generally the case, the trees continued to fail at the point where the tree was topped.

In addition, as the trees were generally planted as a hedge (less than 5 feet apart in some cases) an asymmetric canopy developed – branches were crowded out and prevented from growing between trees-only to grow unevenly where there was no competing trees, which often times caused the tree to lean toward the light (phototrophically) and as a consequence of the limb weight.

Another feature common to this site amongst the parcels was over-planting or "filling in" visual gaps of privacy with Leylandii Cypress. These trees remained "sticks" with little foliage and virtually no taper as they remained subdominant suppressed trees in the overall canopy layers.

I provided what I think is a good example of a "grove" or "stand" of three trees – from a distance the canopy looks healthy. On closers examination there is evidence of popping bark on one tree, and a large horizontal crack on another. The third tree is compromised by the close planting proximity between the former two trees, what began as a likely phototrophic lean has now developed into a non-self-corrected lean and the tree is actively failing. It has recently lost its top – probably the result of recent wind exposure as it has leaned outside the protection of the surrounding trees. On inspection from a different direction the large amount of dead wood (branches) is evident.

In some cases (e.g. Trees # 264, 265, 266 and 267) the stand of trees effectively reacts to environmental stress (high wind or wet snow) as a single tree. The trees are planted in on oval shape as a "center island." Because of the close proximity of the trees to each other, the interior of the space is filled with branches that are devoid of needles. Collectively the trees react as lone large tree however, individually they are unlikely to thrive with dead wood, and some decay, unbalanced, asymmetric canopies as well as other issues. I have noted these in the spreadsheet but recommended removing them as they are ill-equipped to survive and grow as single trees.

Sample Photo Documentation:

Due the sheer number of trees contained on site in addition to the fact that those trees that were deemed non-viable suffered from similar defects, I have chosen to provide site photographs that illustrate symptoms only. In most cases, non-viable trees suffered from more than one defect as noted in the spreadsheet.

Co-dominant Leader

#230 (Poor condition) Remove;

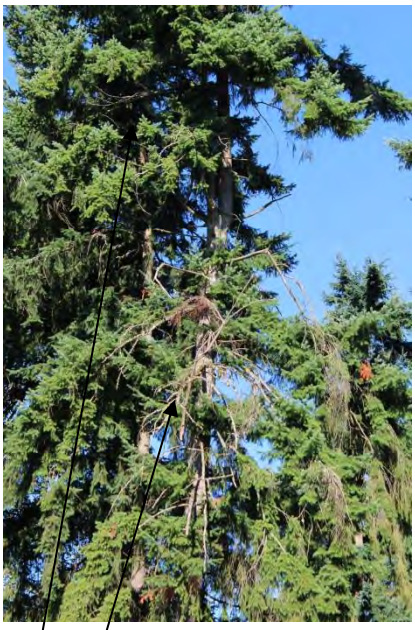
#232 (Good condition) Retain

Popping bark: quarter size missing bark; Lean; Crack

Root crown—trunk to 20' (looking south)

Dead wood; Lost top; previous failure

Middle of trees20'-80'(Looking South)

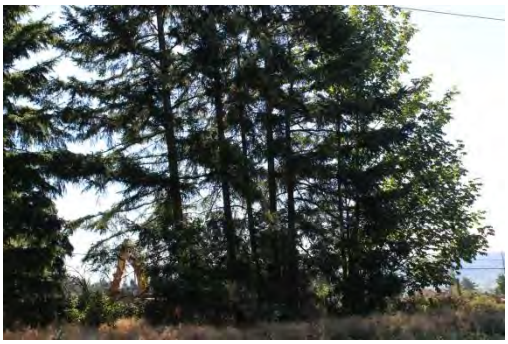


Lost top: Dead wood

Top of same trees

Looking West

Susan Prince
ISA Certified Arborist #PN1481-A
TRACE Certified Arborist # 481
Creative Landscape Solutions



Example of large trees planted too closely together in an effort to provide a "privacy hedge"

Fair, Good, Poor

3 Cedars on site

Lost top, one lateral assuming leadership position

Lost top, TWO leaders assuming leadership position

Tree Credit Calculations:
The site measures 6.2 acres. The city of Kirkland Municipal Code requires a tree density of 30 tree credits per acre 30 X 6.2 = 186.0 tree credits.

(237 significant trees) - (157 trees that are non-viable) = ***80 Significant viable trees*** remaining.

Replanting:
The total number of tree credits 186 – the number of retained tree credits 24 = the number of trees required to be replanted/6.2 acre sites to be replanted is 162; each tree must be at least 1" caliper. The number of trees to be replanted must also comply with the residential code of 30/ acre. Therefor a 7200 square foot lot would need to have 5 trees planted on it. There is no additional credit for larger diameter trees to be planted.

Conclusion
At this time, the proposed site improvements, home footprints, utilities, etc. would require that all the interior trees be removed. The retained trees are perimeter trees.

Tree protection fencing must remain at the limit of disturbance and tree protection specifications must be observed throughout all phases of construction. Fencing is the first item to be addressed prior to grading, and the last item to be removed after construction is completed.

I have provided photographs of site trees of different species to visually indicate what I have deemed a tree in excellent, good, fair and poor health.

Tree Protection Specifications
Critical Root Zone and Fencing:
First, protect roots that lie in the path of construction. Approximately 90 to 95 percent of a tree's root system is in the top three feet of soil, and more than half is in the top one foot. Construction activities should be avoided in this area. Protect as much of the area beyond the tree's dripline as possible. Some healthy trees survive after losing half of their roots. However, other species are extremely sensitive to root damage even outside the dripline.
Do not disturb the Critical Root Zone (CRZ). The CRZ is defined by its "critical root radius." It is more accurate than the dripline for determining the CRZ of trees growing in forests or that have narrow growth habits. To calculate critical root radius, measure the tree's diameter (DBH) in inches, 4.5 feet above the ground. For each inch, allow for 1 to 1.5 feet of critical root radius. If a tree's DBH is ten inches, its critical root radius is 10 to 15 feet.
In addition to the CRZ, it is important to determine the Limits of Disturbance (LOD) for preserved trees. Generally this is approximates the CRZ however in previously excavated areas around the dripline the LOD may be smaller, or in the case of a tree situated on a slope the LOD may be larger. The determination of LOD is also subject to the particular tree species. Some tree species do better than others after root disturbance.
Tree protection is advised throughout the duration of any construction activities whenever the critical root zone or leaf canopy many be encroached upon by such activities.

The Critical Root Zone (CRZ) or LOD should be protected with fencing adequate to hinder access to people vehicles and equipment. Fencing detail is provided. It should consist of continuous 4 ft high temporary chain-link fencing with posts sec at 10' on center or polyethylene laminar safety fencing or similar. The fencing must contain fencing signage detailing that the tree protection area cannot be trespassed on.

Soil compaction is one of the most common killers of urban trees. Stockpiled materials, heavy machinery and excessive foot traffic damage soil structure and reduce soil pore space. The effected tree roots suffocate. When construction takes place close to the protected CRZ, cover the site with 4 inches of bark to reduce soil compaction

Tree Protection fencing must be erected prior to soil excavation, boring, grading or fill operations. It is erected at the LOD. If it is necessary to run utilities within the LOD, the utilities should be combined into one cut, as practical. Trenching is not allowed in the LOD. In these areas boring or tunneling techniques should be used. In the event that roots greater than 1" diameter near the LOD are damaged or torn, it is necessary to hand trim them to a clean cut. Any roots that are exposed during construction should be covered with soil as soon as possible.

During drought conditions, trees must be adequately watered. Site should be visited regularly by a qualified ISA Certified Arborist to ensure the health of the trees. Tree protection fencing is the last item to be removed from the site after construction is completed.
After construction has been completed, evaluate the remaining trees. Look for signs and symptoms of damage or stress. It may take several years for severe problems to appear.
In the event that fencing around portions of the CRZ of a tree to be retained are not practical to erect due to construction or obstacles, tree protection fencing should be placed three feet laterally from the obstruction (ex. three feet back of a curb, building, or other existing or planned permanent infrastructure.

Tree trunk protection is required where CRZ fencing is not practical. Tree trunks should be wrapped in pine 2X4's and accessible critical structural root zones covered with wooden pallets.

Assumptions and Limiting Conditions

1. Any legal description provided to the consultant/appraiser is assumed to be correct. Any titles and ownerships to any property are assumed to be good and marketable. No responsibility is assumed for matters legal in character. Any and all property is appraised or evaluated as thou free and clear, under responsible ownership and competent management.

2. It is assumed that any property is not in violation of any applicable codes, ordinances, statutes or other governmental regulations.

3. Care has been taken to obtain all information from reliable sources. All data has been verified insofar as possible; however, the consultant/appraiser can neither guarantee nor be responsible for the accuracy of information provided by others.

4. The consultant/appraiser shall not be required to give testimony or to attend court by reason of the report unless subsequent contractual arrangements are made including payment of an additional fee for such services as described in the fee schedule and contract of engagement.

5. Loss or alteration of any part of this report invalidates the entire report.

6. Possession of this report or a copy thereof does not imply right of publication or use for any purpose by any other than the person to whom it is addressed, without the prior expressed written or verbal consent of the consultant/appraiser.

7. Neither all nor any part of the contents of the report, nor copy thereof, shall be conveyed by anyone, including the client to the public through advertising, public relations, news, sales or other media, without the prior expressed written or verbal consent of the consultant/appraiser – particularly as to value conclusions, identity of the consultant/appraiser, or any reference to any professional society or instate or to any initialed designation conferred upon the consultant/appraiser as stated in her qualification.

8. The report and any values expressed herein represent the opinion of the consultant/appraiser, and the consultant's/appraiser's fee is in no way contingent upon the reporting of a specified value, a stipulated result, the occurrence of subsequent event, nor upon any finding to be reported.

9. Sketches, diagrams, graphs and photographs in this report, being intended as visual aid, are not necessarily to scale and should not be construed as engineering or architectural reports or survey.

10. Unless expressed otherwise: 1) information contained in this report covers only those items that were examined and reflects the condition of those items at the time of inspection; and 2: the inspection is limited to visual examination of accessible items without dissection, excavation, probing or coring. There is not warranty or guarantee, expressed or implied, that problems or deficiencies of the plants or property in question may not arise in the future.

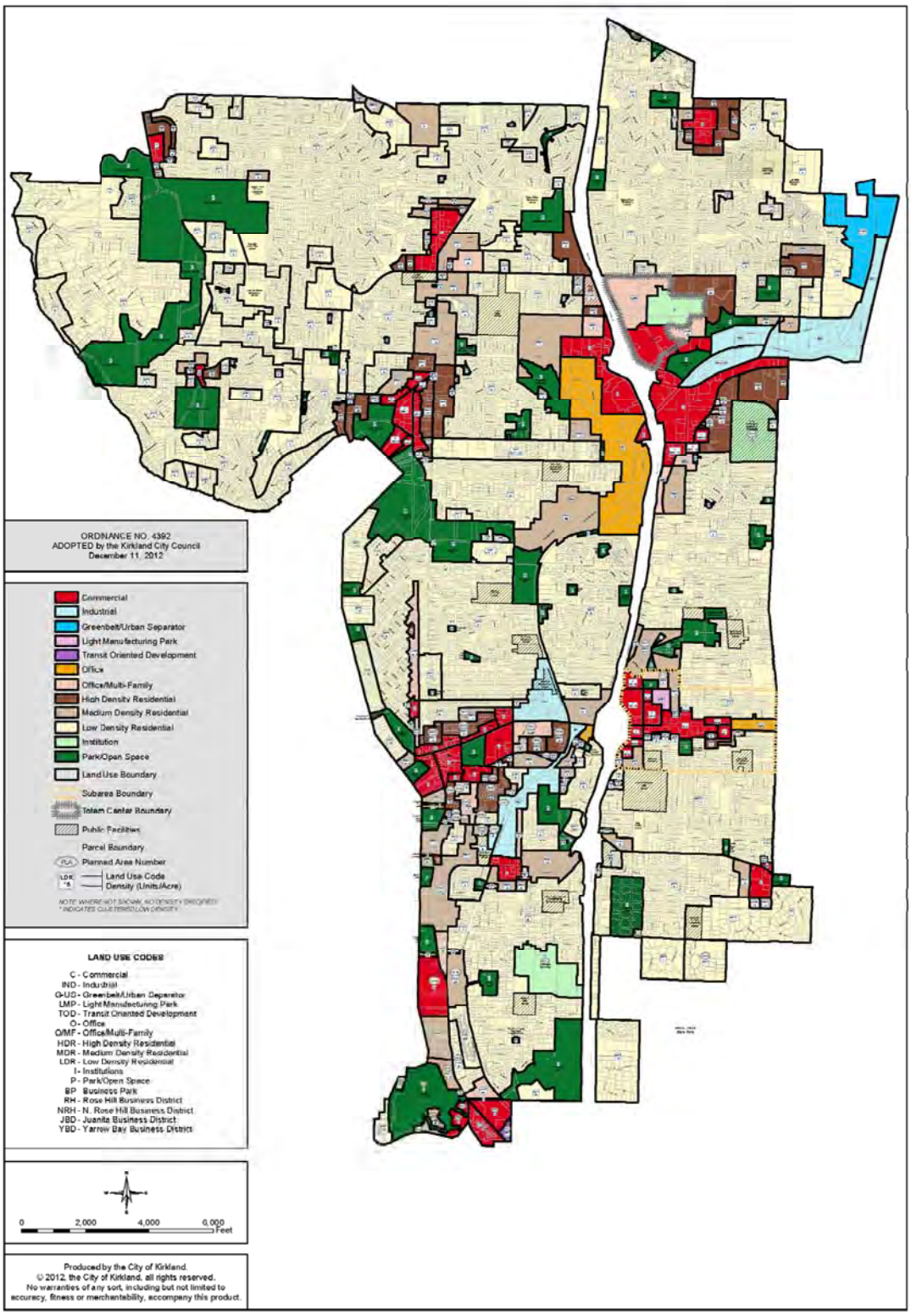
To:	David Barnes
From:	Tom Early
Copies:	
Date:	May 12, 2014
Subject:	13007 136th Ave NE Vintners West
Project No.:	SUB13-05108

Over the last six months we have negotiated with the applicant in regards to tree retention. We recently had our last meeting, on April 25, 2014, in which a resolution regarding tree retention was reached. The last meeting discussed the retention and protection of trees numbered 138 and 139 at the southeast corner of lot 13 and trees numbered 291, 301 through 306 along the north edge of lots 22, 23 and 24. The house orientation was agreed to be mirrored on the east-west axis to allow for the retention of trees on lot 13. The retaining wall was agreed to be removed from lots 22, 23 and 24 to retain and protect the trees along the north property lines.

Out of 237 significant on-site trees existing, 17 significant on-site trees are proposed for retention and protection. Out of 20 significant trees in the rights-of-way, 7 significant trees in the rights-of-way are proposed for retention and protection. Two of the existing ten groves on-site will remain (see figure 1, below). Trees #103, 104, 138, 139, 181, 182, 187, 201, 289, 291, 301, 302, 303, 304, 305, 306 and 6285 should remain and be protected through development of the site. The remainder of the trees will be unable to be retained due to anticipated development activity.

The development proposed includes many challenges to retention of trees. Of these challenges, wind-throw and root diseases pose the largest threats to the successful retention of trees. Many of the trees considered for retention could not due to unavoidable root zone compromise to the extent that elevates risk of the tree to the proposed development. The trees proposed for retention have acceptable root zone compromises but conditions can change. Existing decay and disease can be exacerbated by limited root zone impacts. These retained trees should be monitored yearly for at least 5 years after the completion of the development to identify any rapidly changing conditions which may alter the desire to retain a tree. If conditions change, decay should be quantified to most clearly identify its risk. This quantification of decay is usually performed with resistograph or increment borer.

Figure 1 – On-site groves



LU-1 Comprehensive Land Use Map

May 29, 2014

Attn: David Barnes, Planning Department

Re: SUB13-01508 (Vintner's West Subdivision)

Dear Mr. Barnes,

My name is Alex Naparu, my wife and I have been living at 13429 NE 132 ST for five years now. I am writing you about the upcoming public hearing regarding the proposed Vintner's West subdivision (File No. SUB13-01508). While I'm sure everyone in this area welcomes development, there are a few concerns I feel must be raise d.

The issue I'd like to bring up today is that of tree and vegetation retention. The subject property currently has a large number of significant trees on it, as shown in the aerial photo below (taken from Bing Maps).

CITY OF KIRKLAND
Hearing Examiner Exhibit
Applicant ____
Department ____
Public ✓
B
FILE # SUB13-01508/ZON13-01509

Our property is the one marked with a blue dot in the photo above, right on the northern boundary of the proposed subdivision, so you see how we would be directly impacted by any construction activity.

In recent years, construction has started on two subdivision close to our neighborhood (Vintner's Ridge and Willows Bluff). Before construction started, the sites of these subdivisions had significant tree coverage, as you'll see in the photos below.

This is how the Vintner's Ridge site looked before construction (aerial photo taken from Google Maps). The south and southeast areas of the property are densely forested. A number of trees can also be seen on the west boundary of the property.

The photo below shows the same site after construction began (photo taken from Bing Maps, which seems to have more recent imagery). Looking at the maps available on the King County Parcel Viewer, it's not clear to me whether the trees in the southeast corner are located on the Vintner's Ridge parcel or the adjacent one, but even so it's obvious that the majority of trees have been removed.

Things look even worse at the Willows Bluff site. Before construction began (photo from Bing Maps), there were quite a few significant trees on site, including some on the west boundary of the property.

All those trees were removed once construction work began (aerial photo from Bing Maps)

While I understand that some tree removal is necessary to make way for new development (and that in some cases even the majority of existing vegetation needs to be removed and possibly replaced later on), I am of the opinion that this should not be the norm. There are specific (and quite strict) provisions in the Kirkland Zoning Code) around vegetation and tree management (Section 95.33 of the KZC comes to mind).

Furthermore, the preliminary permitting work for both of these subdivisions required a comprehensive tree management plan before construction could begin. Looking at Permit SUB12-00382 (for Willows Bluff), it seems that an "Urban Forestry Review" was required, which passed with no outstanding comments.

Permit PRE13-01223 for Vintner's Ridge includes this clause (under the "Comments" section, emphasis added):

> *22.28.210 Significant Trees.*
> *No trees are to be removed with an approved short plat or subdivision permit.* ***Based on the approved Tree Retention Plan, the applicant shall retain and protect all viable trees throughout the development of each single family lot except for those trees allowed to be removed for the installation of the plat infrastructure improvements*** *with an approved Land Surface Modification permit. Subsequent approval for tree removal is granted for the construction of the house and other associated site improvements with a required Building Permit. The Planning Official is authorized to require site plan alterations to retain High Retention value trees at each stage of the project. In addition to retaining viable trees, new trees may be required to meet the minimum tree density per KZC Section 95.33.*

I am aware that many of these permits might have been issued by King County and not the City of Kirkland, as the subject properties might have been annexed by the city after construction was planned/permitted. However, I hope you'll agree with me when I say that if a tree retention plan was indeed filed and reviewed, the results are less than desirable (as can be clearly seen in the before/after photos above). Looking at the Willows Bluff subdivision, for instance, none of the trees have been retained. While some new trees have indeed been planted, I think you will agree that they will take many years to become "significant" trees (as per the city's definition).

With all of this in mind, I would appreciate a chance to review the proposed tree retention plan (I could not find the documents online) before any action is taken. I would also kindly ask the developer to consider maintaining a vegetation buffer (in the form of existing trees and bushes) between the proposed subdivision and adjacent properties. Please find below my contact information.

Thank you,

Alex Naparu

13429 NE 132 ST, Kirkland WA, 98034

425-345-1291, alex.naparu@gmail.com

O-4449
Exhibit A

CITY OF KIRKLAND
Hearing Examiner Exhibit
Applicant ____
Department ____
Public ✓
C
FILE # SUB13-01508/ZON13-01509

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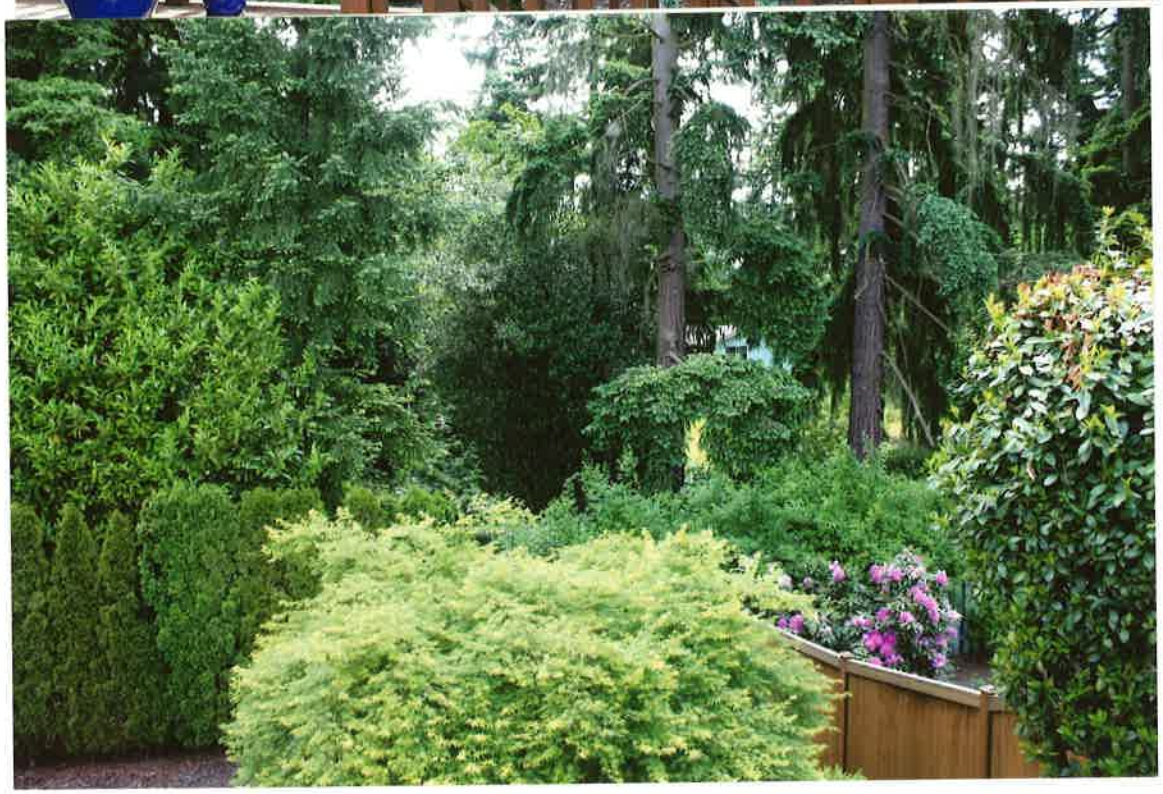

PUBLICATION SUMMARY
OF ORDINANCE O-4449

AN ORDINANCE OF THE CITY OF KIRKLAND RELATING TO LAND USE, APPROVING A PRELIMINARY (AND FINAL) PLANNED UNIT DEVELOPMENT AND PRELIMINARY SUBDIVISION APPLIED FOR BY QUADRANT HOMES IN DEPARTMENT OF PLANNING AND COMMUNITY DEVELOPMENT FILE NO. SUB13-01508, AND SETTING FORTH CONDITIONS OF APPROVAL.

SECTION 1. Adopts the Findings, Conclusions and Recommendations of the Kirkland Hearing Examiner with certain clarifications and modifications.

SECTION 2. Approves the application for a preliminary and final Planned Unit Development and a preliminary subdivision subject to certain clarifications and modifications.

SECTION 3. Provides that after completion of final review of the PUD, the Process IIB Permit shall be issued and subject to the adopted Recommendations, as modified in Section 1 of the Ordinance.

SECTION 4. Provides that the applicant is not excused from compliance with any federal, state or local statutes, ordinances or regulations applicable to the project, other than as expressly set forth in the Ordinance.

SECTION 5. Provides grounds for revocation of the Process IIB Permit.

SECTION 6. Authorizes publication of the ordinance by summary, which summary is approved by the City Council pursuant to Section 1.08.017 Kirkland Municipal Code and establishes the effective date as five days after publication of summary.

SECTION 7. Establishes requirement for certification of the Ordinance by City Clerk and notification of King County Department of Assessments.

SECTION 8. Provides that the certified Ordinance and adopted Findings, Conclusions and Recommendations are part of the Process IIB Permit and shall be delivered to the applicant.

The full text of this Ordinance will be mailed without charge to any person upon request made to the City Clerk for the City of Kirkland. The Ordinance was passed by the Kirkland City Council at its meeting on the _____ day of _____, 2014.

I certify that the foregoing is a summary of Ordinance _____ approved by the Kirkland City Council for summary publication.

_____

City Clerk

CITY OF KIRKLAND
Department of Finance & Administration
123 Fifth Avenue, Kirkland, WA 98033 425.587.3100
www.kirklandwa.gov

MEMORANDUM

To: Kurt Triplett, City Manager

From: Tracey Dunlap, Director of Finance & Administration

Date: July 25, 2014

Subject: DEVELOPMENT FEE INTRODUCTION

RECOMMENDATION

City Council reviews the background materials for the development fee study update in preparation for presentation of the study results in September.

BACKGROUND DISCUSSION

The City's fiscal policies call for a comprehensive review of fees every three years. The objectives of the 2014 Development Fee update are:

- To incorporate the fee-related recommendations made in the Development Services Organization Review conducted by Zucker Systems
  - Develop staffing model as part of the fee study
  - Consider adjusting fees to full cost recovery
  - Use revenues that exceed budget estimates to supplement staff or consultants
- To highlight and take action on any additional, fee-related issues
- Identify the costs related to providing development review services in the City
- Calculate full cost of recovery fees based on staffing model and cost of service results
- Conduct a policy evaluation of whether full cost recovery fees are feasible and, if not, determine target cost recovery

A brief history of the method used in the City's past development studies is provided for context.

Overview of Approach

In 1998, the City Council undertook an initial comprehensive review of the cost of providing development services in order to establish fees. The first step was to determine the full cost of providing development services including direct costs, department indirect costs and Citywide overhead costs. The chart on the following page shows the various "layers" of costs considered.

FULL COST OF DEVELOPMENT SERVICES	
↑	
City-Wide Overhead	Calculated share of the cost of the internal functions of City government
Departmental Overhead	Calculated or estimated share of the cost of departmental management & administration
Indirect Functions	Hours & associated expenses spent on indirect support activities (Code Enforcement, Public Information, Policy Development, etc.)
Direct Development Services Work	Hours & associated expenses spent on permits & other development activities

The next step was development of cost recovery targets. The cost recovery targets reflect the amount of costs that should be recovered from fees and is based on the perceived public benefit versus private benefit that accrues from development services. To the extent that the service benefits an individual, costs should be borne by the individual (i.e., fee-supported). To the extent that the service provides an overall benefit to the general community, the costs should be borne by everyone (i.e., tax-supported).

Target recovery levels (expressed as percentages) were established by Council (this process is discussed further below). Finally, specific fee increases were established that achieved the desired level of cost recovery. In some cases, fee increases were phased in over time to mitigate the impact on customers.

Fee updates were conducted in 2001, 2004, and 2007 using the same methodology for calculating the cost of service. During those updates, modifications to the target recovery level were made based on Council direction. An abbreviated update was done in 2010, but no changes in fees were recommended due to the recession and required staffing reductions. The 2007 study provided for inflation-based increases to fees between updates. The results of the 2007 update were implemented in 2008 and no inflationary increase was applied in 2009 due to the economic downturn. The inflation measure that would have applied in 2010 and 2011 was negative, so no change was made and no change was made in 2012 in recognition that the development activity was just beginning to recover. An inflationary increase of 2.7% was applied effective January 1, 2013 and this update was delayed 1 year to allow for further recovery in development activity, stabilization of annexation area development patterns, and implementation of initial Organizational Review recommendations.

The following is a brief summary of the rationale for the current cost recovery targets by cost layer as discussed at the September 4, 2007 study session.

Cost Layer	Building Services	Fire Prevention	Planning	Public Works
Direct Development Service These costs represent the direct, hands-on work performed to provide development services. Both Planning & Public Works consider part of their regulatory responsibilities benefit the public by protecting existing City environment, character, and infrastructure; whereas, Building and Fire solely benefit the private projects they regulate.	100%	100%	80%	80%
Code Enforcement These costs are associated with ensuring compliance with City code. The cost recovery is based on not penalizing compliant development projects for those who do not follow City regulations. A portion of these costs might be recovered through fines or penalties.	0%	0%	0%	0%
Public Information Cost recovery based on department judgment of the amount of front-counter time that is attributable to the level of development active in the City.	50%	50%	20%	50%
Policy Development This level of recovery was determined because much of the City's planning and policy development focuses on maintaining a specific community "look and feel" for the public. In addition, much of the planning aspects the City performs are required regardless of the level of ongoing development.	20%	20%	20%	20%
General Administration, Training, Department & City-Wide Overhead The labor costs and expenses associated with these activities are targeted to recover in proportion to the recovery levels in the other cost layers based on a weighted average of each department's cost recovery. It is assumed the level of work is proportional to that under all others.	weighted average of all other cost layers	weighted average of all other cost layers	weighted average of all other cost layers	weighted average of all other cost layers

It is important to note the distinction between "department" costs and "activity" costs. Building activities include costs from all of the departments involved in development services. Likewise, planning permit processes involve not only Planning Department staff, but also involve staff time from the Public Works Department and Fire and Building. Each department has its own cost recovery target by cost layer based on the Council's policy guidance on public versus private benefit.

The following table shows the target cost recovery percentages for each department for the 2007 study.

Service Cost Layer	Building & Fire Prevention Services*	Planning**	Engineering	Overall
Direct Services	100%	80%	80%	90%
Code Enforcement	0%	0%	0%	0%
Public Information	50%	20%	50%	36%
Policy Development	20%	20%	20%	20%
Department & City Overhead	as others	as others	as others	as others
2007 Updated Target Recovery	**88%**	**55%**	**72%**	**72%**

*Includes only that portion of Fire Prevention related to development review.
**Costs exclude long-range planning activities.

The cost recovery target for each activity is based on the weighted average costs of each department's effort on that activity. The table below illustrates that the different development activities are performed by staff across the development services departments. While the majority of the work in each activity is performed by the lead department as highlighted in the matrix, there is cross-departmental effort in most development activities.

	Building Services Division	Fire Prevention Division	Current Planning Area	Public Works Engineering Division
Building Activities *Building Permits* *Plan Check* *Plumbing/Electrical/Mechanical* *Sign Permits*	72.9%	3.2%	20%	3.9%
Fire Prevention Activities *Fire Plan Check* *Fire Systems Permits* *UFC Permits*	0%	100%	0%	0%
Planning Activities *Process I/II A/B Permits* *Environmental Review* *Design Review* *Director Review/Approval* *Pre-Submittal Fee*	1.65%	2.8%	80.3%	15.25%
Engineering Activities *Engineering Review/Inspection* *Street & Curb Permits*	0%	3.7%	0%	96.3%

Based on the cost recovery results and other policy considerations, fee revisions are identified for consideration.

Process for Review of Study Results

The information in this memorandum is intended to form a foundation for evaluating the results of the 2014 Development Fee update. The draft results are currently under review with the Finance & Administration Committee and are expected to be presented to the City Council in two pieces:

- September 2, 2014 Council Meeting –
  - 2013 Full Cost of Service
  - Revised Cost Recovery Targets based on 2013 Results
  - Actual 2013 Cost Recovery Achieved
  - Overall Implications of Moving Toward Full Cost Recovery

- September 16, 2014 Council Meeting
  - Follow up on Feedback Received at the September 2 Meeting
  - 2015-2016 Budget Outlook for Development Services
  - Proposed Fee Changes
  - Process for Finalizing Recommendations/Adoption

Refresher on Development Services Reserves

In 2005, the City established a development services reserve set-aside in the General Fund comprised of two components:

- The Work-in-Progress component accounts for work which fees are collected in one year but work will not occur until subsequent year(s), and

- The Staffing Stability component to recognize that permit revenues can fluctuate significantly during declines in development activity, but there is a need to provide services on demand, necessitating retention of skills/staff until cost containment measures can be assessed.

The initial Work-in-Progress component was based on Building Activities, but elements to recognize work paid for in one fiscal period but performed in later periods were established for Planning and Public Works as of January 1, 2013. A more detailed description of the reserve components and rationale, as presented in 2006, is included as Attachment A.

As a result of the 2007 Fee Update, a third reserve element was added for Technology. $70,000 per year was planned to be set aside toward technology enhancement and future replacement of the permit system. Uses of these funds have included continued refinements to Energov (the City's permitting system), providing GIS access related to development questions to the public.

The Development Services Reserve has proven a valuable tool in responding to the workload downturn related to the recession and in managing the workload fluctuations associated with development. The reserve was drawn down during the recession to allow a more gradual, planned reduction in resources and has been been used to fund one-time resources to deal with surges in development activity. The reserve balance as of 6/30/14 is $2.8 million, due in large part to the upswing in development activity during the past two years. The sufficiency of the reserve balance will be evaluated as part of the 2015-2016 budget process.

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MEMORANDUM

To: David Ramsay, City Manager

From: Tracey Dunlap, P.E., Director of Finance & Administration

Date: September 22, 2006

Subject: Development Services Reserve Policies and Procedures

Background

In late 2005, the City Council established the Development Services Reserve, using available year-end resources to fund a revenue stabilization (or staffing stabilization) component and a "work in progress" component, for a total reserve balance of $920,000. The detailed discussion supporting this decision, the "Development Services Reserve and Staffing" memorandum dated October 28, 2005, is provided as Attachment A to this issue paper.

As part of that decision, the City Council also approved making six temporary development services positions permanent, which essentially establishes a baseline staffing level, recognizing the level of development activity over the last few years. The purpose of this discussion is to assess changes to the reserve needs based on current development activity and establish reserve management guidelines.

Recap of Reserve Elements and Sizing

Work-in-Progress Component

The objective of establishing a "work in progress" reserve component is to provide a mechanism for setting aside current revenue to fund the workload backlog in a future time period when it is not accompanied by revenue. This component recognizes that revenue collection precedes the costs of providing service (for example, inspections can occur in the year or two following the permit fee payment), which can put revenues out of balance with authorized spending during the normal business cycles of the building and development industry.

To determine whether an adjustment should be made to this reserve component at year-end 2006, the Building Division reviewed the current inventory of permit/review fees collected to estimate that portion that still required review and inspection. The estimate was developed separately for single family residences and large non-residential projects, recognizing that the different types of development follow different completion timetables.

To establish the reserve requirement for new single family houses, an evaluation of the annual activity was conducted that resulted in the following estimate:

1. Calculate the average permit fee for a new house (including trade permits) = $3,694
2. Determine the number of single family permits applied for in the last 12 months = 230
3. Calculate the average time to build (from time of issuance to final) = 279 days
4. Based on these statistics, the equivalent value of 77 houses is expected to carry forward into a future budget period:
    - 77 houses times average permit/house of $3,694 = $284,438, rounded to $290,000.

To estimate the non-residential work in progress, all non-residential permits for large projects (those having a valuation greater than $3 million) were reviewed and Building Division staff estimated the percentage of work that remains to be done on each project. For non-residential projects, two elements were identified: (1) the inspection liability and (2) the plan review liability. Each element was calculated based on the following steps:

1. Identify non-residential permits having a valuation of greater than $3 million dollars (11 projects) and the actual building permit fee revenue collected for each project.
2. Estimate the percentage of inspection-related work remaining for each project.
3. Multiply the actual revenue collected by the estimated percentage of work remaining to produce an estimated inspection liability of approximately $585,000.
4. Calculate the plan review fee revenues collected for each project by multiplying the building permit revenue in Step 1 by 65% (the plan review fee is 65% of the building permit fee).
5. Since plan review occurs in advance of inspections, Building staff estimated that approximately half of these plan review revenues would carry forward into a subsequent period, resulting in a weighted average plan review liability of approximately $175,000.

The table below summarizes the estimated Building Division work in progress.

Building Work in Progress	
Single Family	290,000
Non-Residential Inspection	585,000
Non-Residential Plan Review	175,000
Total Work in Progress	1,050,000

Note that this reserve element represents the average amount expected to carry forward between years. If the level of permit activity were to remain exactly the same from year to year, changes to the balance would not be expected if it is at the target level. In reality, the level of activity will fluctuate from year to year, resulting in additions to or uses of the reserve balance.

At this time, no explicit work in progress component is recommended for Land Use Permits (Planning) and Public Works permits based on the following:

- The processing time for Land Use permits averages 120 days and, in general terms, the level of activity has been reasonably stable from year to year.
- Public Works permits are based on a percentage of public improvements, which makes sizing of a reserve component difficult.
- Both Planning and Public Works permits receive an explicit General Fund subsidy, whereas Building is primarily fee-supported.

- For very large projects that would likely result in revenue and expenditure timing differences, such as Totem Lake, the current recommendation is to track revenues and expenditures separately to manage the workflow, as discussed later in this memo.

Once the City gains more experience managing the Development Services reserve, the decision of whether to establish separate elements for Planning and Public Works could be revisited.

Revenue (Staffing) Stability Component

The revenue or staffing stabilization component is intended to recognize that permit revenues can fluctuate during declines in development activity, but that there is a need to provide services "on demand", even during slow development periods. This reserve component provides the resources to maintain skills/staffing for a set period of time while the severity and duration of the downturn is assessed and specific cost containment actions can be identified. When the Development Services Reserve was established in 2005, $400,000 was set aside for revenue stability. This figure was based on a review of the development services revenue over a ten year period, which showed that revenue had not fallen by more than 10% of the prior year's revenue during that time.

Another approach to validate this target level is to consider that the six temporary positions that were made permanent in 2005 presume that this is a new baseline staffing level based on the level of development activity in the recent past. If, in fact, the level of development activity were to decline to earlier levels, the assumed funding for these positions would decline. However, before adjusting staffing levels, it would be important to evaluate whether the down turn was short-term in nature or was expected to continue. The cost of these positions was estimated at approximately $500,000 for 2006. In the event of a downturn, it might take several months to determine whether the downturn will be sustained, and potentially several additional months to adjust staffing levels. The current revenue stability balance would provide approximately nine months of funding for these positions in the event of a downturn, which appears reasonable and is consistent with the practices of other jurisdictions.

Other Potential Reserve Components

Some jurisdictions that maintain a development services reserve include components for use in funding process improvement efforts, new technology, and/or facilities reconfigurations. The funding for these components is often generated by building a surcharge or cost element into the fees to ensure that the cost of improvements that benefit all customers are paid for over time (which improves equity), rather than only being funded in periods of high development activity when revenues are strong. This approach also provides for a more level accumulation of funding toward periodic costs. The City's current reserve does not include this component at present, but an update of the cost of service study is anticipated for 2007 and adding this element could be considered at that time.

Adequacy of Current Reserve Balance

Based on these estimates, the target reserve balance compares to the current balance as follows:

Total Work in Progress	1,050,000
Revenue Stabilization	400,000
Total Reserve Requirement	**1,450,000**
Current Reserve Balance	920,000
Estimated Addition to Reserve	530,000

Based on the estimated year end 2006 cash balances, we recommend that an additional $530,000 be transferred to the Development Services Reserve. Note that the level of reserve requirement is intended to fluctuate over time based on the building cycle, as discussed later in the memorandum, so that the required additions or use will vary from year to year.

Reserve Management

Basic Concepts

There are several basic reserve management concepts that apply to the Development Service Reserve:

- One of the primary purposes of establishing this reserve is to provide a means for reacting to changes in conditions in a planned manner. As a result, reserve levels are expected to fluctuate over time, recognizing that the City cannot directly control the level of development activity.

- The reserve is a tool to manage cash flow and maintain relatively stable fees, as well as provide a means for better matching fee revenues with related expenditures.

- The reserve provides a mechanism for maintaining service levels during changes in the building cycle and provide for measured responses to changes in activity level.

- If reserve balances fall below target levels, balances should be recovered over time through fee revenues. When reserve balances exceed target levels, surplus amounts should be considered for funding resources to maintain service levels.

- On-going reserve management requires:

    - Work-in-progress – routine monitoring of backlog and adjustments in staffing levels and/or fees to maintain reserve balances at targeted levels.
    - Revenue (Staffing) Stability – management of staffing levels to maintain essential skills and functions during downturns in workload.

Reserve Management Discussion Items

There are several aspects of reserve management that need to integrate with overall development services operations and decision-making.

Hiring decisions/contracting authority – When revenues and service needs exceed planned levels, there should be a degree of flexibility provided to obtain resources to meet these needs. Defining a process to modify the budget for purposes of responding to changes from assumptions is a key element. One approach to address this need is to provide for contingent budget authority to contract for additional resources or bring in limited term employees to meet anticipated needs. This approach may take the form of providing a mechanism for spending revenue collected in excess of planned levels by some margin (10-20%) to obtain additional resources. Another option would be to bring requests to Council when needed and to provide a process for action to be taken quickly to meet the need. The type of resource should be determined by the expected duration of the increased activity level and care should be taken to ensure that revenues for work in future periods are not used to meet current needs.

Importance of activity/revenue tracking within the year – Reserve management reinforces the need to track permit activity, revenue collections, and workload consistently throughout the year. Such monitoring should provide cues for potential requirements to adjust resource levels (up or down) and are a necessary part of the reserve strategy.

Action during downturns – As described earlier, one of the roles of the reserve is to help provide a mechanism to maintain service levels during times of changing activity levels. Several questions arise: When and how do you know when you are entering a downturn? Is there any trend in planning permits that might indicate a coming decline in building permits? There is no formula for determining when action is required, but monitoring activity levels throughout the process is the first step. A mechanism is already in place within Development Services to track permit revenues and activity levels, although a greater degree of consistency among the three departments may be required for reserve management purposes. Once the number of permits or revenues collected (or both) begin to decline from historical patterns, close attention should be paid to determine if it is a one-time occurrence or a change in trend. In addition, a more consistent reporting of activity levels to the City Council, perhaps on a quarterly basis, could provide early warning of changes in activity levels. In the experience of other jurisdictions, it is often difficult to determine a decline is occurring until at least 3-4 months of lower than anticipated activity occurs. At that juncture, cost containment measures and implementation timelines should be identified and reserve usage should be balanced against cost reductions. If a downturn lasts for longer than 6 months, cost reductions may need to be implemented more aggressively to ensure that reserve balances are not depleted before expenditures are brought back into balance with revenues.

Extraordinary projects – In order to keep reserve levels reasonable and provide the capacity to respond to projects that are extraordinarily large, it can be good practice to separate the resource needs and funding sources similar to the current plan for the Totem Lake Redevelopment. However, cash flow still becomes an issue because resources may need to be in place before fees have been collected. The Development Service Reserve can be a useful tool in these circumstances. If expenditures precede the collection of related revenues, short-term funding can be provided from the reserve so long as it is repaid once revenue is collected. In these circumstances, a formal process for this action should be put in place to ensure that the reserve is reimbursed.

Finally, it is important to note that, as the City gains additional experience in managing the Development Services Reserve, that there may be further refinements in estimating techniques and management guidelines. This reserve will be revisited periodically as part of the budget process to ensure that it is serving its intended purpose and determine if adjustments are required.

Summary of Recommendations

- Based on the reserve sizing methods summarized earlier, add $530,000 to the Development Services Reserve at the end of 2006 from year end cash balances.

- Establish consistent monthly activity reporting and quarterly reporting provided to the Council on development activity levels (permit volumes/revenues).

- Work to refine reserve management guidelines based on experience, including an evaluation of mechanisms for adjusting resource levels quickly in times of higher than anticipated activity and identification of actions to be taken in the event of a downturn in workload.

- Evaluate establishing additional reserve components for process improvement efforts, new technology, and/or facilities reconfigurations as part of the 2007 building fee update.

- Consider accounting for extraordinarily large projects separately, similar to the current plan for the Totem Lake Redevelopment.

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MEMORANDUM

To: Dave Ramsay, City Manager

From: Marilynne Beard, Director of Administration and Finance

Date: October 28, 2005

Subject: Development Services Reserve and Staffing

During last year's budget process, the City Council asked staff to prepare a recommendation for establishing a development services reserve or special fund. The purpose of this memo is to provide background on the options available to provide stable funding for development services and to address staffing requests from the development departments.

Background and Options

Development fees can fluctuate from year to year as economic conditions change and the development cycle responds. Development fees may also be collected before all of the associated work of a permit is completed (e.g. inspection). As a result, permit fees collected in one year may represent workload in the following year. At a base level, there will always be a "carryover" of workload for some permitting and development review activities for permits that were issued towards the end of the year. However, some larger projects can span multiple years (e.g. Evergreen Hospital and Juanita Village). Since revenue may not always appear in the same year as the workload, cities often manage their development revenue receipts so that they can be applied to work over multiple periods. Development revenue management can also provide a hedge against economic fluctuations and provide bridge funding when revenue declines during a lull in construction activity. If it appears as though the revenue decline will be a longer term phenomenon, it is generally an indicator that less work is in the queue and fewer staff may be needed.

As part of the last development services cost of service study, FCS Group provided a report on how other jurisdictions have approached development revenue management (see attachment A). Their report discussed the following three approaches commonly used by cities:

1. **Incorporate All Development Services Revenue and Expenditures in the General Fund.**

   This is the current practice in Kirkland where development services are tax-subsidized by Council policy. Any gap between expenses and income in any given year does not necessarily require any action on the Council's part to account for cyclical fluctuations. If development revenue falls below the previous year's level (or the budgeted amount), it is covered by other General Fund

revenue (i.e. taxes) or backfilled from General Fund reserves (such as the Revenue Stabilization reserve). When revenues are higher than budget, they remain in the General Fund.

Sustained increases in development activity will generate requests for additional staff. The following chart shows the regular and temporary funding provided for development services compared to revenue over the past eight years.

	1999	2000	2001	2002	2003	2004	2005	2006
FTE's Added								
Building	1.85	1.00	1.00	0.12				
Planning	2.00		1.00					
Public Works								
Total	**3.85**	**1.00**	**2.00**	**0.12**	**-**	**-**	**-**	**-**
One-Time Funding								
Building				128,749	40,657	160,493	323,477	391,737
Planning						46,000	117,768	121,794
Public Works				62,713	79,982	82,328	74,533	78,111
Total	**-**	**-**	**-**	**191,462**	**120,639**	**288,821**	**515,778**	**591,642**
Revenue	**2,271,532**	**2,783,848**	**2,773,833**	**2,500,833**	**3,352,080**	**3,807,854**	**4,887,359**	**4,341,895**

Beginning in 2002, there was a shift from adding positions to approving temporary staffing, partially because we were unsure how long additional development staff would be needed but also because resources became scarcer. Although development departments have requested ongoing staffing, only temporary staffing was approved.

Temporary staffing is funded from resources carried forward from the previous year, usually from revenue in excess of the budgeted amount (from development fees and other sources of revenue). The advantage of this approach is that temporary staff can more easily be reduced at the end of an "up" cycle because they are generally only hired for one year at a time. The disadvantage is that it is more difficult to attract and retain qualified staff in one-year temporary positions. All of the departments involved in development services believe that the temporary staff that has been funded over the past five years is more representative of a new "base" and that the temporary positions should be converted to ongoing FTE's.

Since development services overall are tax-subsidized by Council policy, development fees are being applied to development services and not to other General Fund services. Total development

revenue does not cover total development costs (as demonstrated in our cost of service studies completed every three years). However, since all development revenue and expenditures are in the General Fund, we do not attempt to match them on an annual basis. The disadvantage of not matching revenues and expenditures on an annual basis is that we cannot accurately apply excess development fees towards workload in the following year.

2. **Maintain Development Services Revenues and Expenses in the General Fund and Create a Development Services Reserve.**

This approach retains development services within the General Fund but establishes a reserve composed of development revenues collected in one year over and above that amount needed to fund current services. The reserve would be tapped when development revenue fell below the amount needed to fund ongoing services. If a sustained downturn in development activity takes place, then staff would be downsized.

The original report from FCS Group suggested that the amount of reserve contributions each year would require that departments track activities closely and that we compare actual costs with actual revenue. Any marginal revenue over and above the costs would be placed in reserve. In order to accomplish this level of analysis on an annual basis, staff would essentially replicate the cost of service analysis each year. Given the workload requirements related to this method, we asked the consultant to identify other approaches that would be acceptable but not as labor-intensive.

The consultant identified an alternative approach that focuses on large projects to determine the amount of workload that is anticipated to span multiple years (and the amount of revenue that should be placed in reserve to fund the future need). For example, the City issued a permit to Evergreen Hospital for the bed tower – a project that produced $322,000 in permit revenues in 2005. Building Services staff estimates that the bed tower project will continue through next year and will require one full-time inspector for most of the year. Based on this situation, the City Council approved the hiring of one full-time temporary building inspector to address the Evergreen project. Additional development fee revenues were budgeted as the source of funding in 2005 and 2006. In this case, the temporary staff was approved in the same year as the revenue was received. We simply acknowledged the additional cost and revenue within the biennial budget. If this situation spanned budget years, a portion of the permit revenue from the Evergreen project would be transferred to the reserve in order to provide sufficient funding for staff work in the next budget year.

In order to identify the amount needed to transfer into the reserve at year end, development staff would be asked to identify large outstanding projects that will generate workload beyond the "base" in the coming year. This exercise would involve both objective and subjective data. For instance, in 2005 year-to-date building permit revenue is $1.54 million. Of that total, nine permits with fees greater than $20,000 constituted nearly fifty percent of the revenue. For objective data, we would analyze projects with permit fees above a certain level since these are the projects that contain "unearned revenue" because we have collected fees for work that will partially be performed in future years (referred to in the consultant report as "work in progress revenue"). The subjective analysis would be applied to these projects by development staff to

determine what percentage of the project work that will be performed in the following year. This analysis would form the basis for the transfer from the General Fund to the development services reserve.

A secondary element to a development services reserve would consist of a revenue stabilization component. In years when revenue decreases below the base level, the reserve would be tapped on a temporary basis to backfill funding. In the interim, staff would determine whether the downturn was longer term in nature and whether permanent staffing reductions were in order.

3. **Create a Development Review Services (DRS) Fund.**

A development services fund could be set up as a special revenue fund (such as the Street Operating Fund) or an enterprise fund (such as the Water/Sewer Utility Fund). The following excerpt from the FCS Report explains how a dedicated fund would work.

- *Costs: The programmatic costs incurred to provide development review services would be segregated from their existing departments and budgeted in the new DRS Fund. For each existing department, allocations of department management and administration might need to be made. Citywide overhead costs could also be imposed as an interfund charge and transfer.*

- *Fee Revenues: Revenues collected from development review fees would be dedicated entirely to the new DRS Fund. General Fund subsidies, if any, could be made as explicit transfers into the special revenue fund.*

- *Reserves: The special DRS Fund could maintain a cash reserve/set-aside for sustaining itself during downturns in the development cycle.*

Unlike the utilities, development services are not fully fee supported. By Council policy, some services such as Planning are subsidized by taxes due to the general community benefits attributed to these regulatory activities. This makes the use of an enterprise fund which contemplates a self-supporting, business-type activity less appropriate. Enterprise funds also have specific financial reporting requirements that are staff-intensive. Since the same objective is achieved using a special revenue fund, staff recommends this approach if the Council wants to consider a separate fund. The General Fund subsidy could be acknowledged by an annual transfer from the General Fund or by budgeting some costs directly in the General Fund. The amount of the annual subsidy would be based on budgeted expenditures applying the cost recovery policies established by Council. This again would require closer data tracking by departments.

Recommendation

Staff recommends that Council adopt option 2 (establish a development services reserve). If a development services reserve is established, then current temporary staff that operating departments consider "base" staffing should be converted to regular FTE's (see attached service package requests from Fire and Building, Planning and Public Works). It is further recommended that we use the estimate of "work in progress revenue" as the basis for annual transfers to the reserve.

The current development cycle is yielding revenue over and above budgeted amounts and includes several large projects that are likely to continue into 2005. An upswing in the development cycle is the ideal time to initiate a reserve because resources are available to provide seed funding. The following table summarizes development revenue estimates compared to budget for 2005 and 2006.

Development Services Revenues*

	Budget	Estimate	Difference
2005	3,944,027	4,887,359	943,332
2006	4,073,078	4,341,895	268,817

*Excludes Express Review

A portion of the excess revenue in 2005 is being dedicated to a temporary building inspector (for the Evergreen Hospital project) in the amount of $94,521 (represents a portion of 2005 and all of 2006). The net amount of revenue anticipated over and above the budgeted amount is $848,811 (not all of which represents work to be performed next year). Based on staff's estimate of "work in progress revenue" for 2005, funds should be transferred into the development services reserve for work to be performed in the future (amount to be determined at year-end). As a practical matter, the City Council has already funded the development services temporary staff by approving funding for 2005 and 2006 and by approving the new temporary building inspector. The reserve would not need to be tapped in 2006. In subsequent years, adequate ongoing revenue should be budgeted to match ongoing expenditures but may be supplemented by the development services reserve if needed.

In addition to the "work in progress" set-aside, it is recommended that the Council transfer an additional amount as a revenue stabilization reserve. Over the past ten years, development services revenue has fluctuated but never fell more than 10% of the previous year's revenue. A revenue stabilization reserve equivalent to 10% of budgeted development revenue would equal about $400,000.

Summary of Recommendations

1. Establish a Development Services Reserve using 2005 year-end available resources in an amount to fund a revenue stabilization component and a "work in progress" component. The amount of the transfer would be determined at year-end, however, it is estimated that about $800,000 should be available to transfer.

2. Convert temporary development staff approved for 2005 and 2006 to regular employees, with the exception of the temporary building inspector approved specifically for the Evergreen Hospital project (a total of 6.0 FTE's).

It should be noted that none of the revenue or staffing projections assume that the Totem Lake Mall project will be permitted in the coming year. A special report is included as Attachment C that provides a recommended approach to staffing the project if it is approved.

Attachment A

ISSUE PAPER

Development Review Services Revenue Management

How should the City of Kirkland account for and manage development review services revenues, which fluctuate according to development cycles, in order to satisfy long-term program funding needs? What are the issues, policies, and practices related to various approaches? What is the experience of other cities who actively manage their development review functions as special funds separate from the General Fund?

BACKGROUND

The City of Kirkland provides development review services (inspection and plan review) across three of its departments: Building and Fire, Planning, and Public Works (Engineering Division), each of which is budgeted in the General Fund. These functions collect fees that are linked to the cost of providing service and are intended to recover a portion of those costs, according to recovery targets set by the City Council. In all cases, the targeted cost recovery from fees is less than 100%, which means that, by design, the General Fund bears responsibility for funding the remaining share of development review activities.

Revenues from these fees are not currently accounted for directly to these three departments. Rather, they are recorded as revenues of the General Fund. The City does not currently maintain a dedicated reserve (or set-aside) for development review; as departments in the General Fund, they rely on the common reserves and/or contingencies of the General Fund.

In 2004, during its third cost-of-service based update of development review fees, the City raised the question of whether or not Development Review Services, as a comprehensive function, should be managed as a special revenue fund separate from the General Fund. Among other implications, this means that revenues collected and costs incurred specifically for development inspection and plan review activity in each of these disciplines would be accounted for explicitly. In essence, fee revenues become the formally recognized, primary source of funding for development review activities at the City. The level of spending to provide service from these functions would be dependant on development fee revenues and whatever General Fund appropriation was available and consistent with the City Council's cost recovery targets.

ALTERNATIVES

There are three primary approaches to account for and manage Development Review Services funding:

A. The current General Fund practice, described above.

B. The General Fund with a dedicated cash set-aside account.

Attachment A

C. A special revenue fund and reserve for development review services.

ANALYSIS OF ALTERNATIVES

A. Current General Fund Practice

Under this approach, the City would continue its existing practice as described above. Specifically:

- **Costs:** Expenses incurred to provide development review services would continue to be budgeted in their respective departments, subject to the appropriation of General Fund resources each fiscal year.

- **Fee Revenues:** Revenues from development review fees would be recorded within the General Fund.

- **Reserves:** Development review services would rely on the common reserves and/or contingencies of the General Fund and be subject to budgeting decisions (i.e., both increases and cuts) with other General Fund programs.

The primary benefit of this approach is simplicity; it requires no change from existing practice. For development review programs, it also provides funding stability during downturns in the development cycle when fee revenues subside, to the extent that General Fund resources are available. The chief implication of this approach is the inability to regularly track development fee revenues against the costs of service and according to outstanding workload liability.

B. Revised General Fund Practice

Under this approach, the City would continue its existing practice, but augment it to establish a dedicated cash reserve, or set-aside, for development review services. Under this approach:

- **Costs:** Expenses for these programs would continue to be budgeted in the General Fund according to current practice.

- **Fee Revenues:** Fee revenues, while still recorded as undedicated General Fund resources, would be tracked periodically against the costs incurred to provide service. Surpluses in any given fiscal year would be reserved in a set-aside account for the future use of development review services only. Deficiencies in a given fiscal year could be funded, in whole or in part, using the set-aside balance.

- **Reserves:** A special reserve/set-aside account would be established for development review services. This reserve would be funded by fee revenues collected in excess of the current costs of services, which is caused by the collection of permit revenue in advance of

Attachment A

performing the work. Some or all of the cash set aside could be transferred to the General Fund in years during a development downturn, as needed, to sustain the programs while work obligations on existing pre-paid projects remained.

The benefits of this approach are similar to Alternative A in that it remains relatively simple to manage. While current budgeting practices remain the same, a special set-aside account would be established, providing development review services a dedicated source of funding to manage workload cycles. Proper maintenance of that reserve would require increased analytical efforts, as the costs of development review services would need to be tracked on a regular basis and compared to collected fee revenues. Furthermore, the departments providing those services would be tasked with a higher level of data-tracking (e.g., staff time) than is currently conducted, so reserves could be accurately sized, built, and used.

C. Special Development Review Services Fund

Under this approach, the City would establish a new fund, apart from the General Fund for Development Review Services (DRS). The following would take place:

- **Costs:** The programmatic costs incurred to provide development review service would be segregated from their existing departments and budgeted in the new DRS Fund. For each existing department, allocations of department management and administration might need to be made. Citywide overhead costs could also be imposed as an interfund charge and transfer.

- **Fee Revenues:** Revenues collected from development review fees would be dedicated entirely to the new DRS Fund. General Fund subsidies, if any, could be made as explicit transfers into the special revenue fund.

- **Reserves:** The special DRS Fund could maintain a cash reserve/set-aside for sustaining itself during downturns in the development cycle.

In establishing a separate DRS Fund, a number of decisions must be made:

- **Scope:** Will all development services functions across the three departments, including Building/Fire, Planning, and Engineering, be accounted for in the new fund or just a subset of those, such as Building? If all functions are included, it reinforces the perception of "one stop" permitting and allows for separate decision-making, however, the extent of the centralization may be limited when development services activities, such as Engineering, are subsets of much larger functions (Public Works).

- **Accounting Structure:** Should the DRS Fund be a special revenue fund or an enterprise fund? Both options allow for segregation of revenues and maintenance of reserves/set-asides. An enterprise fund would require separate reporting in the City's financial statements. In either case, Citywide overhead costs could be budgeted directly in the fund.

- **General Fund Appropriation:** Will a separate General Fund appropriation be transferred into a separate DRS Fund for subsidized activities or will those activities be budgeted outside

Attachment A

the fund? For example, there are substantial components of the Planning Department which, by cost recovery policy, remain obligations of the General Fund, such as long-range/comprehensive planning. Will the entire Planning Department be folded into the DRS Special Fund, or will an attempt be made to split out the functions?

- **Reserves or "Set Asides:"** As the primary development services function, Building is most impacted by variations in the development cycle and therefore most in need of reserves and related policies to maintain service despite revenue fluctuation. Within a special DRS Fund, reserves or "set asides" become a requirement to effectively manage the fund. This important component is discussed in more detail below.

CONSIDERATIONS FOR CASH RESERVES/SET-ASIDES

Purpose of Reserves

The purpose of a reserve (or set-aside) is to allow agencies to better manage their cash flow from year to year and to improve the financial stability for services that are subject to economic cycles related to the construction industry. Because revenue collection precedes the costs of providing service, the cyclical nature of the development and building industry routinely puts revenues out of balance with authorized spending. In an expansion phase of the development cycle, application and permitting of large projects generate significant revenues that support inspection services required over multiple fiscal periods. Fund balances may accumulate faster than the development services functions are called upon to provide service. In a contraction phase, current period revenues are insufficient to meet current period costs. If work-in-progress funds are inadequate, the City may be unable to meet its obligation to provide services without funding from other revenue sources.

While set-asides can be made toward one-time needs, special projects, or technology advancements, the reserves addressed in this document are primarily designated for the deferred liability associated with pre-paid work-in-progress (WIP) and staffing stabilization.

The objective in establishing a WIP reserve is to provide a mechanism for setting aside current revenue to fund the workload backlog in a future time period when it is not accompanied by revenue. Interest earnings on a reserve fund also provide an offset to the impact of inflation on workload liability. The work-in-progress liability should be funded by revenues paid in advance and is not a reserve component that needs a new funding source, provided fees are adequate to recover the costs of services. The unspent funds needed to complete plan/technical reviews or to conduct inspections in subsequent periods should be recognized as such to assure that they are available to offset the liability and not used for other purposes. The WIP reserve should be expected to vary over time with the size and composition of the workload backlog. Since the needed reserve is linked to the expected workload, it should not be considered a static requirement and should be reviewed annually as part of the budget process.

The staffing stabilization reserve is intended to recognize that there is the need to provide services "on demand", even during slow development periods. To meet this requirement, a core

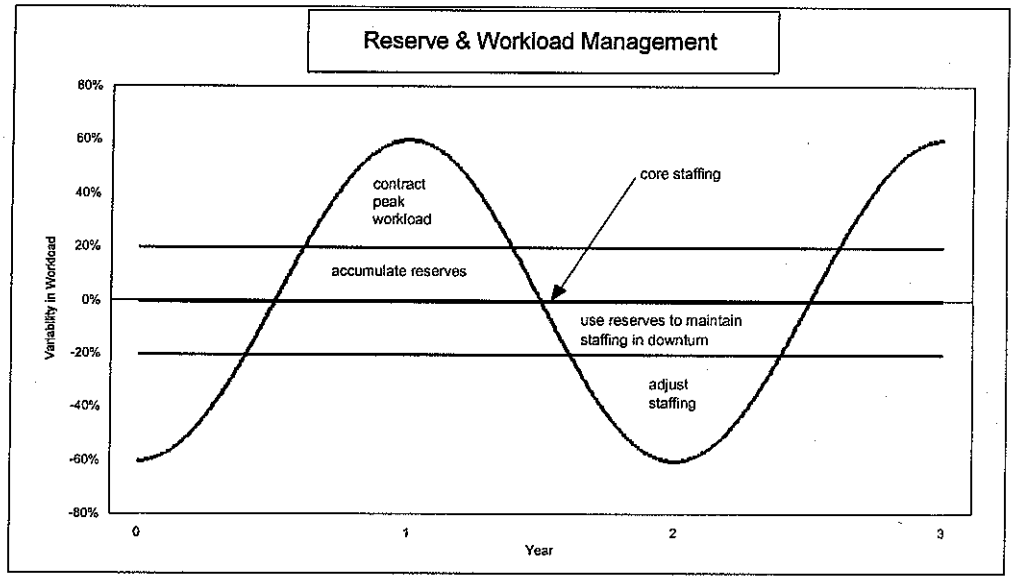
Attachment A

level of staffing is required to maintain critical skills and service levels. Such a reserve provides the resources to maintain skills/staff for a set period of time while the severity and duration of the downturn is assessed and specific cost containment actions are identified. A staffing stabilization reserve ensures that minimum basic staffing levels and essential skills are maintained for each function during the times of depressed workload. Such basic staffing levels would allow the City to maintain essential levels of expertise and service. Such a reserve can also be used to stabilize fees that would otherwise be increased to offset significant revenue fluctuations. The reserve provides a temporary revenue source until workload intake increases, cost containment measures can be put into effect, or the duration of the downturn can be assessed. Funding for such a reserve becomes a cost of providing service, and fees should be sufficient to maintain a reserve, if necessary.

Use of Reserves

On-going funding of the WIP reserve is intended to be generated based on an estimation of revenues collected in one fiscal period for which the expenses are not expected to be incurred until a subsequent fiscal period. For the staffing stabilization reserve, when reserve balances need to be augmented, the targeted addition to reserves is included in budgeted expenses. If reserve balances exceed target levels, which may occur during periods of peak workload, the funds in excess of the target should be made available to meet operating needs. It is important that the supplemental resources are temporary in nature, such as contract labor, subcontracting, etc., to ensure that expenditure levels can be reduced once short-term needs are met. If the funds over the target are not required to meet service levels, the surplus could be used to stabilize, or potentially reduce, rates.

The intended management strategy for the reserves is illustrated in the graphic below.



Attachment A

Calculation of the Accumulation and Consumption of Reserves

Calculation of the accumulation or consumption of balances in a given fiscal period should rely on known and measurable indicators of workload and revenue documented in the City's permit tracking financial management systems. The key metrics involved are new permit fee revenue, the amount of General Fund subsidy, the total cost of development services, and the change in WIP during the fiscal period. The accumulation/consumption of stabilization balance can be calculated from the preceding variables, and ideally would be validated with reference to workload and expenditure data on those activities funded by consumption of the stabilization balance. Tracking staff time data on a formal basis is a critical piece of information in developing an appropriate methodology for using reserves.

If the City chooses to establish reserves for these purposes, an analysis of the work-in-progress and core staffing needs would be required. Such an analysis would establish initial balances and metrics for accumulation and use, as well as identify data tracking needs for future reserve management.

COMPARABLE PRACTICES

The following points briefly discuss the practices of other public agencies in managing a special and or enterprise fund for their development review functions:

- **City of Bellevue:** The City manages development services in Planning and Community Development using an enterprise fund, with public benefit activities funded from a General Fund transfer. Reserves are established, maintained, and used to manage workload liability, core staffing, and technology and facilities needs.

- **City of Redmond**: Development services are managed within the General Fund and a reserve of 25% of budgeted expenses has been maintained historically. The City is considering tracking workload liability as the basis for maintaining the reserve in the future.

- **City of Seattle:** The City manages the Department of Planning and Development using an enterprise fund, with public benefit activities funded from a General Fund transfer. Reserves are established, maintained, and used to manage workload liability, core staffing, technology initiatives, and strategic planning projects.

- **City of Vancouver:** The City manages Building Services using a special revenue fund and Land Use services within the General Fund. The special revenue fund maintains a cash balance that is used to fund technology initiatives, staffing stability, and prepaid workload.

- **City of Bellingham:** The City manages Building Services in an enterprise fund, which maintains reserves for deferred liability, economic downturn, and some technology initiatives. Land Use services are managed within the General Fund at present.

Attachment A

RECOMMENDATION

Especially in the area of building fees, establishing some sort of reserve/set-aside has been an evolving trend, bordering on becoming standard practice in jurisdictions of larger size. The reason for this has been the increasing need, due to constituent and industry pressure, to justify fee levels, maintain relatively stable fees, and provide service on demand: to demonstrate that revenues are commensurate with the costs incurred to provide service. For building fees, which are a large source of General Fund user fee revenue for most municipalities, the timing differences between fee collection, permit issuance, and subsequent City work makes it difficult to compare real-time costs against real-time revenues in order to judge the status of cost recovery: fees are collected well in advance of the expenditure to perform the work. The accumulation and use of reserves is not only becoming a favored way of funding development review programs, but can also be an integral part of portraying the full cost of service for purposes of setting defensible fees.

The City's development review practices, ongoing workload, and level of fee revenues may warrant the establishment of a reserve or cash set-aside to account for and manage development fee revenue. That said, much can be accomplished through Alternative B, which is to establish this set-aside while retaining current departmental budgeting in the General Fund. This will allow the City and affected departments the time to establish procedures for properly maintaining a reserve and setting associated policies, gain experience in the accounting and use of the structure, and in the future, have greater information with which to determine whether a special DRS Fund is feasible and warranted.

CITY OF KIRKLAND
Department of Finance & Administration
123 Fifth Avenue, Kirkland, WA 98033 425.587.3100
www.kirklandwa.gov

MEMORANDUM

To: Kurt Triplett, City Manager

From: Marilynne Beard, Deputy City Manager
Tracey Dunlap, Director of Finance & Administration
Chris Dodd, Facilities Services Manager

Date: July 25, 2014

Subject: CITY COUNCIL CHAMBER REMODEL INPUT

RECOMMENDATION:

City Council receives a brief summary of current conditions and objectives for remodel of the Council Chamber and provide input for the design process.

BACKGROUND DISCUSSION:

In order to provide appropriate facilities to serve the greater Kirkland population and geography following annexation, the City Council approved a series of facility renovations as part of the annexation initiative. These included a new public safety building which is now the Kirkland Justice Center and potential additions to the Maintenance Center. These planned investments also included $10 million for remodeling and modernizing City Hall to better serve the public and allow consolidation of Parks and Human Resource staff from the City-owned 505 Market Street back into City Hall. As the City moves forward in planning the City Hall Remodel Project, one of the spaces identified as in need of updating is the City Council Chamber. The purpose of this discussion is to gain a clearer understanding of the City Council's objectives for the renovation of the Council Chamber.

Current Conditions:

- Council Chamber has not been significantly rehabbed since it was constructed in 1985
- Audio visual and broadcast lighting is outdated
- Cable and electrical conduits are full
- Case work and fixed seating limits the usability of the room for purposes other than Council meetings or lecture type presentations

Primary Project Objectives:

- Enhance flexibility
- Modernize and update technology
- Maintain an atmosphere appropriate for a governing body meeting space

Staff is seeking input from the City Council on the following questions:

1. What qualities or features of the Council Chamber are especially important to you?

2. What is your greatest challenge or frustration with the Council Chamber or furnishings how they are currently configured?

3. How could changes in the Council Chamber improve your efficiency and effectiveness during City Council meetings?

4. Are there any changes you would make to the way that City Council interacts with the audience or guests? (Special presentations, items from audience, award ceremonies, etc.)

5. Do you support the concept of removing the fixed seating and creating a more flexible community and conference space within the Chamber?

Staff will be providing input received on this topic and the other City Hall remodel priorities discussed at the February 21, 2014 City Council Retreat to the architect engaged for the remodel project. This information should allow for plans to be revised to fit within the project's $10 million total budget. The revised plans are expected to be brought back for Council consideration later in the Fall with the potential of proceeding to bid in early 2015.

CITY OF KIRKLAND
PLANNING AND COMMUNITY DEVELOPMENT DEPARTMENT
123 FIFTH AVENUE, KIRKLAND, WA 98033
425.587.3225 - www.kirklandwa.gov

MEMORANDUM

To: Kurt Triplett, City Manager

From: Deb Powers, Urban Forester
Paul Stewart, Deputy Planning Director

Date: July 24, 2014

Subject: 2014 URBAN FORESTRY ANNUAL REPORT

RECOMMENDATION

City Council receives an annual report on progress towards the Urban Forestry Strategic Management Plan (UFSMP) goals and provide staff direction regarding the strategies outlined in the Six Year Work Plan and the action items for 2014-2015.

BACKGROUND

At the July 2, 2013 meeting, the City Council adopted the City of Kirkland Urban Forestry Strategic Management Plan (Plan). The purpose of the Management Plan is to establish a foundation for a well-coordinated, consistent, efficient, and sustainable urban forest throughout the city. While developing the Plan, four over-arching goals emerged to direct Kirkland's urban forest management efforts over a long-term horizon:

Document Kirkland's urban forest asset to improve safety, quality and sustainability. Obtain a greater understanding of the condition, risk potential and benefits of the urban forest asset.

Protect, maintain and enhance Kirkland's urban forest, an integrated natural resource, through a balanced approach using education, incentives and regulations.

Build a comprehensive urban forest program to increase efficiency, public accountability and collaboration between City departments and to standardize public tree management.

Promote stewardship of the urban forest with community outreach and partnerships. Involve the community with long-range decisions regarding the urban forest.

Directors and staff from the Parks, Public Works and Planning Departments prioritized the strategic Plan's long-range goals and objectives into a Six Year Work Plan. The following objectives were considered the highest priorities and the most feasible accomplishments that could be addressed by the year 2019:

- Inventory public trees
- Develop tree planting guidelines and incentives
- Analyze and quantify the environmental benefits of public trees
- Proactively manage public trees
- Conduct public outreach regarding Kirkland's tree codes
- Develop an urban forestry program
- Track progress through annual work plans and increase accountability by reporting to City Council
- Involve the community in urban forestry issues and program development
- Dedicate resources for ongoing public outreach & education (examples: Heritage Tree program, Gold Leaf Award, etc.)
- Update tree codes and ordinances
- Grow the Green Kirkland Partnership program
- Meet Tree City USA criteria annually and attain Growth Awards when feasible

The City's 'Tree Team' is responsible for tracking and reviewing City operations, providing an annual report, and appending the strategic plan document to ensure long-range goals remain effective and relevant over time. The members of this group are:

Parks and Community Services

Jennifer Schroder, Director
Jason Filan, Park Operations Manager
Tim Werner, Park Maintenance Supervisor
Sharon Rodman, Green Kirkland Partnership Supervisor
Mark Padgett, Lead person
Ryan Fowler, Field Arborist

Public Works Department

Ray Steiger, Street Division Manager
Jenny Gaus, Surface Water Engineering Supervisor
Mark McDonough, Field Arborist

Planning and Community Development

Paul Stewart, Deputy Director
Deb Powers, Urban Forester

Annual Report Summary

Overall, the 2014 Urban Forestry Annual Report (Attachment 1) is a good example of staff successfully collaborating to reach common goals. Kirkland Public Works and Parks departments have formed a cooperative relationship to share the City's limited heavy equipment and address heavy workloads; while Public Works, in cooperation with the Planning department, has streamlined permit procedures and made minor improvements to tree planting guidelines by updating tree grate specifications.

Consistently linking and tracking day-to-day operations with long-range goals has been challenging; however, by meeting on a regular basis, cross-departmental communication has improved, resulting in resource-sharing and improved customer service. Moving forward, these partnerships are essential to track meaningful performance measures and achieve long-range goals.

Other Recognition

Aside from accomplishing goals from the Urban Forest Strategic Management Plan, Kirkland was acknowledged in 2013-2014 for the following achievements in urban forest management:

The Green Futures Lab at the University of Washington produced a 2013 report on urban forestry in the Puget Sound region. As one of four cities featured in the report, Kirkland was recognized "*as a leader as of late in actively pursuing urban forestry initiatives and integrating forestry into city departments."*

Each day during the week of June 30th, 2014, the Green Kirkland Partnership (GKP) program was featured on the KUOW 94.9FM noon program 'The Record' and in King Conservation District's website under 'Meet Our Partners.' King Conservation District grants have been crucial in keeping the GKP functioning prior to the passage of the Parks Levy; Kirkland is privileged to continue to be a partner.

Upcoming Action Items

As a functional plan, the Urban Forest Strategic Management Plan is intended to guide future actions as resources are available. The Tree Team has outlined these objectives for 2014-2015:

2014-2015 URBAN FOREST WORK PLAN ACTION ITEMS

	Task	***Partners***	***Funding Status***
1.	Inventory public trees in high priority parks – *approx. 2,000 trees in 17 high-use community and waterfront parks*	Planning, Parks	$10,000, City Forestry Account*
2.	Inventory public trees in high-priority rights-of-way – *approx. 12,000 trees in collectors and arterials, including new neighborhoods*	Planning, Public Works	Funded in Surface Water Utility Budget
3.	Restore park forested areas by professional crews at Juanita Beach and Watershed Parks - *Puget SoundCorps crews start January 2015 (approx. $5,000/week value)*	GKP**, Public Works, Park Maintenance	Awarded through WA DNR****
4.	Replace previously-removed right-of-way trees – *by citizen and staff request for trees that have not been replaced in years*	Planning, Public Works	$2,000 - $5,000 City Forestry Account
5.	Update Green Kirkland Partnership's 20-Year Forest and Natural Area Restoration Plan	GKP, Forterra	Forterra, KCD Grant
6.	Replace aerial truck – *aging signal truck is beyond its asset lifecycle and usefulness as a tree-pruning vehicle*	Public Works, Park Maintenance	Currently unfunded; to be proposed for 2015-16 budget
7.	Hold a Green Kirkland Partnership Open House – *scheduled for early 2015*	GKP/Forterra	Forterra, KCD*** Grant
8.	Celebrate Arbor Day on Saturday, November 8, 2014 – *to meet annual Tree City USA criteria*	Planning, GKP, EarthCorps	City Forestry Account (trees), EarthCorps
9.	Quantify green infrastructure benefits of public trees *(i.e.: carbon offsets, stormwater mitigation, impacts to air quality, etc.)*	Planning, Public Works Surface Water, IT-GIS, contractor	Potential WA DNR grant
10.	Offer training for developers and arborists – *conduct workshops on the City's tree codes and permitting procedures*	Planning, Development Services	Currently funded

2014-2015 URBAN FOREST WORK PLAN ACTION ITEMS

	Task	***Partners***	***Funding Status***
11.	Draft GKP materials - *stewardship plans for individual parks, Steward Field Guides, a template for annual restoration plans, and publicity materials*	GKP, Forterra	Currently funded (in cooperation with Forterra)
12.	Develop Heritage Tree Program – *per Comprehensive Plan NE-1.5, draft model program for notable trees.*	Planning	Currently funded
13.	General public outreach –*build support and involve community in important urban forestry decisions, promote tree awareness*	Planning, GKP	Currently funded

*The City Forestry Account receives revenue from donations and fines from tree enforcement actions. By ordinance, the funds can be used for tree planting or related tree programs.
**GKP – Green Kirkland Partnership
***KCD – King Conservation District
****WA DNR – Washington State Department of Natural Resources

The Tree Team considers multiple approaches for funding action items. Many are currently funded as the responsibility of individual departments, under a position description or staffing as a result of the 2012 Park Levy. Some tasks are appropriate expenditures of the City Forestry Account or the Surface Water Utility Budget. The Tree Team actively seeks grant opportunities that allow the City to accomplish Urban Forest Strategic Management Plan goals.

Staff has addressed some funding limitations by coordinating urban forestry activities across departments. For example, a collaborative approach has helped to implement the urban forestry goal to 'Proactively Manage Public Trees' by acquiring and sharing a new chipper between two departments for tree maintenance activity.

The Tree Team will continue to explore creative and more sustainable ways to achieve Plan goals; such as pooling Parks and Public Works resources to replace the aging surplus signal truck with a suitable vehicle for municipal tree work. Like the new chipper, proper equipment increases productivity, which in turn improves customer service, particularly with emergency responses during storm events.

In gauging public support for public tree maintenance, 2012 survey results showed that about 42 percent of Kirkland citizens indicated that they would

be willing to pay "a little bit more" to support public tree planting and maintenance versus 22 percent that were not willing to pay any more for public tree support.

Council Direction

Staff is requesting Council provide direction on the goals established in the Six Year Work Plan and the action items for 2014-2015.

- Does the City Council agree with the strategies established in the Six Year Work Plan?
- Does the City Council agree with the action items outlined for the coming year?

cc: Eric Shields
Jennifer Schroder
Erin Devoto
Jason Filan
Tim Werner
Sharon Rodman
Jenny Gaus
Ray Steiger
Mark Padgett
Ryan Fowler
Mark McDonough

CITY OF KIRKLAND

Urban Forestry 2014

AN ANNUAL REPORT ON MEETING URBAN FOREST STRATEGIC MANAGEMENT PLAN GOALS

Over the next 50 years, growth in urban areas is projected to increase substantially.

The role of urban forests will become even more critical to ensure healthy and livable communities.

Planning & Community Development
Parks & Community Services
Public Works

KIRKLAND'S URBAN FOREST CONSISTS OF the trees in woodlands, parks, yards, in public spaces and along streets. Trees affect the air and water where we live and the desirability of our neighborhoods and downtown. Unfortunately, many factors negatively impact trees. To provide optimal benefits to the community, urban forests require sound and deliberate management over a long range horizon. In July, 2013, the Kirkland City Council responded by adopting an Urban Forestry Strategic Management Plan.

Increased Efficiency & Resource-Sharing

The Plan was developed to establish a foundation for cohesive, efficient, and sustainable urban forest management over a long term horizon. Staff from the Planning, Parks and Public Works departments are responsible for tree care and urban forestry formed a team, established priorities and clarified responsibilities towards the goals outlined in the Strategic Plan. Through these meetings, ideas emerged on how to share resources and promote efficiency across departments, resulting in cost savings and improved customer service.

2013-2014 Achievements

- The City's Pre-Approved Plan for tree grates was revised to reduce potential trip hazards in the future
- The City procured a Bandit 1590 XP tree chipper for shared use by the Parks and Public Works departments, reducing contractor costs and hastening tree-related emergency responses
- Filling two Full-time Field Arborist positions enabled more proactive park and street tree maintenance, such as corridor pruning on Market Street and Central Way
- The Public Works and Planning departments worked together to streamline right-of-way tree permit procedures to provide better customer service
- The Green Kirkland Partnership Division was established through the 2012 Parks Levy, resulting in 3 full time positions dedicated to restore forested areas in Kirkland parks. With the help of Kirkland's many volunteers, more than 4,600 native plants (including trees) were planted in 2013 making our community more livable by cleaning the air, improving water quality, providing habitat, and moderating temperatures

2013-2014 Achievements (continued)

- The King Conservation District provided resources so the 20-Year Forest and Natural Area Restoration Plan can be updated to include new Kirkland neighborhoods
- Kirkland sought support from, and was awarded crews from the Washington Department of Natural Resources to restore wooded areas in Brookhaven, Juanita Beach, and Watershed parks
- Kirkland continued to show its commitment to responsible urban forest management in 2013 by maintaining its status as a Tree City USA for the 12th consecutive year.
- Kirkland Arbor Day was celebrated on November 9th, 2013 at Watershed Park with dignitaries Sarah Foster from the Washington Department of Natural Resources and Mayor Joan McBride in attendance
- In 2013, Kirkland earned its 5th Growth Award from the National Arbor Day Foundation. Growth Awards are earned by achieving 10 points in one year; Kirkland gained 20 points in 2013!
- The City extended its urban forestry outreach efforts to school-aged children by conducting workshops for the Expand Your Horizons program at Bellevue College in March 2014, and by engaging six local school groups at 2013 Green Kirkland Partnership projects

ACCOUNTABILITY TO DECISION-MAKERS AND TO THE COMMUNITY

"The City's incremental progress towards the goals outlined in the Strategic Plan will be reviewed, summarized and reported to the community and Kirkland City Council on an annual basis."

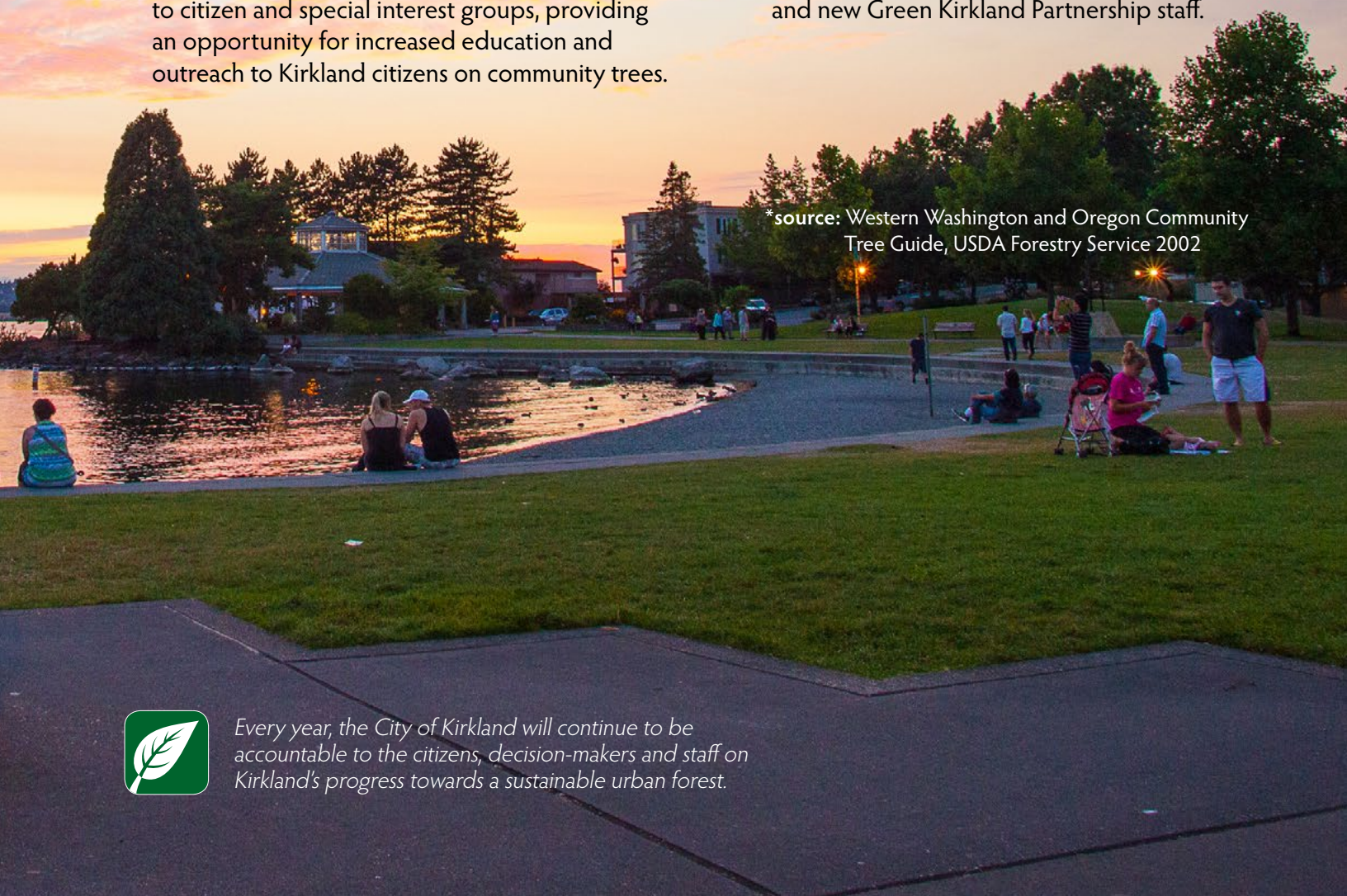
- Urban Forestry Strategic Management Plan

Other Accolades

- **Kirkland** was recognized "as a leader as of late in actively pursuing urban forestry initiatives and integrating forestry into city departments" in a 2013 Urban Forestry in Puget Sound report. Produced by the Green Futures Lab/University of Washington, the report is a municipal resource within a larger regional approach to urban forestry.
- **Tree Link**, a Washington Department of Natural Resources online publication, featured Kirkland's Tree Protection Fencing Detail as a good example of tree protection signage in its May 2014 issue.
- The **Green Kirkland Partnership** was featured in King Conservation District's **KUOW 94.9FM** spots each day the week of June 30th, 2014. The spot was about 20 seconds long and ran once or twice each day during the noon program '**The Record**.'
- The '**Trees are Awesome**' email is sent to City staff every Friday with links to relevant and interesting articles on urban forestry, such as the 'Don't Move Firewood' video message. With increased interest, this may become a City listserv to citizen and special interest groups, providing an opportunity for increased education and outreach to Kirkland citizens on community trees.

Continued Efforts

- **Tree planting** is required with development projects to meet tree density credits on private property and in the right-of-way as frontage improvements. For large trees planted along streets, green infrastructure benefits amount to $149 per tree each year*
- In 2013, **57 large-calipered trees** were planted in 14 different parks in Kirkland, including a wide variety of trees such as vine maple, beech, Stewartia, ironwood, Western red cedar, and spruce.
- **Tree salvage**: in 2013, the Parks department relocated 17 trees, saving them from development or projects that would otherwise have resulted in removal or severe damage to the tree.
- In 2013, the City nearly doubled its use of **wood chips as mulch** to suppress weeds, add nutrients to the soil, and retain soil moisture. This was due to Public Works' proactive tree pruning, a new tree chipper, woodchip donations from local tree care companies, and new Green Kirkland Partnership staff.



*source: Western Washington and Oregon Community Tree Guide, USDA Forestry Service 2002

Every year, the City of Kirkland will continue to be accountable to the citizens, decision-makers and staff on Kirkland's progress towards a sustainable urban forest.