CITY OF KIRKLAND
Planning and Building Department
123 5th Avenue, Kirkland, WA 98033
425.587.3600 - www.kirklandwa.gov

ADVISORY REPORT
FINDINGS, CONCLUSIONS, AND RECOMMENDATIONS

To: Kirkland Hearing Examiner

From: _____ Tony Leavitt, Project Planner

_____ Eric R. Shields, AICP, Planning Director

Date: December 8, 2016

File: POST ALLEY LOT 2 REASONABLE USE PERMIT, PCD FILE NO. SAR16-00953

Hearing Date and Place: December 15, 2016
City Hall Council Chamber
123 Fifth Avenue, Kirkland

TABLE OF CONTENTS

Section Page
I. INTRODUCTION 2
A. APPLICATION 2
B. RECOMMENDATIONS 2
II. FINDINGS OF FACT AND CONCLUSIONS 3
A. SITE DESCRIPTION 3
B. PUBLIC COMMENT 4
C. STATE ENVIRONMENTAL POLICY ACT (SEPA) 5
D. REASONABLE USE PERMIT APPROVAL CRITERIA 5
E. PROCESS IIA APPROVAL CRITERIA 11
F. COMPREHENSIVE PLAN 11
G. DEVELOPMENT STANDARDS 12
III. SUBSEQUENT MODIFICATIONS 12
IV. APPEALS AND JUDICIAL REVIEW 12
V. LAPSE OF APPROVAL 13
VI. APPENDICES 13
VII. PARTIES OF RECORD 13

INTRODUCTION

A. APPLICATION

1. Applicant: Tom DeDonato of Post Alley LLC
2. Site Location: 826 2ND Avenue South (see Attachment 1)
3. Request: Proposal to construct one new single family residence in the Planned Area 5A Use Zone. Access to the site is encumbered by two Class B streams and the related buffers. The applicant is using the Reasonable Use Exception provisions in Kirkland Zoning Code section 90.135 including a request for a height increase from 25 to 30 feet. The total site disturbance is 4,136 square feet with 743 square feet of stream buffer impacts (see Attachments 2 and 3).
4. Review Process: Process IIA, Hearing Examiner conducts public hearing and makes final decision. Reasonable use exceptions are typically reviewed through Process I, however the applicant is requesting a total disturbance area of greater than 3,000 square feet, which requires review through Process IIA.
5. Summary of Key Issues:
   a. Compliance with the Reasonable Use Decisional Criteria (see Section II.D)
   b. Compliance with the Process IIA Decisional Criteria (see Sections 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.
2. As part of the building permit application, the applicant shall submit:
   a. Plans showing that all paved surfaces will be constructed of pervious materials installed in compliance with City standards (see Conclusion II.D.6).
   b. Plans that incorporate the approved sensitive area buffer enhancement, monitoring, and maintenance plans (See Conclusion II.D.8). This includes submittal of detailed buffer planting plan consistent with the proposed buffer enhancement recommendations in Attachment 3 and funds for review by the City's consultant.
   c. Erosion control plans, which shall depict the location of a six-foot high construction phase fence along the boundary of the entire sensitive area buffer with silt screen fabric installed per City standard. The fencing shall be installed prior to issuance of any permits. The fence shall remain upright in the approved location for the duration of development activities (See Conclusion II.D.8).

d. A financial security device to cover the cost of completing the buffer enhancement improvements. The security shall be consistent with the standards outlined in Zoning Code section 90.145 (See Conclusion II.D.8).

e. A signed and notarized covenant that holds the City harmless against any future claims that may arise as a result of the development of the property (See Conclusion II.D.8).

f. Dedicate a Natural Greenbelt Protective Easement (NGPE) covering all sensitive areas and buffer areas on the subject property not impacted by the proposed development (See Conclusion II.D.8).

3. Prior to final inspection of the building permit, the applicant shall:

a. Complete installation of the buffer enhancement plan, subject to inspection and final acceptance by the City's sensitive areas consultant at the applicant's expense (See Conclusion II.D.8).

b. Provide proof of a written contract with a qualified professional who will perform the monitoring program, together with a completed contract and fees to fund peer review of the monitoring and maintenance activities, (i.e. inspection of plant materials, annual monitoring reports or re-vegetation activities) by the City's sensitive areas consultant. Alternatively, the applicant shall provide a copy of a completed contract and fees to fund completion of the monitoring program by the City's sensitive areas consultant (See Conclusion II.D.8).

c. Provide proof of a written contract to cover maintenance activities outlined in the buffer report (See Conclusion II.D.8).

d. Install a permanent 3 to 4 foot tall split rail fence between the boundary of the sensitive area buffer and the developed portion of the site (See Conclusion II.D.8).

e. Submit to the Planning Department a financial security device to cover all monitoring and maintenance activities that will need to be done including sensitive areas consultant site visits, reports to the Planning Department, and any vegetation that needs to be replaced. The security shall be consistent with the standards outlined in Zoning Code section 90.145 (See Conclusion II.D.8).

f. Record a "Notice of Reasonable Use Permit" document, prepared by the City, that outlines the restrictions within the approved site disturbance area along with a copy of the approved site plan and a reference to the separately recorded Natural Greenbelt Easement document (See Conclusion II.D.4).

II. FINDINGS OF FACT AND CONCLUSIONS

A. SITE DESCRIPTION

1. Site Development and Zoning:

a. Facts:

(1) Size: 12,168 square feet

(2) Land Use: The site is currently vacant.

(3) Zoning: Planned Area (PLA) 5A, High Density Residential Zone

(4) Terrain: The site has a gradual 6 percent downward slope from the southeast corner to the northwest corner.

(5) Vegetation: The development site contains no significant trees. An arborist report was submitted to address potential impacts to neighboring trees (see Attachment 9).

(6) Hydrology: The site is encumbered by two streams (one on the property and one to the north of the property) and associated buffers within a secondary drainage basin. The properties to the west and south contains unregulated Type 3 wetland.

b. Conclusions: The hydrology on the subject property is a relevant factor in this reasonable use permit application. Sensitive area impacts are discussed in Section II.X.

2. Neighboring Development and Zoning:

a. Facts:

(1) The following list summarizes the zoning designation, uses, and allowed heights of properties adjacent to the subject property:

North: PLA 5C. Office Zone developed with office uses. Maximum height is 30 Feet.

East: PLA 5A. Developed with multi-family housing. Maximum height is 30 Feet.

West and South: PLA 5A. Vacant parcel (also proposed for reasonable use under SAR16-00952) to west and a single-family residence to the south. Both properties are owned by the applicant. Maximum height is 25 feet for detached dwelling units and 30 feet for all other uses.

a. Conclusion: The proposed single-family residence is compatible with neighboring developments.

B. PUBLIC COMMENT

1. Facts: The public comment period for this application ran from June 6th to June 27th, 2016. Staff received two comments letters (see Attachment 5). Below is a summary of public comments followed by a brief staff response.

a. Comment: A neighbor who lives in an adjoining condominium is concerned about maintenance of an existing access easement, construction impacts, requiring the installation of a speed bump and lighting, and access to an existing walking trail to the north of the subject property.

Staff Response:

- *The maintenance of private access easement is a civil issue between the property owners.*
- *The applicant will be required to comply with City's construction requirements for single family residences.*
- *The City does not have the authority to require speed bump on a private access easement.*
- *The Public Works Department determined that it did not have the authority to require a public access easement or lighting within the right-of-way as part of the proposed development as the property does not front on a right-of-way.*

b. Comment: A neighbor is concerned about impacts to the existing streams during construction and after construction.

Staff Response: The project complies with all City requirements for stream buffer mitigation and will be required to comply with all construction regulations.

C. STATE ENVIRONMENTAL POLICY ACT (SEPA)

1. Fact: The project is exempt from SEPA and Traffic Concurrency Reviews.

D. REASONABLE USE PERMIT APPROVAL CRITERIA

1. Decisional Criteria of a Reasonable Use Application

a. Facts:

(1) The subject property contains a Class B stream in a secondary basin (Moss Bay basin). Additionally a Class B stream is located to north of the subject property within a public right-of-way, with the buffer extending on to the subject property. KZC Section 90.90 requires a 50 foot buffer and a 10 foot buffer setback from the streams.

(2) The property contains an area of 3,393 square feet that is located outside of the required stream buffers. Access to this area requires an access road through the stream buffer from an existing driveway and access easement.

(3) KZC 90.100 establishes a process to modify stream buffers by no more than one-third of the standard buffer width. The proposed access road to the residence could not be permitted through a buffer modification process as it extends into the inner two-thirds of the stream buffer.

(4) KZC 90.140.3 establishes a reasonable use application to modify stream buffers by more than one-third of the standard buffer width if strict application of Chapter 90 KZC would preclude reasonable use of a site.

(5) KZC 90.140.4 establishes submittal requirements for a reasonable use application. The applicant has submitted a report, prepared by a qualified professional, meeting KZC.90.140.4.a through i (see Attachment 3). The stream mitigation report has been reviewed by The Watershed Company, the City's consultant (see Attachment 6).

(6) KZC 90.140.5 establishes nine decisional criteria by which the decision maker shall determine whether or not application of Chapter 90 KZC will deny reasonable use of the property, and whether the proposed use and activities are a reasonable use of the property. Sections 2 through 10 below contain the staff's findings of fact and conclusions based on these nine criteria. The applicant addresses the criteria in Attachment 3.

(7) KZC Section 90.140.3 requires that the application be reviewed through a Process IIA Zoning Permit process since the total site disturbance exceeds 3,000 square feet.

b. Conclusions:

(1) Due to the extent of sensitive areas on the property, the stream buffer modification provisions under KZC 90.100 are not adequate to provide for access to the developable portion of the site.

(2) Based on the following analysis in Sections 2 through 13, and with the recommended conditions of approval, the application meets the established criteria for approving a reasonable use application.

2. Decisional Criterion: 90.140.5.a: There is no permitted type of land use for the property with less impact on the sensitive area and the buffer that is feasible and reasonable.

a. Facts:

(1) The subject property is located within the PLA 5A zone. This is a high density residential zone that allows the following land uses to be considered on the subject property, provided that all criteria (process, setbacks, special and general regulations, etc.) are met: detached, attached, or stacked dwelling units, detached dwelling unit, church, school or daycare center, mini school or day care center, golf course, public utility, government or community facility, or public park.

(3) The applicant proposes construction of a detached dwelling unit on the subject property.

b. Conclusion: There is no other permitted land use for the subject property that would have a lesser impact on the sensitive areas and associated buffers than a detached dwelling unit (single family residence).

3. Decisional Criterion: 90.140.5.b: There is no feasible on-site alternative to the proposed activities, including a reduction in the site, density or intensity, phasing of project implementation, change in timing of activities, revision of road and lot layout, and/or related site planning considerations that would allow a reasonable economic use with less adverse impacts to the sensitive area and buffer.

a. Facts:

(1) The subject property contains a Class B stream and the buffer of an offsite stream in a secondary basin (Moss Bay basin). KZC Section 90.90 requires a 50 foot buffer and a 10 foot buffer setback from the stream. The property contains an area of 3,393 square feet that located outside of the required stream buffers.

(2) The proposed residence will be located outside of the required stream buffers. The access road from the existing driveway (located on the property to the south) to the residence will impact 743 square feet of stream buffer.

b. Conclusions:

(1) There is no feasible on-site alternative to the proposed development since the stream buffers cover the area from the existing driveway to the proposed residence. Construction of one single family homes allows for reasonable economic use of the site with the minimum amount of impact to the sensitive area.

(2) The proposed site plan minimizes the adverse impact on the sensitive area by locating the residence outside of the sensitive area buffer, keeping the access road to the minimum size necessary and enhancing the sensitive area buffers.

4. Decisional Criterion 90.140.5.c: Unless the applicant can demonstrate unique circumstances related to the subject property, the amount of site area that will be disturbed by structure placement or other land alteration, including but not limited to grading, utility installation, decks, driveways, paving and landscaping, shall not exceed 3,000 square feet. In addition, the amount of allowable disturbance shall be that which will have the least practicable impact on the sensitive area and buffer given the characteristics and the context of the subject property, sensitive area and buffer.

a. Facts:

(1) The site contains an area of 3,393 square feet that is located outside of the required stream buffers.

(2) The only access to this area is from the existing driveway and access easement to the south, which is located within the required stream buffer.

(3) The applicant explored two development scenarios for the site (see Attachment 3). Scenario A limited the disturbance area to the 3,000 square feet but results in 1,216 square feet of permanent buffer impact. Scenario B increases the disturbance area to 4,136 square feet but results in 743 square feet of permanent disturbance. This application is for scenario B.

(4) The existing stream buffers provides some water quality benefit, but the water quality and habitat benefits are limited by the lack of native plants and diversity of vegetation.

b. Conclusions:

(1) Staff concludes that the proposed disturbance area of 4,136 square feet is needed due to the unique circumstance that the only available access to the development area requires impacts to the stream buffer and is the least impactful on the stream buffer.

(2) The proposed mitigation plan will result in a significantly improved stream buffer.

(3) To make future buyers aware of the development limitations placed on the subject property, a "Notice of Reasonable Use Permit" document, prepared by the City, should be recorded that outlines the restrictions within the approved site disturbance area along with a copy of the approved site plan and a reference to the separately recorded Natural Greenbelt Easement document (see Attachment 7).

5. Decisional Criterion 90.140.5.d: The proposal is compatible in design, scale and use with other legally established development in the immediate vicinity of the subject property in the same zone and with similar constraints.

a. Facts:

(1) The property to the south of the subject property is the only existing single-family residence in the area with similar constraints.

(2) The residence was constructed in 1959 and has a building footprint of around 1,500 square feet.

(3) The proposed residence has a footprint of 1,523 square feet.

b. Conclusions: The proposed residence is compatible in design, scale and use with other legally established development in the immediate vicinity of the subject property in the same zone and with similar constraints.

6. Decisional Criterion 90.140.5.e: The proposal utilizes to the maximum extent possible innovative construction, design, and development techniques, including pervious surfaces, which minimize to the greatest extent possible net loss of sensitive area functions and values.

a. Facts: The driveway, patios and pathways will be constructed of pervious materials.

b. Conclusions:

(1) As part of the building permit application, all paved surfaces should be shown to be constructed of pervious materials to be installed consistent with City standards.

(2) The proposal utilizes, to the maximum extent possible, innovative construction, design, and development techniques, including pervious surfaces, which will minimize to the net loss of sensitive area functions and values.

7. Decisional Criterion 90.140.5.f: The proposed development does not pose an unacceptable threat to the public health, safety or welfare on or off the property.

a. Facts: The proposal is to construct an access road in the sensitive area buffers, but not in the sensitive areas. A sensitive area mitigation plan is proposed that will improve the quality and function of the sensitive area buffers.

b. Conclusions: The proposed development does not pose an unacceptable threat to the public health, safety or welfare on or off the property. The development will improve the function and quality of the existing disturbed sensitive area buffers.

8. Decisional Criterion 90.140.5.g: The proposal meets the mitigation, maintenance and monitoring requirements of KZC Chapter 90.

a. Facts:

(1) KZC Section 90.50 establishes the requirements for construction phase fencing and a permanent barrier along stream buffers.

(2) KZC Chapter 90 requires an enhancement plan that meets certain standards and a 5-year monitoring and maintenance program with at least two yearly visits and a yearly report completed by a qualified professional.

(3) The applicant submitted a stream buffer mitigation plan that was reviewed by The Watershed Company (see Attachments 3). The Watershed Company has reviewed this final plan (see Attachment 6) and concluded it meets all requirements.

(4) KZC Section 90.145 establishes the performance and maintenance security requirements for projects involving sensitive areas.

(5) KZC Section 90.150 requires that consistent with law, the applicant shall dedicate development rights, air space, or grant a greenbelt protection or open space easement to the City to protect sensitive areas and their buffers.

(6) KZC Section 90.155 states that prior to issuance of a development permit, the applicant shall enter into an agreement with the City that runs with the property, in a form acceptable to the City Attorney, indemnifying the City from any claims, actions, liability and damages to sensitive areas arising out of development activity on the subject property.

b. Conclusions:

(1) The proposed stream buffer mitigation plan meets the minimum standards of Chapter 90 KZC for mitigation, maintenance and monitoring.

(2) As part of the building permit application, the applicant should submit:

(a) Development plans that incorporate the approved sensitive area buffer enhancement, monitoring, and maintenance plans. This includes submittal of detailed buffer planting plan consistent with the proposed buffer enhancement recommendations in Attachment 3 and funds for review by the City's consultant.

(b) Erosion control plans, which depict the location of a six-foot high construction phase fence along the boundary of the entire sensitive area buffer with silt screen fabric installed per City standard. The fencing should be installed prior to issuance of any permits. The fence should remain upright in the approved location for the duration of development activities.

(c) A financial security device to cover the cost of completing the buffer enhancement improvements. The security should be consistent with the standards outlined in Zoning Code section 90.145.

(d) Signed and notarized covenant that holds the City harmless against any future claims that may arise as a result of the development of the property (see Attachment 10).

(e) Dedicate a Natural Greenbelt Protective Easement (NGPE) over all sensitive and buffer areas not impacted by the proposed development (see Attachment 8).

(3) Prior to final inspection of the building permit, the applicant should:

(a) Complete installation of the buffer enhancement plan, subject to inspection and final acceptance by the City's sensitive areas consultant at the applicant's expense.

(b) Provide proof of a written contract with a qualified professional who will perform the monitoring program, together with a completed contract and fees to fund peer review of the monitoring and maintenance activities, (i.e. inspection of plant materials, annual monitoring reports or revegetation activities) by the City's sensitive areas consultant. Alternatively, the applicant should provide a copy of a completed contract and fees to fund completion of the monitoring program by the City's sensitive areas consultant.

(c) Provide proof of a written contract to cover maintenance activities outlined in the buffer report.

(d) Install either 1) a permanent 3 to 4 foot tall split rail fence, between the boundary of the sensitive area buffer and the developed portion of the site.

(e) Submit to the Planning Department a financial security device to cover all monitoring and maintenance activities that will need to be done including sensitive areas consultant site visits, reports to the Planning Department, and any vegetation that needs to be replaced. The security should be consistent with the standards outlined in Zoning Code section 90.145.

9. Decisional Criterion 90.140.5.h: The inability to derive reasonable use is not the result of actions by the applicant after the effective date of the ordinance codified in Chapter 90 KZC or its predecessor.

a. Facts:

(1) The subject property is a legal building site as defined within the Kirkland Zoning Code.

(2) The site contains a Class B stream.

b. Conclusions: The inability to derive reasonable use is not the result of actions by the applicant after the effective date of the ordinance codified in Chapter 90 KZC or its predecessor. It results from the fact that the site is impacted by sensitive areas and required buffers.

10. Decisional Criterion 90.140.5.i: The granting of the exception will not confer on the applicant any special privilege that is denied by Chapter 90 KZC to other lands, buildings, or structures under similar circumstances.

a. Facts: The City has granted similar reasonable use permits for construction of single family residences.

b. Conclusions: The granting of the exception will not confer on the applicant any special privilege that is denied by Chapter 90 KZC to other lands, buildings, or structures under similar circumstances.

11. Modification and Conditions 90.140.6: The City may approve reduction in required yards or buffer setbacks and may allow the maximum height of structures to be increased up to five feet to reduce the impact on the sensitive area and sensitive area buffer. The City shall include in the written decision any conditions and restrictions that the City determines are necessary to eliminate or minimize any undesirable effects of approving the exception.

a. Facts:

(1) In order to reduce the impacts on the stream buffer, the applicant is requesting the following modifications as part of this application:

(a) Reduction of the buffer setback along the west and north from 10 feet to 5 feet.

(b) Increasing the allowed height from 25 feet to 30 feet.

(2) One potential impact of the proposed buffer setback modifications is the impact to the stream buffer during construction and during post construction maintenance activities.

(3) Based on prior experience, City staff considers a 5 foot setback from the stream buffer the minimum necessary to allow for maintenance of structures.

(4) One potential impact of the increased height is the impact to the neighboring residence to the south. The residence to the south is owned by the applicant. Other multifamily developments in the area are allowed up to 30 foot building height.

b. Conclusions:

(1) The buffer setback reduction will not have a permanent impact on the stream buffers as maintenance will be able to occur within the 5 foot setback.

(2) The applicant is proposing to increase the height of the proposed residence to allow construction of a reasonable sized residence and lessen the impacts to the stream buffer.

(3) The proposed modifications, as allowed by KZC Section 90.140.6, are approved. Any changes to the site plan must be reviewed and approved by the Planning Department.

E. PROCESS IIA APPROVAL CRITERIA

1. Fact: KZC 150.65.3 states that a Process IIA application may be approved if it is consistent with all applicable development regulations and, to the extent there is no applicable development regulation, the Comprehensive Plan; and it is consistent with the public health, safety, and welfare.

2. Conclusion: With the recommended conditions of approval, the proposal complies with the criteria in KZC 150.65.3. It is consistent with all applicable development regulations (see Section II.D) and the Comprehensive Plan (see Section II.F). In addition, it is consistent with the public health, safety, and welfare because it will allow reasonable use of a property while improving the quality and function of the sensitive area buffers.

F. COMPREHENSIVE PLAN

1. Facts:

a. The subject property is located within the Moss Bay neighborhood. The Comprehensive Land Use Map designates the subject property for high density residential at 24 units per acre.

b. The following policies listed in the Natural Environment Element of the Comprehensive Plan are applicable to the proposal:

(1) Policy NE-1.6: Strive to minimize human impacts on habitat areas.

(2) This policy is addressed by KZC 90.95 requiring that the applicant install a barrier (split rail fence or vegetative barrier) at the edge of the stream buffer.

c. Policy NE-2.2: Protect surface water functions by preserving and enhancing natural drainage systems wherever possible.

(1) Steps to limit damage include minimizing creation of new impervious surfaces, maximizing use of soils and vegetation in slowing and filtering runoff, and installing structural slow control facilities at redeveloping sites where appropriate to mimic predevelopment hydrologic regime.

2. Conclusions:

a. The proposal is consistent with the Comprehensive Land Use Map.

b. The proposal preserves the existing streams on site and off site in natural states. The proposal will result in the removal of invasive plants covering the buffers and the installation of appropriate buffer plantings.

c. With the inclusion of a split rail fence at the edge of the disturbance area and a pervious paved materials, the proposal would be consistent with the Natural Environment Element 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. APPEALS AND JUDICIAL REVIEW

A. APPEALS

1. Appeal to City Council:

Section 150.80 of the Zoning Code allows the Hearing Examiner's decision to be appealed by the applicant and any person who submitted written or oral testimony or comments to the Hearing Examiner. A party who signed a petition may not appeal unless such party also submitted independent written comments or information. The appeal must be in writing and must be delivered, along with any fees set by ordinance, to the Planning Department by 5:00 p.m., _____, fourteen (14) calendar days following the postmarked date of distribution of the Hearing Examiner's decision on the application.

B. JUDICIAL REVIEW

Section 150.130 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 21 calendar days of the issuance of the final land use decision by the City.

V. LAPSE OF APPROVAL

Under KZC 90.140.8, the applicant must file a complete building permit application for the development activity, use of land or other actions approved under this chapter within one (1) year after the final approval of the City of Kirkland on the matter, or the decision becomes void; provided, however, that the applicant may apply for a one-time extension of up to one year. The application for extension must be submitted by letter to the Planning Official and, along with any other supplemental documentation, must demonstrate that the applicant is making substantial progress toward developing the subject property consistent with the approval and that circumstances beyond his/her control prevent compliance with the time limit under this section. An extension must be granted at least 30 days prior to the one year expiration to be valid.

VI. APPENDICES

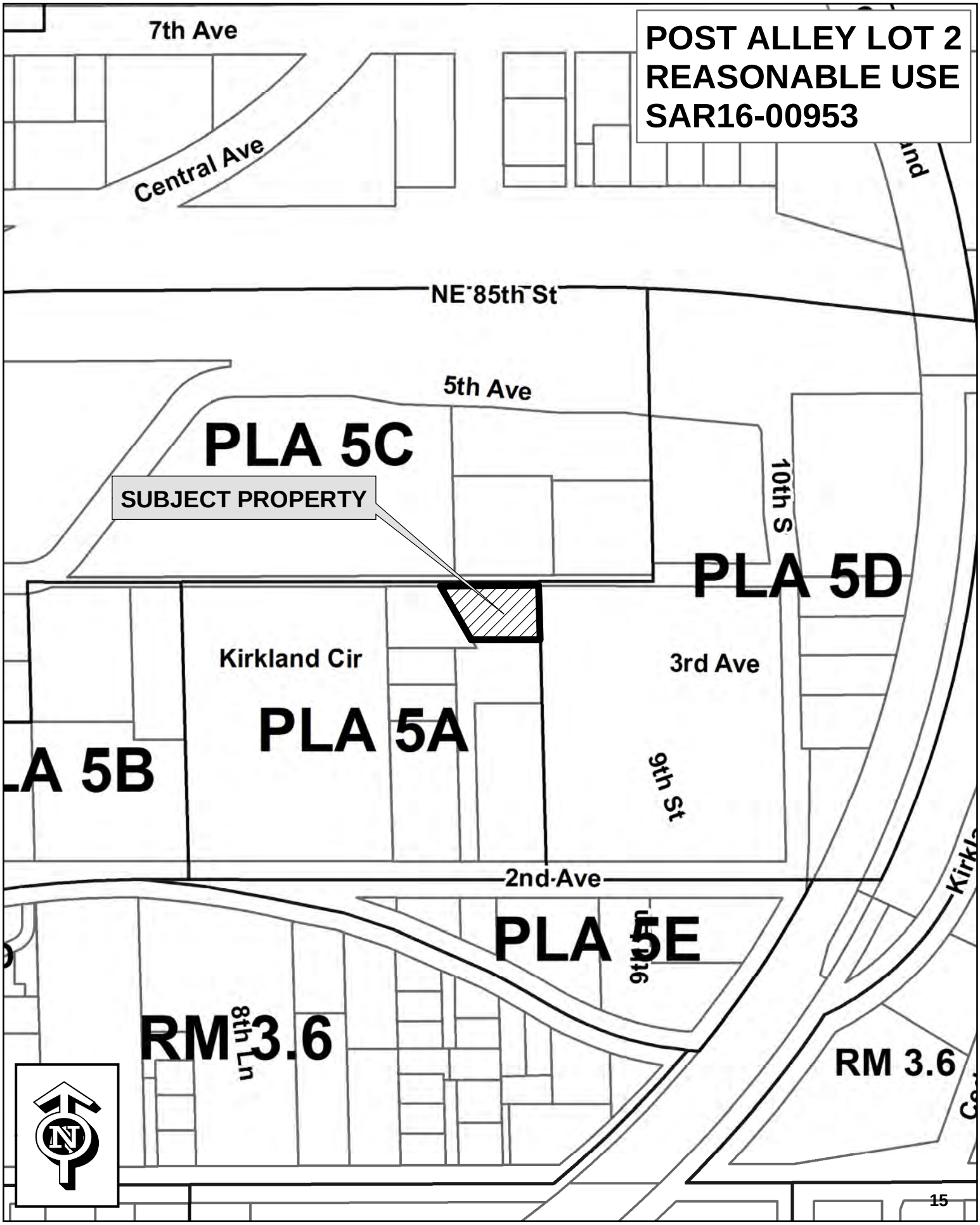
Attachments 1 through 10 are attached.

1. Vicinity Map
2. Site Plan and Building Plans
3. Sensitive Areas Study and Buffer Mitigation Plan prepared by Wetland Resources Inc.
4. Development Standards
5. Public Comments
6. The Watershed Company Review Letter
7. Reasonable Use Covenant
8. Natural Greenbelt Protective Easement
9. Arborist Report
10. Save Harmless Stream

VII. PARTIES OF RECORD

Applicant
Parties of Record
Planning and Building Department
Department of Public Works

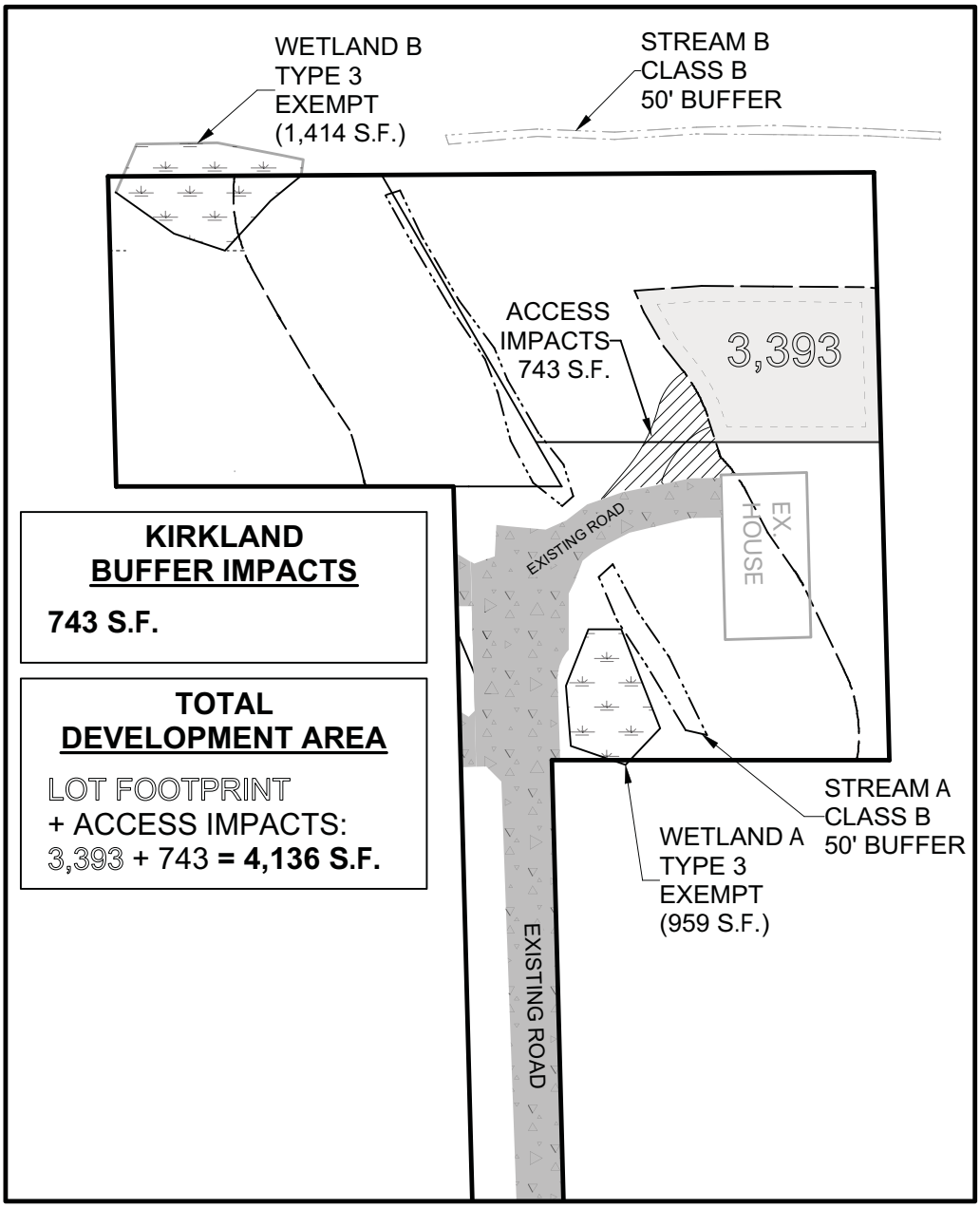
A written decision will be issued by the Hearing Examiner within eight calendar days of the date of the open record hearing.


POST ALLEY LOT 2
REASONABLE USE
SAR16-00953
7th Ave
Central Ave
NE 85th St
5th Ave
PLA 5C
SUBJECT PROPERTY
10th S
PLA 5D
Kirkland Cir
3rd Ave
PLA 5A
LA 5B
9th St
2nd Ave
PLA 5E
9th Ln
RM 3.6
8th Ln
RM 3.6
N

SENSITIVE AREA MAP - DEVELOPMENT SCENARIO B

828 2ND AVENUE, LOT #2

PORTION OF SECTION 5, TOWNSHIP 25N, RANGE 5E, W.M.



KIRKLAND BUFFER IMPACTS

743 S.F.

TOTAL DEVELOPMENT AREA

LOT FOOTPRINT
+ ACCESS IMPACTS:
3,393 + 743 **= 4,136 S.F.**

NOTE: ALL SENSITIVE AREA BOUNDARIES DEPICTED ON THIS MAP WERE DELINEATED BY WETLAND RESOURCES, INC, AND WERE SURVEYED BY A LICENCED SURVEYOR.

SCALE: 1" = 60'

0 60 120

LEGEND

- OHWM
- BUFFER
- WETLAND
- BUFFER IMPACTS
- LOT DEVELOPMENT FOOTPRINT
- 5-FOOT BSBL
- EXISTING ROAD

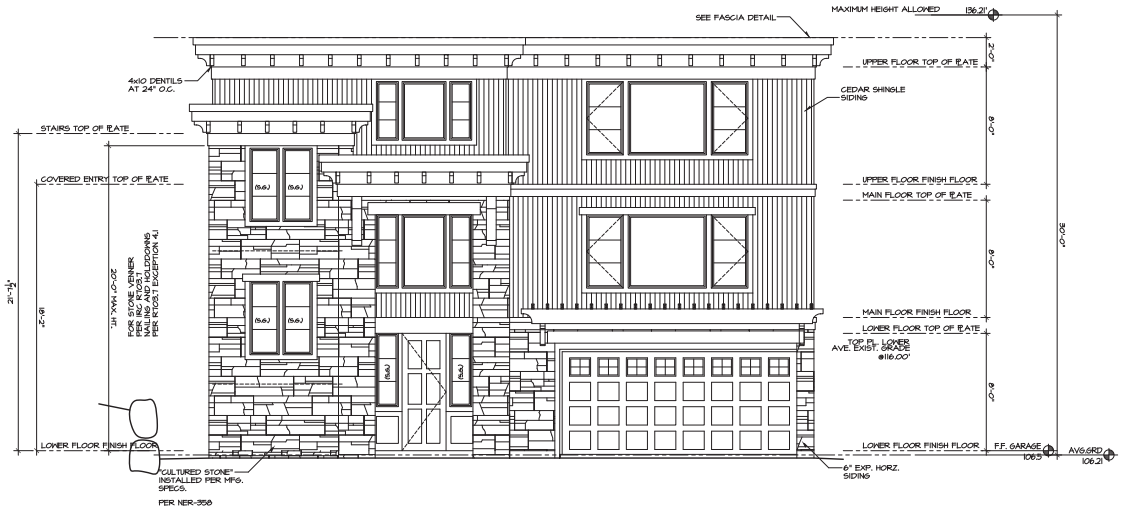
Wetland Resources, Inc.
Delineation / Mitigation / Restoration / Habitat Creation / Permit Assistance
9505 19th Avenue S.E. Suite 106 Everett,Washington 98208
Phone: (425) 337-3174
Fax: (425) 337-3045
Email: mailbox@wetlandresources.com

SENSITIVE AREA MAP -
DEVELOPMENT SCENARIO B
828 2nd Avenue, Lot #2
Kirkland, Washington

Post Alley LLC
Attn: Tom Dedonato
10257 NE 64th Street
Kirkland, WA 98033

Sheet 2/4
WRI Job # 15071
Drawn by: S. Walters
Date: November 15, 2016

Written dimensions on this drawing shall have precedence over scaled dimensions. Contractor shall verify all dimensions, conditions etc., pertaining to the work before proceeding. The Owner must be notified of any variations from the dimensions and/or conditions shown on these drawings. Any such variation shall be resolved by the Owner prior to proceeding with the work, or the Contractor shall accept full responsibility for the cost to rectify same.



FRONT ELEVATION — SCALE: 1/4" = 1'-0"

SQUARE FOOTAGE'S

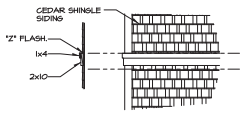
MAIN FLOOR	1,346 SF
UPPER FLOOR	1,132 SF
LOWER FLOOR	723 SF
LIVING SPACE TOTAL	3,201 SF
GARAGE	553 SF

NOTES

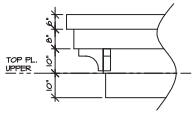
1. ALL WOOD EXPOSED TO WEATHER SHALL BE PRESSURE TREATED OR CEDAR.
2. CAULK AND SEAL ALL WINDOW / DOOR AND EXTERIOR ENVELOPE PENETRATIONS.
3. GLAZING PER STATE ENERGY CODE.
4. SEPARATE PERMITS ARE REQUIRED FOR FENCES, PLUMBING, MECHANICAL AND ELECTRICAL.
5. 50% OF ROOF VENTING SHALL OCCUR IN EAVES AS BIRD BLOCKING.
6. REFER TO ALL ELEVATIONS FOR TYPICAL NOTES.
7. S.G. = SAFETY GLASS

HANDRAIL NOTE

1. HANDRAIL ASSEMBLIES SHALL BE ABLE TO RESIST A SINGLE CONCENTRATED LOAD OF 200 POUNDS, APPLIED IN ANY DIRECTION AT ANY POINT ALONG THE TOP, AND HAVE ATTACHMENT DEVICES AND SUPPORTING STRUCTURE TO TRANSFER THIS LOADING TO APPROPRIATE STRUCTURAL ELEMENTS OF THE BUILDING. (IBC 1607.7.1.1)



1 TRIM BAND DETAIL — SCALE: N.T.S.



2 FASCIA DETAIL — SCALE: N.T.S.

REAR ELEVATION — SCALE: 1/4" = 1'-0"

REGISTERED ARCHITECT
RICK L. JONES
STATE OF WASHINGTON

RICK JONES & ASSOCIATES
ARCHITECTS & PLANNERS
1400 112TH AVE SE
BELLEVUE, WA 98004
(425) 462-2028
P.O. Box 1137
North Bend, WA 98045
www.rickjonesandassociates.com

project: POST ALLEY LOT 2
2ND AVENUE
KIRKLAND, WA.
PLAN 3201

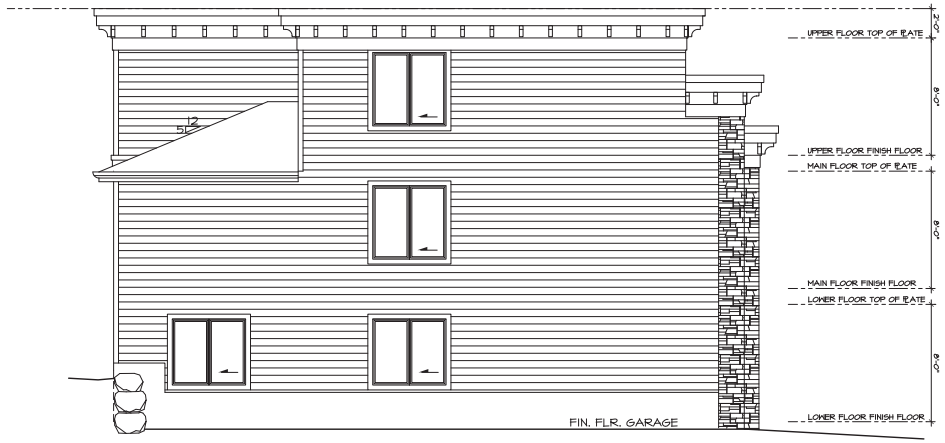
date: 06-27-16
permit:
revisions:

drawn by: DAK
checked by: RLJ

SHEET A1 OF A10

ELEVATIONS

Written dimensions on this drawing shall have precedence over scaled dimensions. Contractor shall verify all dimensions, conditions etc., pertaining to the work before proceeding. The Owner must be notified of any variations from the dimensions and/or conditions shown on these drawings. Any such variation shall be resolved by the Owner prior to proceeding with the work, or the Contractor shall accept full responsibility for the cost to rectify same.

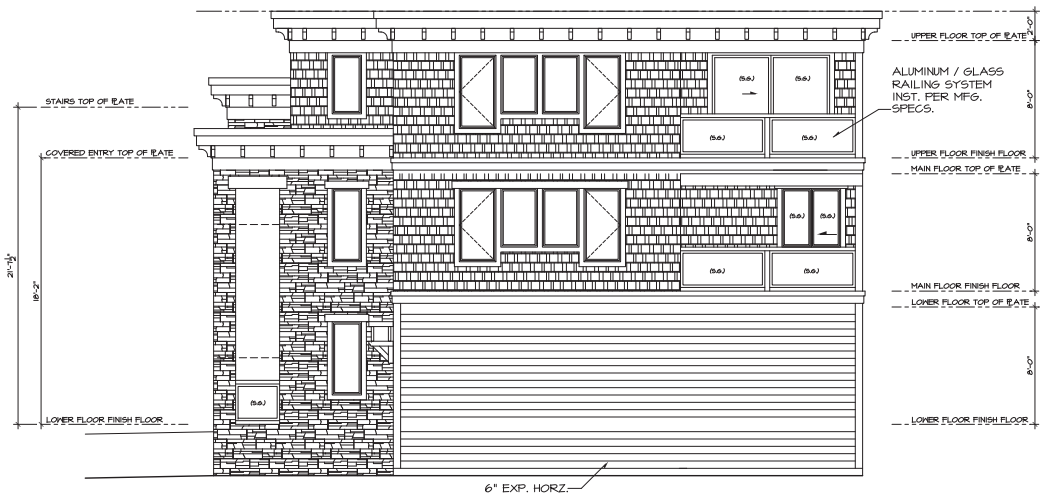


NOTES

1. ALL WOOD EXPOSED TO WEATHER SHALL BE PRESSURE TREATED OR CEDAR.
2. CAULK AND SEAL ALL WINDOW / DOOR AND EXTERIOR ENVELOPE PENETRATIONS.
3. GLAZING PER STATE ENERGY CODE.
4. SEPARATE PERMITS ARE REQUIRED FOR FENCES, PLUMBING, MECHANICAL AND ELECTRICAL.
5. 50% OF ROOF VENTING SHALL OCCUR IN EAVES AS BIRD BLOCKING.
6. REFER TO ALL ELEVATIONS FOR TYPICAL NOTES.
7. S.G. = SAFETY GLASS

LEFT ELEVATION

SCALE: 1/4" = 1'-0"



RIGHT ELEVATION

SCALE: 1/4" = 1'-0"

REGISTERED ARCHITECT
4843
RICK L. JONES
STATE OF WASHINGTON

RICK JONES & ASSOCIATES
ARCHITECTS & PLANNERS
14400 NE 17TH AVE SE
BELLEVUE, WA 98004
(425) 442-2028
P.O. Box 1137
North Bend, WA 98045
www.rickjonesandassociates.com

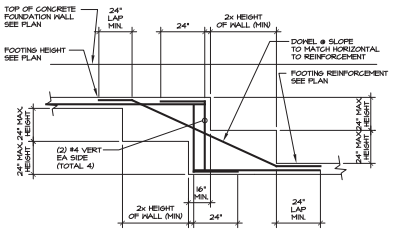
project:
POST ALLEY LOT 2
2ND AVENUE
KIRKLAND, WA.
PLAN 3201

date: 06-27-16
permit:
revisions:

drawn by: DAK
checked by: RLJ

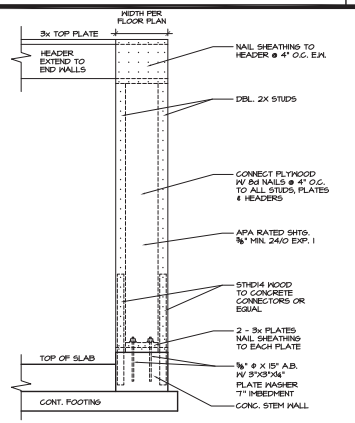
SHEET A2 OF A10

ELEVATIONS

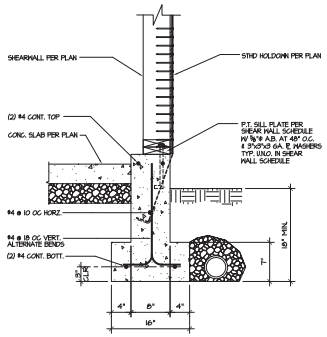


DO NOT SLOPE FOOTING UNDER ANY CONDITION

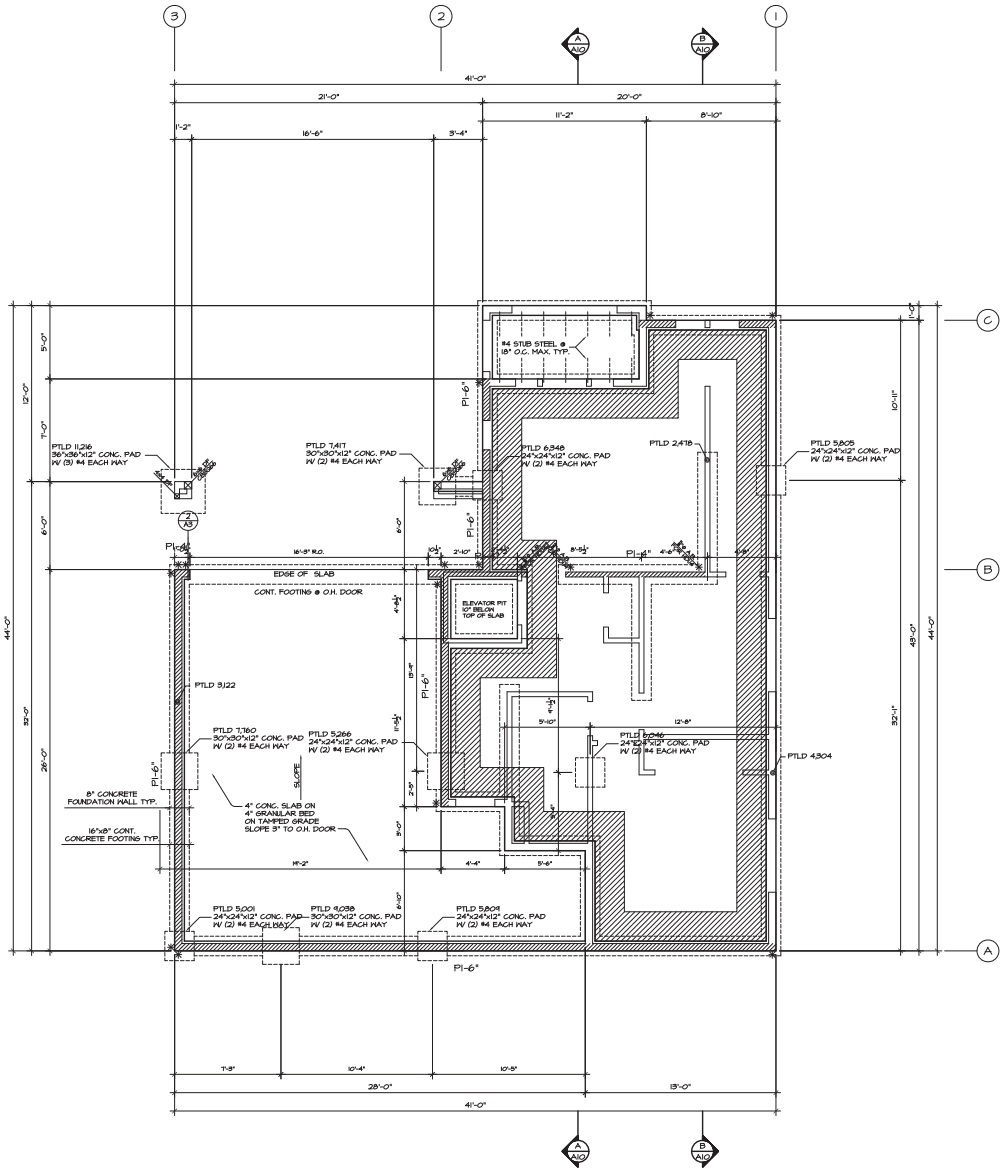
1 TYPICAL STEPPED FOUNDATION DETAIL — SCALE: N.T.S.



2 LATERAL RESTRAINT PANEL — SCALE: N.T.S.



3 STHD HOLDOWN AT SLAB FOUNDATION — SCALE: N.T.S.



FOUNDATION PLAN — SCALE: 1/4" = 1'-0"

Written dimensions on this drawing shall have precedence over scaled dimensions. Contractor shall verify all dimensions, conditions etc., pertaining to the work before proceeding. The Owner must be notified of any variations from the dimensions and/or conditions shown on these drawings. Any such variation shall be resolved by the Owner prior to proceeding with the work, or the Contractor shall accept full responsibility for the cost to rectify same.

FOUNDATION NOTES

1. PROVIDE CRAWL SPACE DRAIN AT LOW POINT IN CRAWL SPACE.
2. SLOPE ALL CONCRETE STOOPS AND / OR PATIOS ¼" PER FOOT AWAY FROM DOORWAYS.
3. ALL WOOD IN CONTACT WITH CONCRETE SHALL BE PRESSURE TREATED OR CEDAR.
4. PROVIDE SOLID BLOCKING UNDER BEARING WALLS.
5. PROVIDE 6 MIL., VISQUEEN VAPOR BARRIER WITH 12" OVERLAP AT SEAMS TO TOP OF FOOTING THRU-OUT CRAWL SPACE.
6. FASTENERS INTO OR IN CONTACT WITH PRESSURE-TREATED OR FIRE-RETARDENT WOOD SHALL BE OF TRIPLE ZINC ZMAX (G185 PER ASTM A653) HOT DIP GALVANIZE (ASTM A123 FOR CONNECTORS AND ASTM 153 FOR FASTENERS AND ANCHORS). SIMPSON T-PTWOOD.
7. ANCHOR BOLTS FOR PRESSURE TREATED SILL PLATES TO FOUNDATION WALLS TO BE ⅝" DIAMETER WITH 7 INCH EMBEDMENT INTO CONCRETE AND MAXIMUM SPACING OF 48 INCHES ON CENTER UNLESS NOTED OTHERWISE ON THE PLANS. MINIMUM 2 BOLTS PER SILL PLATE PIECE. ONE BOLT TO BE PLACED WITHIN 12 INCHES OF EACH END OF SILL PLATE.

LEGEND

- BEARING ABOVE
- INDICATES STHD14 HOLDOWN TYPICAL WHERE SHOWN UNLESS NOTED OTHERWISE.
- SHEAR WALL PER SCHEDULE
- INDICATES HTS HOLDOWN TYPICAL WHERE SHOWN UNLESS NOTED OTHERWISE.

REGISTERED ARCHITECT 4843 RICK L. JONES STATE OF WASHINGTON

RICK JONES & ASSOCIATES ARCHITECTS & PLANNERS
14120 NE 11TH AVE SE
BELLEVUE, WA 98004
(425) 442-2228
P.O. Box 1187
North Bend, WA 98045
www.rickjonesandassociates.com

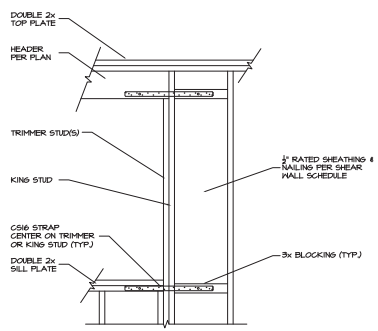
project: POST ALLEY LOT 2
2ND AVENUE
KIRKLAND, WA.
PLAN 3201

date: 06-27-16
permit:
revisions:

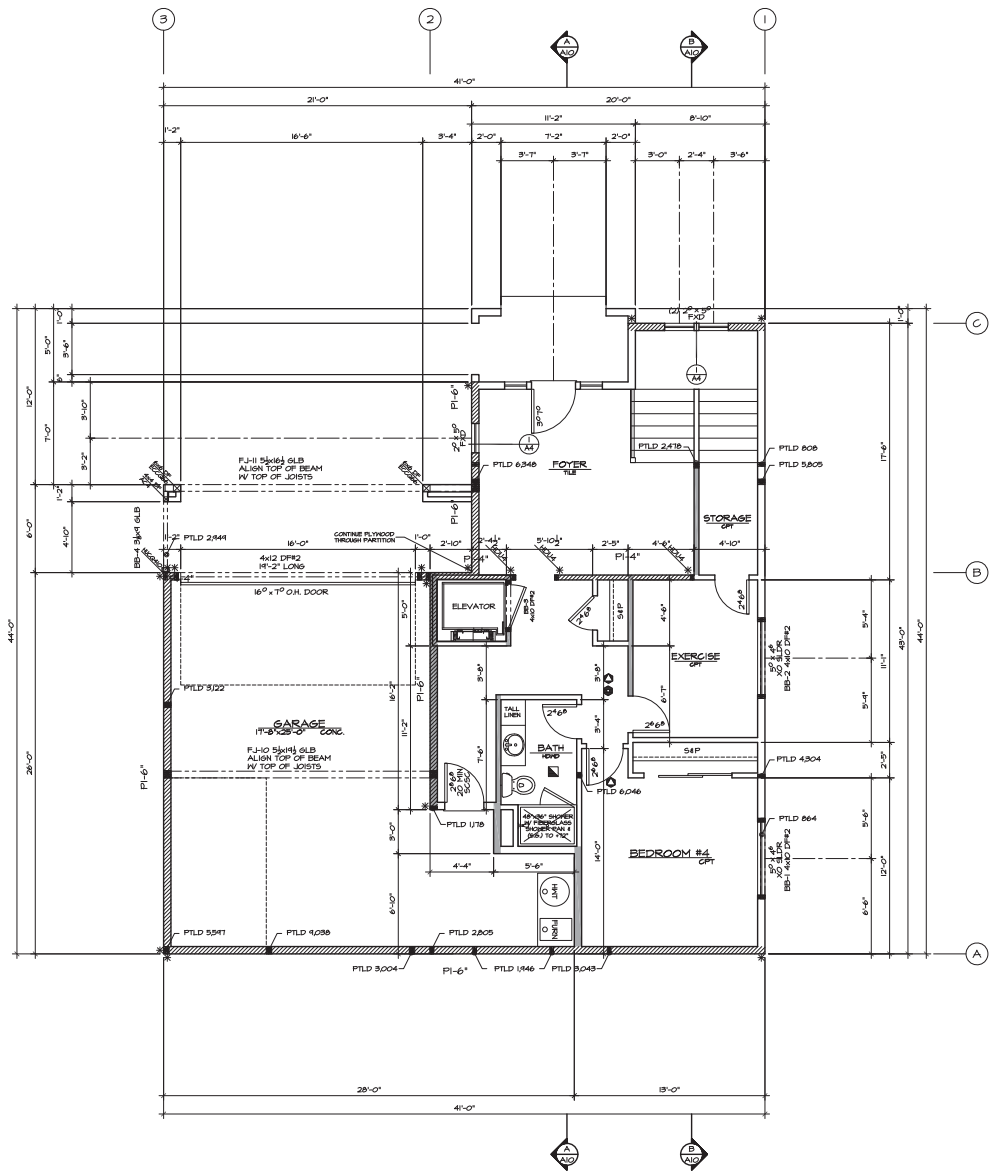
drawn by: DAK
checked by: RLJ

SHEET A3 OF A10

FOUNDATION PLAN



1 PORTAL FRAMING DETAIL — SCALE: N.T.S.



Written dimensions on this drawing shall have precedence over scaled dimensions. Contractor shall verify all dimensions, conditions etc., pertaining to the work before proceeding. The Owner must be notified of any variations from the dimensions and/or conditions shown on these drawings. Any such variation shall be resolved by the Owner prior to proceeding with the work, or the Contractor shall accept full responsibility for the cost to rectify same.

GENERAL NOTES

1. ALL EXTERIOR WARM WALL TO BE 2x6 STUDS 16" O.C. TYPICAL, WITH R-21 INSULATION.
2. ALL HEADERS ON MAIN FLOOR TO BE 4x10 DOUGLAS FIR #2 UNLESS NOTED OTHERWISE.
3. FUR-OUT HEADERS TO MATCH 2x6 WALLS.
4. PROVIDE SOLID BLOCKING UNDER ALL BEARING WALLS.
5. INLINE FRAMING - SINGLE TOP PLATE STRAP @ SPLICES AND CORNERS, EXCEPT AS NOTED FOR SHEAR TRANSFER.
6. ALL GUARDRAILS PER MANUFACTURERS SPECIFICATIONS. SUPPORTS CAPABLE OF RESISTING LATERAL LOAD OF 200 PLF APPLIED IN ANY DIRECTION AT ANY PART ALONG THE TOP OF RAIL.
7. ALL EXTERIOR STAIRWAYS AND UNCOVERED DECKS SHALL BE PRESSURE TREATED OR CEDAR.
8. FASTENERS INTO OR IN CONTACT WITH PRESSURE-TREATED OR FIRE-RETARDENT WOOD SHALL BE OF TRIPLE ZINC ZMAX (G185 PER ASTM A653) HOT DIP GALVANIZE (ASTM A123 FOR CONNECTORS AND ASTM I53 FOR FASTENERS AND ANCHORS). SIMPSON T-PTWOOD.
9. HEADERS IN EXTERIOR WALLS ARE REQUIRED TO BE PROVIDED WITH A MINIMUM OF R-10 INSULATION, PER TABLE 402.1.1 FOOTNOTE K.
10. CORNERS OF STUD WALLS ARE TO BE FULLY INSULATED.
11. DWELLING IS TO BE TESTED AND VERIFIED AS HAVING AN AIR LEAKAGE RATE NOT EXCEEDING 5 AIR CHANGES PER HOUR. (BLOWER DOOR TEST)
12. A PERMANENT CERTIFICATE IS REQUIRED TO BE COMPLETED AND POSTED ON OR WITHIN 3 FEET OF THE ELECTRICAL DISTRIBUTION PANEL AND LIST THE FOLLOWING:
    R-VALUES
    U-VALUES
    RESULTS FROM DUCT SYSTEM AIR LEAKAGE TESTING.
    RESULTS FROM BLOWER DOOR TEST.
    TYPES AND EFFICIENCIES OF HEATING, COOLING, AND SERVICE WATER HEATING EQUIPMENT.
13. WHOLE HOUSE FAN TO HAVE A SONE RATING OF 1.0 OR LESS MEASURED AT 0.1 INCHES WATER GAUGE PER IRC M1507.3.4.2 FAN TO RUN CONTINUOUSLY AND HAVE A .25 WATER GAUGE PER IRC M1507.3.4.1.

GARAGE NOTES
GARAGE SEPARATION PER IRC TABLE R302.6

1. NOT LESS THAN 1/2" GWB SEPARATING THE GARAGE FROM THE RESIDENCE AND ATTIC.
2. 1/2" GWB AT THE STRUCTURE SUPPORTING THE FLOOR/CEILING ASSEMBLIES PART OF THIS SEPARATION INCLUDING BEAMS AND POSTS AND BEARING WALLS.
3. INSULATE ALL WARM WALLS AND CEILING.
4. USE 1 LAYER 5/8" TYPE "X" GWB AT CEILING WHERE HABITABLE ROOMS ARE ABV.
5. DUCTS IN THE GARAGE AND DUCTS PENETRATING THE WALLS OR CEILING SHALL BE CONSTRUCTED OF NO. 26 GAGE SHEET STEEL AND SHALL HAVE NO OPENINGS INTO THE GARAGE.
6. OPENINGS BETWEEN THE GARAGE AND RESIDENCE SHALL BE SOLID WOOD DOORS NOT LESS THAN 1-3/8" IN THICKNESS, SOLID OR HONEYCOMB CORE STEEL DOORS NOT LESS THAN 1-3/8", OR 20-MINUTE FIRE-RATED DOORS, AND EQUIPPED W/ A CLOSING DEVICE PER R302.5.1.

HEATING NOTES

1. INSTALLATION PER ASHRAE 90A-88
2. ALL PILOTS, BURNERS AND SWITCHES TO BE A MINIMUM OF 18" ABOVE SLAB.
3. PROVIDE 18" PLATFORM OF 2 LAYERS 3/4" PLYWOOD (1 LAYER IF PLATFORM IS ON SLAB).
4. WATER HEATERS SHALL BE ANCHORED OR STRAPPED TO RESIST HORIZONTAL DISPLACEMENT DUE TO EARTHQUAKE MOTION. STRAPPING SHALL BE AT POINTS WITHIN THE UPPER 1/3 AND LOWER 1/3 OF THE WATER HEATER.
5. GAS WATER HEATER MIN EF OF .62 OR ELECTRIC WATER HEATER MIN EF OF .93.
6. AIR SOURCE FURNACE MIN. AFUE OF .15.

LEGEND

- P1-6" — INDICATES SHEAR WALL. REFER TO SCHEDULE ON SHEET D4
- INDICATES MST48 STRAP TYPICAL WHERE SHOWN UNLESS NOTED OTHERWISE.
- INDICATES STHD14 HOLDOWN TYPICAL WHERE SHOWN UNLESS NOTED OTHERWISE.
- FAN (VENT TO OUTSIDE) 50 CFM MIN. TYP. 150 CFM AT LAUNDRY ROOM
- SMOKE DETECTOR 110V INTERCONNECTED, HARD-WIRED W/ BATTERY BACK-UP
- CARBON MONOXIDE DETECTOR 110V INTERCONNECTED, HARD-WIRED W/ BATTERY BACK-UP
- WALL MOUNTED LIGHT FIXTURE (OR SCONCE)
- RECESSED LIGHT FIXTURE

LOWER FLOOR PLAN

LIVING SPACE	729 SF	SCALE:
GARAGE/SHOP	558 SF	1/4" = 1'-0"

4843 REGISTERED ARCHITECT RICK L. JONES STATE OF WASHINGTON

1420 12TH AVE SE
BELLEVUE, WA 98004
(425) 442-2028

P.O. Box 1137
North Bend, WA 98045

RICK JONES & ASSOCIATES
ARCHITECTS & PLANNERS

www.rickjonesandassociates.com

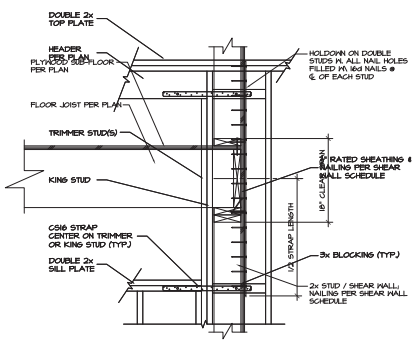
project: POST ALLEY LOT 2
2ND AVENUE
KIRKLAND, WA.
PLAN 3201

date: 06-27-16
permit:
revisions:

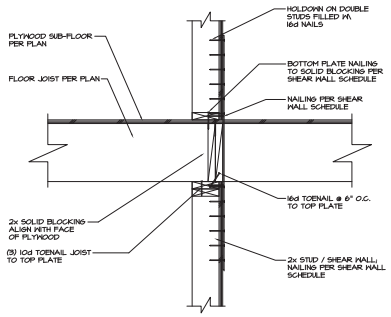
drawn by: DAK
checked by: RLJ

SHEET A4 OF A10

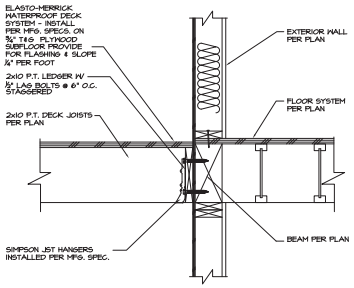
LOWER FLOOR PLAN



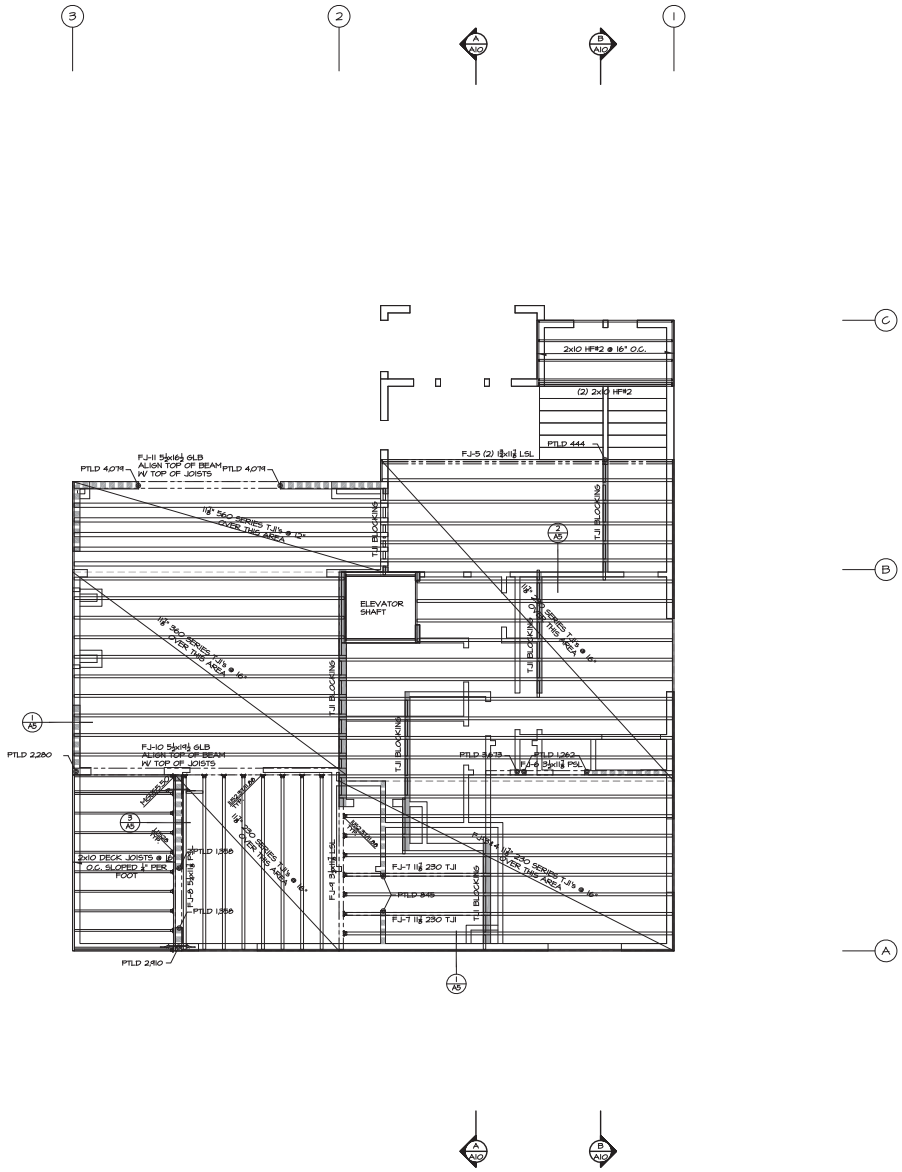
1 HOLDOWN BETWEEN FLOORS — SCALE: N.T.S.



2 STACKED INTERIOR SHEAR WALL — SCALE: N.T.S.



3 WOOD DECK LEDGER DETAIL — SCALE: N.T.S.



MAIN FLOOR FRAMING PLAN — SCALE: 1/4" = 1'-0"

Written dimensions on this drawing shall have precedence over scaled dimensions. Contractor shall verify all dimensions, conditions etc., pertaining to the work before proceeding. The Owner must be notified of any variations from the dimensions and/or conditions shown on these drawings. Any such variation shall be resolved by the Owner prior to proceeding with the work, or the Contractor shall accept full responsibility for the cost to rectify same.

4843 REGISTERED ARCHITECT RICK L. JONES STATE OF WASHINGTON

RICK JONES & ASSOCIATES ARCHITECTS & PLANNERS
1400 112TH AVE SE BELLEVUE, WA 98004 (425) 462-2228
P.O. Box 1187 North Bend, WA 98045
www.rickjonesandassociates.com

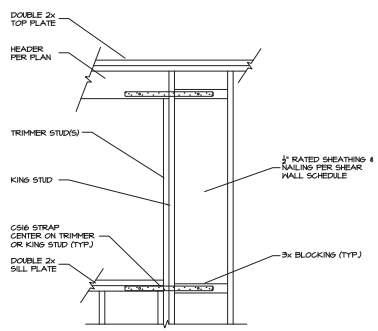
project: POST ALLEY LOT 2
2ND AVENUE
KIRKLAND, WA.
PLAN 3201

date: 06-27-16
permit:
revisions:

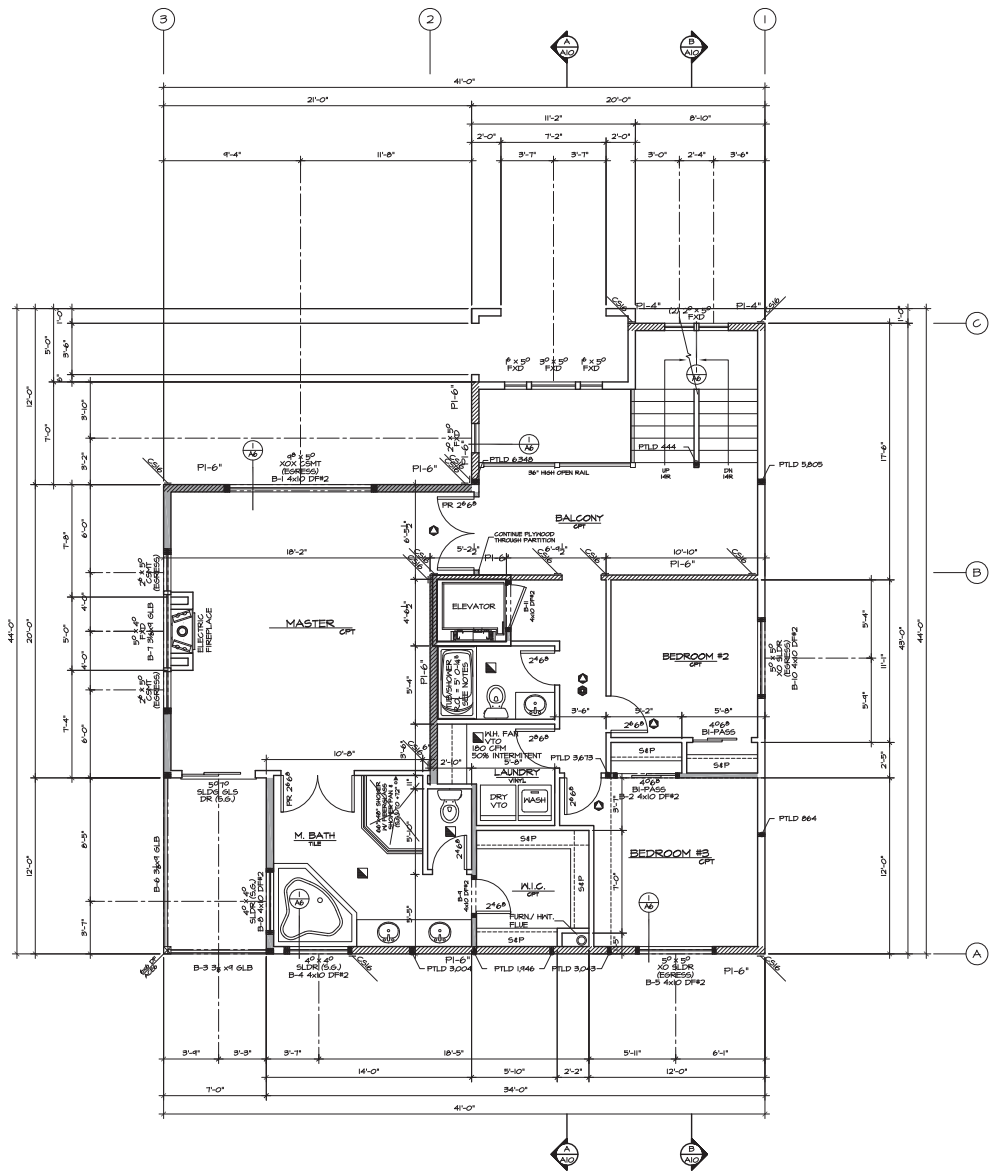
drawn by: DAK
checked by: RLJ

SHEET A5 OF A10

MAIN FLOOR FRAMING PLAN



1 PORTAL FRAMING DETAIL — SCALE: N.T.S.



MAIN FLOOR PLAN

LIVING SPACE 1346 SF — SCALE: 1/4" = 1'-0"

Written dimensions on this drawing shall have precedence over scaled dimensions. Contractor shall verify all dimensions, conditions etc., pertaining to the work before proceeding. The Owner must be notified of any variations from the dimensions and/or conditions shown on these drawings. Any such variation shall be resolved by the Owner prior to proceeding with the work, or the Contractor shall accept full responsibility for the cost to rectify same.

GENERAL NOTES

1. ALL EXTERIOR WARM WALL TO BE 2x6 STUDS 16" O.C. TYPICAL WITH R-21 INSULATION.
2. ALL HEADERS ON MAIN FLOOR TO BE 4x10 DOUGLAS FIR #2 UNLESS NOTED OTHERWISE.
3. FUR-OUT HEADERS TO MATCH 2x6 WALLS.
4. PROVIDE SOLID BLOCKING UNDER ALL BEARING WALLS.
5. INLINE FRAMING - SINGLE TOP PLATE STRAP @ SPLICES AND CORNERS, EXCEPT AS NOTED FOR SHEAR TRANSFER.
6. ALL GUARDRAILS PER MANUFACTURERS SPECIFICATIONS. SUPPORTS CAPABLE OF RESISTING LATERAL LOAD OF 200 PLF APPLIED IN ANY DIRECTION AT ANY PART ALONG THE TOP OF RAIL.
7. ALL EXTERIOR STAIRWAYS AND UNCOVERED DECKS SHALL BE PRESSURE TREATED OR CEDAR.
8. FASTENERS INTO OR IN CONTACT WITH PRESSURE-TREATED OR FIRE-RETARDENT WOOD SHALL BE OF TRIPLE ZINC ZHAX (G185 PER ASTM A653) HOT DIP GALVANIZE (ASTM A123 FOR CONNECTORS AND ASTM I53 FOR FASTENERS AND ANCHORS). SIMPSON T-PTWOOD.
9. HEADERS IN EXTERIOR WALLS ARE REQUIRED TO BE PROVIDED WITH A MINIMUM OF R-10 INSULATION, PER TABLE 402.1.1 FOOTNOTE K.
10. CORNERS OF STUD WALLS ARE TO BE FULLY INSULATED.
11. DWELLING IS TO BE TESTED AND VERIFIED AS HAVING AN AIR LEAKAGE RATE NOT EXCEEDING 5 AIR CHANGES PER HOUR. (BLOWER DOOR TEST)
12. A PERMANENT CERTIFICATE IS REQUIRED TO BE COMPLETED AND POSTED ON OR WITHIN 3 FEET OF THE ELECTRICAL DISTRIBUTION PANEL AND LIST THE FOLLOWING:
    R-VALUES
    U-VALUES
    RESULTS FROM DUCT SYSTEM AIR LEAKAGE TESTING.
    RESULTS FROM BLOWER DOOR TEST.
    TYPES AND EFFICIENCIES OF HEATING, COOLING, AND SERVICE WATER HEATING EQUIPMENT.
13. WHOLE HOUSE FAN TO HAVE A SONE RATING OF 1.0 OR LESS MEASURED AT 0.1 INCHES WATER GAUGE PER IRC M1507.3.4.2 FAN TO RUN CONTINUOUSLY AND HAVE A .25 WATER GAUGE PER IRC M1507.3.4.1.

GARAGE NOTES
GARAGE SEPARATION PER IRC TABLE R302.6

1. NOT LESS THAN 1/2" GWB SEPARATING THE GARAGE FROM THE RESIDENCE AND ATTIC.
2. 1/2" GWB AT THE STRUCTURE SUPPORTING THE FLOOR/CEILING ASSEMBLIES PART OF THIS SEPARATION INCLUDING BEAMS AND POSTS AND BEARING WALLS.
3. INSULATE ALL WARM WALLS AND CEILING.
4. USE 1 LAYER 5/8" TYPE "X" GWB AT CEILING WHERE HABITABLE ROOMS ARE ABV.
5. DUCTS IN THE GARAGE AND DUCTS PENETRATING THE WALLS OR CEILINGS SHALL BE CONSTRUCTED OF NO. 26 GAGE SHEET STEEL AND SHALL HAVE NO OPENINGS INTO THE GARAGE.
6. OPENINGS BETWEEN THE GARAGE AND RESIDENCE SHALL BE SOLID WOOD DOORS NOT LESS THAN 1-3/8" IN THICKNESS, SOLID OR HONEYCOMB CORE STEEL DOORS NOT LESS THAN 1-3/8", OR 20-MINUTE FIRE-RATED DOORS, AND EQUIPPED W/ A CLOSING DEVICE PER R302.5.1.

HEATING NOTES

1. INSTALLATION PER ASHRAE 90A-88
2. ALL PILOTS, BURNERS AND SWITCHES TO BE A MINIMUM OF 18" ABOVE SLAB.
3. PROVIDE 18" PLATFORM OF 2 LAYERS 3/4" PLYWOOD (1 LAYER IF PLATFORM IS ON SLAB).
4. WATER HEATERS SHALL BE ANCHORED OR STRAPPED TO RESIST HORIZONTAL DISPLACEMENT DUE TO EARTHQUAKE MOTION. STRAPPING SHALL BE AT POINTS WITHIN THE UPPER 1/3 AND LOWER 1/3 OF THE WATER HEATER.
5. GAS WATER HEATER MIN EF OF .62 OR ELECTRIC WATER HEATER MIN EF OF .93.
6. AIR SOURCE FURNACE MIN. AFUE OF .15.

LEGEND

- P1-6" — INDICATES SHEAR WALL REFER TO SCHEDULE ON SHEET D4
- INDICATES MST48 STRAP TYPICAL WHERE SHOWN UNLESS NOTED OTHERWISE.
- INDICATES STHD14RJ HOLDOWN TYPICAL WHERE SHOWN UNLESS NOTED OTHERWISE.
- FAN (VENT TO OUTSIDE) 50 CFM MIN. TYP. 150 CFM AT LAUNDRY ROOM
- SMOKE DETECTOR 110V INTERCONNECTED, HARD-WIRED W/ BATTERY BACK-UP
- CARBON MONOXIDE DETECTOR 110V INTERCONNECTED, HARD-WIRED W/ BATTERY BACK-UP
- WALL MOUNTED LIGHT FIXTURE (OR SCONCE)
- RECESSED LIGHT FIXTURE

4843 REGISTERED ARCHITECT RICK L. JONES STATE OF WASHINGTON

1420 12TH AVE E
BELLEVUE, WA 98004
(425) 442-2028

P.O. Box 1137
North Bend, WA 98045

RICK JONES & ASSOCIATES
ARCHITECTS & PLANNERS

www.rickjonesandassociates.com

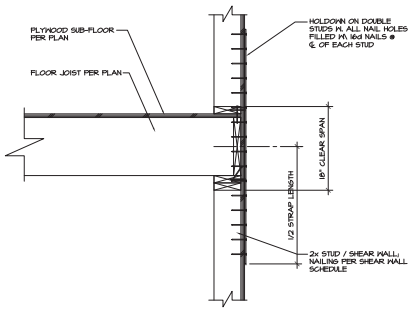
project: POST ALLEY LOT 2
2ND AVENUE
KIRKLAND, WA.
PLAN 3201

date: 06-27-16
permit:
revisions:

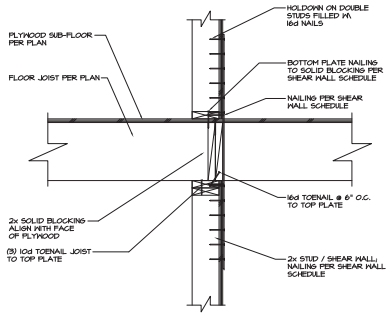
drawn by: DAK
checked by: RLJ

SHEET A6 OF A10

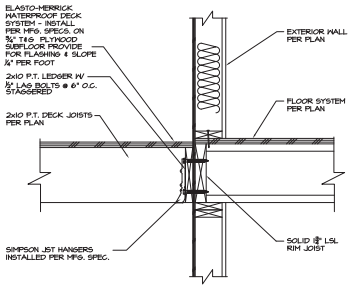
MAIN FLOOR PLAN



1 HOLDOWN BETWEEN FLOORS — SCALE: N.T.S.

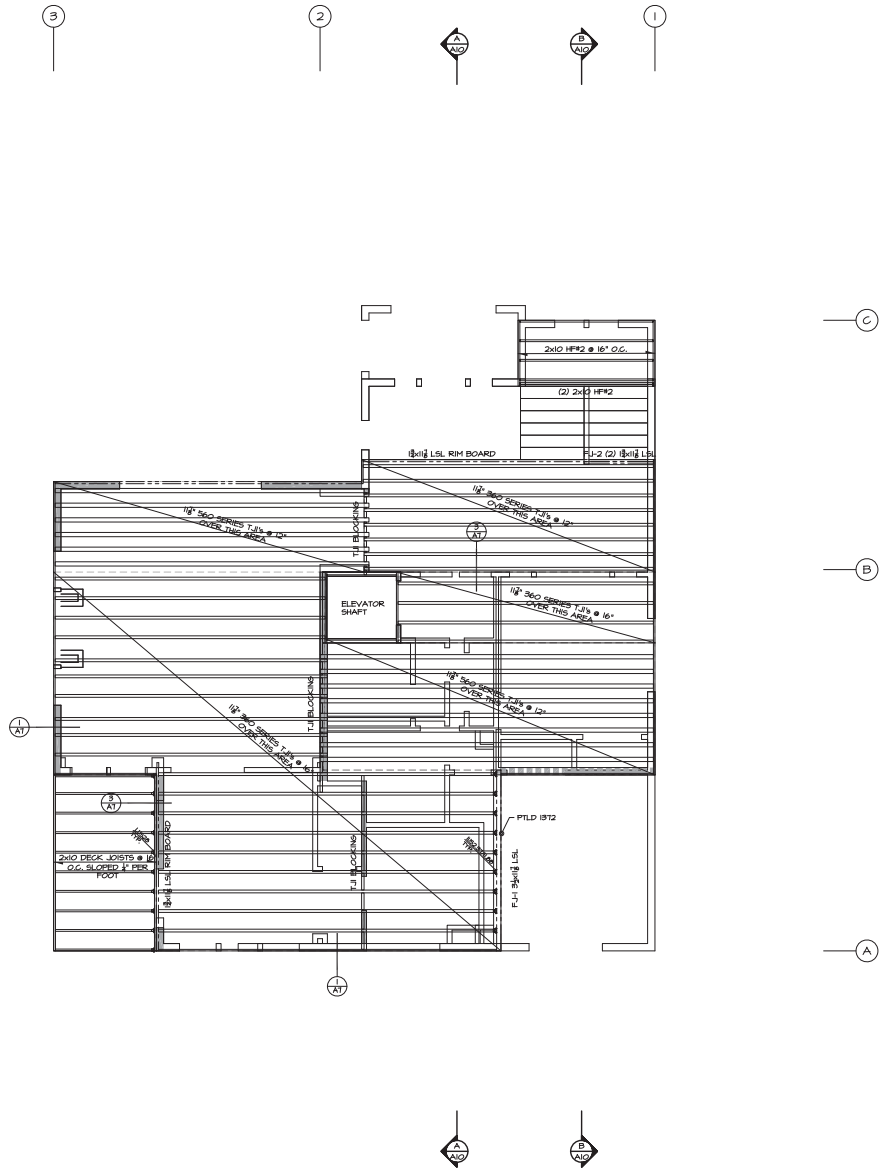


2 STACKED INTERIOR SHEAR WALL — SCALE: N.T.S.



3 WOOD DECK LEDGER DETAIL — SCALE: N.T.S.

Written dimensions on this drawing shall have precedence over scaled dimensions. Contractor shall verify all dimensions, conditions etc., pertaining to the work before proceeding. The Owner must be notified of any variations from the dimensions and/or conditions shown on these drawings. Any such variation shall be resolved by the Owner prior to proceeding with the work, or the Contractor shall accept full responsibility for the cost to rectify same.



UPPER FLOOR FRAMING PLAN — SCALE: 1/4" = 1'-0"

REGISTERED ARCHITECT 4843 RICK L. JONES STATE OF WASHINGTON

RICK JONES & ASSOCIATES ARCHITECTS & PLANNERS
1400 11TH AVE SE BELLEVUE, WA 98004 (425) 462-2228
P.O. Box 1187 North Bend, WA 98045
www.rickjonesandassociates.com

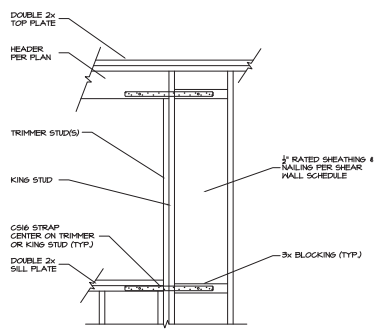
project: POST ALLEY LOT 2
2ND AVENUE
KIRKLAND, WA.
PLAN 3201

date: 06-27-16
permit:
revisions:

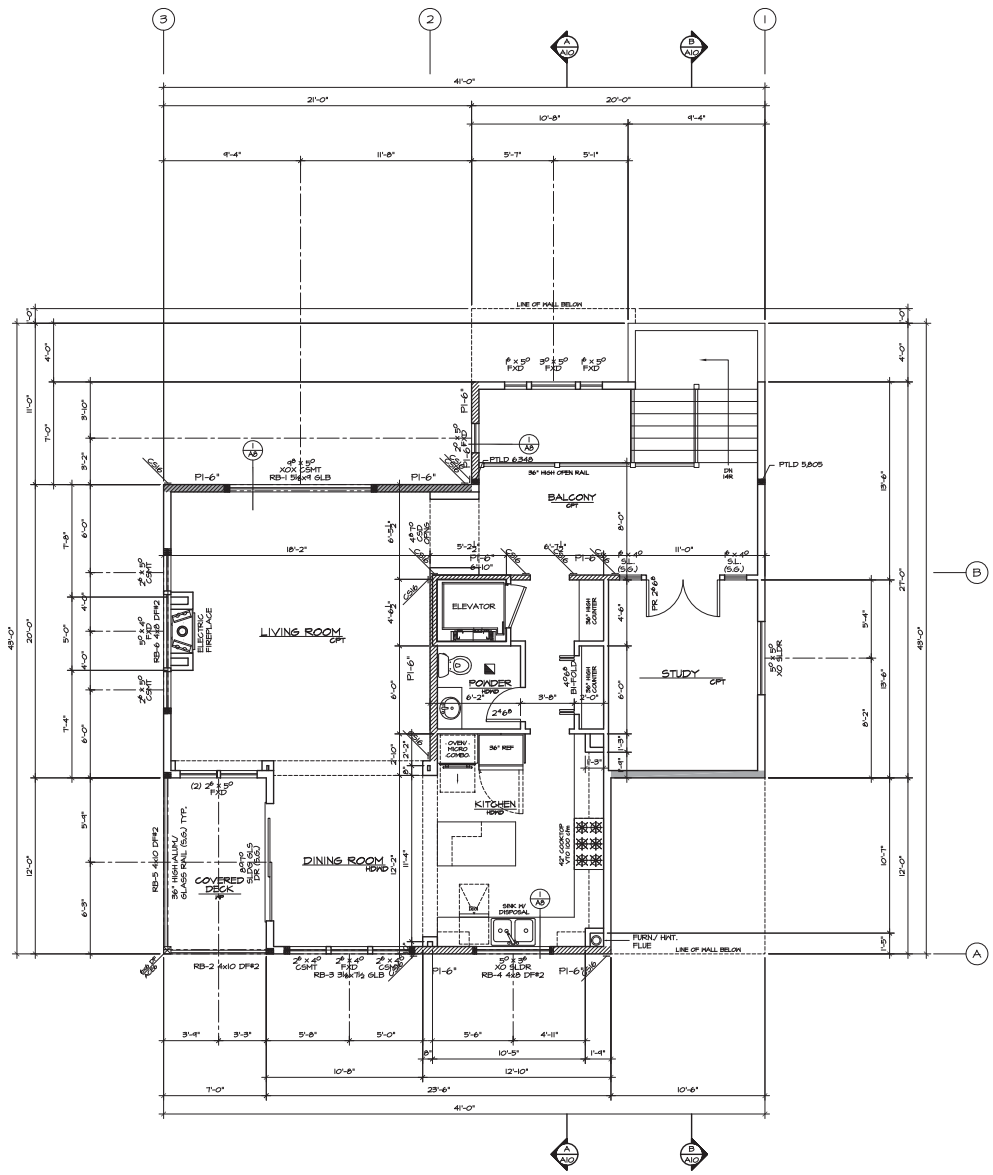
drawn by: DAK
checked by: RLJ

SHEET A7 OF A10

UPPER FLOOR FRAMING PLAN



1 PORTAL FRAMING DETAIL — SCALE: N.T.S.



UPPER FLOOR PLAN

Written dimensions on this drawing shall have precedence over scaled dimensions. Contractor shall verify all dimensions, conditions etc., pertaining to the work before proceeding. The Owner must be notified of any variations from the dimensions and/or conditions shown on these drawings. Any such variation shall be resolved by the Owner prior to proceeding with the work, or the Contractor shall accept full responsibility for the cost to rectify same.

GENERAL NOTES

1. ALL EXTERIOR WARM WALL TO BE 2x6 STUDS 16" O.C. TYPICAL, WITH R-21 INSULATION.
2. ALL HEADERS ON MAIN FLOOR TO BE 4x10 DOUGLAS FIR #2 UNLESS NOTED OTHERWISE.
3. FUR-OUT HEADERS TO MATCH 2x6 WALLS.
4. PROVIDE SOLID BLOCKING UNDER ALL BEARING WALLS.
5. INLINE FRAMING - SINGLE TOP PLATE STRAP @ SPLICES AND CORNERS, EXCEPT AS NOTED FOR SHEAR TRANSFER.
6. ALL GUARDRAILS PER MANUFACTURERS SPECIFICATIONS. SUPPORTS CAPABLE OF RESISTING LATERAL LOAD OF 200 PLF APPLIED IN ANY DIRECTION AT ANY PART ALONG THE TOP OF RAIL.
7. ALL EXTERIOR STAIRWAYS AND UNCOVERED DECKS SHALL BE PRESSURE TREATED OR CEDAR.
8. FASTENERS INTO OR IN CONTACT WITH PRESSURE-TREATED OR FIRE-RETARDENT WOOD SHALL BE OF TRIPLE ZINC ZMAX (G185 PER ASTM A653) HOT DIP GALVANIZE (ASTM A123 FOR CONNECTORS AND ASTM I53 FOR FASTENERS AND ANCHORS). SIMPSON T-PTWOOD.
9. HEADERS IN EXTERIOR WALLS ARE REQUIRED TO BE PROVIDED WITH A MINIMUM OF R-10 INSULATION, PER TABLE 402.1.1 FOOTNOTE K.
10. CORNERS OF STUD WALLS ARE TO BE FULLY INSULATED.
11. DWELLING IS TO BE TESTED AND VERIFIED AS HAVING AN AIR LEAKAGE RATE NOT EXCEEDING 5 AIR CHANGES PER HOUR. (BLOWER DOOR TEST)
12. A PERMANENT CERTIFICATE IS REQUIRED TO BE COMPLETED AND POSTED ON OR WITHIN 3 FEET OF THE ELECTRICAL DISTRIBUTION PANEL AND LIST THE FOLLOWING:
    R-VALUES
    U-VALUES
    RESULTS FROM DUCT SYSTEM AIR LEAKAGE TESTING.
    RESULTS FROM BLOWER DOOR TEST.
    TYPES AND EFFICIENCIES OF HEATING, COOLING, AND SERVICE WATER HEATING EQUIPMENT.
13. WHOLE HOUSE FAN TO HAVE A SONE RATING OF 1.0 OR LESS MEASURED AT 0.1 INCHES WATER GAUGE PER IRC M1507.3.4.2 FAN TO RUN CONTINUOUSLY AND HAVE A .25 WATER GAUGE PER IRC M1507.3.4.1.

GARAGE NOTES
GARAGE SEPARATION PER IRC TABLE R302.6

1. NOT LESS THAN 1/2" GWB SEPARATING THE GARAGE FROM THE RESIDENCE AND ATTIC.
2. 1/2" GWB AT THE STRUCTURE SUPPORTING THE FLOOR/CEILING ASSEMBLIES PART OF THIS SEPARATION INCLUDING BEAMS AND POSTS AND BEARING WALLS.
3. INSULATE ALL WARM WALLS AND CEILING.
4. USE 1 LAYER 5/8" TYPE "X" GWB AT CEILING WHERE HABITABLE ROOMS ARE ABV.
5. DUCTS IN THE GARAGE AND DUCTS PENETRATING THE WALLS OR CEILINGS SHALL BE CONSTRUCTED OF NO. 26 GAGE SHEET STEEL AND SHALL HAVE NO OPENINGS INTO THE GARAGE.
6. OPENINGS BETWEEN THE GARAGE AND RESIDENCE SHALL BE SOLID WOOD DOORS NOT LESS THAN 1-3/8" IN THICKNESS, SOLID OR HONEYCOMB CORE STEEL DOORS NOT LESS THAN 1-3/8", OR 20-MINUTE FIRE-RATED DOORS, AND EQUIPPED W/ A CLOSING DEVICE PER R302.5.1.

HEATING NOTES

1. INSTALLATION PER ASHRAE 90A-88
2. ALL PILOTS, BURNERS AND SWITCHES TO BE A MINIMUM OF 18" ABOVE SLAB.
3. PROVIDE 18" PLATFORM OF 2 LAYERS 3/4" PLYWOOD (1 LAYER IF PLATFORM IS ON SLAB).
4. WATER HEATERS SHALL BE ANCHORED OR STRAPPED TO RESIST HORIZONTAL DISPLACEMENT DUE TO EARTHQUAKE MOTION. STRAPPING SHALL BE AT POINTS WITHIN THE UPPER 1/3 AND LOWER 1/3 OF THE WATER HEATER.
5. GAS WATER HEATER MIN EF OF .62 OR ELECTRIC WATER HEATER MIN EF OF .93.
6. AIR SOURCE FURNACE MIN. AFUE OF .15.

LEGEND

P1-6"	INDICATES SHEAR WALL. REFER TO SCHEDULE ON SHEET D4
	INDICATES MST48 STRAP TYPICAL WHERE SHOWN UNLESS NOTED OTHERWISE.
	INDICATES STHD14RJ HOLDOWN TYPICAL WHERE SHOWN UNLESS NOTED OTHERWISE.
	FAN (VENT TO OUTSIDE) 50 CFM MIN. TYP. 150 CFM AT LAUNDRY ROOM
	SMOKE DETECTOR 110V INTERCONNECTED, HARD-WIRED W/ BATTERY BACK-UP
	CARBON MONOXIDE DETECTOR 110V INTERCONNECTED, HARD-WIRED W/ BATTERY BACK-UP
	WALL MOUNTED LIGHT FIXTURE (OR SCONCE)
	RECESSED LIGHT FIXTURE

LIVING SPACE 1,152 SF — SCALE: 1/4" = 1'-0"

REGISTERED ARCHITECT 4843 RICK L. JONES STATE OF WASHINGTON

RICK JONES & ASSOCIATES ARCHITECTS & PLANNERS
1420 12TH AVE SE
BELLEVUE, WA 98004
(425) 442-2028
P.O. Box 1137
North Bend, WA 98045
www.rickjonesandassociates.com

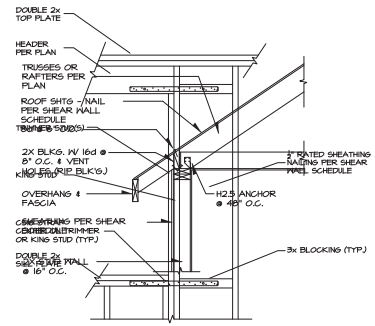
project: POST ALLEY LOT 2
2ND AVENUE
KIRKLAND, WA.
PLAN 3201

date: 06-27-16
permit:
revisions:

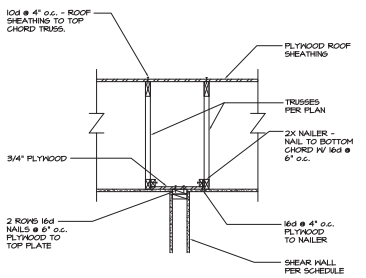
drawn by: DAK
checked by: RLJ

SHEET A8 OF A10

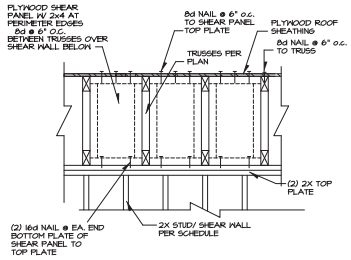
UPPER FLOOR PLAN



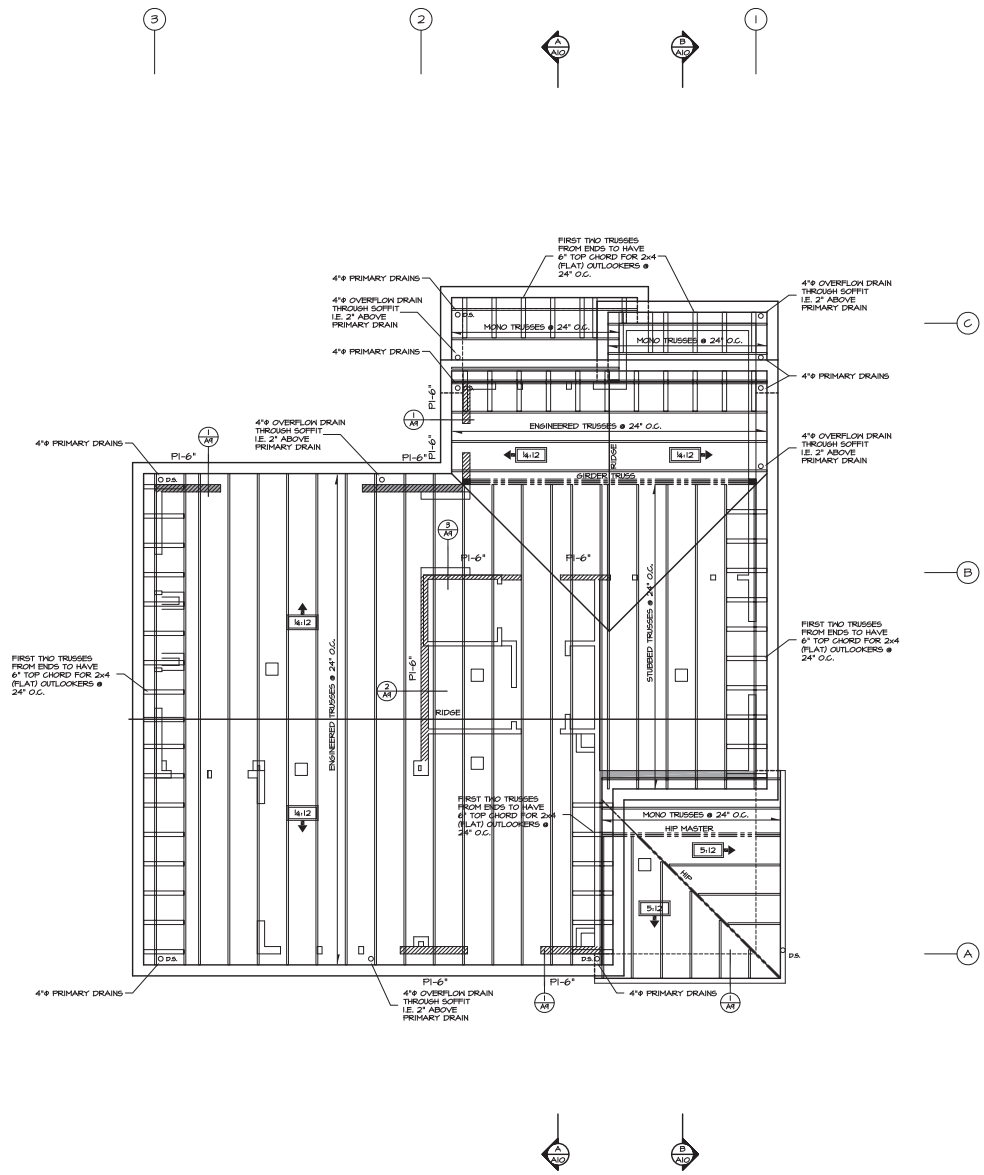
1 TYPICAL SHEAR WALL TO TRUSS DETAIL — SCALE: N.T.S.



2 SHEAR WALL PARALLEL TO TRUSS — SCALE: N.T.S.



3 SHEAR WALL PERPENDICULAR TO TRUSS — SCALE: N.T.S.



ROOF FRAMING PLAN — SCALE: 1/4" = 1'-0"

Written dimensions on this drawing shall have precedence over scaled dimensions. Contractor shall verify all dimensions, conditions etc., pertaining to the work before proceeding. The Owner must be notified of any variations from the dimensions and/or conditions shown on these drawings. Any such variation shall be resolved by the Owner prior to proceeding with the work, or the Contractor shall accept full responsibility for the cost to rectify same.

Table 1: Roof Venting

ROOF VENTING CALCULATIONS

Roof Area:			1242 sq.ft.
Ventilation Required:	1242 sq.ft. x 144 sq.in./300	=	596.16 sq.in.
10%	At 36" minimum Above Eave (max 50%)	=	298.08 sq.in.
10%	At Eaves	=	298.08 sq.in.
5	Roof Jacks @ 50 sq.in. Each	=	250 sq.in.
0	Standard Comp Ridge Vent @ 17 sq.in./ft	=	0 sq.in.
0	Metal Roof Ridge Vent @ 20 sq.in./ft	=	0 sq.in.
0	Side Roof Half Vent @ 8.5 sq.in./ft	=	0 sq.in.
0	Lineal Ft of Eave Venting @ 3.3 sq.in./ft (13) 2" dia. Holes per block @ each bag	=	0 sq.in.
	Lineal Ft of Eave Venting @ 1.65 sq.in./ft (19) 2" dia. Holes per block @ all bags	=	0 sq.in.
36	Continuous Soffit Vent @ 18 sq.in./ft	=	650 sq.in.
0	Gable End Vent (12 in. x 12 in.) x 75%	=	0 sq.in.
0	Cupola Vent (30 in. x 22 in.) x 85%	=	0 sq.in.
0	Gable End Vent (18 in. x 24 in.) x 75%	=	0 sq.in.
0	Gable End Vent (24 in. x 24 in.) x 75%	=	0 sq.in.
	Total Venting @ 36" min. Above Eaves	=	298 sq.in.
	Total Venting @ Eaves	=	598 sq.in.
TOTAL SQ.IN. OF VENTING PROVIDED		=	600 sq.in.

Table 2: Lowers Roof Venting

ROOF VENTING CALCULATIONS

Roof Area:			126 sq.ft.
Ventilation Required:	126 sq.ft. x 144 sq.in./300	=	60.48 sq.in.
50%	At 36" minimum Above Eave (max 50%)	=	30.24 sq.in.
50%	At Eaves	=	30.24 sq.in.
1	Roof Jacks @ 50 sq.in. Each	=	50 sq.in.
0	Standard Comp Ridge Vent @ 17 sq.in./ft	=	0 sq.in.
0	Metal Roof Ridge Vent @ 20 sq.in./ft	=	0 sq.in.
0	Side Roof Half Vent @ 8.5 sq.in./ft	=	0 sq.in.
22	Lineal Ft of Eave Venting @ 3.3 sq.in./ft (13) 2" dia. Holes per block @ each bag	=	72.6 sq.in.
0	Lineal Ft of Eave Venting @ 1.65 sq.in./ft (19) 2" dia. Holes per block @ all bags	=	0 sq.in.
0	Continuous Soffit Vent @ 18 sq.in./ft	=	0 sq.in.
0	Gable End Vent (12 in. x 12 in.) x 75%	=	0 sq.in.
0	Gable End Vent (12 in. x 24 in.) x 75%	=	0 sq.in.
0	Gable End Vent (18 in. x 24 in.) x 75%	=	0 sq.in.
0	Gable End Vent (24 in. x 24 in.) x 75%	=	0 sq.in.
	Total Venting @ 36" min. Above Eaves	=	52 sq.in.
	Total Venting @ Eaves	=	123.6 sq.in.
TOTAL SQ.IN. OF VENTING PROVIDED		=	123.6 sq.in.

ROOF FRAMING NOTES

1. CUT RAFTER TAILS TO MATCH 2x TRUSSES.
2. CONNECTORS SHALL BE ENGINEERED BY TRUSS MANUFACTURER.
3. ROOF PITCH SHALL BE 3:12 UNLESS NOTED OTHERWISE.
4. USE SIMPSON H1 CLIPS @ 24" O.C. AT ENDS OF TRUSSES AND RAFTERS.
5. USE SIMPSON L30 CLIPS TO CONNECT TRUSSES AND/OR CEILING JOISTS TO PERPENDICULAR WALLS AT MID-SECTION.
6. USE SIMPSON STC CLIPS AT NON-BEARING WALLS.
7. 2x6 RAFTERS @ 24" O.C. / 2x6 CEILING JOISTS @ 24" O.C. TYPICAL UNLESS NOTED OTHERWISE. (MAXIMUM SPAN = 13'-7")
8. PROVIDE DOUBLE RAFTERS UNDER DORMER CRIPPLE WALLS UNLESS NOTED OTHERWISE.
9. MINIMUM 8'-0" SPLICES AT BUILT-UP HIPS AND VALLEYS, NAIL TOGETHER WITH 2 ROWS OF 16d NAILS @ 6" O.C. (OVER FRAMING) CONTINUOUS.
10. ROOF FLASHING SHALL BE PROVIDED AND COMPLY W/ IRC 2003, SECTIONS R903.2 & R905.2.8.

TRUSS NOTES

ALL TRUSSES SHALL HAVE:

1. STRESS ANALYSIS AND DRAWINGS / DETAILS STAMPED BY A STATE REGISTERED ENGINEER.
2. MANUFACTURER'S STAMP ON PRE-MANUFACTURED TRUSSES.
3. BRACED TO MANUFACURER'S SPECIFICATIONS.
4. STRESS ANALYSIS AND DETAILS SHALL BE SUBMITTED TO BUILDING DEPARTMENT FOR APPROVAL AND SHALL BE KEPT ON SITE FOR FRAMING INSPECTION.
5. TRUSSES WILL NOT BE FIELD ALTERED WITHOUT PRIOR BUILDING DEPARTMENT APPROVAL OR ENGINEERING CALCULATIONS.
6. ALL TRUSSES SHALL HAVE SIMPSON H-1 CLIPS AT ENDS, EVERY OTHER TRUSS, 48" O.C. WHERE END TRUSSES ARE PARALLEL W/ WALL USE SIMPSON L30 @ MID-SPAN.
7. USE SIMPSON STC CLIPS @ ALL TRUSSES OVER NON-BEARING WALLS.
8. TRUSSES SHALL BE LEGIBLY BRANDED W/ MANUFACTURERS NAME, DESIGN LOADS, AND REQUIRED SPACING, WITHIN 2'-0" OF THE CENTER SPAN ON THE BOTTOM CHORD.
9. BUILDER TO FIELD MEASURE TRUSS SPANS PRIOR TO MANUFACTURING.
10. UNINHABITABLE ATTICS WITHOUT STORAGE MUST BE DESIGNED WITH A BOOTOM CHORD LIVE LOAD OF 10# PSF. PER IBC TABLE 1607.1

REGISTERED ARCHITECT — RICK L. JONES — STATE OF WASHINGTON

RICK JONES & ASSOCIATES ARCHITECTS & PLANNERS
14400 116TH AVE SE
BELLEVUE, WA 98004
(425) 402-2028
P.O. Box 1187
North Bend, WA 98045
www.rickjonesandassociates.com

project: POST ALLEY LOT 2
2ND AVENUE
KIRKLAND, WA.
PLAN 3201

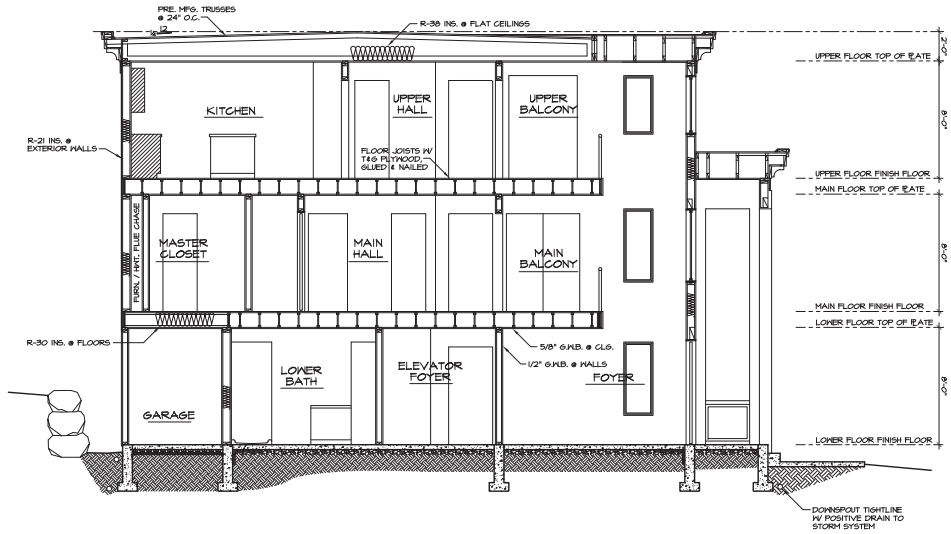
date: 06-27-16
permit:
revisions:

drawn by: DAK
checked by: RLJ

SHEET A9 OF A10

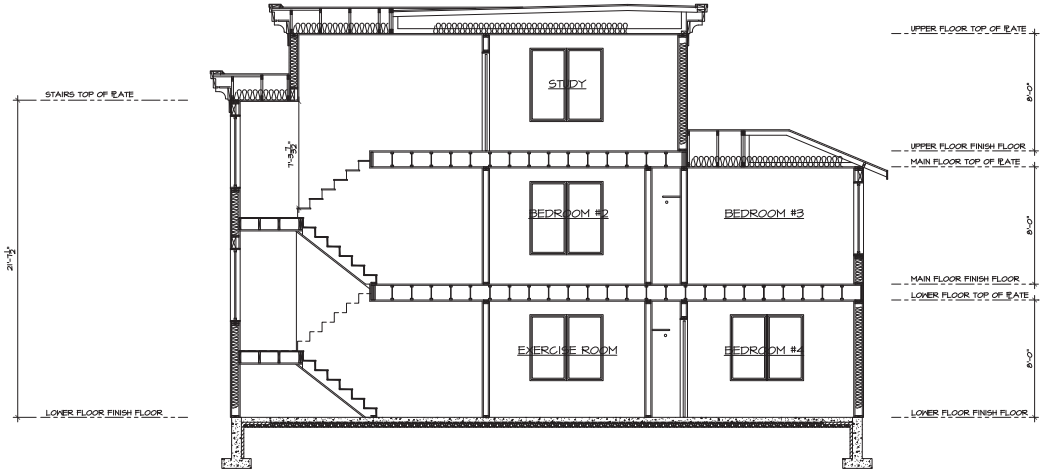
ROOF FRAMING PLAN

Written dimensions on this drawing shall have precedence over scaled dimensions. Contractor shall verify all dimensions, conditions etc., pertaining to the work before proceeding. The Owner must be notified of any variations from the dimensions and/or conditions shown on these drawings. Any such variation shall be resolved by the Owner prior to proceeding with the work, or the Contractor shall accept full responsibility for the cost to rectify same.



SECTION A

SCALE: 1/4" = 1'-0"



SECTION B

SCALE: 1/4" = 1'-0"

REGISTERED ARCHITECT
RICK L. JONES
STATE OF WASHINGTON

RICK JONES & ASSOCIATES
ARCHITECTS & PLANNERS
1400 11TH AVE SE
BELLEVUE, WA 98004
(425) 442-2028
P.O. Box 1137
North Bend, WA 98045
www.rickjonesandassociates.com

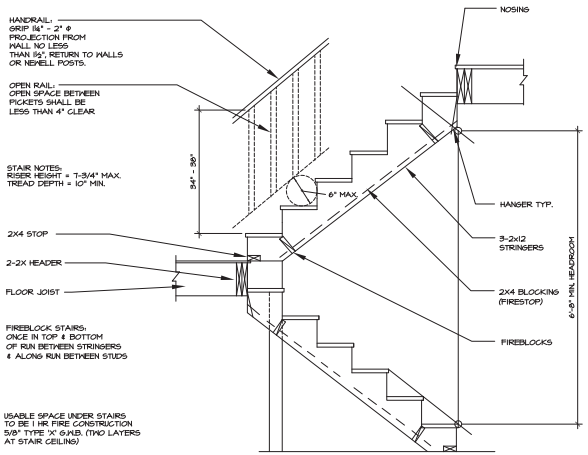
project: POST ALLEY LOT 2
2ND AVENUE
KIRKLAND, WA.
PLAN 3201

date: 06-27-16
permit:
revisions:

drawn by: DAK
checked by: RLJ

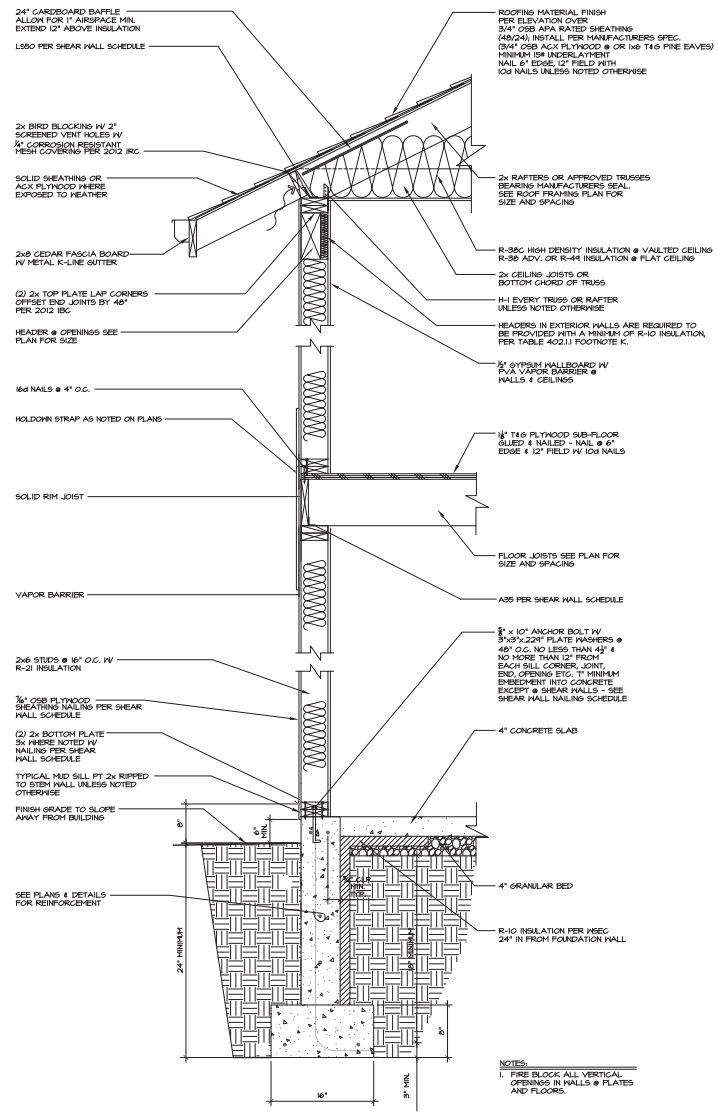
SHEET A10
OF A10

ELEVATIONS



1 TYPICAL STAIR SECTION — SCALE: 3/4" = 1'-0"

2 — SCALE: 1" = 1'-0"



SHEAR WALL SCHEDULE
PER IBC 2012 & AF&PA SDPWS

GENERAL NOTES

SEE PLANS TO DETERMINE THE DIFFERENT DESIGNATORS FOR SHEAR WALL MATERIALS, NAILING, ANCHOR BOLTS, AND HOLDOWNS. LOCATE HOLDOWNS AS CLOSE AS POSSIBLE TO THE END OF THE DESIGNATED WALL.

ALL HOLDOWNS, ANCHOR BOLTS, WASHERS, & NAILS IN CONTACT WITH P.T. WOOD TO BE HOT DIPPED GALVANIZED.

P1 = ONE SIDE PLYWOOD
P2 = TWO SIDES PLYWOOD

MARK	7/16" STRUCT. I PLYWD.	NAIL SPACING EDGES	NAIL SPACING FIELD		BLKG. REQ'D.	SILL PLATE ANCHOR BOLTS	BASE PLATE NAILING	HF#2 VALUE (#/LF)	DF#2 VALUE (#/LF)
P1-6"	8d	6"	12"		2x4	5/8" @ 48"	(2) 16d @ 10"	223	255
P1-4"	8d	4"	12"		2x4	5/8" @ 32"	(2) 16d @ 7"	325	345
P1-3" **	8d	3"	12"		3x4	5/8" @ 24"	(2) 16d @ 5"	418	505
P1-2" **	8d	2"	12"		3x4	3/4" @ 24"	(3) 16d @ 5"	544	670
P2-6" **	8d	6"	12"		3x4	5/8" @ 24"	(2) 16d @ 5"	446	510
P2-4" **	8d	4"	12"		3x4	3/4" @ 20"	(3) 16d @ 5"	650	740
P2-3" **	8d	3"	12"		3x4	3/4" @ 16"	(4) 16d @ 5"	836	1010
P2-2" **	8d	2"	12"		3x4	3/4" @ 12"	(4) 16d @ 4"	1088	1170

*NOTE: WALLS WITH UNIT SHEAR OF 350#/ft. OR GREATER SHALL HAVE STUDS ABUTTING PANELS NOT LESS THAN 3X MEMBERS (PER AF&PA SDPWS IBC 2012 TABLE 2306.3) OR DOUBLE 2x (PER IBC 2012 - SECTION 2306.2.4 TABLE 2306.3 footnote i). 3X FRAMING WILL BE NOTED ON PLAN.

**NOTE: HEM-FIR VALUES HAVE BEEN ADJUSTED ACCORING TO IBC TABLE 2306.3 Footnote a. SPECIFIC GRAVITY ADJUSTMENT FACTOR = [1-(0.5-.56)] .56 FOR HEM-FIR = .43 PER AF&PA, [1-(0.5-.43)] = .93

1. PLYWOOD MAY BE INSTALLED EITHER HORIZONTALLY OR VERTICALLY.
2. SOLID BLOCK WITH JOIST UNDER INTERIOR SHEAR WALLS.

SHEAR WALL NOTES

7/16" OSB OR PLYWOOD SHEATHING - USE 8d COMMON OR GALVANIZED NAILS. BLOCK ALL PANEL EDGES. LONG DIMENSIONS OF PLYWOOD MAY BE INSTALLED VERTICALLY. NAIL @ 12" O.C. TO ALL INTERMEDIATE STUDS. WHERE 3" NAIL SPACING IS SPECIFIED AT PANEL EDGES, USE 1-1/2" 8d SHORT NAILS OR 3X STUDS WITH 10d COMMON NAILS. FOR 2" NAIL SPACING, USE 3X STUDS AND STAGGER PANELS. WHERE PLYWOOD IS 2 SIDES OF WALL, JOINTS TO FALL ON SEPARATE STUDS ON EACH SIDE.

FLOOR PLYWOOD - USE 8d COMMON NAILS @ 10" O.C. AT INTERMEDIATE SUPPORTS, 6" O.C. AT ALL PANEL EDGES AND 4" O.C. AT ALL SHEAR WALLS, UNLESS OTHERWISE SHOWN ON PLANS.

FLOOR JOISTS - JOIST PARRALLEL TO FLOOR OPENINGS AND EXTERIOR WALLS SHALL BE CROSS BLOCKED AT 48" O.C. @ EDGES W/ (4) 10d NAILS FOR THE FIRST BAY.

3" x 3" x 0.224" SQUARE WASHERS AT ALL ANCHOR BOLTS.

STAPLE SCHEDULE
7/16" OSB OR PLYWOOD SHEATHING
ALLOWABLE SHEAR VALUES

1½ 16 gage STAPLES - DF #2 STUDS 6" o.c. - 155 #/ft. 4" o.c. - 230 #/ft. 3" o.c. - 310 #/ft. 2" o.c. - 345 #/ft.	1½ 16 gage STAPLES - HF #2 STUDS 6" o.c. - 121 #/ft. 4" o.c. - 188 #/ft. 3" o.c. - 254 #/ft. 2" o.c. - 323 #/ft.	

FIELD SPACING: 12" O.C. NAILS & STAPLES.

HOLDOWNS - INSTALL SIMPSON HOLDOWNS OR EQUIVALENT AT THE END OF SHEAR WALLS WHEN SHOWN ON DRAWINGS. TO ATTACH USE 2X OR 3X HF #2 CONSTRUCTION GRADES AS SHEAR WALL BOUNDARY ELEMENTS. HOLDOWNS ARE ONLY REQUIRED WHERE SHOWN ON PLANS.

3 SHEAR WALL SCHEDULE — SCALE: 3/4" = 1'-0"

4 — SCALE: 1/2" = 1'-0"

5 TYPICAL WALL SECTION — SCALE: N.T.S.

REGISTERED ARCHITECT
RICK L. JONES
STATE OF WASHINGTON
1420 12TH AVE SE
BELLEVUE, WA 98004
(425) 442-2028
P.O. Box 1137
North Bend, WA 98045
RICK JONES & ASSOCIATES
ARCHITECTS & PLANNERS
www.rickjonesandassociates.com

project:
POST ALLEY LOT 2
2ND AVENUE
KIRKLAND, WA.
PLAN 3201

date: 06-27-16
permit:
revisions:

drawn by: DAK
checked by: RLJ

SHEET D1
OF D1

DETAILS

Wetland Resources, Inc.
Delineation / Mitigation / Restoration / Habitat Creation / Permit Assistance

9505 19th Avenue S.E.
Suite 106
Everett, Washington 98208
(425) 337-3174
Fax (425) 337-3045

SENSITIVE AREAS STUDY
AND
BUFFER MITIGATION PLAN

FOR

828 2ND AVENUE, LOT #2
KIRKLAND, WA

Wetland Resources, Inc. Project #15071

Prepared By
Wetland Resources, Inc.
9505 19th Avenue SE, Suite 106
Everett, WA 98208
(425) 337-3174

Prepared For
Post Alley LLC
Attn: Tom Dedonato
10257 NE 64th Street
Kirkland, WA 98033

Revision:
November 15, 2016

Original:
April 13, 2016

THIS PAGE IS INTENTIONALLY LEFT BLANK

TABLE OF CONTENTS

1.0 INTRODUCTION 1
1.1 PROJECT DESCRIPTION 2
1.2 WETLAND CLASSIFICATIONS 3
1.2.1 Cowardin System Classifications 3
1.2.2 City of Kirkland Classifications 4

2.0 WETLAND DETERMINATION REPORT 4
2.1 PUBLICLY AVAILABLE DATA 4
2.2 FIELD DETERMINATION METHODOLOGY 5
2.2.1 Hydrophytic Vegetation Criteria 6
2.2.2 Soils Criteria and Mapped Description 6
2.2.3 Hydrology Criteria 6
2.3 BOUNDARY DETERMINATION FINDINGS 7
2.3.1 Wetland A 7
2.3.2 Wetland B 7
2.3.3 Non-wetland Areas 8
2.3.4 Wildlife 9

3.0 REASONABLE USE PROPOSAL 9
3.1 REASONABLE USE DISCUSSION 9
3.2 COMPLIANCE WITH REASONABLE USE SUBMITTAL REQUIREMENTS 10
3.3 COMPLIANCE WITH REASONABLE USE DECISIONAL CRITERIA 13

4.0 WETLAND BUFFER FUNCTIONS AND VALUES ASSESSMENT 15
4.1 POST BUFFER ENHANCEMENT/MITIGATION FUNCTIONS AND VALUES 15

5.0 BUFFER MITIGATION PLAN 16
5.1 STREAM A BUFFER MITIGATION 16
5.1.1 Buffer Enhancement East of Stream A 16
5.1.2 Grass Seeding 17
5.2 PLANTING NOTES 17
5.3 MAINTENANCE 20
5.4 GENERAL PROJECT NOTES 21

6.0 PROJECT MONITORING PROGRAM 22
6.1 PROGRAM DETAILS 22
6.1.1 Inspection and Reporting Requirements 22
6.1.2 Monitoring Components 22
6.2 PROJECT SUCCESS & COMPLIANCE 23
6.2.1 Criteria for Success 23
6.2.2 Goal 23
6.2.3 Definition of Success 23
6.2.4 Objectives 24
6.2.5 Performance Standards 24
6.3 CONTINGENCY PLAN 25

7.0 PERFORMANCE BOND 25

8.0 USE OF THIS REPORT 26

9.0 REFERENCES 27

TABLE OF CONTENTS CONTINUE ON NEXT PAGE

List of Attachments

City of Kirkland Rating Forms

Sensitive Area Map – Development Scenario A (Sheet 1/4)

Sensitive Area Map – Development Scenario B (Sheet 2/4)

Sensitive Area Study and Buffer Mitigation Plan Map (Sheet 3/4)

Approximate Data Site Locations (Sheet 4/4)

Wetland Location & Buffer Detail (All Land Surveying – May 6, 2015)

Performance Bond Worksheet (King County)

Lisit of Figures

Figure 1: Aerial view of the subject site. 2

1.0 INTRODUCTION

The subject site is located at 828 2nd Avenue in the City of Kirkland, Washington, (lot #s 1, 2, and 3) within a portion of Section 5, Township 25N, Range 5E, W.M. Though this report concerns proposed development and mitigation actions related specifically to lot #2 (northeast corner), information about sensitive area findings is provided for the entire site. Land use surrounding the project area is primarily multi-family residential complexes. The site is comprised of three legal lots, and is currently developed as a single-family residence with maintained yard and gravel driveway in the southeastern lot.

Wetland Resources, Inc. (WRI) visited the subject site on April 9, 2015, to assess the ratings of wetlands and streams on and near the subject property, which had been previously rated by *the Watershed Company* (corresponding report: "*Jonason Property, Wetland and Stream Delineation Report*). Wetlands were rated using the City of Kirkland *Wetland Field Data Form*. Two wetlands (Wetlands A and B) are located on the subject site. Wetland A is located in the southeast corner of the subject site. Wetland B is located in the northwest portion of the subject property, and extends off-site to the north. Two streams are located on or near the subject property. Stream A flows from southeast to northwest through the center of the subject site. Stream B flows east to west just north of the subject property. Both streams are local drainages.

As per the Watershed Company report, Wetlands A and B were rated as Type 3. Additionally, both wetlands were described as likely being less than 2,500 square feet, and thus exempt from local regulation (KZC 90.20.3). Stream A was described as a Class B stream. Stream B was not specifically classified within the report. These sensitive areas are located within Moss Bay drainage basin, a secondary basin. The on-site buffer areas surrounding these sensitive areas are comprised primarily of invasive Himalayan blackberry (*Rubus armeniacus*) in the northern portion of the site, and maintained as a residential yard comprised of maintained lawn and landscaping in the southern portion.

Delineated on-site sensitive areas boundaries are similar to those presented within the report provided by the Watershed Company, with minor increases in area to both wetlands. Wetland A was surveyed as 959 square feet, and Wetland B as 1,414 square feet. These minor differences are most likely due to previous fieldwork being performed in the dry season, when annual hydrological conditions can be difficult to determine. Ratings for the on-site sensitive areas were consistent with those determined by the Watershed Company report. As Stream B shares the same characteristics as presented by Stream A, it too is classified as a Class B stream.

Kirkland Zoning Code (KZC) 90.45(1) requires 25-foot buffers for Type 3 wetlands located within a secondary basin, and 50-foot buffers for Class B streams located within a secondary basin. Buffers are not required for the off-site wetlands, as both are less than 2,500 square feet, and thus exempt from local regulation.

The buffer associated with Stream A disallows access to developable areas under the standard provisions for sensitive areas (KZC Title 23, Chapter 90). These areas are on either side of the stream, north of the existing gravel driveway (Figure 1).

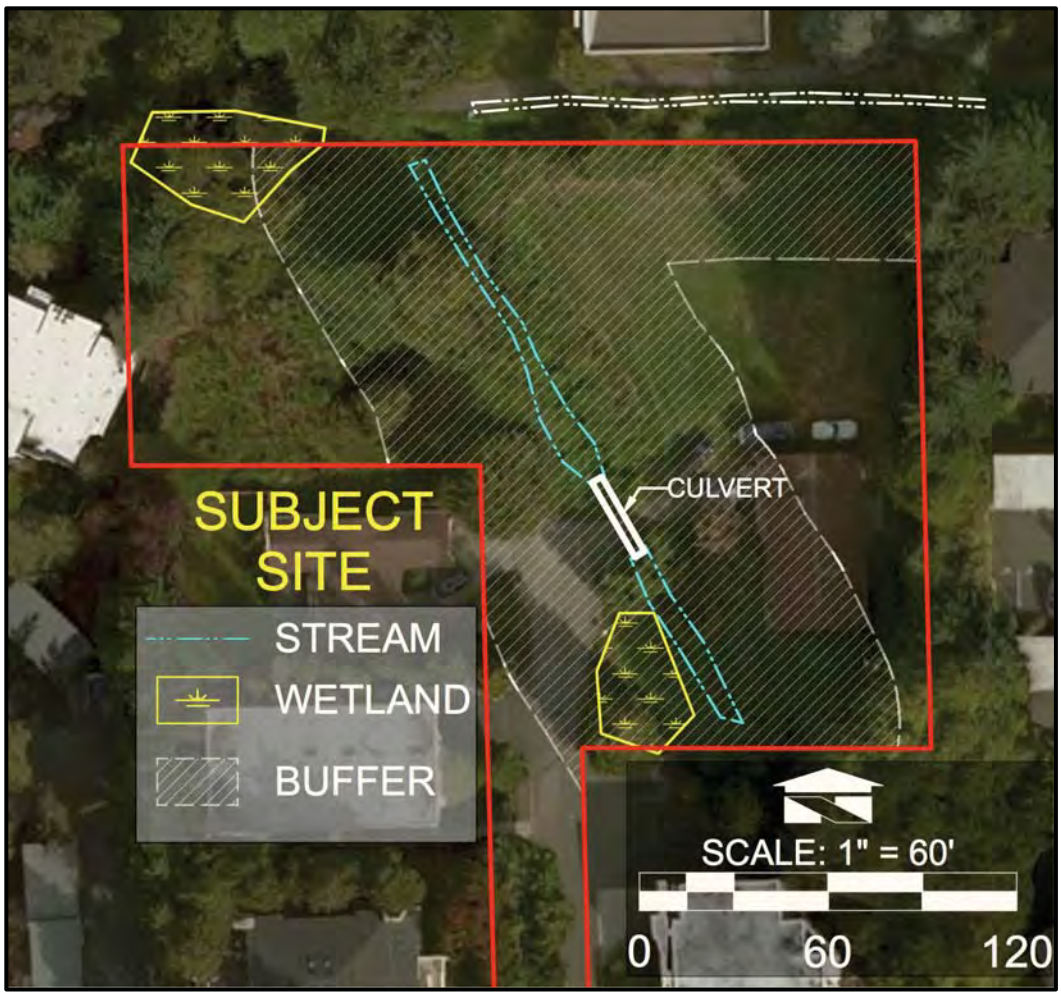


Figure 1: Aerial view of the subject site.

1.1 Project Description

The applicant is proposing a boundary line adjustment of the three existing lots, with the southeastern lot containing the preexisting single-family residence. The two lots proposed for development will be located on either side of Stream A, in the northwest and northeast portions of the subject site. To accommodate feasible footprints for construction, the applicant is requesting a Process IIA reasonable use exception (KZC 90.140) for access to the developable areas in these lots. In order to gain access, the applicant proposes to construct a road in the location of the existing gravel driveway, which spans Stream A, and to further extend it into the other two proposed lots via a proposed access and utility easement.

WRI has evaluated the proposed BLA lots in relationship to KZC 90.140. Lots 1, 2, and 3 were all part of this evaluation. An existing single-family residence is located on lot 1, and therefore is not the subject of this reasonable use proposal. The preexisting house and yard space in this southeastern corner of the subject site will remain in its maintained condition, with some allowed remodeling to the home, and will not require buffer mitigation. All invasive Himalayan blackberry will be removed from the entire site prior to enhancement plantings.

The developable areas within lots 2 and 3 are both outside of the standard 50-foot buffer from the Class B streams, but require application of the reasonable use provisions due to unavoidable impacts associated with proposed driveways within the access and utility easements near Stream A. As Stated at the beginning of this document, this report concerns the project activities specific to lot #2; the northeast lot.

A total of 743 square feet of permanent buffer impacts will be associated with the driveways within the access and utility easements. Given the unique location and configuration of the subject site, no other access point is possible, and reconfiguration of the proposed BLA lot lines will not decrease the amount of necessary buffer impacts. All buffer impacts will be mitigated through buffer enhancement at an approximate 2:1 ratio (1,486 square feet).

Additionally, a 10-foot pedestrian easement is proposed to run north-south along the eastern edge of the buffer enhancement area to allow for a future walkway to be installed for foot access to the central urban area of Kirkland. This proposal is an effort to comply with the City's request for such a pedestrian access point.

Per discussions with city staff, building setbacks will be five (5) feet from buffer edges and property boundaries, and the maximum height of structures will be increased by five (5) feet, as part of this reasonable use proposal; pursuant to KZC 90.140(6). These modifications are proposed to compensate for the minimal footprint area available to develop a residence on the subject parcel. Through application of this code provision, additional impact to the sensitive area buffer will be avoided by providing sufficient space for construction of a residence commiserate with the surrounding area.

Pursuant to KZC 90.95, sensitive area signage and split-rail fencing shall be constructed along the buffer edge in order to protect sensitive area function.

1.2 WETLAND CLASSIFICATIONS

1.2.1 Cowardin System Classifications

According to the Cowardin System, as described in Classification of Wetlands and Deepwater Habitats of the United States, the classification for the on-site sensitive areas are as follows:

Wetland A: Palustrine, Emergent Wetland, Persistent, Saturated.

Wetland B: Palustrine, Scrub-shrub/Forested Wetland, Persistent/Broad-leaved Deciduous, Saturated.

Stream A: Riverine, Lower Perennial, Unconsolidated Bottom, Mud.

Stream B: Riverine, Lower Perennial, Unconsolidated Bottom, Mud.

1.2.2 City of Kirkland Classifications

Under the city of Kirkland Zoning Code (KZC), Chapter 90.40 and 90.85, the on-site sensitive areas are classified as follows:

Wetland A
Type 3: This wetland has one vegetation class, and provides low habitat value for fish or wildlife. It scores a total of 16 points on the Kirkland Rating Form for Western Washington, which equates to a Type 3 rating. Pursuant to KZC 90.45(1), Type 3 wetlands within secondary basins require 25-foot buffers. However, this wetland is less than 2,500 square feet, and therefore is exempt from local regulation.

Wetland B
Type 3: This wetland has two vegetation classes, and provides low habitat value for fish or wildlife. It scores a total of 21 points on the Kirkland Rating Form for Western Washington, which equates to a Type 3 rating. Pursuant to KZC 90.45(1), Type 3 wetlands within secondary basins require 25-foot buffers. However, this wetland is less than 2,500 square feet, and therefore is exempt from local regulation.

Stream A
Class B Stream: This stream is a drainage ditch within the Moss Bay basin. The stream is permanently flowing, without any fish presence. Pursuant to KZC 90.90(1) Class B streams within a secondary basin require 50-foot buffers.

Stream B
Class B Stream: This stream is a drainage ditch within the Moss Bay basin. The stream is permanently flowing, without any fish presence. Pursuant to KZC 90.90(1) Class B streams within a secondary basin require 50-foot buffers.

2.0 WETLAND DETERMINATION REPORT

2.1 PUBLICLY AVAILABLE DATA

Prior to conducting the site investigation, public resource information was reviewed to gather background information on the subject property and the surrounding area in regards to wetlands, streams, and other sensitive areas. These sources included the following:

USDA/NRCS Web Soil Survey
Two soil map units are predicted to occur on the subject parcel. Indianola Loamy Fine Sand, 4 to 15 percent slopes, is mapped throughout the majority of the subject site. The southeastern portion of the subject site, containing Wetland A and the southern on-site portion of Stream A, is mapped as Alderwood Gravely Sandy Loam, 8 to 15 percent slopes. More detailed soil map unit descriptions are provided in the "2.2 Field Determination Methodology" section below.

USFWS National Wetlands Inventory (NWI)
No wetlands were identified in the immediate vicinity of the subject property. The nearest occurrence is a Palustrine Forested/Emergent wetland, located approximately a quarter-mile to the east.

King County iMap
No environmentally sensitive areas were identified on or adjacent to the subject site.

DNR FPARS ARCIMS Mapping Application for streams
The on-site stream segments are not mapped. A fish-bearing stream is identified approximately 500 feet north of the subject site, and a non-fish bearing stream is identified approximately 500 feet south east of the subject site. Additionally, a potential wetland site is identified approximately 120 feet northeast of the subject site.

WDFW Priority Habitat and Species (PHS) Interactive Map
Confirms that a palustrine wetland approximately 125 feet northeast of the subject site is the nearest previously mapped sensitive area.

WDFW Salmonscape Interactive Mapping System
No salmonid activity is identified in the vicinity of the project.

2.2 Field Determination Methodology

Wetland Resources staff conducted a site visit on January 9, 2015, to locate wetlands and streams occurring within and near the project site. Wetland conditions were evaluated using routine methodology described in the *2010 Regional Supplement to the Corps of Engineers Wetland Delineation Manual: Western Mountains, Valleys, and Coast Region (Version 2.0)*, (referred as 2010 Regional Supplement).

The following criteria descriptions were used in the boundary determination:

1.) Examination of the site for hydrophytic vegetation (species present and percent cover);

2.) Examination of the site for hydric soils;

3.) Determining the presence of wetland hydrology

The ordinary high water mark (OHWM) of Stream A and B was identified using the methodology described in the Washington State Department of Ecology document *Determining the Ordinary High Water Mark on Streams in Washington State (Second Review Draft)* (Olson and Stockdale 2010). The stream is classified according to the water typing system provided in the Washington Administrative Code (WAC), section 222-16-030 and KZC 90.85.

2.2.1 Hydrophytic Vegetation Criteria

The delineation manual defines hydrophytic vegetation as the sum total of macrophytic plant life that occurs in areas where the frequency and duration of inundation or soil saturation produce permanently or periodically saturated soils of sufficient duration to exert a controlling influence on the plant species present. One of the most common indicators for hydrophytic vegetation is when more than 50 percent of a plant community consists of species rated "Facultative" and wetter on lists of plant species that occur in wetlands.

2.2.2 Soils Criteria and Mapped Description

The manuals define hydric soils as those that formed under conditions of saturation, flooding, or ponding long enough during the growing season to develop anaerobic conditions in the upper part. Field indicators are used for determining whether a given soil meets the definition for hydric soils.

According to NRCS Web Soil Survey, the soil map units Indianola Loamy Fine Sand and Alderwood Gravelly Sandy Loam, 8 to 15 percent slopes, are predicted to occur on the subject property.

Indianola Loamy Fine Sand, 4 to 15 percent, is an undulating and rolling soil with convex slopes. It is near the edges of upland terraces. Areas range from 5 to more than 100 acres in size. Soils included with this soil in mapping make up no more than 25 percent of the total acreage. Some areas are up to 10 percent Alderwood soils, on the more rolling and undulating parts of the landscape; some are up to 8 percent the deep, gravelly Everett and Neilton soils; some are up to 15 percent Kitsap soils, which have platy lake sediments in the subsoil; and some are up to 15 percent Ragnar soils, which have a sandy substratum. Permeability is rapid. The effective rooting depth is 60 inches or more. Available water capacity is moderate. Runoff is slow to medium, and the erosion hazard is slight to moderate. This soil is commonly used for timber and for urban development.

Alderwood Gravely Sandy Loam, 8 to 15 percent slopes is described as rolling with irregularly shaped areas ranging from 10 to about 600 acres in size. The A horizon ranges form very dark brown to dark brown. The B horizon is dark brown, grayish brown, and dark yellowish brown. Permeability is moderately rapid in the surface layer and subsoil and very slow in the substratum. Available water capacity is described as low. Included within this soil unit are the poorly drained Norma, Bellingham, Seattle, Tukwila, Shalcar soils, and Alderwood soils that have slopes more gentle or steeper than 8 to 15 percent. Included soil units make up no more than 30 percent of the total acreage.

2.2.3 Hydrology Criteria

Areas which are seasonally inundated and/or saturated to the surface for a consecutive number of days ≥12.5 percent of the growing season are wetlands, provided the soil and vegetation parameters are met. Areas inundated or saturated between 5 and 12.5 percent of the growing season in most years may or may not be wetlands. Areas saturated to the surface for less than 5 percent of the growing season are non-wetlands. Field indicators are used for determining whether wetland hydrology parameters are met.

Based on the results of the site investigation, two wetlands were identified on the subject property. The wetlands were rated pursuant to the Kirkland rating system.

2.3 Boundary Determination Findings

2.3.1 Wetland A

This wetland is located in the southeast portion of the site, between Stream A and an access road extending from 2nd Avenue. The palustrine wetland is entirely comprised of lawn, with a western red cedar (*Thuja plicata*) growing along the southwestern periphery. Dominant vegetation in Wetland A is represented by western red cedar (FAC), bent grass (*Agrostis* spp.; FAC), reed canary grass (*Phalaris arundinacea*; FACW), and field horsetail (*Equisetum arvense*; FAC). The dominant species rate "facultative" or wetter, indicating that a hydrophytic vegetative community is present in the areas mapped as wetland.
Wetland soils from 0 to 18 inches below the surface have a Munsell color of black (10YR 2/1) with dark brown (7.5YR 3/3) and olive yellow (2.5Y 6/6) redoximorphic features, with a loam texture. These soils meet the F6 (Redox Dark surface Depleted Below Dark Surface) hydric soil indicator. Soils were saturated to the surface. The water table was not observed at the time of the site investigation.

Field observations indicate that the area mapped as Wetland A is flooded, ponded, or saturated long enough during the growing season to develop anaerobic conditions in the upper part of the soils. Therefore, the vegetation, soil, and hydrologic criteria are all met for this on-site wetland.

2.3.2 Wetland B

This wetland is located in the northwest corner of the subject site, just south of a paved public walkway that runs parallel to the northern border of the property. Wetland B extends off-site to the north, and appears to be less than 2,500 square feet in size. This palustrine wetland is comprised primarily of willow (*Salix* spp.), with Himalayan blackberry (*Rubus armeniacus*) growing along the south and eastern peripheries. Dominant vegetation in Wetland B is represented by willow (FACW), Himalyan blackberry (FACU), and coastal hedge nettle (*Stachys chamissonis*; FACW). The Himalyan blackberry is only rooted along the outside boundary of the wetland, and therefore does not provide a strong indicator of the hydrophytic status of the vegetation community present. Regardless, the dominant species rate "facultative" or wetter, indicating that a hydrophytic vegetative community is present in the areas mapped as wetland.

Wetland soils from 0 to 13 inches below the surface have a Munsell color of dark grayish brown (10YR 4/2) with yellowish red (5YR 5/8) redoximorphic features. From 13 to 18 inches below the surface, soils have a color of gray (5Y 5/1) with reddish yellow (7.5YR 6/8) redoximorphic features. The texture throughout the profile is sandy loam. These soils meet the F3 (Depleted Matrix) hydric soil indicator. Soils were saturated 1 inch below the surface. The water table was not observed at the time of the site investigation.

Field observations indicate that the area mapped as Wetland B is flooded, ponded, or saturated long enough during the growing season to develop anaerobic conditions in the upper part of the soils. Therefore, the vegetation, soil, and hydrologic criteria are all met for this on-site wetland.

2.3.3 Non-wetland Areas

Adjacent to Wetland A

Dominant vegetation in the non-wetland area adjacent to Wetland A is represented by cultivated magnolia (*Magnolia* spp.; no official indicator, but considered upland), English holly (*Ilex aquifolium*; FACU), Himalayan blackberry (FACU), bent grass (FAC), yellow buttercup (Ranunculus repens; FAC). Based on the observed dominant species, the majority of the vegetation community does not rate "facultative" or wetter, indicating that it is not hydrophytic.

Typical soils in the area mapped as non-wetland adjacent to Wetland A have a Munsell color of brown (10YR 4/3) with yellowish red (5YR 4/6) redoximorphic features, and a sandy gravelly loam texture, to at least 18 inches beneath the soil surface. This soil profile does not meet the criteria for any hydric soil indicators.

Soils were dry at the time of our April 2015 site investigation. Soils sampled in the area mapped as non-wetland do not appear to be flooded, ponded, or saturated long enough during the growing season to develop anaerobic conditions in the upper part, and therefore do not appear to meet wetland soils criteria.

Given that the dominant vegetative community is not hydrophytic, hydric soils are absent in these areas, and direct hydrologic indicators are lacking, it appears that areas mapped as non-wetland adjacent to Wetland A do not meet criteria for wetlands.

Adjacent to Wetland B

Dominant vegetation in the non-wetland area adjacent to Wetland B is represented by Douglas fir (*Pseudotsuga menziesii*; FACU), Himalayan blackberry (FACU), American vetch (*Vicia Americana*; FAC), and field horsetail (FAC). Based on the observed dominant species, the majority of the vegetation community does not rate "facultative" or wetter, indicating that it is not hydrophytic.

Typical soils in the area mapped as non-wetland adjacent to Wetland B have a Munsell color of very dark brown (10YR 2/2) to 12 inches beneath the soil surface. From 12 to 18 inches below the surface, the soil has a color of dark brown (10YR 3/3). Strong brown (7.5 5/8) redoximorphic features are present from 6 to 18 inches below the surface in approximately 1 percent of the matrix. This soil profile does not meet the criteria for any hydric soil indicators due to the low occurrence of the redoximorphic features.

Soils were slightly moist to dry at the time of our April 2015 site investigation. Soils sampled in the area mapped as non-wetland do not appear to be flooded, ponded, or saturated long enough during the growing season to develop anaerobic conditions in the upper part, and therefore do not appear to meet wetland soils criteria.

Given that the dominant vegetative community is not hydrophytic, hydric soils are absent in these areas, and direct hydrologic indicators are lacking, it appears that areas mapped as non-wetland adjacent to Wetland B do not meet criteria for wetlands.

2.3.4 Wildlife

The on-site wetland provides low habitat functions. Given the small size, proximity to developed areas, and lack of cover, Wetlands A and B and do not provide quality movement corridors, and contain limited resources such as food, water, thermal cover, and hiding cover. No mammalian species were detected during our on-site investigations in 2015, although several species, including gray squirrels (*Sciurus* spp.) and raccoon (*Procyon lotor*), are expected to occur within the area. Avian activity was not strongly detected. However, given the habitat available nearby, it is expected that the following avian species use the area: American Crow (*Corvus brachyrhynchos),* Steller's Jay (*Cyanocitta stelleri*), Black-capped Chickadee (*Poecile atricapilla)*, Dark-eyed Junco (*Junco hyemalis*), and Song Sparrow (*Melospiza melodia*).

3.0 Reasonable Use Proposal

3.1 Reasonable Use Discussion

In the City of Kirkland, single-family residential development is required to comply with the sensitive areas regulations in the KZC. If the provisions concerning sensitive areas (KZC Title 23, Chapter 90) prevent a landowner from making economical use of their property, the applicant can apply for a reasonable use exception to this chapter (KZC Chapter 90.140).

The subject lots are zoned for high-density residential use, and per KZC 90.140(5)(a) one single-family dwelling is allowable on each lot. Indeed, this subsection of code describes that, in a residential zone, a single-family dwelling is the minimum level of development that is still feasible and reasonable. In order to keep the impacts to sensitive areas and buffer minimized, a single home will be proposed for each of the undeveloped lots.

Projects being proposed through a reasonable use exception are subject to specific decisional criteria outlined in KZC 90.140(5). Part (c)(ii) of this subsection requires that proposed development on lots between 6,000 and 30,000 square feet in size be limited to no more than 3,000 square feet of site disturbance. After accounting for the area of disturbance associated with the access and utility easement impacts necessary to reach developable land that is entirely outside of the buffer, the remaining amount of site disturbance allowed is infeasible to construct a single-family dwelling in either lot.

The only feasible development design for the subject lot (northeast lot #2) that could comply with the strict adherence to KZC 90.140(5)(c)(ii) would require that the site development footprint be located abutting the access point into the parcel. This scenario, Development Scenario A, is illustrated in an attached map (Sheet 1). The required buffer impacts associated with the driveway necessary to access the lot would be minimal (604 square feet); allowing for enough remaining site disturbance that construction of single-family dwelling would be reasonable and feasible (2,396 square feet). However, the resulting impacts to the sensitive area (Stream A) and the associated buffer would be significant (1,820 square feet).

The applicant proposes an alternative to Development Scenario A, and recommends that development footprint be located outside of the stream buffer areas in order to preserve and

protect sensitive area functions and values. The access and utility easement would need to be extended to accomplish this. This is Development Scenario B (see Sheet 2). Although buffer impacts associated with the access and utility easement will increase marginally (from 604 to 743 square feet), the resulting total buffer impacts will be significantly reduced (from 1,820 to 743 square feet). The total net reduction of buffer impacts achieved by Development Scenario B would be 1,077 square feet.

Development Scenario B requires that the site disturbance limit in KZC 90.140(5)(c)(ii) be waived to allow the total site disturbances on this lot to be increased in order to reduce the total sensitive buffer impacts by 1,077 square feet.

We submit that the site conditions that require an elongated access and utility easement, in order to minimize development within the buffer, present a unique circumstance related to the subject property, as it applies to KZC 90.140(5) when determining the site area that may be disturbed:

KZC 90.140(5) Unless the applicant can demonstrate unique circumstances related to the subject property, the amount of site area that will be disturbed by structure placement or other land alteration, including but not limited to grading, utility installation, decks, driveways, paving, and landscaping, shall not exceed the following limits:

The decisional criterion that limits the allowed site disturbance of a proposed development to 3,000 square feet is under this section of code (part (c)(ii)). Thus, the unique circumstance presented by the subject property should allow strict adherence to the 3,000 square foot limit to be waived in order to minimize sensitive area and buffer impacts.

The proposed single-family dwelling in Development Scenario B will be reasonably sized, and similar to other houses in the area.

3.2 COMPLIANCE WITH REASONABLE USE SUBMITTAL REQUIREMENTS

KZC 90.140(4) lists the submittal requirements for a reasonable use exception. These requirements are listed below in italics, with responses following.

a. *A determination and delineation of the sensitive area and sensitive area buffer containing all the information specified in KZC 90.40(3) for a wetland or based on the definitions contained in this chapter for a stream;*

Detailed wetland and stream delineation methodology, description of wetland, stream, and a functions and values analysis have been prepared and will be submitted as part of the formal application.

b. *An analysis of whether any other reasonable use with less impact on the sensitive area and sensitive area buffer is possible;*

Since potential access to the proposed lot is comprised entirely of sensitive areas, or their associated buffer areas, any development or use of the site will result in, at minimum, buffer impact. The proposed single-family residence building will be located outside of the standard

buffer. Buffer disturbance will be limited almost entirely to the proposed access and utility easement, which will be designed to the minimum width allowed per code. There is no other reasonable use with less impact to the buffer than the proposed single-family residence and access and utility easement.

c. Sensitive site design and construction staging of the proposal so that the development will have the least practicable impact on the sensitive area and sensitive area buffer;

The driveway will be constructed in a manner that limits impacts to the wetlands, streams, and buffers; such as minimizing the width of the proposed driveway, and utilizing pervious pavement. Clean stormwater from the roof of the house will be allowed to infiltrate on-site via splash-blocks. Any necessary staging will take place in the right-of-way in the non-sensitive area portion of the site. Vegetation in this area is primarily grass, and any bare areas will be seeded post development.

d. A description of the area of the site, which is within the sensitive area or within the setbacks or buffers required by this chapter;

The total square footage of the individual lots and associated sensitive area will be determined at the time of BLA submittal. Detailed wetland and stream delineation methodology, descriptions of the wetlands and stream, and a functions and values analysis have been prepared and will be submitted as part of the formal application.

e. A description of protective measures that will be undertaken such as siltation curtains, hay bales and other siltation prevention measures, and scheduling the construction activity to avoid interference with wildlife and fisheries rearing, nesting or spawning activities;

During construction, a temporary erosion and sediment control system will be used to prevent any potential impacts to the on-site sensitive areas wetland and associated buffer areas. Clearing limits will be distinctly marked and a temporary construction fence will be installed along the wetland and stream edge to prevent any disturbance to Wetland B or Stream A. These conservation measures will prevent additional sediment from entering the wetland and stream, thus maintaining the sediment loads within the basin.

f. An analysis of the impact that the amount of development proposed would have on the sensitive area and the sensitive area buffer;

The proposed access and utility easement comprises the entirety of the impacts located within the buffer area of the proposed lot. No impacts are proposed to the on-site wetlands or stream. Buffer impacts on the site may affect stormwater storage, water quality, and habitat. All buffer impacts will be mitigated through buffer enhancement at an approximate 2:1 ratio.

The wetlands and stream receive hydrology from precipitation and runoff from adjacent roads. The site is located on a relatively flat to slight north aspect. Stormwater presently enters the site and either infiltrates or flows north. Post-development, the site will continue to receive

precipitation and stormwater runoff. The precipitation collected from the residence will infiltrate into the site via splash blocks. Post development, stormwater will continue to flow to the north and exit the site via Stream A. Water will also travel through the buffer enhancement plantings that are associated with the buffer reduction proposal. These plantings will allow for greater absorption and will also slow the flow of water across the site.

The potential loss of stormwater storage and water quality will by managed through having stormwater collected/treated in a manner consistent with the WA Dept. of Ecology Stormwater Management Manual for Western Washington as required by the City of Kirkland. Considering the sources of hydrology, buffer enhancement, and the site topography, the possible change in water regime has been addressed and should be minimal.

Wildlife utilizing the site is highly adaptable due to the urban/developed nature of the area surrounding the wetland. Potential loss of habitat will be offset by buffer mitigation.

g. How the proposal minimizes to the greatest extent possible net loss of sensitive area functions;

No wetland or stream impacts are proposed. Overall, the development has been designed to keep impacts at a minimum by: proposing only buffer impacts, locating the development as far away from the wetland and stream as the parcel allows, keeping the residence entirely outside of the reduced buffer area, and minimizing the width and location of the proposed access and utility easement. Due to the proposed enhancement associated with buffer mitigation, the on-site stream will provide higher level of functions than it currently provides. The primary functional lifts will be associated with hydrology, water quality, and wildlife habitat.

Increase in ridged-stemmed native plant cover will decrease surface water velocities during storm events, attenuating hydrologic flow downstream of the sensitive areas. This will result in decreased flooding down gradient of the subject system.

Reduction of surface storm water velocities will allow sediment to fall out of solution, having the added benefit of improving water quality. Often this sediment is ionically bonded to pollutants such as phosphorous, which are therefore also removed from down-gradient ecosystems. Additionally, increased plant cover will provide thermal protection to the stream channel, helping to stabilize water temperatures during summer months.

Establishment of native plant cover will increase niche availability to local wildlife in the form of food resources, thermal cover, and screening. Additionally, the native plantings will develop into a dense barrier that will dissuade intrusion by people and domestic animals.

h. Whether the improvement is located away from the sensitive area and the sensitive area buffer to the greatest extent possible; and

The lot size, shape, and presence of a wetland, stream, and associated buffers present severe limitations on allowable development for the site. Since the only feasible access to the developable portion of the lot is by crossing the buffer of Stream A, the applicant has no other feasible alternative. The proposed access and utility easement will be located as far away from

the wetland and stream as the site dimensions will allow, and will be as narrow as allowed by code. Any development on this lot will result in some degree of buffer impacts.

3.3 COMPLIANCE WITH REASONABLE USE DECISIONAL CRITERIA

KZC 90.140(5) lists the decisional criteria for a reasonable use exception. These criteria are listed below in italics, with responses following.

a. That no permitted type of land use for the property with less impact on the sensitive area and associated buffer is feasible and reasonable, which in a residential zone shall be one (1) single-family dwelling and in a commercial or industrial zone shall be an office use;

This subsection of code describes that, in a residential zone, a single-family dwelling is the minimum level of development that is still feasible and reasonable. The applicant is proposing a single-family residence for the northeastern lot, and thus there is no reasonable type of land use with less impact.

b. That there is no feasible on-site alternative to the proposed activities, including reduction in size, density or intensity, phasing of project implementation, change in timing of activities, revision of road and lot layout, and/or related site planning considerations, that would allow a reasonable economic use with less adverse impacts to the sensitive area and buffer;

The proposed single-family residence structure will be located outside of the standard buffer to minimize impacts to the fullest extent possible. Road location and design has been conceived to reduce as much as possible, given code requirements, the area impacted by the access point. Density is at a minimum, given that only one structure is proposed per lot; and negative functional impacts of the proposed development actions will be mitigated through enhancement of the buffer with native vegetation. These mitigation plantings will create functional lifts within the on-site sensitive areas.

c. Unless the applicant can demonstrate unique circumstances related to the subject property, the amount of site area that will be disturbed by structure placement or other land alteration, including but not limited to grading, utility installation, decks, driveways, paving, and landscaping, shall not exceed the following limits:

> *ii. If the subject property contains more than 6,000 square feet but less than 30,000 square feet, no more than 3,000 square feet may be disturbed.*

As stated in the reasonable use discussion above, we submit that the site conditions that require an elongated access and utility easement, in order to minimize development within the buffer, present a unique circumstance related to the subject property. Therefore, the 3,000 square foot requirement specified in KZC 90.140(5)(c)(ii) should be waived in order to minimize negative impacts to on-site sensitive areas.

> *The applicant shall pay for a qualified professional to help with the City's determination of the appropriate limit for disturbance;*

Wetland Resources, Inc. has been contracted by the applicant to produce this report, which details our recommendations concerning disturbance activities on the subject site.

d. The proposal is compatible in design, scale and use with other legally established development in the immediate vicinity of the subject property in the same zone and with similar site constraints;

The single-family residence proposed for development in the subject lot is consistent with residential use of the surrounding area, and is similar in size to the surrounding suburban areas of Kirkland.

e. The proposal utilizes to the maximum extent possible innovative construction, design, and development techniques, including pervious surfaces, which minimize to the greatest extent possible net loss of sensitive area functions and values;

The driveway will be minimized in its width, and utilize pervious pavement. Clean stormwater from the roof of the houses will infiltrate on-site via splash-blocks. Any necessary staging will take place in the right-of-way in the non-sensitive area portion of the site.

The proposed enhancement of the sensitive area buffer will create functional lifts to the hydrological, water quality, and wildlife habitat processes associated with the on-site stream.

f. The proposed development does not pose an unacceptable threat to the public health, safety, or welfare on or off the property;

The proposed activities will not create any hazards to the surrounding area. The functional lifts provided by the proposed buffer enhancement will attenuate surface stormwater, thereby reducing potential flood damages to surrounding areas.

The area under consideration is currently maintained as yard space and invasive Himalayan blackberry. Reducing this area in order to construct a single-family residence, while subsequently enhancing the ecologic functions of the remaining yard and on-site buffer areas, is expected to be environmental beneficial to the surrounding area.

g. The proposal meets the mitigation, maintenance, and monitoring requirements of this chapter;

The mitigation plan (section 5.1), maintenance instructions (section 5.3), and monitoring program (section 6.0) for the subject site are provided in this report, and comply with the requirements of KZC 90.

h. The inability to derive reasonable use is not the result of actions by the applicant after the effective date of the ordinance codified in this chapter or its predecessor; and

The development constraints on the subject site are due to the geographic location of the on-site sensitive areas, and associated buffers, in conjunction with the combined outer parcel boundaries of the three legal lots. The combined exterior shape of these three parcels existed prior to

applicant becoming the owner of these properties, and prior to effective date of the ordinance. Furthermore, the BLA that is proposed for the subject site reduces impacts associated with the reasonable use proposal as much as is possible given these site constraints.

i. The granting of the exception will not confer on the applicant any special privilege that is denied by this chapter to other lands, buildings, or structures under similar circumstances.

The proposed single-family residence is consistent with surrounding residential land uses, and is the minimally feasible development type. The applicant requests no special privilege.

4.0 Wetland Buffer Functions and Values Assessment

The current vegetative condition of the on-site sensitive area buffers is primarily invasive Himalayan Blackberry and maintained lawn. While some habitat features are provided by the present vegetation, the functions and values provided by the current buffer areas are significantly less than those provided by undisturbed buffer areas.

The buffer in the northern portion of the site is severely disturbed, with dense invasive Himalayan blackberry excluding any significant patches of other vegetative species. A portion of the buffer within the northeastern area of the subject site (east of Stream A) is maintained lawn, with little to no protective functions for water quality, hydrology, or habitat value.

4.1 Post Buffer Enhancement/Mitigation Functions and Values

The applicant is proposing to enhance 1,486 square feet of on-site buffer in the northeastern lot that is proposed for development. Enhancement areas will be located near the proposed access and utility easement, within the buffer of Stream A, to provide increased functional protection from this potential source of disturbance. This is to compensate, at an approximate 2:1 ratio, for necessary permanent buffer impacts associated with construction of this driveway. The 1,486 square feet of buffer will be enhanced with native shrubs and trees. Additionally, Himalayan blackberry will also be removed from the entire subject site, which will dramatically reduce the likelihood of recolonization of this invasive plant species within the buffer area. After enhancement, the eastern periphery of Stream A will be much more heavily vegetated than the current turf conditions.

These combined actions will provide a significant functional lift to the functions associated with Stream A and its associated buffer.

The primary functional lifts that will be provided are the protective, hydrologic, and water quality functions of the buffer Stream A. Persistent native vegetation will slow surface water flows during storm events, thereby reducing the rate of hydrologic input into Stream A and subsequent flooding in areas downstream. This reduction in surface flow velocity has the additional benefit of allowing particulates to settle out of the water column, decreasing sediment load, as well as pollutants that ionically bond to these sediments, prior inputting into the stream.

Additional vegetation along the eastern side of Stream A, in the northeast lot proposed for development, will provide improved protection from ingress of individuals. The buffer will thereby maintain and stabilize the quality of Stream A.

Additionally, wildlife habitat availability will be greatly improved through the proposed enhancement and mitigation efforts. Availability of a multi-tiered vegetation structure will provide a greater mix of niche environments than the current invasive scrub-shrub and turf environment.

In conclusion, the enhanced buffer areas will function at a higher level, and lift the functions and values of Stream A over those being provided by the current buffer condition.

5.0 Buffer Mitigation Plan

5.1 Stream A Buffer Mitigation

As compensation for the necessary permanent buffer impacts associated with construction of the access and utility easement, a total of 1,486 square feet of buffer will be enhanced with native trees and shrubs to the east of Stream A. Specifically, enhancement areas will be located within the buffer, between the stream and the proposed driveway. The intention of this design is to provide protection to the stream system from potential disturbance from this roadway. The enhancement area will be installed at an approximate 2:1 mitigation ratio.

Prior to enhancement, the entire site will be cleared of invasive blackberry and any other invasive weed species. Groundcover vegetation is not recommended due to the low likelihood of survival considering current turf and invasive Himalayan blackberry presence. Although all Himalayan blackberry will be removed prior to enhancement and mitigation plantings, establishment of groundcover in areas recently cleared of this invasive species is poor. The portion of the buffer outside of the enhancement area is lawn, which shall be left fallow and allowed to grow to full height and seed.

5.1.1 Buffer Enhancement East of Stream A

A total of 1,486 square feet of on-site buffer east of Stream A will be enhanced with the following native plant species.

Common Name	Latin Name	Size	Spacing	Quantity
1. Douglas fir	*Pseudotsuga menziesii*	2 gallon	9’	5
2. Western red cedar	*Thuja plicata*	2 gallon	9’	5
3. Red alder	*Alnus rubra*	2 gallon	9’	4
4. Pacific willow	*Salix lucida*	2 gallon	9’	4
5. Vine maple	*Acer circinatum*	1 gallon	6’	14
6. Nootka rose	*Rosa nutkana*	1 gallon	6’	14
7. Salmonberry	*Rubus spectabilis*	1 gallon	6’	14

5.1.2 Grass Seeding

Any disturbed soil in sensitive areas and buffers shall be seeded to the recommended grass seed mixtures below, or similar approved mixtures. Fertilizer shall only be used if absolutely necessary due to potential runoff into adjacent waters. If deemed absolutely necessary by the consulting biologist and/or City staff, an appropriate fertilizer will be recommended for the particular situation.

Buffer Grass Mix

Common Name	Latin Name	lbs/1,000 s.f.
Tall fescue	*Festuca arundinacea*	0.4
Colonial bentgrass	*Agrostis capillaris*	0.4
Annual ryegrass	*Lolium multiflorum*	0.5
White clover	*Trifolium repens*	0.2

5.2 Planting Notes

Plant in the early spring or late fall and obtain all plants from a reputable nursery. Care and handling of all plant materials is extremely important to the overall success of the project. The origin of all plant materials specified in this plan shall be native plants, nursery grown in the Puget Sound region of Washington. Some limited species substitution may be allowed, only with the agreement of the landscape designer, wetland biologist, and/or City staff.

Pre-Planting Meeting

Prior to control of invasive species or installation of mitigation plantings, a site meeting between the contracted landscaper and the consulting wetland professional shall occur to resolve any questions that may arise. During this meeting a discussion regarding plant spacing and locations of plant species including wetland verses buffer species shall occur between the landscape contractor or owners, and the consulting wetland professional.

Flagging

All mitigation plantings will be clearly flagged with highly visible flagging tape at the time of the installation. Clear identification of mitigation plants will aide in future assessments of performance standards during monitoring visits.

Handling

Plants shall be handled so as to avoid all damage, including: breaking, bruising, root damage, sunburn, drying, freezing or other injury. Plants must be covered during transport. Plants shall not be bound with wire or rope in a manner that could damage branches. Protect plant roots with shade and wet soil in the time period between delivery and installation. Do not lift container stock by trunks, stems, or tops. Do not remove from containers until ready to plant. Water all plants as necessary to keep moisture levels appropriate to the species horticultural requirements. Plants shall not be allowed to dry out. All plants shall be watered thoroughly immediately upon installation. Soak all containerized plants thoroughly prior to installation. Bare root plants are subject to the following special requirements, and shall not be used unless planted between November 1 and March 1, and only with the permission of the landscape

designer, wetland professional, and City staff. Bare root plants must have enough fibrous root to ensure plant survival. Roots must be covered at all times with: mud and/or wet straw, moss, or other suitable packing material until time of installation. Plants whose roots have dried out from exposure will not be accepted at installation inspection.

Storage
Plants stored by the Permittee for longer than one month prior to planting shall be planted in nursery rows and treated in a manner suitable to those species' horticultural requirements. Plants must be re-inspected by the wetland biologist and/or landscape designer prior to installation.

Damaged plants
Damaged, dried out, or otherwise mishandled plants will be rejected at installation inspection. All rejected plants shall be immediately removed from the site.

Plant Names
Plant names shall comply with those generally accepted in the native plant nursery trade. Any question regarding plant species or variety shall be referred to the landscape designer, wetland professional, or City staff. All plant materials shall be true to species and variety and legibly tagged.

Quality and condition
Plants shall be normal in pattern of growth, healthy, well-branched, vigorous, with well-developed root systems, and free of pests and diseases. Damaged, diseased, pest-infested, scraped, bruised, dried out, burned, broken, or defective plants will be rejected. Plants with pruning wounds over 1" in diameter will be rejected.

Roots
All plants shall be balled and burlapped or containerized, unless explicitly authorized by the landscape designer and/or wetland professional. Rootbound plants or B&B plants with damaged, cracked, or loose rootballs (major damage) will be rejected. Immediately before installation, plants with minor root damage (some broken and / or twisted roots) must be root-pruned. Matted or circling roots of containerized plantings must be pruned or straightened and the sides of the root ball must be roughened from top to bottom to a depth of approximately half an inch in two to four places. Bare root plantings of woody material are allowed only with permission from the landscape designer, wetland professional and/or City staff.

Sizes
Plant sizes shall be the size indicated in the plant schedule in approved plans. Larger stock may be acceptable provided that it has not been cut back to the size specified, and that the root ball is proportionate to the size of the plant. Smaller stock may be acceptable, and preferable under some circumstances, based on site-specific conditions. Measurements, caliper, branching, and balling and burlapping shall conform to the American Standard of Nursery Stock by the American Association of Nurserymen (latest edition).

Form
Evergreen trees shall have single trunks and symmetrical, well-developed form. Deciduous trees shall be single trunked unless specified as multi-stem in the plant schedule. Shrubs shall have multiple stems and be well-branched.

Timing of Planting
Unless otherwise determined by City staff, initial planting shall occur between October 15 and April 30. Overall, the earlier plants go into the ground during the dormant period, the more time they have to adapt to the site and extend their root systems before the water demands of spring and summer.

Weeding
Existing and exotic vegetation in the mitigation areas will be hand-weeded from around all newly installed plants at the time of installation and on a routine basis throughout the monitoring period. No chemical control of vegetation on any portion of the site is recommended.

Planting Pits
Planting pits shall be circular or square with vertical sides, and shall be 6" deeper and 12" larger in diameter than the root ball of the plant. Break up the sides of the pit in compacted soils. Set plants upright in pits. Burlap shall be removed from the planting pit. Backfill shall be worked back into holes such that air pockets are removed without adversely compacting down soils.

Soil Amendments
Compost will be spread over the entire mitigation area, and roto-tilled into the root zone of the upper soil profile, in order to adequately amend the soils for enhancement.

Site conditions
The contractor shall immediately notify the landscape designer and/or wetland professional of drainage or soil conditions likely to be detrimental to the growth or survival of plants. Planting operations shall not be conducted under the following conditions: freezing weather, when the ground is frozen, excessively wet weather, excessively windy weather, or in excessive heat.

Fertilizer
Slow release fertilizer may be used if pre-approved by the city of Kirkland. Fertilizers shall be applied only at the base of plantings underneath the required covering of mulch (that does not make contact with stems of the plants). No soil amendment or fertilizers will be placed in planting holes. Fertilizer will not be used in the first year after installation.

Staking
Most shrubs and many trees DO NOT require any staking. If the plant can stand alone without staking in a moderate wind, do not use a stake. If the plant needs support, then strapping or webbing should be used as low as possible on the trunk to loosely brace the tree with two stakes. Do not brace the tree tightly or too high on the trunk. If the tree is unable to sway, it will further lose the ability to support itself. Do not use wire in a rubber hose for strapping as it exerts too

much pressure on the bark. As soon as supporting the plant becomes unnecessary, remove the stakes. All stakes must be removed within two (2) years of installation.

Plant Location
Colored surveyors ribbon or other appropriate marking shall be attached to the installed plants to assist in locating the plants while removing the competing non-native vegetation and during the monitoring period.

Arrangement and Spacing
The plants shall be arranged in a pattern with the appropriate numbers, sizes, species, and distribution that are required in accordance with the approved plans. The actual placement of individual plants shall mimic natural, asymmetric vegetation patterns found on similar undisturbed sites in the area. Spacing of the plantings may be adjusted to maintain existing vegetation with the agreement of the landscape designer, wetland biologist, and/or City staff.

Inspection(s)
A wetland biologist shall be present on site to inspect the plants prior to planting. Minor adjustments to the original design may be required prior to and during construction.

Mulch
A blanket mulch shall be used across the mitigation area, and will be kept well away (at least 2 inches) from the trunks and stems of woody plants. Mulch will be applied at a depth of 4 inches, and will be composed of woodchip material.

5.3 MAINTENANCE

The mitigation areas will require periodic maintenance to remove undesirable species and replace vegetation mortality. Maintenance shall occur in accordance with the approved plans. Maintenance may include, but will not be limited to: removal of competing grasses (by hand if necessary), irrigation, fertilization (if necessary), replacement of plant mortality, and the replacement of mulch for each maintenance period. Chemical control, only if approved by City staff, shall be applied by a licensed applicator following all label instructions.

Duration and Extent
In order to achieve performance standards, the permittee shall be responsible for maintaining the mitigation area for the duration of the five-year monitoring period. Maintenance will include: watering, weeding around the base of installed plants, pruning, replacement, re-staking, removal of all classes of noxious weeds (see Washington State Noxious Weeds List, WAC 16-750-005) as well as Himalayan blackberry and reed canarygrass, and any other measures needed to ensure plant survival.

Survival
The permittee shall be responsible for the health of 100% of all newly installed plants for one growing season after installation has been accepted by the City of Kirkland. A growing season

for these purposes is defined as occurring from spring to spring (March 15 to March 15 of the following year). For fall installation, the growing season will begin the following spring. The permittee shall replace any plants that are failing, weak, defective in manner of growth, or dead during this growing season.

Installation Timing for Replacement Plants
Replacement plants shall be installed between November 1 and March 15, unless otherwise determined.

Standards for Replacement Plants
Replacement plants shall meet the same standards for size and type as those specified for the original installation, unless otherwise directed by a qualified professional.

Replanting
Plants that have settled in their planting pits too deep, too shallow, loose, or crooked shall be replanted.

Reflagging
Any installed mitigation planting that has deteriorated flagging shall have that flagging replaced with highly visible flagging tape. Clear identification of mitigation plants will aide in future assessments of performance standards during monitoring visits.

Herbicides / Pesticides
Unless deemed absolutely necessary by the consulting biologist and/or the City biologist, chemical controls shall not be used in the mitigation area, sensitive areas, or their buffers. Any chemical controls used shall be applied by a licensed applicator following all label instructions.

Irrigation / Watering
Water shall be provided during the dry season (July 1 through October 15) for the first two years after installation to ensure plant survival and establishment. A temporary above ground irrigation system and/or water truck should provide water. Water should be applied at a rate of 1" of water twice per week for year one and 1" per week during year two. Irrigation may be required after the first two years to maintain plant survival.

General
The permittee shall include in general maintenance activities the replacement of any vandalized or damaged signs, habitat features, fences, or other structural components of this mitigation site.

5.4 General Project Notes

Pre-Construction Meeting
Mitigation projects are typically more complex to install than can be described in plans. Careful monitoring by a wetland professional for all portions of this project is strongly recommended. Construction timing and sequencing is important to the success of this type of project. There will

be a pre-construction meeting on this site between the Permittee, consulting wetland professional, and laborers. The objective will be to verify the location of erosion control facilities, verify the location of mitigation areas, and to discuss project sequencing.

Inspections
A qualified wetland professional shall be contracted to periodically inspect the mitigation installation described in this plan. Minor adjustments to the original design may be necessary prior to and during construction due to unusual or hidden site conditions. A City of Kirkland representative and/or the consulting professional will make these decisions during construction.

6.0 Project Monitoring Program

6.1 Program Details

6.1.1 Inspection and Reporting Requirements

Initial compliance/as-built report will be prepared at completion of the mitigation installation.

Annual site inspection will occur twice per year at the end of spring or beginning of summer, and at the end of summer or the beginning of fall (prior to leaf-drop) for 5 years, or until performance standards are achieved.

Annual monitoring reports will be submitted in the fall of each monitored year for 5 years, or until performance standards are achieved.

6.1.2 Monitoring Components

Purpose for Monitoring
The purpose for monitoring this mitigation project shall be to evaluate its success. Success will be determined if monitoring shows, at the end of the monitoring period, that the definitions of success stated below are met. The property owner shall grant access to the mitigation area for inspection and maintenance to the contracted landscape and/or wetland specialist and the city of Kirkland during the period of the bond or until the project is evaluated as successful. Monitoring shall be performed twice per year.

Monitoring
Monitoring shall be conducted for five years in accordance with the approved Mitigation Plan. The monitoring period will begin once the City receives written notification confirming the mitigation plan has been implemented, and City staff (or contracted biologist) inspects the site and issues approval of the installation.

Vegetation Monitoring
Sampling points or transects will be established for vegetation monitoring and photo points will be established from which photos will be taken throughout the monitoring period. Permanent sampling points must be identified on the mitigation site plans in the first monitoring report (they may be drawn on approved plans by hand). Each sampling point shall detail herbaceous, shrub,

and tree coverage. Monitoring of vegetation sampling points shall occur twice annually between May 15 and October 30 (prior to leaf drop), unless otherwise specified.

Photo points
No less than two permanent photo points will be established within the mitigation area. Photographs will be taken from these points to visually record condition of the enhancement area. Photos shall be taken annually between May 15 and October 30 (prior to leaf drop), unless otherwise specified.

Monitoring Report Contents
Monitoring reports shall be submitted by November 31 of each year during the monitoring period. As applicable, monitoring reports must include descriptions / data for:

1. Site plan and vicinity map
2. Historic description of project, including date of installation, current year of monitoring, restatement of mitigation / restoration goals, and performance standards
3. Plant survival, vigor, and areal coverage for every plant community (transect or sampling point data), and explanation of monitoring methodology in the context of assessing performance standards
4. Current condition/need for replacement of flagging that identifies mitigation plantings
5. Slope condition, site stability, any structures or special features
6. Wetland and buffer conditions, e.g., surrounding land use, use by humans, and/or wild and domestic creatures
7. Observed wildlife, including amphibians, avians, and others
8. Assessment of nuisance / exotic biota and recommendations for management
9. Receipts for any structural repair or replacement
10. Color photographs taken from permanent photo-points that shall be depicted on the monitoring report map

6.2 Project Success & Compliance

6.2.1 Criteria for Success
Upon completion of the proposed mitigation project installation, an inspection by a qualified wetland professional shall be made to determine plan compliance. An as-built report will be supplied to the City of Kirkland within thirty (30) days after the completion of planting, to show compliance with the mitigation plan. The qualified wetland professional will perform condition monitoring of the plantings and provide reports according to the schedule described in Section 6.1.1.

6.2.2 Goal
To enhance the degraded buffer areas so that they provide greater protective and ecological functions and values to the associated stream system than the current buffer conditions.

6.2.3 Definition of Success
The mitigation project goal will be deemed successful when objectives are met, as evidenced through the observation of set performance standards.

6.2.4 Objectives

Objective 1: To establish a diverse, native plant community in the wetland buffer that will persist and create an appropriate vegetative matrix.

Objective 2: To have significant native vegetative cover throughout the enhanced area.

Objective 3: To remove existing invasive species and limit the establishment and spread of those species in the buffer.

6.2.5 Performance Standards

The objectives will be considered successfully met when, and if, the following performance standards are observed:

Performance Standard 1
End of Year 1:

- 100 percent survival of newly planted species in the enhancement area
- No more than 5 percent cover by invasive plant species in the entire buffer
- 100 percent of the grass/lawn in the buffer outside of the enhancement area is uncut and remains fallow.

Performance Standard 2
End of Year 2:

- 85 percent survival of newly planted species in the enhancement area
- No more than 10 percent cover by invasive plant species in the entire buffer
- 100 percent of the grass/lawn in the buffer outside of the enhancement area is uncut and remains fallow.

Performance Standard 3
End of Year 3:

- 80 percent survival of newly planted species in the enhancement area
- At least 30 percent aerial coverage by native woody species
- No more than 10 percent cover by invasive plant species in the entire buffer
- 100 percent of the grass/lawn in the buffer outside of the enhancement area is uncut and remains fallow.

Performance Standard 4
End of Year 4:

- 80 percent survival of newly planted species in the enhancement area
- At least 60 percent aerial coverage by native woody species
- No more than 10 percent cover by invasive plant species in the entire buffer
- 100 percent of the grass/lawn in the buffer outside of the enhancement area is uncut and remains fallow.

Performance Standard 5
End of Year 5:

- 80 percent survival of newly planted species in the enhancement area
- At least 80 percent aerial coverage by native woody species
- No more than 10 percent cover by invasive plant species in the entire buffer
- 100 percent of the grass/lawn in the buffer outside of the enhancement area is uncut and remains fallow.

When assessing aerial coverage and presence of species, native volunteer plants may be included when making calculations. However, for the purpose of assessing survival of planted species, only installed plantings shall be considered.

6.3 Contingency Plan

If 20% of the plants are severely stressed during any of the inspections, or it appears 20% may not survive, additional plantings of the same species may be added to the planting area. Elements of a contingency plan may include, but will not be limited to: more aggressive weed and invasive species control, pest control, mulching, replanting with larger plant material, species substitution, fertilization, soil amendments, and/or irrigation.

7.0 Performance Bond

A performance bond or other assurance device shall be provided to the City of Kirkland. The bond shall be released upon a successful determination for all portions of this mitigation project. The following is an estimate based on King County's bond worksheet. This does not represent a bid to install. The total amount and conditions of the bond relating to this Buffer Enhancement Plan shall be determined by the City of Kirkland.

Estimated cost of performance bond **$11,302.62**

8.0 USE OF THIS REPORT

This Sensitive Area Study and Buffer Mitigation Plan is supplied to Post Alley LLC as a means of determining on-site sensitive areas and associated buffer conditions, as well as mitigating for on-site buffer impacts, as required by the City of Kirkland during the permitting process. This report is based largely on readily observable conditions and, to a lesser extent, on readily ascertainable conditions. No attempt has been made to determine hidden or concealed conditions.

The laws applicable to wetlands are subject to varying interpretations and may be changed at any time by the courts or legislative bodies. This report is intended to provide information deemed relevant in the applicant's attempt to comply with the laws now in effect.

The work for this report has conformed to the standard of care employed by wetland ecologists. No other representation or warranty is made concerning the work or this report, and any implied representation or warranty is disclaimed.

Wetland Resources, Inc.

Scott Walters
Associate Wetland Ecologist

9.0 References

City of Kirkland. 2014. Chapter 90. Drainage Basins. Kirkland Zoning Code.

Cowardin, et al., 1979. Classification of Wetlands and Deepwater Habitats of the United States. U.S. Department of the Interior. FWS/OBS-79/31. December 1979.

DNR. 2015. Forest Practices Application Mapping Tool (FPAMT). https://fortress.wa.gov/dnr/protectiongis/fpamt/index.html#.

Ecology, Department of. 1997. Washington State Wetlands Identification and Delineation Manual. Publication #96-94. March 1997.

King County. 2015. iMap Interactive Mapping Tool. http://www.kingcounty.gov/operations/GIS/Maps/iMAP.aspx.

Lichvar, Tobert W. and J.T. Kartesz, 2012. National Wetland Plant List, Version 3.0. U.S. Army Corps of Engineers Engineer Research and Development Center Cold Regions Research and Engineering Laboratory, Hanover NH and BONAP, Chapel Hill, NC. http://wetland_plants.usace.army.mil

NRCS. 2015. Web Soil Survey. United States Department of Agriculture. http://websoilsurvey.sc.egov.usda.gov/App/WebSoilSurvey.aspx.

US Army COE. 2010. Regional Supplement to the Corps of Engineers Wetland Delineation Manual: Western Mountains, Valleys, and Coast Region (Version 2.0). Vicksburg, MS

USFWS. 2015. National Wetlands Inventory (NWI) Online Mapper. http://www.fws.gov/wetlands/Data/Mapper.html.

Watershed Company, The. 1998. Jonason Property, Wetland and Stream Delineation Report. July 31, 2014.

WDFW. 2015a. Priority Habitat and Species (PHS) Interactive Map. http://apps.wdfw.wa.gov/phsontheweb/.

WDFW. 2015b. SalmonScape Online Mapping Application. http://apps.wdfw.wa.gov/salmonscape/map.html.

THIS PAGE IS INTENTIONALLY LEFT BLANK

Plate 26
WETLAND FIELD DATA FORM

(Note: Applicable to Chapter 90 KZC, but not Chapter 83 KZC)

WETLAND FIELD DATA FORM

BEGIN BY CHECKING ANY OF THE FOLLOWING (a. – e.) THAT APPLY:

a. The wetland is contiguous to Lake Washington;

b. The wetland contains at least 1/4 acre of organic soils, such as peat bogs or mucky soils;

c. The wetland is equal to or greater than 10 acres in size and having three or more wetland classes, as defined by the U.S. Fish & Wildlife Service (Cowardin et al., 1979), one of which is open water;

d. The wetland has significant habitat value to state or federally listed threatened or endangered wildlife species; or

e. The wetland contains state or federally listed threatened or endangered plant species.

IF ANY OF THE CRITERIA LISTED ABOVE ARE MET, THEN THE WETLAND IS CONSIDERED TO BE TYPE 1. IF THAT IS THE CASE, PLEASE CONTINUE TO COMPLETE THE ENTIRE FORM, BUT DO NOT ASSIGN POINTS.

IF THE WETLAND DOES NOT MEET THE CRITERIA LISTED ABOVE FOR TYPE 1, COMPLETE THE ENTIRE FORM, USING THE ASSIGNED POINTS TO DETERMINE IF IT IS A TYPE 2 OR TYPE 3 WETLAND.

Type 2 wetlands typically have at least two wetland vegetation classes, are at least partially surrounded by buffers of native vegetation, connected by surface water flow (perennial or intermittent) to other wetlands or streams, and contain or are associated with forested habitat.

WETLAND A

1. Total wetland area

Estimate wetland area and score from choices	Acres		Point Value	Points
	>20.00	=	6	
	10-19.99	=	5	
	5-9.99	=	4	
	1-4.99	=	3	
	0.1-0.99	=	2	
	<0.1	=	1	1

2. Wetland classes: Determine the number of wetland classes that qualify, and score according to the table.

	# of Classes		Points
Open Water: if the area of open water is >1/3 acre or >10% of the total wetland area	1	=	**1**
Aquatic Beds: if the area of aquatic beds is >10% of the **open water** area **or**>1/2 acre	2	=	3
Emergent: if the area of emergent class is >1/2 acre **or** >10% of the total wetland area	3	=	5
Scrub-Shrub: if the area of scrub-shrub class is >1/2 acre **or** >10% of the total wetland area	4	=	7
Forested: if the area of forested class is >1/2 acre or >10% of the total wetland area	5	=	10

3. Plant species diversity.

For all wetland classes which qualified in 2 above, count the number of different plant species and score according to the table below. You do not have to name them.

e.g., if a wetland has an aquatic bed class with 3 species, and emergent class with 4 species and a scrub-shrub class with 2 species, you would circle 2, 2, and 1 in the second column (below).

Class	# of Species		Point Value	Class	# of Species		Point Value
Aquatic Bed	1-2	=	1	Scrub-Shrub	1-2	=	1
	3	=	2		3-4	=	2
	>3	=	3		>4	=	3
Emergent	1-2	=	1	Forested	1-2	=	1
	3-4	=	2		3-4	=	2
	>4	=	**3**		>4	=	3

4. Structural diversity.

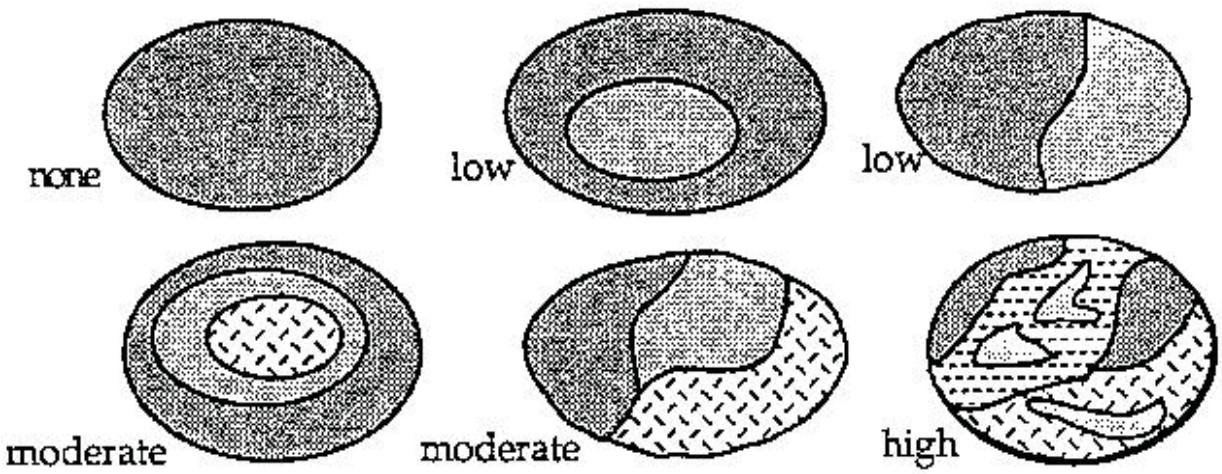
If the wetland has a forested class, add 1 point for each of the following attributes present:

Trees >50′ tall	=	**1**
Trees 20′ to 49′ tall	=	**1**
Shrubs	=	**1**
Herbaceous ground cover	=	**1**

5. Interspersion between wetland classes.

Decide from the diagrams below whether interspersion between wetland classes is high, moderate, low or none

3	=	High
2	=	Moderate
1	=	Low
0	=	None



6. Habitat features

Add points associated with each habitat feature listed:	=	0
Is there evidence of current use by beavers?	=	2
Is a heron rookery located within 300′?	=	1
Are raptor nest(s) located within 300′?	=	1
Are there at least 2 standing dead trees (snags) per acre?	=	1
Are there any other perches (wires, poles, or posts)?	=	1
Are there at least 3 downed logs per acre?	=	1

7. Connection to streams

Is the wetland connected at any time of the year via surface water? (score one answer only)

To a perennial stream or a seasonal stream *with* fish	=	5
To a seasonal stream *without* fish	=	3
Is not connected to any stream	=	0

8. Buffers

Step 1: Estimate (to the nearest 5%) the percentage of each buffer or land-use type (below) that adjoins the wetland boundary. Then multiply these percentages by the factor(s) below and enter result in the column to the right.

	% of Buffer	Step 1	Width Factor	Step 2
Roads, buildings or parking lots	40% X 0 =	0	x1=	0
Lawn, grazed pasture, vineyards or annual crops	60% X 1 =	60	x1=	60
Ungrazed grassland or orchards	0% X 2 =		=	
Open water or native grasslands	0% X 3 =		=	
Forest or shrub	0 % X 4 =	0	=	0
			Add buffer total:	**60**

Step 2: Multiply result(s) of step 1:
By 1 if buffer width is 25-50′
By 2 if buffer width is 50-100′
By 3 if buffer width is >100′

Enter results and add sub-scores

Step 3: Score points according to the following table:

Buffer Total
900-1200 = 4
600-899 = 3
300-599 = 2
100-299 = **1**

9. Connection to other habitat areas:

Is there a riparian corridor to other wetlands within 0.25 of a mile, or a corridor >100′ wide with good forest or shrub cover to any other habitat area?	=	**5**
Is there a narrow corridor <100′ wide with good cover or a wide corridor >100′ wide with low cover to any other habitat area?	=	3
Is there a narrow corridor <100′ wide with low cover or a significant habitat area within 0.25 mile but no corridor?	=	1
Is the wetland and buffer completely isolated by development and/or cultivated agricultural land?	=	0

10. Scoring

Add the scores to get a total:

Question: Is the total greater than or equal to 22 points? **16 Points Total**

Answer:

Yes = Type 2 No = **Type 3**

Plate 26
WETLAND FIELD DATA FORM

(Note: Applicable to Chapter 90 KZC, but not Chapter 83 KZC)

WETLAND FIELD DATA FORM

BEGIN BY CHECKING ANY OF THE FOLLOWING (a. – e.) THAT APPLY:

a. The wetland is contiguous to Lake Washington;

b. The wetland contains at least 1/4 acre of organic soils, such as peat bogs or mucky soils;

c. The wetland is equal to or greater than 10 acres in size and having three or more wetland classes, as defined by the U.S. Fish & Wildlife Service (Cowardin et al., 1979), one of which is open water;

d. The wetland has significant habitat value to state or federally listed threatened or endangered wildlife species; or

e. The wetland contains state or federally listed threatened or endangered plant species.

IF ANY OF THE CRITERIA LISTED ABOVE ARE MET, THEN THE WETLAND IS CONSIDERED TO BE TYPE 1. IF THAT IS THE CASE, PLEASE CONTINUE TO COMPLETE THE ENTIRE FORM, BUT DO NOT ASSIGN POINTS.

IF THE WETLAND DOES NOT MEET THE CRITERIA LISTED ABOVE FOR TYPE 1, COMPLETE THE ENTIRE FORM, USING THE ASSIGNED POINTS TO DETERMINE IF IT IS A TYPE 2 OR TYPE 3 WETLAND.

Type 2 wetlands typically have at least two wetland vegetation classes, are at least partially surrounded by buffers of native vegetation, connected by surface water flow (perennial or intermittent) to other wetlands or streams, and contain or are associated with forested habitat.

WETLAND B

1. Total wetland area

Estimate wetland area and score from choices	Acres		Point Value	Points
	>20.00	=	6	
	10-19.99	=	5	
	5-9.99	=	4	
	1-4.99	=	3	
	0.1-0.99	=	2	
	<0.1	=	1	1

2. Wetland classes: Determine the number of wetland classes that qualify, and score according to the table.

	# of Classes		Points
Open Water: if the area of open water is >1/3 acre or >10% of the total wetland area	1	=	1
Aquatic Beds: if the area of aquatic beds is >10% of the **open water** area **or**>1/2 acre	2	=	3
Emergent: if the area of emergent class is >1/2 acre **or** >10% of the total wetland area	3	=	5
Scrub-Shrub: if the area of scrub-shrub class is >1/2 acre **or** >10% of the total wetland area	4	=	7
Forested: if the area of forested class is >1/2 acre or >10% of the total wetland area	5	=	10

3. Plant species diversity.

For all wetland classes which qualified in 2 above, count the number of different plant species and score according to the table below. You do not have to name them.

e.g., if a wetland has an aquatic bed class with 3 species, and emergent class with 4 species and a scrub-shrub class with 2 species, you would circle 2, 2, and 1 in the second column (below).

Class	# of Species		Point Value	Class	# of Species		Point Value
Aquatic Bed	1-2	=	1	Scrub-Shrub	1-2	=	1
	3	=	2		3-4	=	2
	>3	=	3		>4	=	3
Emergent	1-2	=	1	Forested	1-2	=	1
	3-4	=	2		3-4	=	2
	>4	=	3		>4	=	3

4. Structural diversity.

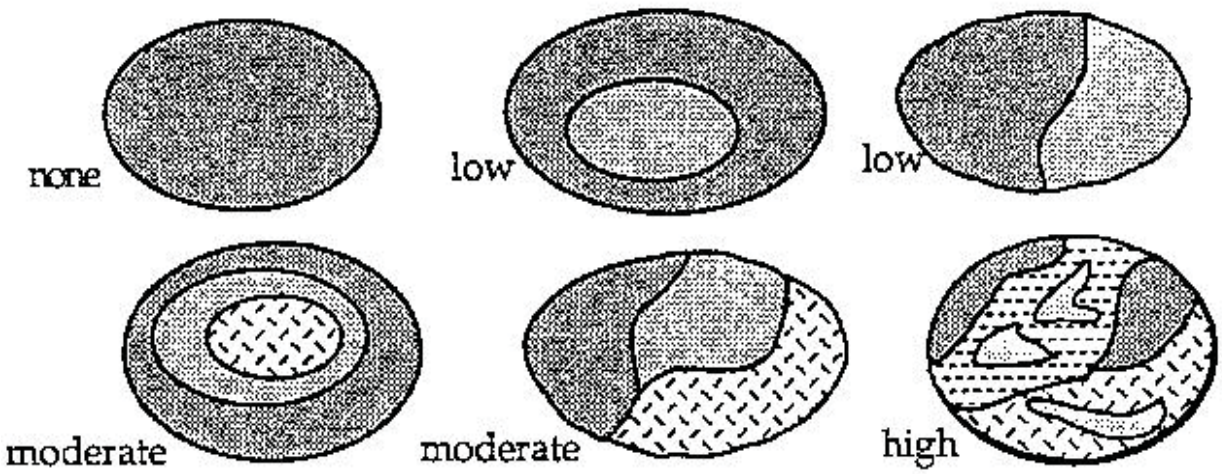
If the wetland has a forested class, add 1 point for each of the following attributes present:

Trees >50′ tall	=	**1**
Trees 20′ to 49′ tall	=	**1**
Shrubs	=	**1**
Herbaceous ground cover	=	**1**
		2

5. Interspersion between wetland classes.

Decide from the diagrams below whether interspersion between wetland classes is high, moderate, low or none

3	=	High
2	=	Moderate
1	=	Low
0	=	None



6. Habitat features

Add points associated with each habitat feature listed:	=	0
Is there evidence of current use by beavers?	=	2
Is a heron rookery located within 300′?	=	1
Are raptor nest(s) located within 300′?	=	1
Are there at least 2 standing dead trees (snags) per acre?	=	1
Are there any other perches (wires, poles, or posts)?	=	1
Are there at least 3 downed logs per acre?	=	1

7. Connection to streams

Is the wetland connected at any time of the year via surface water? (score one answer only)

To a perennial stream or a seasonal stream *with* fish	=	5
To a seasonal stream *without* fish	=	3
Is not connected to any stream	=	0

8. Buffers

Step 1: Estimate (to the nearest 5%) the percentage of each buffer or land-use type (below) that adjoins the wetland boundary. Then multiply these percentages by the factor(s) below and enter result in the column to the right.

	% of Buffer	Step 1	Width Factor	Step 2
Roads, buildings or parking lots	40% X 0 =	0	x1=	0
Lawn, grazed pasture, vineyards or annual crops	0% X 1 =		=	
Ungrazed grassland or orchards	0% X 2 =		=	
Open water or native grasslands	0% X 3 =		=	
Forest or shrub	60% X 4 =	240	x2=	480
			Add buffer total:	**120**

Step 2: Multiply result(s) of step 1:

By 1 if buffer width is 25-50′

By 2 if buffer width is 50-100′

By 3 if buffer width is >100′

Enter results and add sub-scores

Step 3: Score points according to the following table:

Buffer Total

900-1200 = 4

600-899 = 3

300-599 = **2**

100-299 = 1

9. Connection to other habitat areas:

Is there a riparian corridor to other wetlands within 0.25 of a mile, or a corridor >100′ wide with good forest or shrub cover to any other habitat area?	=	**5**
Is there a narrow corridor <100′ wide with good cover or a wide corridor >100′ wide with low cover to any other habitat area?	=	3
Is there a narrow corridor <100′ wide with low cover or a significant habitat area within 0.25 mile but no corridor?	=	1
Is the wetland and buffer completely isolated by development and/or cultivated agricultural land?	=	0

10. Scoring

Add the scores to get a total:

Question: Is the total greater than or equal to 22 points? **21 Points Total**

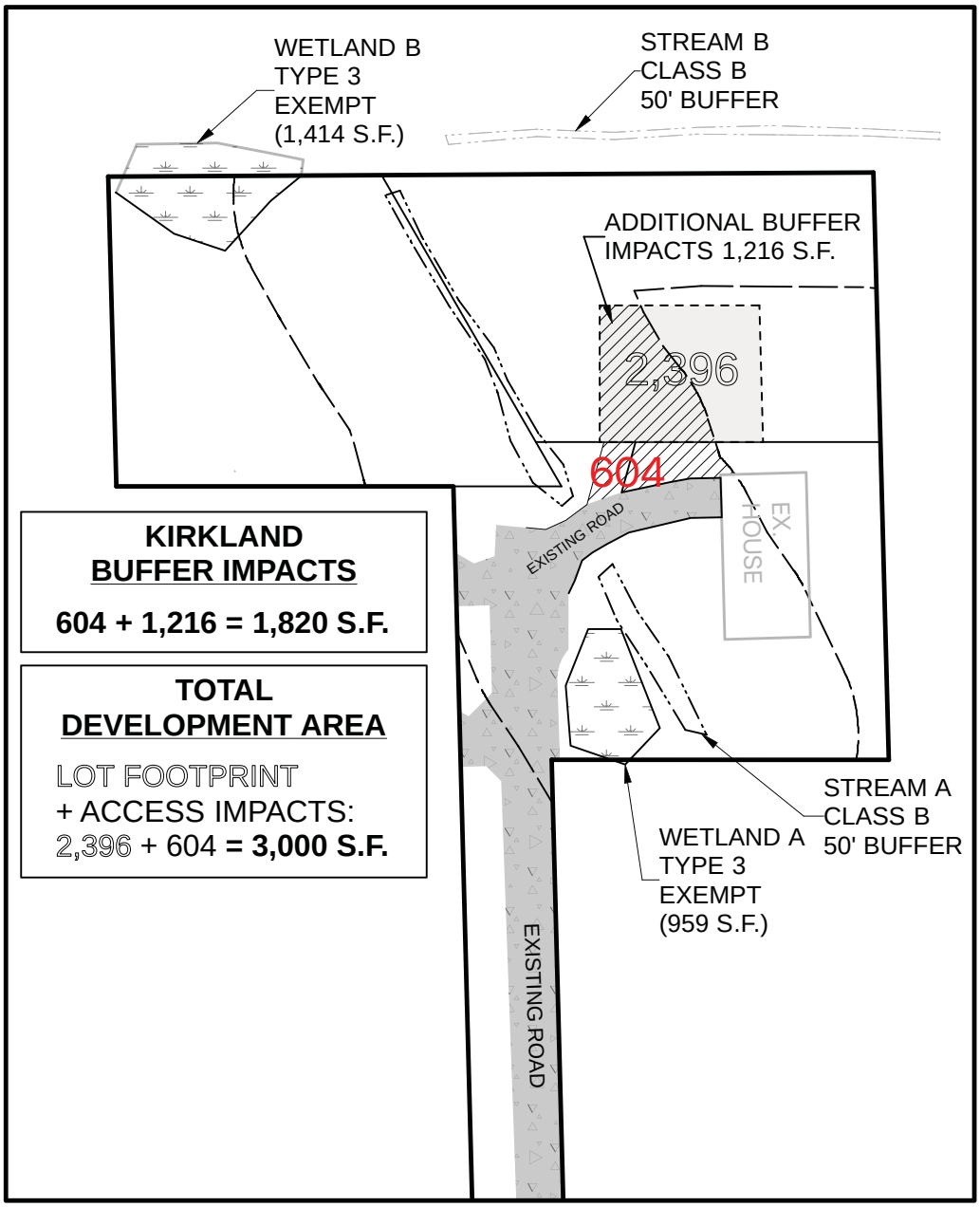
Answer:

Yes = Type 2 No = **Type 3**

SENSITIVE AREA MAP - DEVELOPMENT SCENARIO A

828 2ND AVENUE, LOT #2

PORTION OF SECTION 5, TOWNSHIP 25N, RANGE 5E, W.M.



KIRKLAND BUFFER IMPACTS

604 + 1,216 = 1,820 S.F.

TOTAL DEVELOPMENT AREA

LOT FOOTPRINT
+ ACCESS IMPACTS:
2,396 + 604 **= 3,000 S.F.**

NOTE: ALL SENSITIVE AREA BOUNDARIES DEPICTED ON THIS MAP WERE DELINEATED BY WETLAND RESOURCES, INC, AND WERE SURVEYED BY A LICENCED SURVEYOR.

SCALE: 1" = 60'

0 60 120

LEGEND

- OHWM
- BUFFER
- WETLAND
- BUFFER IMPACTS
- LOT DEVELOPMENT FOOTPRINT
- EXISTING ROAD

Wetland Resources, Inc.
Delineation / Mitigation / Restoration / Habitat Creation / Permit Assistance
9505 19th Avenue S.E. Suite 106 Everett,Washington 98208
Phone: (425) 337-3174
Fax: (425) 337-3045
Email: mailbox@wetlandresources.com

SENSITIVE AREA MAP -
DEVELOPMENT SCENARIO A
828 2nd Avenue, Lot #2
Kirkland, Washington

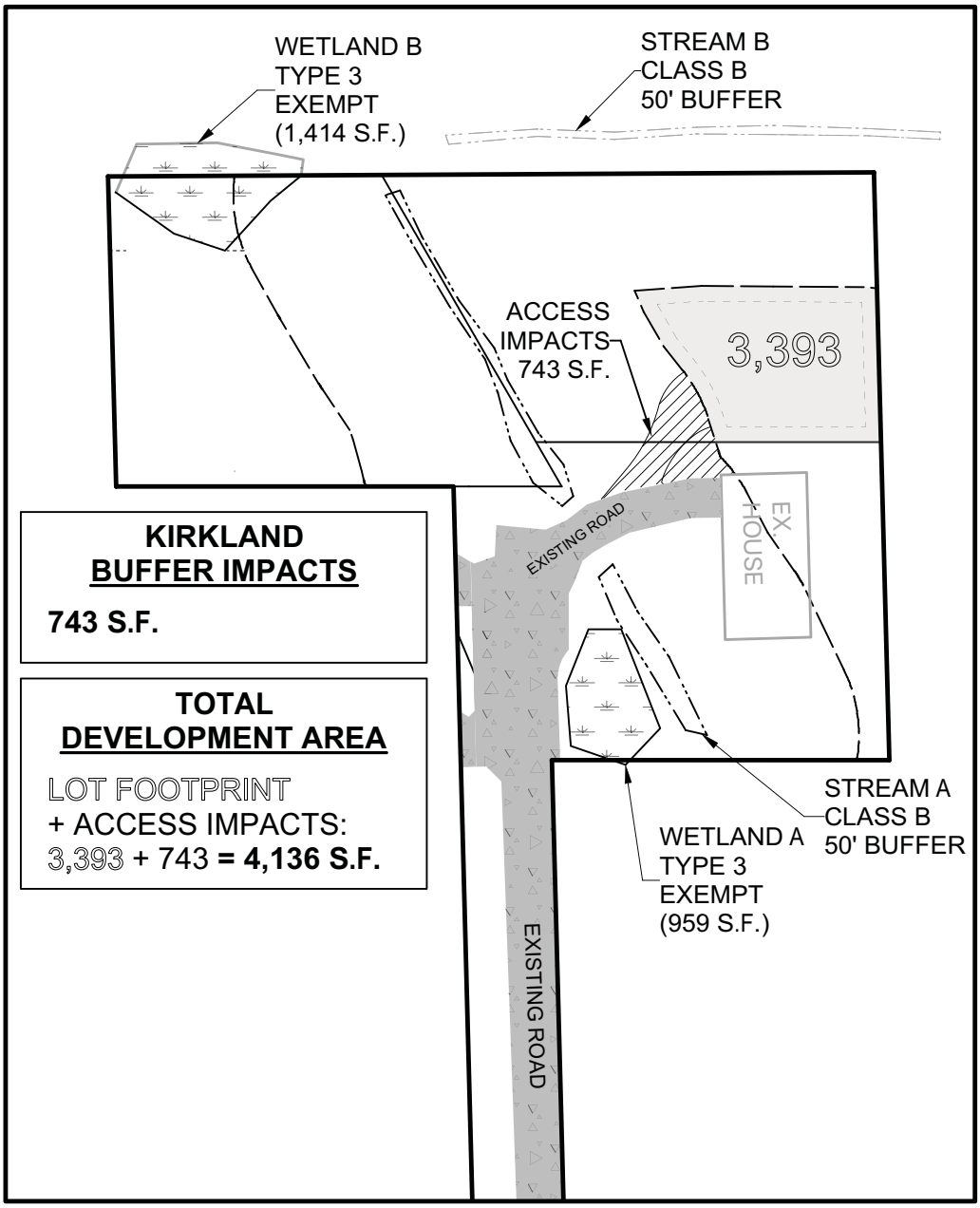
Post Alley LLC
Attn: Tom Dedonato
10257 NE 64th Street
Kirkland, WA 98033

Sheet 1/4
WRI Job # 15071
Drawn by: S. Walters
Date: Novmber 15, 2016

SENSITIVE AREA MAP - DEVELOPMENT SCENARIO B

828 2ND AVENUE, LOT #2

PORTION OF SECTION 5, TOWNSHIP 25N, RANGE 5E, W.M.



NOTE: ALL SENSITIVE AREA BOUNDARIES DEPICTED ON THIS MAP WERE DELINEATED BY WETLAND RESOURCES, INC, AND WERE SURVEYED BY A LICENCED SURVEYOR.

SCALE: 1" = 60'

0 60 120

LEGEND

- OHWM
- BUFFER
- WETLAND
- BUFFER IMPACTS
- LOT DEVELOPMENT FOOTPRINT
- 5-FOOT BSBL
- EXISTING ROAD

Wetland Resources, Inc.
Delineation / Mitigation / Restoration / Habitat Creation / Permit Assistance
9505 19th Avenue S.E. Suite 106 Everett,Washington 98208
Phone: (425) 337-3174
Fax: (425) 337-3045
Email: mailbox@wetlandresources.com

SENSITIVE AREA MAP -
DEVELOPMENT SCENARIO B
828 2nd Avenue, Lot #2
Kirkland, Washington

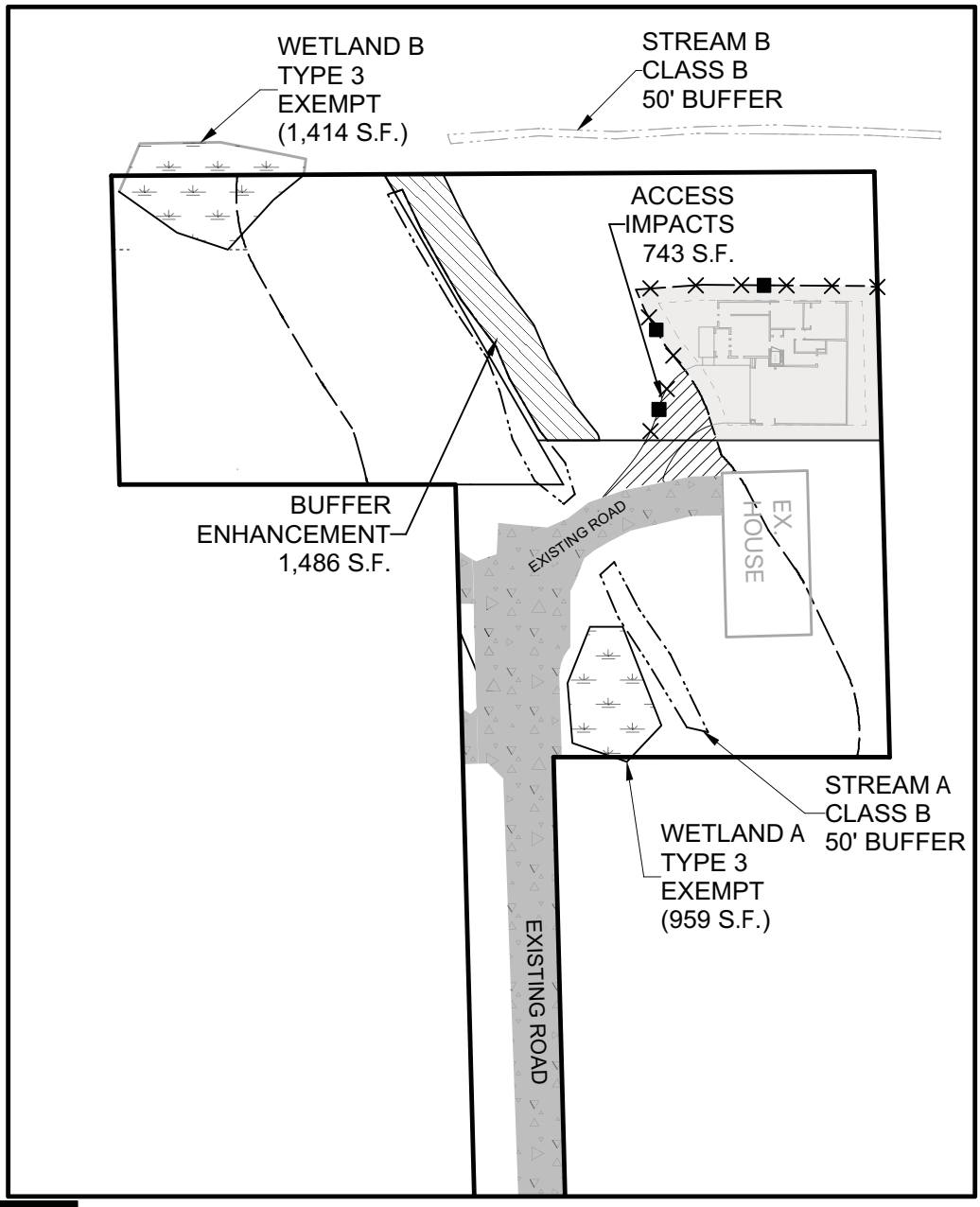
Post Alley LLC
Attn: Tom Dedonato
10257 NE 64th Street
Kirkland, WA 98033

Sheet 2/4
WRI Job # 15071
Drawn by: S. Walters
Date: November 15, 2016

SENSITIVE AREA STUDY AND MITIGATION PLAN MAP

828 2ND AVENUE, LOT #2

PORTION OF SECTION 5, TOWNSHIP 25N, RANGE 5E, W.M.



LEGEND

- OHWM
- BUFFER
- WETLAND
- BUFFER IMPACTS
- BUFFER ENHANCEMENT
- LOT DEVELOPMENT FOOTPRINT
- 5-FOOT BSBL
- EXISTING ROAD
- SENSITIVE AREA SIGN
- FENCING

NOTE: ALL SENSITIVE AREA BOUNDARIES DEPICTED ON THIS MAP WERE DELINEATED BY WETLAND RESOURCES, INC, AND WERE SURVEYED BY A LICENCED SURVEYOR.

SCALE: 1" = 60'

0 60 120

Wetland Resources, Inc.
Delineation / Mitigation / Restoration / Habitat Creation / Permit Assistance
9505 19th Avenue S.E. Suite 106 Everett,Washington 98208
Phone: (425) 337-3174
Fax: (425) 337-3045
Email: mailbox@wetlandresources.com

SENSITIVE AREA STUDY AND
MITIGATON PLAN MAP
828 2nd Avenue, Lot #2
Kirkland, Washington

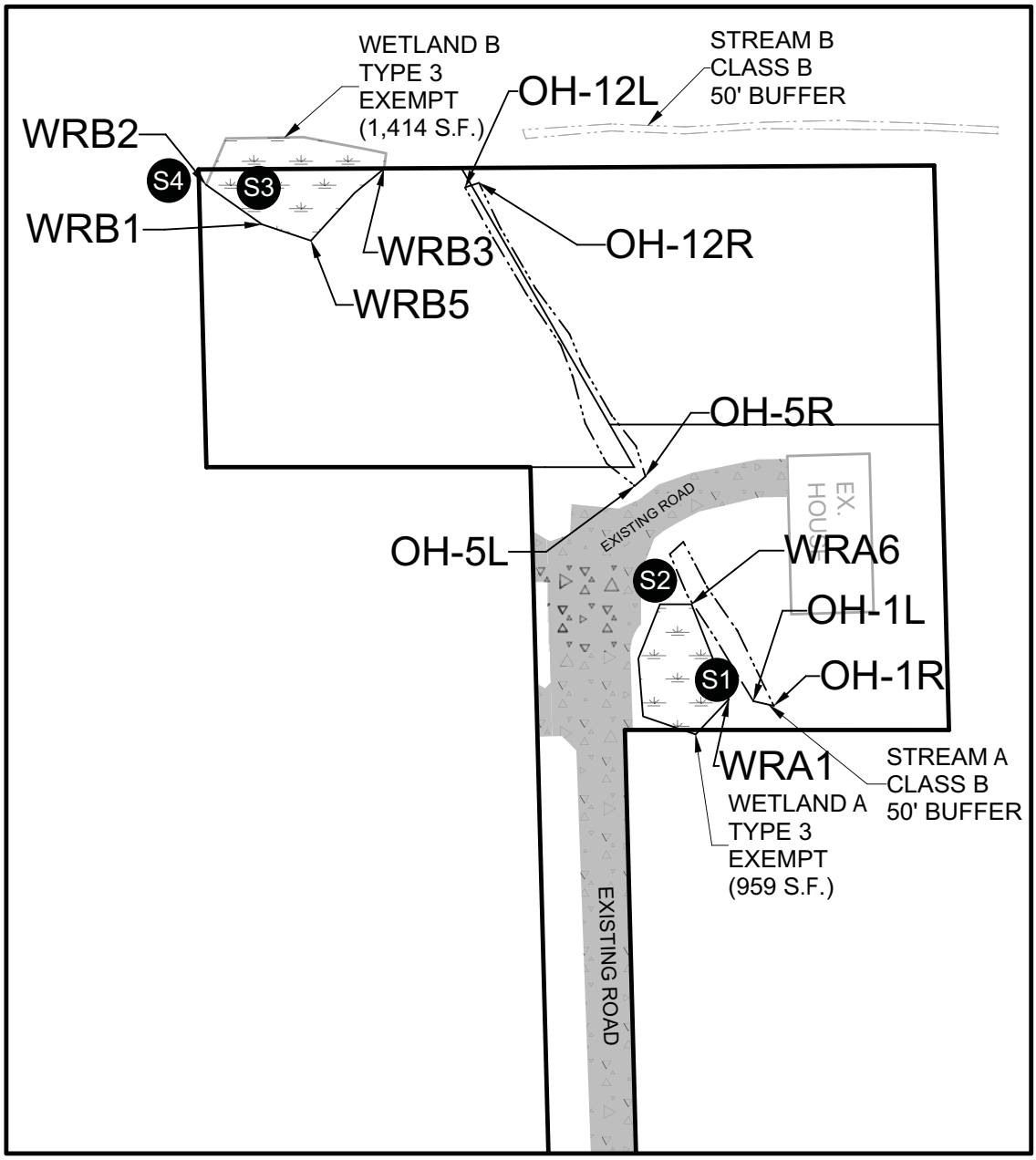
Post Alley LLC
Attn: Tom Dedonato
10257 NE 64th Street
Kirkland, WA 98033

Sheet 3/4
WRI Job # 15071
Drawn by: S. Walters
Date: November 15, 2016

APPROXIMATE DATA SITE LOCATIONS

828 2ND AVENUE, LOT #2

PORTION OF SECTION 5, TOWNSHIP 25N, RANGE 5E, W.M.



NOTE: ALL SENSITIVE AREA BOUNDARIES DEPICTED ON THIS MAP WERE DELINEATED BY WETLAND RESOURCES, INC, AND WERE SURVEYED BY A LICENCED SURVEYOR.

SCALE: 1" = 60'

0 60 120

LEGEND

- OHWM
- WETLAND
- EXISTING ROAD
- S1 – S2 DATA SITES

Wetland Resources, Inc.
Delineation / Mitigation / Restoration / Habitat Creation / Permit Assistance
9505 19th Avenue S.E. Suite 106 Everett,Washington 98208
Phone: (425) 337-3174
Fax: (425) 337-3045
Email: mailbox@wetlandresources.com

APPROXIMATE DATA SITE LOCATIONS
828 2nd Avenue
Kirkland, Washington

Post Alley LLC
Attn: Tom Dedonato
10257 NE 64th Street
Kirkland, WA 98033

Sheet 4/4
WRI Job # 15071
Drawn by: S. Walters
Date: November 15, 2016

WETLAND LOCATION & BUFFER DETAIL

PORTION OF SW 1/4 THE SE 1/4 OF SEC 5, TWP. 25N, RGE. 5E, W.M.

LEGEND

- × WETLAND FLAG MARKER FOUND
- (M) MEASURED DIMENSION
- (C) CALCULATED DIMENSION
- ◇ SOIL DATA POINT
- ◉ TEST BORE HOLE
- ▭ ONSITE STREAM BUFFER

AREA TOTALS

DITCH #1 (NORTH ONSITE) = 909 sq ft
DITCH #2 (SOUTH ONSITE) = 663 sq ft

WETLAND A TOTAL AREA = 655 sq ft
WETLAND B TOTAL AREA = 1029 sq ft
WETLAND B ON-SITE AREA = 582 sq ft

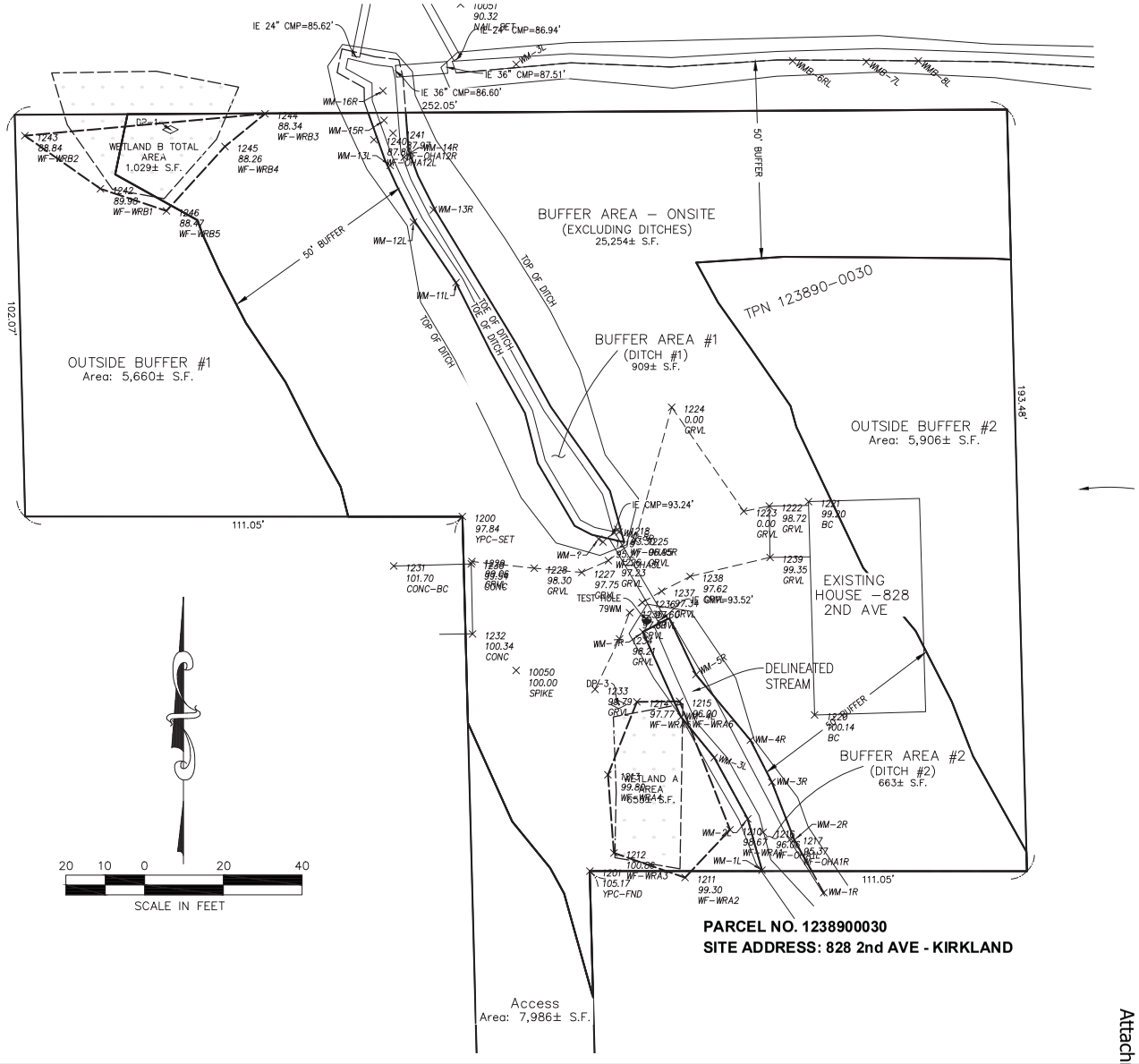
TOTAL STREAM BUFFER ON-SITE = 26,826 sq ft
W/OUT DITCH AREA

TOTAL PARCEL AREA 46,379 sq ft

NOTE

ALL WETLAND FLAGS FOR WETLAND A AND B WERE FOUND IN THE FIELD AND THE AREA LINE REPRESENTS THOSE LOCATIONS AND AREA.

STREAM FLAGS WERE FOUND AS SHOWN.
WE HAVE CONFERRED WITH THE WATERSHED COMPANY AND THE LINE FROM WHICH THE BUFFER IS OFFSET WAS AGREED AS GOOD. BASED ON FIELD LOCATION OF OHHW OR THE LINE OF SCOUR.



PARCEL NO. 1238900030
SITE ADDRESS: 828 2nd AVE - KIRKLAND

SURVEYOR'S CERTIFICATE

THIS MAP REPRESENTS A SURVEY MADE BY ME OR UNDER MY DIRECTION IN CONFORMANCE WITH STANDARD SURVEYING METHODS AT THE REQUEST OF POST ALLEY, INC. IN MAY 2015

Certificate No. 50711

JOE W. WILLIS JR. STATE OF WASHINGTON 50711 REGISTERED PROFESSIONAL LAND SURVEYOR
EXPIRES: 10/15/15
5/6/15

PARCEL NO. 1238900030

WETLAND LOCATION & BUFFER DETAIL
FOR
POST ALLEY, INC.

ALL Land Surveying
Professional Land Surveying
1317 Maple Avenue
Snohomish WA 98290
Phone (360) 568-4031
Email: willis4x@comcast.net

DWN. BY: BGM	DATE: 5-6-2015	JOB NO. 15026
CHK. BY: JWW	SCALE: 1" = 20'	SHEET 1 OF 1

SAR16-00953 Staff Report
Attachment 3

King County
Department of Permitting
and Environmental Review
35030 SE Douglas Street, Suite 210
Snoqualmie, WA 98065-9266
206-296-6600 TTY Relay: 711

Critical Areas Mitigation
Bond Quantity Worksheet

C24 Web date: 11/30/2012

For alternate formats, call 206-296-6600.
Print on legal-size (8 1/2 x 14") paper only.

Project Name: Post Alley - Parcel # 1238900032 **Date:** 1-Sep-16 **Prepared by:** Scott Walters

Project Number: WRI Ref#: 15071 **Project Description:** Buffer Enhancement

Location: 828 2nd Avenue, Kirkland, WA **Applicant:** Post Alley LLC **Phone:**

PLANT MATERIALS*

Type	Unit Price	Unit	Quantity	Description	Cost
PLANTS: Potted, 4" diameter, medium	$5.00	Each			$ -
PLANTS: Container, 1 gallon, medium soil	$11.50	Each	42		$ 483.00
PLANTS: Container, 2 gallon, medium soil	$20.00	Each	18		$ 360.00
PLANTS: Container, 5 gallon, medium soil	$36.00	Each			$ -
PLANTS: Seeding, by hand	$0.50	SY			$ -
PLANTS: Slips (willow, red-osier)	$2.00	Each			$ -
PLANTS: Stakes (willow)	$2.00	Each			$ -
PLANTS: Stakes (willow)	$2.00	Each			$ -
PLANTS: Flats/plugs	$2.00	Each			$ -
* All costs include installation				TOTAL	$ 843.00

INSTALLATION COSTS (LABOR, EQUIPMENT, & OVERHEAD)

Type	Unit Price	Unit			Cost
Compost, vegetable, delivered and spread	$37.88	CY	9.20		$ 348.50
Decompacting till/hardpan, medium, to 6" depth	$1.57	CY			$ -
Decompacting till/hardpan, medium, to 12" depth	$1.57	CY			$ -
Hydroseeding	$0.51	SY			$ -
Labor, general (landscaping)	$40.00	HR	16.00		$ 640.00
Labor, general (construction)	$40.00	HR			$ -
Labor: Consultant, supervising	$55.00	HR	3.00		$ 165.00
Labor: Consultant, on-site re-design	$95.00	HR			$ -
Rental of decompacting machinery & operator	$70.00	HR			$ -
Sand, coarse builder's, delivered and spread	$42.00	CY			$ -
Staking material (set per tree)	$7.00	Each			$ -
Surveying, line & grade	$250.00	HR			$ -
Surveying, topographical	$250.00	HR			$ -
Watering, 1" of water, 50' soaker hose	$3.62	MSF			$ -
Irrigation - temporary	$3,000.00	Acre	0.03		$ 90.00
Irrigation - buried	$4,500.00	Acre			$ -
Tilling topsoil, disk harrow, 20hp tractor, 4"-6" deep	$1.02	SY			$ -
	$25.00	HR			$ -
					$ -
				TOTAL	$ 1,243.50

HABITAT STRUCTURES*

ITEMS	Unit Cost	Unit			Cost
Fascines (willow)	$ 2.00	Each			$ -
Logs, (cedar), w/ root wads, 16"-24" diam., 30' long	$1,000.00	Each			$ -
Logs (cedar) w/o root wads, 16"-24" diam., 30'	$400.00	Each			$ -
Logs, w/o root wads, 16"-24" diam., 30' long	$245.00	Each			$ -
Logs w/ root wads, 16"-24" diam., 30' long	$460.00	Each			$ -
Rocks, one-man	$60.00	Each			$ -
Rocks, two-man	$120.00	Each			$ -
Root wads	$163.00	Each			$ -
Spawning gravel, type A	$22.00	CY			$ -
Weir - log	$1,500.00	Each			$ -
Weir - adjustable	$2,000.00	Each			$ -
Woody debris, large	$163.00	Each			$ -
Snags - anchored	$400.00	Each			$ -
Snags - on site	$50.00	Each			$ -
Snags - imported	$800.00	Each			$ -
					$ -
					$ -
* All costs include delivery and installation				TOTAL	$ -

EROSION CONTROL

ITEMS	Unit Cost	Unit			Cost
Backfill and Compaction-embankment	$ 4.89	CY			$ -
Crushed surfacing, 1 1/4" minus	$30.00	CY			$ -
Ditching	$7.03	CY			$ -
Excavation, bulk	$4.00	CY			$ -
Fence, silt	$1.60	LF	100.00		$ 160.00
Jute Mesh	$1.26	SY			$ -
Mulch, by hand, straw, 2" deep	$1.27	SY			$ -
Mulch, by hand, wood chips, 2" deep	$3.25	SY	330.00		$ 1,072.50
Mulch, by machine, straw, 1" deep	$0.32	SY			$ -
Piping, temporary, CPP, 6"	$9.30	LF			$ -
Piping, temporary, CPP, 8"	$14.00	LF			$ -
Piping, temporary, CPP, 12"	$18.00	LF			$ -
Plastic covering, 6mm thick, sandbagged	$2.00	SY			$ -
Rip Rap, machine placed, slopes	$33.98	CY			$ -
Rock Constr. Entrance 100'x15'x1'	$3,000.00	Each			$ -
Rock Constr. Entrance 50'x15'x1'	$1,500.00	Each			$ -
Sediment pond riser assembly	$1,695.11	Each			$ -
Sediment trap, 5' high berm	$15.57	LF			$ -
Sediment trap, 5' high berm w/spillway incl. riprap	$59.60	LF			$ -
Sodding, 1" deep, level ground	$5.24	SY			$ -
Sodding, 1" deep, sloped ground	$6.48	SY			$ -
Straw bales, place and remove	$600.00	TON			$ -
Hauling and disposal	$20.00	CY			$ -
Topsoil, delivered and spread	$35.73	CY			$ -
	$17.00	CY			$ -
					$ -
				TOTAL	$ 1,232.50

GENERAL ITEMS

ITEMS	Unit Cost	Unit			Cost
Fencing, chain link, 6' high	$18.89	LF			$ -
Fencing, chain link, corner posts	$111.17	Each			$ -
Fencing, chain link, gate	$277.63	Each			$ -
Fencing, split rail, 3' high (2-rail)	$10.54	LF	138.00		$ 1,454.52
Fencing, temporary (NGPE)	$1.20	LF			$ -
Signs, sensitive area boundary (inc. backing, post, install)	$28.50	Each	3.00		$ 85.50
					$ -
					$
					$ -
				TOTAL	**$ 1,540.02**
				(Construction Cost Subtotal)	**$ 4,859.02**

OTHER

ITEMS	Percentage of Construction	Unit			Cost
Mobilization	10%				$ 485.90
Contingency	30%				$ 1,457.70
				TOTAL	**$ 1,943.61**

MAINTENANCE AND MONITORING

NOTE: Projects with multiple permit requirements may be required to have longer monitoring and maintenance terms. This will be evaluated on a case-by-case basis for development applications. Monitoring and maintance ranges may be assessed anywhere from 5 to 10 years.

Maintenance, annual					
Less than 1,000 sq.ft. and buffer mitigation only	$ 1.08	SF		(total for 3 annual events, Includes monitoring)	$ -
Less than 1,000 sq.ft. with wetland or aquatic area mitigation	$ 1.35	SF		(3 X SF total for 3 annual events; Includes monitoring)	$ -
Larger than 1,000 sq. ft. but less than 5,000 sq.ft. of buffer mitigation	$ 180.00	EACH	5.00	(4hr @$45/hr)	$ 900.00
Larger than 1,000 sq. ft. but less than 5,000 sq.ft. of wetland or aquatic area mitigation	$ 270.00	EACH		(6hr @$45/hr)	$ -
Larger than 5,000 sq.ft. but < 1 acre -buffer mitigation only	$ 360.00	EACH		(8 hrs @ 45/hr)	$ -
Larger than 5,000 sq.ft. but < 1 acre with wetland or aquatic area mitigation	$ 450.00	EACH		(10 hrs @ $45/hr)	$ -
Larger than 1 acre but < 5 acres - buffer and / or wetland or aquatic area mitigation	$ 1,600.00	DAY		(WEC crew)	$ -
Larger than 5 acres - buffer and / or wetland or aquatic area mitigation	$ 2,000.00	DAY		(1.25 X WEC crew)	$ -
Monitoring, annual					
Larger than 1,000 sq.ft. but less than 5,000 wetland or buffer mitigation	$ 720.00	EACH	5.00	(8 hrs @ 90/hr)	$ 3,600.00
Larger than 5,000 sq.ft. but < 1 acre with wetland or aquatic area impacts	$ 900.00	EACH		(10 hrs @ $90/hr)	$ -
Larger than 1 acre but < 5 acres - buffer and / or wetland or aquatic area impacts	$ 1,440.00	DAY		(16 hrs @ $90/hr)	$ -
Larger than5 acres - buffer and / or wetland or aquatic area impacts	$ 2,160.00	DAY		(24 hrs @ $90/hr)	$ -
Maintenance and Monitoring Inspection (DDES), annual	$350.00	EACH		(2.5 hrs @ $140/hr)	$ -
Maintenance and Monitoring Inspection (DDES), final	$560.00	EACH		(4 hrs @ $140/hr)	$ -
				TOTAL	**$ 4,500.00**

Total	$11,302.62

CITY OF KIRKLAND
Planning and Community Development Department
123 Fifth Avenue, Kirkland, WA 98033
425.587-3225 ~ www.kirklandwa.gov

DEVELOPMENT STANDARDS LIST
FILE: POST ALLEY LOT 2 REASONABLE USE PERMIT, SAR16-00953

ZONING CODE STANDARDS

90.80 Streams. No land surface modification may take place and no improvements may be located in a stream except as specifically provided in this Section.

90.90 Stream Buffers. No land surface modification may take place and no improvement may be located within the environmentally sensitive buffer for a stream, except as provided in this Section.

90.95 Stream Buffer Fence. Prior to development, the applicant shall install a six-foot high construction phase fence along the upland boundary of the entire stream buffer with silt screen fabric installed per City standard. The fence shall remain upright in the approved location for the duration of development activities. Upon project completion, the applicant shall install between the upland boundary of all stream buffers and the developed portion of the site, either 1) a permanent 3 to 4 foot tall split rail fence, or 2) permanent planting of equal barrier value.

90.100.3 Monitoring and Maintenance of Stream Buffer Modifications: Modification of a stream buffer will require that the applicant submit a 5-year monitoring and maintenance plan consistent with KZC section 95.55. This plan shall be prepared by a qualified professional and reviewed by the City's wetland consultant. The cost of the plan and the City's review shall be borne by the applicant.

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.

105.10.2 Pavement Setbacks. The paved surface in an access easement or tract shall be set back at least 5 feet from any adjacent property which does not receive access from that easement or tract. An access easement or tract that has a paved area greater than 10 feet in width must be screened from any adjacent property that does not receive access from it. Screening standards are outlined in this section.

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.

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.

115.75.2 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.

115.90 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.

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.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.

150.22.2 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 issuance of a grading or building permit:

90.95 Stream Buffer Fence. Prior to development, the applicant shall install a six-foot high construction phase fence along the upland boundary of the entire stream buffer with silt screen fabric installed per City standard. The fence shall remain upright in the approved location for the duration of development activities. Upon project completion, the applicant shall install between the upland boundary of all stream buffers and the developed portion of the site, either 1) a permanent 3 to 4 foot tall split rail fence, or 2) permanent planting of equal barrier value.

90.150 Natural Greenbelt Protective Easement. The applicant shall submit for recording a natural greenbelt protective easement, in a form acceptable to the City Attorney, for recording with King County (see Attachment 8).

90.155 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 stream, minor lake, or wetland (see Attachment 7).

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.

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.

Prior to occupancy:

90.145 Bonds. The City may require a bond and/or a perpetual landscape maintenance agreement to ensure compliance with any aspect of the Drainage Basins chapter or any decision or determination made under this chapter.

95.51.2.b Tree Maintenance. For detached dwelling units, the applicant shall submit a 5-year tree maintenance agreement to the Planning and Building Department to maintain all pre-existing trees designated for preservation and any supplemental trees req

DEVELOPMENT STANDARDS

SAR16-00953

FIRE DEPARTMENT

FIRE DEPARTMENT COMMENTS

Contact: Grace Steuart at 425-587-3660; or gsteuart@kirklandwa.gov

ACCESS

Access does not meet fire department standards. In lieu of approved access, a 13D sprinkler system is required to be installed throughout the house.

FIRE FLOW

Fire flow in the area is approximately 1250 gpm, which is adequate for development.

HYDRANTS

Existing hydrants in the area are adequate to provide coverage for the proposed project. The hydrant in front of Brookside Park shall be equipped with a 5" Storz fitting.

PUBLIC WORKS DEPARTMENT

PUBLIC WORKS CONDITIONS

Public Works Staff Contacts
Land Use and Pre-Submittal Process:
John Burkhalter, Development Engineer Supervisor
Phone: 425-587-3846 Fax: 425-587-3807
E-mail: jburkhalter@kirklandwa.gov

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:

- Water, Sewer, and Surface Water Connection Fees (paid with the issuance of a Building Permit)
- Side Sewer Inspection Fee (paid with the issuance of a Building Permit)
- Septic Tank Abandonment Inspection Fee
- Water Meter Fee (paid with the issuance of a Building Permit)
- Right-of-way Fee
- Review and Inspection Fee (for utilities and street improvements).
- 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). Any existing buildings 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 project. The credit amount for each demolished building 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. Performance and Maintenance Securities:
- If the Developer will be installing the improvements, there is a standard right of way restoration performance security equal to 20% of the value of the work minmum. This security will be determined by using the City of Kirkland's Improvement Evaluation Packet and held until the project has been completed.
- Once the Work has been completed there will be a condition of the permit to establish a two year Maintenance security.

5. Prior to submittal of a Building or Zoning Permit, the applicant must apply for a Concurrency Test Notice. Contact Thang Nguyen, Transportation Engineer, at 425-587-3869 for more information. A separate Concurrency Permit will be created.

6. 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.

7. 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.

8. 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).

9. A completeness check is required prior to acceptance of any Building Permit applications. See Item 4 above.

10. The required tree plan shall include any significant tree in the public right-of-way along the property frontage.

Sanitary Sewer Conditions:

1. There is existing sanitary sewer main along the north and west side of this property. All of these sewer mains are adequate in size to serve this proposed project.

2. Provide a 6-inch minimum side sewer stub to the lot from the main. All side sewer stubs serving the property shall be PVC type pipe per Public Works Pre-approved Plans Sanitary Sewer Design Criteria.

Water System Conditions:

1. The applicant shall extend the existing public water system to provide water service for the lot. Adjustment may be required to the end to the main to allow for water services, hydrant, or other improvements as may be required.

2. Provide a separate 1" minimum water service from the water main to the meter for the lot; City of Kirkland will set the water meter. The water size is determined when the Building Permit is submitted and is sized per the Uniform Plumbing Code. A ¾" meter is the typical size for new single-family home. Lot needs a private utility easement to get across 828 2nd Ave.

Surface Water Conditions:

1. Projects submitted on or after January 1, 2017 shall be subject to updated stormwater regulations. The City plans to adopt the 2016 King County Surface Water Design Manual with a City addendum.

2. Provide temporary and permanent storm water control per the 2009 King County Surface Water Design Manual and the Kirkland Addendum (Policy D-10). 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. Each existing lot shall provide the following drainage review.

- Small Project Drainage Review (Types I & II)

Small project drainage reviews are divided into two types, Type I and Type II, primarily based on the amount of impervious surface area. Typical Type I projects create between 500 and 1,999ft2 impervious surface area. Type II projects involve between 2,000 and 9,999ft2 impervious surface areas, with a total of no more than 5,000ft2 of new impervious area and not more than a total of 9,999ft2 impervious surface area added since 01/08/01.

- Targeted Drainage Review

A targeted project drainage review is required for projects that meet the new impervious area criteria for small projects, but also have additional characteristics that require a more in-depth level of review, such as sensitive drainage areas or the construction/modification of a 12” pipe or ditch.

3. 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 or L-2 (depending on drainage review) for more information on this requirement.

4. If 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 less than 1 acre in size.

5. Provide a level one off-site analysis (based on the King County Surface Water Design Manual, core requirement #2).

6. It doesn’t appear that any work within an existing ditch will be required, however the developer has been given notice 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.usace.army.mil/Missions/CivilWorks/RegulatoryProgramandPermits.aspx

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

7. 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.

8. 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.

9. Provide a separate storm drainage connection for each unit. All roof and driveway drainage must be tight-lined to the storm drainage system or utilize low impact development techniques. The tight line connections shall be installed with the individual new houses.

10. Provide a plan and profile design for the storm sewer system.

11. Provide a 15' wide access easement to the storm detention control manhole; easement must be improved

with 10' of asphalt and drainage control to protect against erosion.

12. A Hydraulic Project Approval (HPA) from WA State Department of Fish and Wildlife (WDFW) may be required for this project. Contact WDFW at 425-313-5681 or Christa.Heller@dfw.wa.gov for determination, obtain an HPA if required, and submit a copy to COK. If an HPA is not required, the applicant may be required to provide written documentation from WDFW as verification. More information on HPAs can be found at the following website: http://wdfw.wa.gov/licensing/hpa/

Street and Pedestrian Improvement Conditions:

1. The subject property does not abut a right-of-way.

A. No improvements required.

1. The driveway for each lot shall be long enough so that parked cars do not extend into the access easement, pedestrian path easement reference above or a right-of-way, if applicable (20 ft. min.)

2. 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.

3. Underground all new and existing on-site utility lines and overhead transmission lines.

Tony Leavitt

From: Katherine Curry <currymom@hotmail.com>
Sent: Friday, June 24, 2016 7:56 AM
To: Tony Leavitt
Subject: Permits # SAR16-00952 #SAR16-00953

RE: Public comment on the above use permits, for construction of two homes on the north end of the fire lane that provides access for Brookside Condominiums 836 and 832 2nd Ave. Kirkland, WA. I am responding as President of the Brookside Condominium Homeowners Association. We are submitting the following list of concerns for your consideration.

1) City Hall has advised us that the applicant, Tom DeDonato, owns the fire lane and has granted our condominium complex an access easement. In the event any heavy construction equipment and/or trucks, used during the construction, cause damage to the **fire lane, damage** should be repaired and the lane restored to its current or better condition. This also should include curb maintenance and paint. Our HOA has recently incurred the cost of replacing and painting the curbing on the East side of the fire lane due to years of neglected maintenance.

2) Also, during construction, trucks or construction equipment will track dirt, mud or debris on the lane, we request the **lane be swept, and kept clean** on a daily basis.

3) If the two new residences are constructed, there will be increased traffic on the fire lane. Many young families pushing strollers walk on the lane. For **safety reasons**, we would request the installation of a **speed bump** north of the Building @ 832 2nd Ave.

4) Our condominium Unit provides four **guest parking stalls** for our visitors just north of Building 832 2nd Ave. These stalls are **NOT available** for use by construction workers or any future owners or their guests. Cars without a Brookside guest sticker will be towed. Also construction workers **may not park on the fire lane** during construction as it would impede the fire department.

5 Lighting is an issue since the lane is long, narrow and dark. We would request that a **street light** (public or private) be installed at the north end of the lane.

6)We also request that Brookside owners/residents continue to be provided **access to the public, paved walking trail** that runs in an east-west direction, from 4th street to 6th street, passing along the south side of the Post Office. This is a **critical safety issue** since pedestrian crossing at the four way stop on 6th and Kirkland Way can be dangerous due to inattentive drivers.

Thank you for your consideration of these issues.

Katherine Curry
President Brookside Condominiums HOA
836 2nd Ave #101

Kirkland, WA

425-890-5354
Currymom@hotmail.com

Tony Leavitt

From: Lee Dorigan <leedorigan@gmail.com>
Sent: Sunday, June 12, 2016 12:02 PM
To: Tony Leavitt
Subject: Post Alley Lot 3 Reasonable use permit, Case no. SAR16-00952

Dear Tony Leavitt,
I am concerned about the impacts of this project to the two nearby streams, one an class A and one a class B. I live in a condo near the stream between two condo groups. I can open my bedroom window and hear the stream at night. Additionally, I am a retired water quality inspector. I worked at Ecology then KCSWM then Public Health. I am would like the permit to require removal of non-native species and planting of native species. I do not want the flows to be diminished or exposed to direct sunlight. Neither should any flows be put into additional piping. I walk the path near the stream into town often. I would like to see the waterway improved and daylighted as much as possible. Finally, I want the associated wetlands to remain and not be paved or otherwise compromised. These waterways are a benefit to the city as stormwater control as well as cleaning the water before it discharges to the lake. For our neighborhood they places of natural beauty which enhance our property values.

Also, I would like assurance that the city will enforce the general NPDES construction permit. I will also be inspecting for compliance and reporting any violations.

Sincerely,

Lee Dorigan
221 9th St
Unit C-203
Kirkland, WA 98033
leedorigan@gmail.com

THE WATERSHED COMPANY

SCIENCE & DESIGN

December 6, 2016

Tony Leavitt
City of Kirkland
Planning and Community Development
123 – 5th Avenue
Kirkland, WA 98125

Re: Post Alley LLC Project – Stream & Wetland Delineation & Classification Review and Buffer Mitigation Plan 4rd Review
The Watershed Company Ref. No.: 140622.73

Dear Tony:

This letter presents the findings of the second environmental review of the stream and wetland delineation and classification study and buffer mitigation plan completed by Wetland Resources, Inc. (WRI) on behalf of Post Alley, LLC. WRI provided responses to my November 10, 2016 comments for lots 2 and 3. The study area is located at 828 2nd Avenue and consists of 3 lots (Parcel numbers 123890-0030, -0032 and -0036). The following new documents were reviewed for this study:

- *Response to Comments for Post Alley LLC Project, Lot #2. (Prepared by Wetland Resources, Inc. Revision November 15, 2016)*
- *Response to Comments for Post Alley LLC Project, Lot #3. (Prepared by Wetland Resources, Inc. Revision November 15, 2016)*

All comments and corrections noted my November 10, 2016 review letter were addressed in this latest submittal. I recommend that the City accept the mitigation plans for Lots 2 and 3. Please call if you have any questions or if I can provide you with any additional information.

Sincerely,

Nell Lund, PWS
Senior Ecologist

750 Sixth Street South | Kirkland, WA 98033
p 425.822.5242 | f 425.827.8136 | watershedco.com

REASONABLE USE COVENANT

File Number(s):	
Building Permit Number(s):	
Project Name:	
Project Address:	

Declarants Insert Names hereby declares and agrees as follows:

1. Declarant is the owner of the real property described below in the legal description, which is referred to as the "Property" in this Covenant.

2. The total approved site disturbance area for the above-referenced project ("Project") is 3,000 square feet. The total approved site disturbance area may not be increased and site disturbances in areas not approved by the Project are prohibited.

3. The footprint of the residence associated with the Project may not be enlarged.

4. Structures and improvements shall not encroach into the 5 foot building setbacks from the approved site disturbance area along the east and south sides of the residence, with the exception of eaves.

5. This Covenant is binding on all owners of the Property described below and their heirs, successors and assigns. This Covenant shall run with the land described as follows:

LEGAL DESCRIPTION:

Exhibit A ("the Properties")

NATURAL GREENBELT PROTECTIVE EASEMENT

Grantor: _____, owner of the hereinafter described real property, hereby grants to

Grantee: The City of Kirkland, a municipal corporation.

A natural greenbelt protective easement over and across the following described real property to wit ("Easement Area"):

No tree trimming, tree topping, tree cutting, tree removal, shrub or brush-cutting or removal of native vegetation, application of pesticides, herbicides, or fertilizers; construction; clearing; or alteration activities shall occur within the Easement Area without prior written approval from the City of Kirkland. Application for such written approval to be made to the Kirkland Department of Planning and Community Development who may require inspection of the premises before issuance of the written approval and following completion of the activities. Any person conducting or authorizing such activity in violation of this paragraph or the terms of any written approval issued pursuant hereto, shall be subject to the enforcement provisions of Chapter 1.12, Kirkland Municipal Code. In such event, the Kirkland Department of Planning and Community Development may also require within the immediate vicinity of any damaged or fallen vegetation, restoration of the affected area by planting replacement trees and other vegetation as required in applicable sections of the Kirkland Zoning Code. The Department also may require that the damaged or fallen vegetation be removed.

It is the responsibility of the property owner to maintain critical areas and their buffers by removing non-native, invasive, and noxious plants in a manner that will not harm critical areas or their buffers and in accordance with Kirkland Zoning Code requirements for trees and other vegetation within critical areas and critical area buffers.

The City shall have a license to enter the Easement Area (and the property if necessary for access to the Easement Area) for the purpose of monitoring compliance with the terms of this easement.

Development outside of this Natural Greenbelt Protective Easement may be limited by codified standards, permit conditions, or movement of the critical area.

Each of the undersigned owners agree to defend, pay, and save harmless the City of Kirkland, its officers, agents, and employees from any and all claims of every nature whatsoever, real or imaginary, which may be made against the City, its officers, agents, or employees for any damage to property or injury to any person arising out of the existence of said Natural Greenbelt Protective Easement over said owner's property or the actions of the undersigned owners in carrying out the responsibilities under this agreement, including all costs and expenses, and recover attorney's fees as may be incurred by the City of Kirkland in defense thereof; excepting therefrom only such claims as may arise solely out of the negligence of the City of Kirkland, its officers, agents, or employees.

This easement is given to satisfy a condition of the development permit approved by the City of Kirkland under Kirkland File/Permit No. _____, for construction of _____ upon the following described real property:

This easement shall be binding upon the parties hereto, their successors and assigns, and shall run with the land.

DATED at Kirkland, Washington, this _____ day of _____, _____.

AFM
American Forest Management
11415 NE 128th St Suite 110 Kirkland WA 98034 • (425)820-3420 • FAX (425)820-3437
www.americanforestmanagement.com

ARBORIST REPORT
FOR
828 2nd AVE
Kirkland, WA

March 30th, 2016

Table of Contents

1. Introduction.....1
2. Description.....1
3. Methodology.....1
4. Observations.....2
5. Discussion.....3
6. Tree Protection Measures.....3
7. Tree Replacement.....4

Appendix

Tree protection Standards – page 5

Site/Tree Photos – pages 6 - 10

Tree Summary Tables - attached

Tree Plan Maps – attached

City of Kirkland Tree Protection Fencing Detail - attached

1. Introduction

American Forest Management, Inc. was contacted by Tom DeDonato, and was asked to compile an 'Arborist Report' for three parcels located within the City of Kirkland.

The proposed development encompasses three parcels, #1238900036, #1238900032, and #1238900030, known as 828 2nd Avenue. Our assignment is to prepare a written report on present tree conditions, which is to be filed with the preliminary permit application.

This report encompasses all of the criteria set forth under the City of Kirkland's tree regulations (Chapter 95 of the Kirkland Zoning Code). The required minimum tree density for the parcel (45,588 sq. ft.) is 32 tree credits.

Date of Field Examination: March 23rd, 2016

2. Description

14 significant trees were identified and assessed on the property. These are comprised primarily of a mix of native species and ornamental landscape species.

A numbered aluminum tag was attached to the lower trunk of the subject trees. These numbers correspond with the numbers on the Tree Summary Table and copy of the attached site survey.

An additional 17 neighboring trees were identified with drip-lines encroaching upon the subject parcel. One of these is within the right-of-way of 2nd Ave.

3. Methodology

Each tree in this report was visited. Tree diameters were measured by tape. The tree heights were measured using a Spiegel Relaskop. Each tree was visually examined for defects and vigor. The tree assessment procedure involves the examination of many factors:

- The crown of the tree is examined for current vigor. This is comprised of inspecting the crown (foliage, buds and branches) for color, density, form, and annual shoot growth, limb dieback and disease. The percentage of live crown is estimated for coniferous species only and scored appropriately.

- The bole or main stem of the tree is inspected for decay, which includes cavities, wounds, fruiting bodies of decay (conks or mushrooms), seams, insects, bleeding, callus development, broken or dead tops, structural defects and unnatural leans. Structural defects include crooks, forks with V-shaped crotches, multiple attachments, and excessive sweep.

- The root collar and roots are inspected for the presence of decay, insects and/or damage, as well as if they have been injured, undermined or exposed, or original grade has been altered.

Based on these factors a determination of condition is made. The four condition categories are described below based on the species traits assessed:

Excellent – free of structural defects, no disease or pest problems, no root issues, excellent structure/form with uniform crown or canopy, foliage of normal color and density, above average vigor, it will be wind firm if isolated, suitable for its location

Good – free of significant structural defects, no disease concerns, minor pest issues, no significant root issues, good structure/form with uniform crown or canopy, foliage of normal color and density, average or normal vigor, will be wind firm if isolated or left as part of a grouping or grove of trees, suitable for its location

Fair – minor structural defects not expected to contribute to a failure in near future, no disease concerns, moderate pest issues, no significant root issues, asymmetric or unbalanced crown or canopy, average or normal vigor, foliage of normal color, moderate foliage density, will be wind firm if left as part of a grouping or grove of trees, cannot be isolated, suitable for its location

Poor – major structural defects expected to fail in near future, disease or significant pest concerns, decline due to old age, significant root issues, asymmetric or unbalanced crown or canopy, sparse or abnormally small foliage, poor vigor, not suitable for its location

A 'viable' tree, as defined by the City of Kirkland is "*A significant tree that a qualified professional has determined to be in good health, with a low risk of failure due to structural defects, is wind firm if isolated or remains as part of a grove, and is a species that is suitable for its location."* Trees considered 'non-viable' are trees that are in poor condition due to disease, age related decline, have significant decay issues and/or cumulative structural defects, which exacerbate failure potential.

The attached tree map indicates the 'condition' of the subject trees found at the site.

4. Observations

Tree #101 - #107 are planted cultivated varieties of maple (*Acer*) alongside the access road. None of the subject trees have concerning defects. All are viable. Tree #103 is just outside the property line and is a neighboring tree.

Tree #108 is a mature western red cedar. This tree has good taper and a full crown. This tree has no concerning defects, is in good condition and is viable.

Tree #109 is a red alder in the southeast property corner. Ivy is covering the trunk of this tree. This tree is in fair condition and is viable.

Tree #110 is a magnolia tree next to the stream running through the property. This tree has no concerning defects, is in good condition and is viable.

Tree #111 is a mature red alder, adjacent to the stream on the property. This tree is in fair condition and is viable.

Tree #112 is a deciduous tree, species unknown. This tree is leaning north and is surrounding by invasive blackberry. The subject tree is in fair condition and is viable.

Tree #113 is a hawthorn tree. This tree has some trunk decay. This tree has good foliage. The subject tree is in fair condition and is viable.

Tree #114 is an over mature red alder in the center of the property, nearby the stream. This tree has decay in the trunk

Neighboring trees

Tree #201 is a red maple in the 2nd Ave Right-of-way. This tree has no defects, is in fair condition and is viable.

Tree #103 is believed to be a *Cercis* variety (redbud) in the current road right-of-way. This tree has no defects, is in fair condition and is viable.

Tree #202 is a neighboring cherry tree. This tree has two co-dominant stems that fork 2' from the ground. The subject tree is in fair condition and is viable.

Tree #203, #204 and #205 are a grouping of mature willow trees. The subject trees are in decline. Severe decay, dead stems and dieback is present on every tree. Tree #203 and #205 are in fair condition and are viable. Tree #204 is in poor condition and is non-viable.

5. Discussion

The extent of drip-lines (farthest reaching branches) for the subject trees can be found on the tree summary table at the back of this report. These have also been delineated on a copy of the site survey for trees with a potentially reasonable chance of retention. The information plotted on the attached survey plan may need to be transferred to a final tree retention/protection plan to meet City submittal requirements. The trees that are to be removed shall be shown "X'd" out on the final plan.

The Limits of Disturbance (LOD) measurements can also be found on the tree summary table. These have been delineated on a copy of the site plan for parcel trees with a reasonable chance of retention and for neighboring trees. The LOD measurements are based on species, age, condition, drip-line, prior improvements, proposed impacts and the anticipated cumulative impacts to the entire root zone.

Tree Protection fencing shall be located beyond the drip-line edge of retained trees per the attached plan, and only moved back to the LOD when work is authorized. Once the garage is removed from the site, re-position fencing back to the drip-line for adjacent trees.

Finished landscaping work within the drip-lines of retained trees shall maintain existing grades and not disturb fine root mass at the ground surface. Finish landscape with beauty bark or new lawn on top of existing grade. Add no more than 2" to 4" of mulch/beauty bark or 2" of composted soil to establish new lawn. Raising the grade more than a few inches will have adverse impacts on fine roots by cutting off oxygen. Remove ivy from all retained trees.

The deciduous trees in Lot 3 (#112 - #115) are all in incipient or moderate stages of decline. These trees are all species with short productive lifespans. The only high-value retention tree on the property is tree #108, a mature western red cedar. This western red cedar is located on the south perimeter of Lot 1.

There are neighboring trees scattered around the perimeter of the property. Most of the neighboring trees are east of Lot 1 and 2.

This report assumes that no improvements will be made to the current access road. If improvements are made to the access road, standard tree protection measures will have to be taken to protect trees #101 - #107.

6. Tree Protection Measures

The following general guidelines are recommended to ensure that the designated space set aside for the preserved trees are protected and construction impacts are kept to a minimum.

1. Tree protection fencing should be erected around retained trees and positioned just beyond the drip-line edge prior to moving any heavy equipment on site. Doing this will set clearing limits and avoid compaction of soils within root zones of retained trees.

2. Any existing infrastructure to be removed within the drip-line or tree protection zone shall be removed by hand or utilizing a tracked mini-excavator.

3. Excavation limits should be laid out in paint on the ground to avoid over excavating.

4. Excavations within the drip-lines shall be monitored by a qualified tree professional so necessary precautions can be taken to decrease impacts to tree parts. A qualified tree professional shall monitor excavations when work is required and allowed within the "limits of disturbance".

5. To establish sub grade for foundations, curbs and pavement sections near the trees, soil should be removed parallel to the roots and not at 90 degree angles to avoid breaking and tearing roots that lead back to the trunk within the drip-line. Any roots damaged during these excavations should be exposed to sound tissue and cut cleanly with a saw. Cutting tools should be sterilized with alcohol.

6. Areas excavated within the drip-line of retained trees should be thoroughly irrigated weekly during dry periods.

7. Preparations for final landscaping shall be accomplished by hand within the drip-lines of retained trees. Large equipment shall be kept outside of the tree protection zones at all times. Simply finish landscape within 10' of retained trees with a 2" to 4" layer of organic mulch.

7. Tree Replacement

Eight supplemental trees will be necessary to meet the required minimum tree density for the parcels.

New tree plantings shall be given the appropriate space for the species and their growing characteristics. Refer to the *Kirkland Plant List* on the City's website for desirable species.

For planting and maintenance specifications, refer to chapters 95.50 and 51 of the Kirkland Zoning Code.

There is no warranty suggested for any of the trees subject to this report. Weather, latent tree conditions, and future man-caused activities could cause physiologic changes and deteriorating tree condition. Over time, deteriorating tree conditions may appear and there may be conditions, which are not now visible which, could cause tree failure. This report or the verbal comments made at the site in no way warrant the structural stability or long term condition of any tree, but represent my opinion based on the observations made.

Nearly all trees in any condition standing within reach of improvements or human use areas represent hazards that could lead to damage or injury.

Please call if you have any questions or I can be of further assistance.

Sincerely,

Kelly Wilkinson
ISA Certified Arborist #PN-7673A
ISA Tree Risk Assessment Qualified

City of Kirkland - Tree Protection Standards

1. Tree Protection Fencing shall be erected at prescribed distance per arborist report. Fences shall be constructed of chain link and be at least 4 feet high.
2. Install highly visible signs on protection fencing spaced no further than 15 feet apart. Signs shall state “Tree Protection Area-Entrance Prohibited”, and “City of Kirkland” code enforcement phone number.
3. No work shall be performed within protection fencing unless approved by Planning Official. In such cases, activities will be approved and supervised by a “Qualified Professional”.
4. The original grade shall not be elevated or reduced within protection fencing without the Planning Official authorization based on recommendations from a qualified professional.
5. No building materials, spoils, chemicals or substances of any kind will be permitted within protection fencing.
6. Protection Fencing shall be maintained until the Planning Official authorizes its removal.
7. Ensure that any approved landscaping within the protected zone subsequent to the approved removal of protection fencing be performed with hand labor.

In addition to the above, the Planning Official may require the following:

a. If equipment is authorized to operate within the root zone, the area will be mulched to a depth of 6” or covered with plywood or similar material to protect roots from damage caused by heavy equipment.
b. Minimize root damage by excavating a 2-foot deep trench, at edge of protection fencing to cleanly sever the roots of protected trees.
c. Corrective pruning to avoid damage from machinery or building activity.
d. Maintenance of trees throughout construction period by watering and fertilization.

Tag #	Species	DBH	Condition	Proposal	Tree Credits
101	red maple	9	good	Retain	1
102	red maple	11	good	Retain	1.5
104	maple 2	5, 6, 10	good	Retain	2.5
105	maple 2	9	good	Retain	1
106	maple 3	9	good	Retain	1
107	maple 3	10	good	Retain	1
108	western red cedar	33	good	Retain	12.5
109	red alder	14	fair	Retain	3
110	magnolia	11, 9	good	Remove	
111	English holly	7, 3, 3, 6	fair	Remove	
112	unknown deciduous	8, 7	fair	Remove	
113	hawthorn	9, 8	fair	Remove	
114	red alder	27	fair	Remove	
115	willow	7, 7, 9, 11	poor	Remove	

Tree Density Calculation
Lot Size – +/- 45,588 sq.ft.
45,588/43,560 X 30 = 31
Required Minimum Tree Density = 31 tree credits
Tree Credits Existing = 23.5
Supplemental Trees Required = 8

Photos

Tree #101 and #102 – red maple trees (neighboring trees)

Tree #103 neighboring tree

Tree #105 - #107 – trees along the access road

Tree #108 – western red cedar

Tree #110 – magnolia tree adjacent to stream

Tree #113 – hawthorn tree with trunk decay

Tree #115 – willow with co-dominant stem failure

Tree #115, #203, #204 and #205 – cluster of willow trees

Tree Summary Table

For: Post Alley
City of Kirkland

American Forest Management, Inc

Date: 3/23/2016
Inspector: Wilkinson

Tree/ Tag #	Species	Native/ Planted/ Volunteer	DBH (inches)	Height (feet)	Tree Credit	Drip-Line/Limits of Disturbance (feet) N	S	E	W	Condition	Viability	Comments	Proposal
101	red maple		9	33	1	12	11		12	good	viable		retain
102	red maple		11	41	1		13		15	good	viable		retain
104	maple 2		5, 6, 10	26	2.5	11	15		11	good	viable		retain
105	maple 2		9	32	1	13	12		15	good	viable		retain
106	maple 3		9	29	1	8	13		16	good	viable		retain
107	maple 3		10	28	1	12	8		13	good	viable		retain
108	western red cedar		33	54	12	18 / 15	16 / 8	18 / 15	15 / 10	good	viable		retain
109	red alder		14	86	3	22 / 8			29 / 8	fair	viable	ivy covering trunk	retain
110	magnolia		11, 9	28		18	15	9	15	good	viable	adjacent to stream	remove
111	English holly		7, 3, 3, 6	27		6	6	5	9	fair	viable	adjacent to stream	remove
112	unknown deciduous		8, 7	36		13	7	8	7	fair	viable	forks at 2'	remove
113	hawthorn		9, 8	35		11	13	12	16	fair	viable	trunk decay	remove
114	red alder		27	82		19	28	25	18	fair	viable	overmature	remove
115	willow		7, 7, 9, 11	25						poor	non-viable		remove

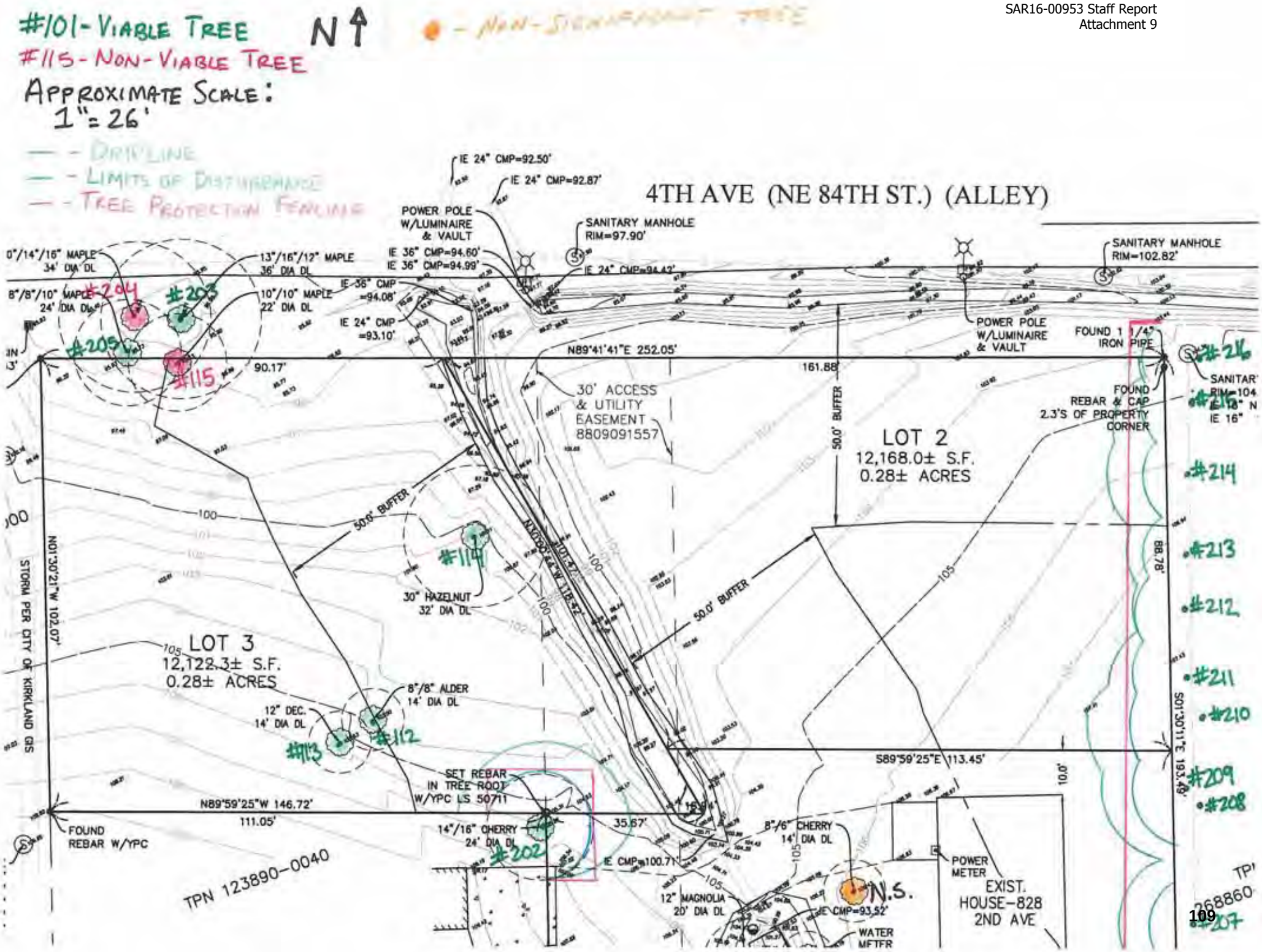
Parcel Trees - Drip-Line and Limits of Disturbance measurements from face of trunk
Trees on neighboring properties - Drip-Line and Limits of Disturbance measurements from property line

Tree Summary Table
For: Post Alley
Neighboring Trees

American Forest Management, Inc
Date: 3/23/2016
Inspector: Wilkinson

Tree/ Tag #	Species	Native/ Planted/ Volunteer	DBH (inches)	Height (feet)	Tree Credit	Drip-Line/Limits of Disturbance (feet) N	S	E	W	Condition	Viability	Comments
103	*Cercis* - redbud		7	22		12	14		10	fair	viable	
201	red maple		9	25		12			14	fair	viable	
202	cherry		14, 15	42		17 / 10	12 / 10	19 / 10		fair	viable	forks at 2'
203	willow		11, 11, 16	67						fair	viable	
204	willow		6, 8, 8, 13, 12, 12	28						poor	non-viable	
205	willow		6, 8, 8	49						fair	viable	
206	Douglas-fir		21	78					15 / 8	good	viable	
207	American sycamore		12	65					13 / 5	good	viable	
208	bitter cherry		10, 12, 9	57					2 / 5	fair	viable	
209	bitter cherry		14, 12, 11	62					15 / 10	fair	viable	
210	Douglas-fir		19	76					18 / 10	good	viable	
211	Douglas-fir		17	70					13 / 8	good	viable	
212	Douglas-fir		15	70					8 / 8	good	viable	
213	Douglas-fir		14	74					10 / 5	good	viable	
214	Douglas-fir		13	72					13 / 5	good	viable	
215	Douglas-fir		13	71					11 / 5	good	viable	
216	Douglas-fir		11	65					6 / 5	good	viable	

Parcel Trees - Drip-Line and Limits of Disturbance measurements from face of trunk
Trees on neighboring properties - Drip-Line and Limits of Disturbance measurements from property line


#101 - VIABLE TREE
N
- NON-SIGNIFICANT TREE
#115 - NON-VIABLE TREE
APPROXIMATE SCALE:
1" = 26'
- DRIPLINE
- LIMITS OF DISTURBANCE
- TREE PROTECTION FENCING
4TH AVE (NE 84TH ST.) (ALLEY)
IE 24" CMP=92.50'
IE 24" CMP=92.87'
POWER POLE W/LUMINAIRE & VAULT
SANITARY MANHOLE RIM=97.90'
IE 36" CMP=94.60'
IE 36" CMP=94.99'
IE 24" CMP=94.42'
SANITARY MANHOLE RIM=102.82'
13"/16"/12" MAPLE 36' DIA DL
10"/10" MAPLE 22' DIA DL
IE 36" CMP =94.08'
IE 24" CMP =93.10'
#204
#203
#205
#115
N89°41'41"E 252.05'
90.17'
161.88'
30' ACCESS & UTILITY EASEMENT 8809091557
50.0' BUFFER
LOT 2
12,168.0± S.F.
0.28± ACRES
FOUND 1 1/4" IRON PIPE
FOUND REBAR & CAP 2.3'S OF PROPERTY CORNER
#216
#214
#213
#212
#211
#210
#209
#208
#207
#114
30" HAZELNUT 32' DIA DL
N00°00'44"W 118.42'
101.47'
LOT 3
12,122.3± S.F.
0.28± ACRES
8"/8" ALDER 14' DIA DL
12" DEC. 14' DIA DL
#113
#112
N01°30'21"W 102.07'
STORM PER CITY OF KIRKLAND GIS
S01°30'11"E 193.49'
88.78'
S89°59'25"E 113.45'
10.0'
SET REBAR IN TREE ROOT W/YPC LS 50711
N89°59'25"W 146.72'
111.05'
FOUND REBAR W/YPC
14"/16" CHERRY 24' DIA DL
#202
35.67'
IE CMP=100.71'
8"/6" CHERRY 14' DIA DL
12" MAGNOLIA 20' DIA DL
N.S.
IE CMP=93.52'
WATER METER
POWER METER
EXIST. HOUSE-828 2ND AVE
TPN 123890-0040
TP' 268860

WEST QUARTER OF THE SOUTHEAST
/SHIP 25 NORTH, RANGE 5 EAST, W.M.,

OF SAID SUBDIVISION AT A POINT
FEET
OF SAID SECTION 5;
T ALONG THE NORTH LINE OF N.E.

NING;
T 350.12 FEET;
T 35.67 FEET;
T 16.94 FEET;
T 113.45 FEET;
104.71 FEET;
T 111.05 FEET;
260.09 FEET;
T 29.96 FEET;
NING.

ING, STATE OF WASHINGTON.

88 SQ. FT. +/-

TILITY EASEMENT 8809091557

WEST QUARTER OF THE SOUTHEAST
/SHIP 25 NORTH, RANGE 5 EAST, W.M.,

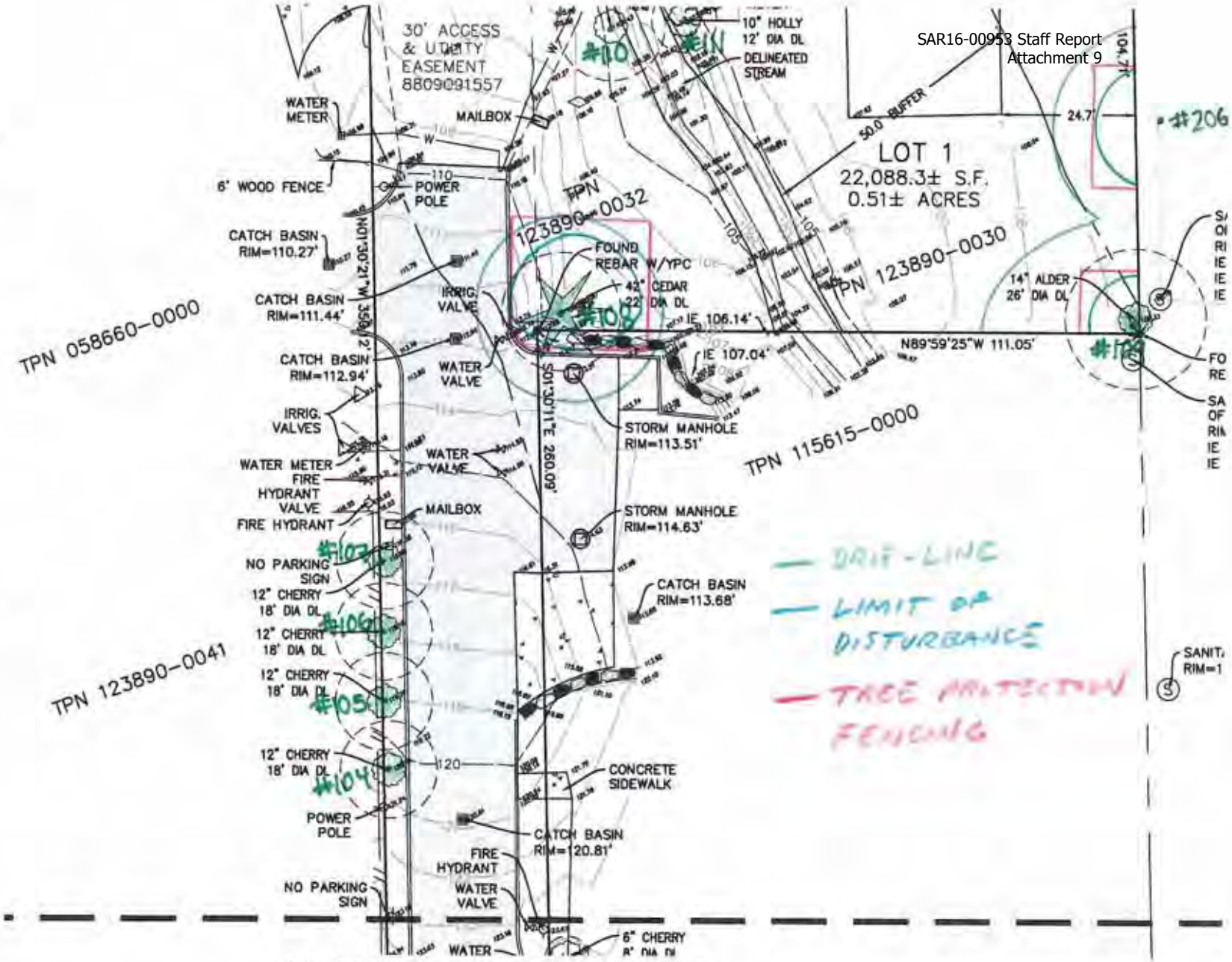
OF SAID SUBDIVISION AT A POINT
FEET
OF SAID SECTION 5;
T ALONG THE NORTH LINE OF N.E.

T 452.19 FEET;
T 90.17 FEET;
NING;
T 161.88 FEET;
88.78 FEET;
T 113.45 FEET;
T 101.47 FEET;
NING.

ING, STATE OF WASHINGTON.

58 SQ. FT. +/-

TILITY EASEMENT 8809091557



SEE MATCHLINE THIS SHEET

SANITARY MANHOLE
RIM=104.48'

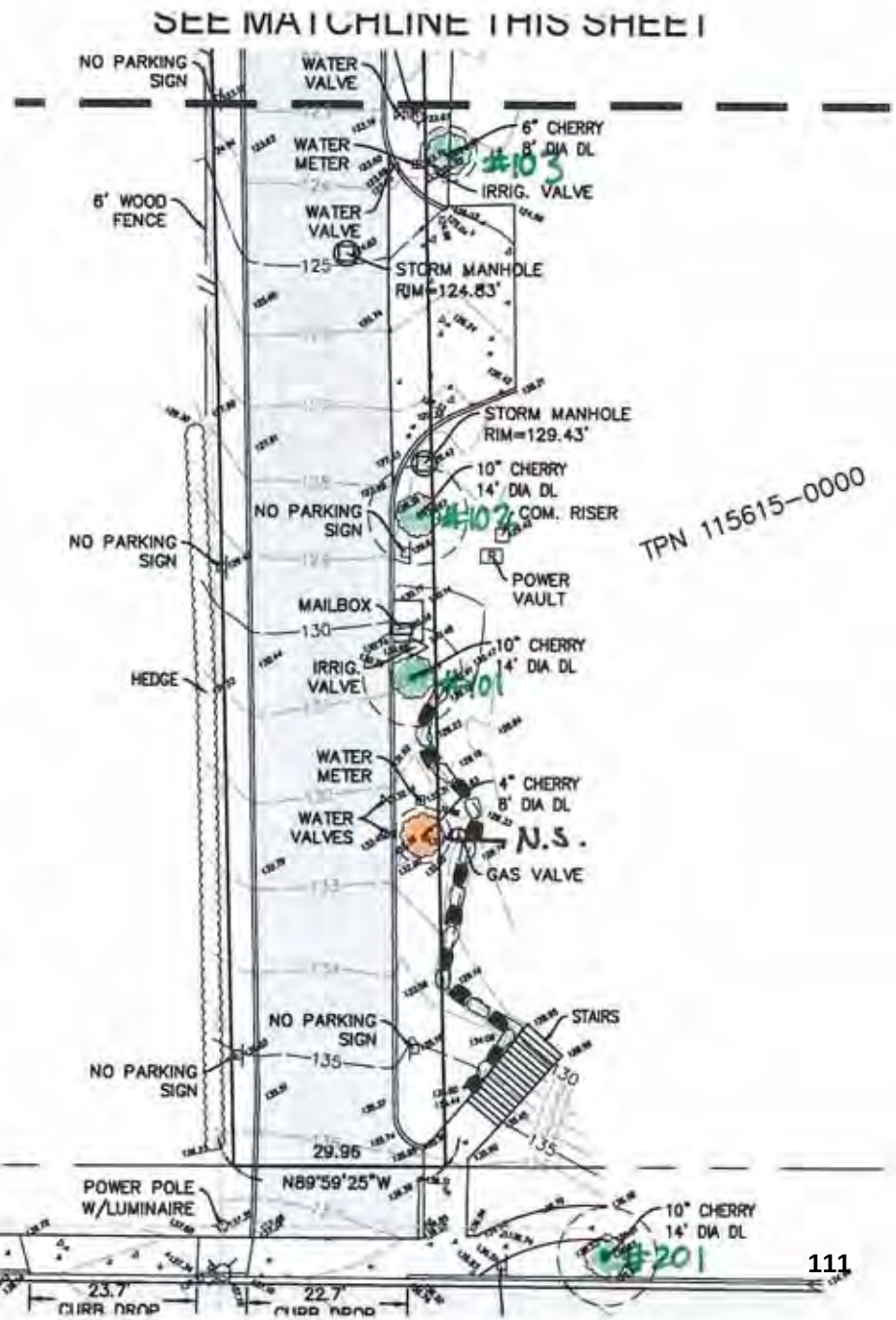
Y MANHOLE
.36'
W=97.66'
S=97.66'

- VIABLE SIGNIFICANT TREE

- NON-SIGNIFICANT TREE

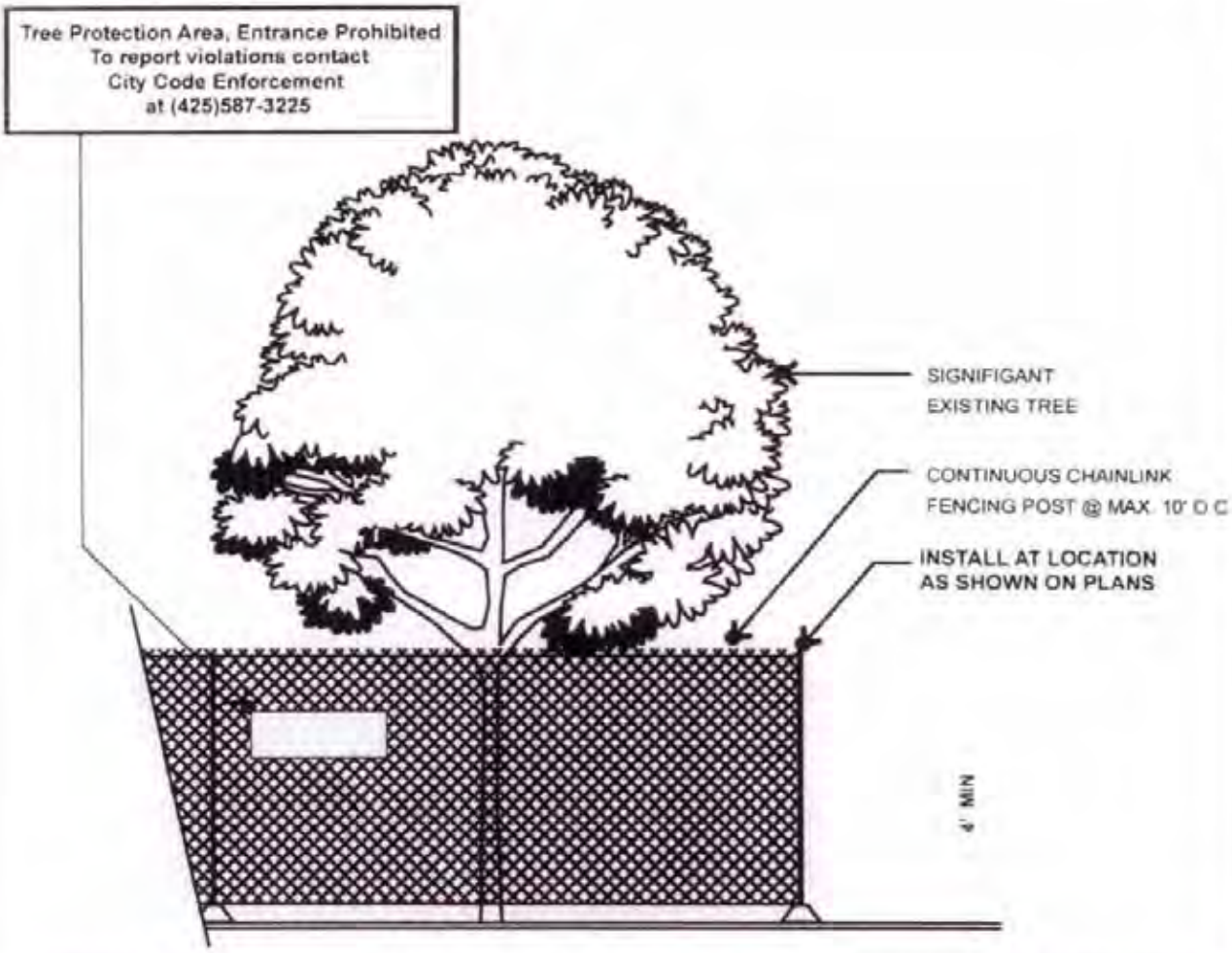
TREE TABLE

POINT NO.	TYPE	SIZE	DRIP LINE DIAMETER
1323	MAPLE	13/16/12	36
1324	MAPLE	10/14/16	34
1325	MAPLE	8/8/10	24
1326	MAPLE	10/10	22
1330	HAZELNUT	30	32
1346	CHERRY	14/16	24
1347	ALDER	8/8	14
1348	DECIDUOUS	12	14
1355	ALDER	14	26
1370	CEDAR	42	22
1378	CHERRY	8/6	14
1379	HOLLY	10	12
1381	MAGNOLIA	12	20
1440	CHERRY	12	18
1441	CHERRY	12	18
1442	CHERRY	12	18
1443	CHERRY	12	18
1498	CHERRY	10	14
1501	CHERRY	10	14
1523	CHERRY	4	8
1524	CHERRY	6	8
1581	CHERRY	10	14



-0000

FENCING SIGN DETAIL



1. MINIMUM FOUR (4) 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.

CITY OF KIRKLAND WASHINGTON

TREE PROTECTION FENCING DETAIL

SAVE HARMLESS AGREEMENT - STREAM

The undersigned, being all of the owners of the hereinafter described real property, hereby agree to indemnify, defend, and save harmless the City of Kirkland, its officers and employees from any claim, real or imaginary, filed against the City of Kirkland, its officers, or employees, alleging damage or injury caused by fault on the part of the undersigned, their employees or agents, and/or the City of Kirkland, its officers, or employees and arising out of maintenance, flooding, damming or enlargement of the stream existing on the hereinafter described real property; provided, however, this agreement shall not include damage resulting from the sole fault of the City of Kirkland, its officers, or employees. Fault as herein used shall have the same meaning as set forth in RCW 4.22.01. This Agreement shall also include all reasonable cost and expense, including attorney's fees, incurred by the City of Kirkland in investigation and/or defense of any such claim.

This Agreement shall be binding upon the heirs, successors, and assigns of the parties hereto and shall run with the land.

The real property subject to this Agreement is situated in Kirkland, King County, Washington, and described as follows:

See Exhibit A

DATED at Kirkland, Washington, this _____day of _____, _____.