CITY OF Mill Creek WASHINGTON

15728 Main Street, Mill Creek, WA 98012
Administration 425-745-1891
Police 425-745-6175
All Other Departments 425-551-7254

Exhibit 20

October 3, 2018

Sandra Martin
Capital Architects
2813 Rockefeller Avenue
Everett, Washington 98201

SUBJECT: TRC COMMENTS FOR MUTTLEY SQUARE, PL2018-0017

Dear Ms. Martin:

The City's Technical Review Committee (TRC) met on September 26, 2018, to review the above-referenced application. The TRC is comprised of City staff and staff from other agencies with jurisdiction. The purpose of the meeting was to:

1) Review the application for consistency with the City's adopted plans, policies and regulations;

2) Obtain comments from other affected agencies and districts; and

3) Determine the environmental impacts of the project pursuant to the State Environmental Policy Act (SEPA).

A number of issues/concerns to be addressed and the need for additional information were identified at the TRC meeting. A brief description of these items, organized by department/agency making the comments, is included below.

<u>City of Mill Creek Public Works and Development Services Department</u>

1) The Binding Site Plan needs to be revised as shown on the attached marked up copy.

2) The SEPA Checklist needs to be revised as shown on the attached marked up copy and updated with the information requested below.

3) The City's environmental consultant, ESA, has reviewed the Critical Areas Report and has provided comments, see attached memorandum dated September 20, 2018.

4) Traffic and Drainage: The City's consulting engineering firm, Perteet Engineering, reviewed the traffic study, drainage report and plan and geotechnical report. Perteet's comments are contained in the attached drainage and traffic review memos dated September 11 and 15, 2018. Marked up plan and reports that are referenced in the review memo are also attached.

5) Access: The site plan currently shows access to the development only through the Les Schwab site. Our review of the offer to grant access easement document shows that the right to access the subject property through the Les Schwab site is contingent upon the construction of a road/drive connecting the Les Schwab site to the Lowe's site/SR 96. However, no through road/drive is proposed on the plans; thus, it is not clear that you have the right to access the property as shown (without providing the through road/drive connecting the adjacent properties). If you wish to access the property as proposed without providing a through road/drive, please provide documentation that shows that the Les Schwab property owner supports the proposed access configuration.

   Since the subject property has been granted offers to grant access, the City is currently exploring its options for granting access directly to SR 527. The City should have an answer on this shortly.

Snohomish County Fire District No. 7

Snohomish County Fire District No. 7 has reviewed the proposed site plan and has provided comments (see attached letter date September 14, 2018). In addition, Snohomish County Fire District No. 7 mitigation will be required. An estimate of the required mitigation is included in the Preliminary Development Impact Mitigation Checklist.

Silver Lake Water and Sewer District

The City received comments from District Engineer, Rick Gilmore in letter dated September 14, 2018 (see attached). A Developer Extension Agreement (DEA) will be required for the water and sewer work and an offsite easement acquisition from Lowes to extend the water main will need to be obtained. Please contact the District directly with questions on their requirements.

Snohomish County PUD

The City received comments from PUD in a letter dated September 25, 2018 (see attached). Please ensure their drainage and vegetation concerns are addressed.

The following agencies did not submit comments:

- Snohomish County Public Works
- City of Mill Creek Police Department

- Frontier Communications
- Community Transit
- Department of Ecology
- WSDOT

If comments are received, they will be forwarded to you.

Preliminary Development Impact Mitigation Checklist

A preliminary estimate of SEPA impact mitigation fees due later in the development review process is attached in the Preliminary Development Impact Mitigation Checklist.

Conclusion

Please be aware that the above comments are intended to address the major concerns raised to date by the City and other agencies with jurisdiction and are based on the plans and information received. They are not to be interpreted as recommended Conditions of Approval.

Next Steps

The City has stopped the 120-day time period for processing the application pending receipt of the revised SEPA checklist, drainage report, critical areas report and Binding Site Plan set. After the required items are submitted to the City per this letter, the SEPA determination can be issued and a public hearing before the Hearing Examiner can be scheduled. Be advised that you will be directly billed for the City's Consultant reviews and the Hearing Examiner expenses. Please resubmit online through Mybuildingpermit.com.

Should you have any questions about the review process, or should you want to set up a meeting to discuss the issues addressed in this letter in more detail, please call me at (425) 921-5738.

Sincerely,

Christi Amrine, AICP
Senior Planner

Enclosures:

Binding Site Plan Redlines
SEPA Checklist Redlines and Preliminary Development Impact Mitigation Checklist
Review Memorandum from ESA dated September 20, 2018

Review Memorandums from Perteet Engineering for drainage and traffic dated September 11 and 15, 2018 along with Preliminary Technical Information Report/Plan Redlines and Recorded Easement
Review Letter Snohomish County Fire District No. 7 dated September 14, 2018
Silver Lake Water and Sewer District comments dated September 14, 2018
Snohomish County PUD comments dated September 25, 2018

Copy to: Julie Nealey
Director of Public Works and Planning & Development Services
Planning & Development Services Manager
Supervising Engineer

RECORDING NO.	VOL/PG

Muttley Square ~~JULIE NEALEY~~

A BINDING SITE PLAN

NE 1/4, NE 1/4, SEC.31, T.28N., R.5E., W.M.

CITY OF MILL CREEK, SNOHOMISH COUNTY, WASHINGTON

City Comments. Please address and resubmit.
Christi Amrine, Senior Planner. 425-921-5738

DECLARATION

KNOW ALL PERSONS BY THESE PRESENTS THAT JULIE NEALEY, THE UNDERSIGNED OWNER(S) IN FEE SIMPLE OF THE LAND CONTAINED WITHIN AND HEREBY BOUND BY THIS BINDING SITE PLAN WITH RECORD OF SURVEY, HEREBY DECLARE THIS BINDING SITE PLAN WITH RECORD OF SURVEY SUBJECT TO THE FOLLOWING CONDITIONS, COVENANTS, RESTRICTIONS, EASEMENTS AND REQUIREMENTS:

A. ALL DEVELOPMENT AND USE OF THE LAND DESCRIBED HEREIN SHALL BE IN ACCORDANCE WITH THE BINDING SITE PLAN, AS IT MAY LAWFULLY BE AMENDED WITH THE APPROVAL OF THE CITY OF MILL CREEK, WASHINGTON, AND IN ACCORDANCE WITH SUCH OTHER GOVERNMENTAL PERMITS, APPROVALS, REGULATIONS, REQUIREMENTS AND RESTRICTIONS THAT MAY BE IMPOSED UPON SUCH LAND AND THE DEVELOPMENT AND USE THEREOF.

B. NO FURTHER SUBDIVISION OF ANY LOT SHALL OCCUR WITHOUT RESUBMITTING FOR CITY APPROVAL.

C. THE SALE OF LESS THAN A WHOLE LOT HEREIN IS EXPRESSLY PROHIBITED.

D. FOLLOWING COMPLETION OF THE ORIGINAL GRADING OF PARKING AREAS, ROADS AND WAY SHOWN HEREON, NO DRAINAGE WATERS ON ANY LOT OR LOTS SHALL BE DIVERTED OR BLOCKED FROM THEIR NATURAL COURSE SO AS TO DISCHARGE UPON ANY PUBLIC ROAD RIGHT-OF-WAY TO HAMPER PROPER ROAD DRAINAGE PRIOR TO MAKING ANY ALTERATION IN THE DRAINAGE SYSTEM AFTER RECORDING OF THIS BINDING SITE PLAN WITH RECORD OF SURVEY, THE OWNER OF ANY LOT(S) MUST MAKE APPLICATION TO AND RECEIVE APPROVAL FROM THE CITY OF MILL CREEK FOR SAID ALTERATION. ANY ENCLOSURE OF DRAINAGE WATERS IN CULVERTS OR DRAINS OR REROUTING THEREOF ACROSS ANY LOT(S) AS MAY BE UNDERTAKEN BY OR FOR THE OWNER OF ANY LOT(S) SHALL BE DONE BY AND AT THE EXPENSE OF SUCH OWNER.

IN WITNESS WHEREOF WE SET OUR HANDS AND SEALS THIS____ DAY OF _____, 2018.

BY: _____

JULIE NEALEY

DECLARATION ACKNOWLEDGEMENT

STATE OF WASHINGTON)
)SS
COUNTY OF SNOHOMISH)

I CERTIFY THAT I KNOW OR HAVE SATISFACTORY EVIDENCE THAT JULIE NEALEY IS THE PERSON WHO APPEARED BEFORE ME, AND SAID PERSON ACKNOWLEDGED THAT SHE SIGNED THIS INSTRUMENT ON OATH STATING THAT SHE SIGNED THIS INSTRUMENT AND ACKNOWLEDGED IT TO BE HER FREE AND VOLUNTARY ACT FOR THE USES AND PURPOSES MENTIONED IN THE INSTRUMENT.

DATED _____

SIGNATURE OF NOTARY PUBLIC

PRINTED NAME _____

TITLE _____

RESIDING AT _____

MY APPOINTMENT EXPIRES _____

CITY APPROVALS

CITY OF MILL CREEK

EXAMINED AND FOUND TO BE IN SUBSTANTIAL COMPLIANCE WITH CONDITIONS OF APPROVAL OF BINDING SITE PLAN PL2018- 0017

_____ _____
DIRECTOR OF PUBLIC WORKS AND DEVELOPMENT SERVICES DATE

I, THE UNDERSIGNED PUBLIC WORKS DIRECTOR, HEREBY CERTIFY THAT ALL REQUIRED PUBLIC IMPROVEMENTS HAVE BEEN CONSTRUCTED, INSPECTED AND APPROVED OR THAT A BOND IN THE AMOUNT AND IN A FORM APPROVED BY THE CITY HAS BEEN OBTAINED ASSURING COMPLETION OF SAID IMPROVEMENTS.

_____ _____
CITY ENGINEER DATE

I, THE UNDERSIGNED MAYOR, ON BEHALF OF THE CITY OF MILL CREEK, HEREBY ACCEPT SUCH DEDICATIONS AND EASEMENTS AS MAY BE INCLINED THEREON.

_____ _____
MAYOR DATE

_____ _____
ATTEST, CITY CLERK DATE

I HEREBY CERTIFY THAT THERE ARE NO DELINQUENT SPECIAL ASSESSMENTS OF ANY OF THE PROPERTY HEREIN CONTAINED DEDICATED AS STREETS, ALLEYS, OR FOR OTHER PUBLIC PURPOSES ARE PAID IN FULL THIS _____ DAY OF _____, 2018.

_____
TREASURER, CITY OF MILL CREEK

COUNTY APPROVALS

COUNTY TREASURER'S CERTIFICATE

I HEREBY CERTIFY THAT ALL STATE AND COUNTY TAXES HERETOFORE LEVIED AGAINST THE PROPERTY DESCRIBED HEREIN, ACCORDING TO THE BOOKS AND RECORDS OF MY OFFICE, HAVE BEEN FULLY PAID AND DISCHARGED, INCLUDING 2018 TAXES.

_____
TREASURER, SNOHOMISH COUNTY

BY: _____
DEPUTY TREASURER

SURVEYOR'S CERTIFICATE

THIS MAP CORRECTLY REPRESENTS A SURVEY MADE BY ME OR UNDER MY DIRECTION IN CONFORMANCE WITH THE REQUIREMENTS OF THE SURVEY RECORDING ACT AT THE REQUEST OF JULIE NEALY IN JULY, 2018.

_____
REGISTERED PROFESSIONAL LAND SURVEYOR

_____
CERTIFICATE NO.

_____
DATE

DARREN J. RIDDLE STATE OF WASHINGTON 37536 REGISTERED PROFESSIONAL LAND SURVEYOR

AUDITOR'S CERTIFICATE

FILED FOR RECORD AT THE REQUEST OF _____

THIS _____ DAY OF _____, 20____, AT _____

MINUTES PAST _____M. AND RECORDED IN VOLUME _____ OF

BINDING SITE PLANS, PAGE(S) _____, AUDITOR'S FILE NO.

_____ RECORDS OF SNOHOMISH COUNTY, WASHINGTON.

_____
AUDITOR, SNOHOMISH COUNTY

BY: _____
DEPUTY COUNTY AUDITOR

A.F. NO. _____ 1 of 3

DARREN J. RIDDLE STATE OF WASHINGTON 37536 REGISTERED PROFESSIONAL LAND SURVEYOR

Pacific Coast Surveys, Inc.
LAND SURVEYING & MAPPING
P.O. BOX 13619
MILL CREEK, WA 98082
PH. 425.512.7099 FAX 425.357.3577
www.PCSurveys.net

BINDING SITE PLAN FOR:
Muttley Square
~~JULIE NEALEY~~
NE 1/4, NE 1/4, SEC.31, T.28N., R.5E., W.M.

DRAWN BY	DATE	DRAWING FILE NAME	SCALE	JOB NO.
DP	08.27.18	181492bsp.dwg	N/A	18-1492

RECORDING NO.	VOL/PG

~~JULIE NEALEY~~

A BINDING SITE PLAN

NE 1/4, NE 1/4, SEC.31, T.28N., R.5E., W.M.

CITY OF MILL CREEK, SNOHOMISH COUNTY, WASHINGTON

CONDITIONS AND RESTRICTIONS

BINDING EFFECT

0017

THIS BINDING SITE PLAN, PL2018–, AS CONDITIONED AND APPROVED BY THE HEARING EXAMINER OF THE CITY OF MILL CREEK ON _____, 2018 (AND THE FOREGOING COVENANTS, CONDITIONS, RESTRICTIONS AND EASEMENTS) SHALL CONSTITUTE COVENANTS THAT RUN WITH THE LAND AND SHALL BE BINDING UPON ALL PARTIES AND ALL PERSONS WHO ARE OR SHALL BECOME THE OWNER OF, OR OTHERWISE HAVE AN INTEREST IN, THE LAND DESCRIBED HEREIN, THE PERSONAL OBLIGATIONS OF DECLARANT SHALL TERMINATE AT SUCH TIME AS DECLARANT TRANSFERS ALL ITS INTEREST IN THE LAND; PROVIDED THAT THE THEN OWNERS OF THE LAND SHALL CONTINUE TO BE FULLY OBLIGATED HEREUNDER.

OWNER RELEASE

THE OWNERS AND ALL PERSONS HAVING ANY PRESENT OR SUBSEQUENT OWNERSHIP INTEREST IN THESE LANDS, AND THEIR SUCCESSORS AND THE ASSIGNS OF OWNERS OR OTHER PARTIES HAVING ANY SAID INTEREST, HEREBY RELEASE, INDEMNIFY, AND HOLD THE CITY HARMLESS FROM ALL CLAIMS FOR INJURIES, DAMAGES, LIABILITIES, PENALTIES OR INJUNCTIVE RELIEF OF WHATEVER NATURE ARISING FROM (1) THE DESIGN, CONSTRUCTION AND MAINTENANCE OBLIGATIONS AS DESCRIBED IN THE MILL CREEK MUNICIPAL CODE AND, (2) THE DESIGN, CONSTRUCTION, OPERATION AND DOWNSTREAM IMPACTS CAUSED BY OR ATTRIBUTABLE TO THE STORMWATER SYSTEM ON–SITE AND HEREBY WAIVE AND RELEASE THE CITY FROM ANY AND ALL SUCH CLAIMS EXCEPT TO THE EXTENT JUDICIALLY DETERMINED TO RESULT FROM A NEGLIGENT ACT OR OMISSION OF THE CITY.

THE OWNER(S) SHALL BE RESPONSIBLE TO SERVICE AND MAINTAIN ALL DRAINAGE FACILITIES LOCATED WITHIN THE BINDING SITE PLAN. THE CITY RESERVES THE RIGHT BUT SHALL NOT HAVE THE OBLIGATION TO PERFORM ANY INSPECTIONS, SERVICE AND MAINTENANCE NECESSARY TO ENSURE THAT THE DRAINAGE FACILITIES ARE OPERATING PROPERLY. IT SHALL BE THE RESPONSIBILITY OF THE OWNER(S) TO PROMPTLY REIMBURSE THE CITY FOR ALL COSTS AND EXPENSES INCURRED IN MAINTAINING OR SERVICING THE DRAINAGE FACILITIES.

FOLLOWING ORIGINAL REASONABLE GRADING OF ROADS AND WAYS HERETO, NO DRAINAGE WATERS ON ANY LOT OR LOTS SHALL BE DIVERTED OR BLOCKED FROM THEIR NATURAL COURSE SO AS TO DISCHARGE UPON ANY PUBLIC ROADS RIGHT–OF–WAY, OR TO HAMPER PROPER ROAD DRAINAGE.

UTILITIES AND ROADWAYS

ALL ACCESS ROADS AND PARKING AREAS SHALL BE MAINTAINED FOR THE TENANTS OF BUILDING AND THEIR SUCCESSORS AND ASSIGNS BY THE PROPERTY OWNER(S) OF THE PROPERTY OR THEIR SUCCESSORS AND ASSIGNS.

ALL UTILITIES HAVE BEEN INSTALLED IN ACCORDANCE WITH APPROVALS ISSUED BY THE CITY OF MILL CREEK AND THE APPROPRIATE UTILITY DISTRICT OR PURVEYOR.

ALL UTILITY EASEMENTS FOR SANITARY SEWER, WATER AND STORM DRAINAGE HAVE BEEN PREPARED AND RECORDED WITH SNOHOMISH COUNTY IN ACCORDANCE WITH THE GENERAL LOCATIONS SHOWN ON THE PLAN.

FRONTAGE IMPROVEMENT MAINTENANCE

THIS COVENANT SHALL RUN WITH THE LAND AND BIND ALL SUBSEQUENT OWNERS. THE OWNERS SHALL BE RESPONSIBLE TO PROVIDE ROADSIDE MAINTENANCE TO THE BACK OF CURB AND GUTTER ALONG THE BINDING SITE PLAN FRONTAGE, INCLUDING SR 527. THIS INCLUDES ALL SERVICE AND MAINTENANCE EXCEPT FOR STRUCTURAL SIDEWALK REPAIRS IN THE PUBLIC RIGHT–OF–WAY WHICH SHALL BE THE RESPONSIBILITY OF THE CITY OF MILL CREEK.

TRACT 999

TRACT 999, A NATIVE GROWTH PROTECTION AREA, SHALL BE LEFT PERMANENTLY UNDISTURBED IN A SUBSTANTIALLY NATURAL STATE. NO CLEARING, GRADING, FILLING, BUILDING CONSTRUCTION OR PLACEMENT, OR ROAD CONSTRUCTION OF ANY KIND SHALL OCCUR, EXCEPT REMOVAL OF HAZARDOUS TREES. THE OWNER OF LOT 1 SHALL BE RESPONSIBLE FOR PROTECTING AND MAINTAINING THE NATIVE GROWTH PROTECTION AREA. THE CITY HAS THE RIGHT TO ENFORCE THE TERMS OF THIS EASEMENT.

UTILITY WARNING

THE UNDERGROUND UTILITIES SHOWN HAVE BEEN LOCATED FROM FIELD SURVEY INFORMATION AND EXISTING DRAWINGS. THE SURVEYOR MAKES NO GUARANTEE THAT THE UNDERGROUND UTILITIES SHOWN COMPRISE ALL SUCH UTILITIES IN THE AREA, EITHER IN SERVICE OR ABANDONED. THE SURVEYOR FURTHER DOES NOT WARRANT THAT THE UNDERGROUND UTILITIES SHOWN ARE IN THE EXACT LOCATION INDICATED ALTHOUGH HE DOES CERTIFY THAT THEY ARE LOCATED AS ACCURATELY AS POSSIBLE FROM INFORMATION AVAILABLE. THE SURVEYOR HAS NOT PHYSICALLY LOCATED THE UNDERGROUND UTILITIES.

FRONTAGE IMPROVEMENTS / MAINTENANCE

THIS COVENANT SHALL RUN WITH THE LAND AND SHALL BIND ALL SUBSEQUENT OWNERS. THE OWNERS SHALL BE RESPONSIBLE TO PROVIDE ROADSIDE MAINTENANCE TO THE BACK OF THE CURB AND GUTTER ALONG THE BINDING SITE PLAN FRONTAGE, INCLUDING STATE ROUT 527 AND DUMAS ROAD. THIS INCLUDES ALL SERVICE AND MAINTENANCE. EXCEPT FOR STRUCTURAL SIDEWALK REPAIRS IN THE PUBLIC RIGHT–OF–WAY, WHICH SHALL BE THE RESPONSIBILITY OF THE CITY OF MILL CREEK.

Please add text and update for this project:

WETLAND (TRACT 999) NGPA RESTRICTION

WETLAND AND REQUIRED BUFFER AREAS ARE TO BE LEFT PERMANENTLY UNDISTURBED. NO CLEARING, GRADING, FILLING, BUILDING CONSTRUCTION OR PLACEMENT, OR ROAD CONSTRUCTION OF ANY KIND SHALL OCCUR, EXCEPT REMOVAL OF HAZARDOUS TREES UPON EXPRESS APPROVAL OF THE CITY OF MILL CREEK. THE WETLAND AND BUFFER AREAS AS SHOWN ON THIS BSP SHALL BE MAINTAINED CONSISTENT WITH THE APPROVED CRITICAL AREAS REPORT DATED 10–24–16.

TRACT 998

TRACT 998 (A PRIVATE ROADWAY BUFFER AND CUTTING PRESERVE) SHALL BE MAINTAINED BY THE DEVELOPER FOR THE PURPOSES OF PROVIDING A BUFFER BETWEEN THE DEVELOPMENT AREA AND SR 527. SAID TRACT IS SUBJECT TO ALL RESTRICTIONS, CONDITIONS, AND LIMITATIONS AS DEFINED IN MCMC 14.02.030R.

UTILITY EASEMENT

AN EASEMENT IS RESERVED AND GRANTED FOR ALL UTILITIES SERVING SUBJECT BSP/ROS AND THEIR RESPECTIVE SUCCESSORS AND ASSIGNS, UNDER AND UPON THE EXTERIOR TEN (10) FEET PARALLEL WITH AND ADJOINING THE STREET FRONTAGE OF LOT 1 AND TRACT 999 IN WHICH TO INSTALL, LAY, CONSTRUCT, RENEW, OPERATE AND MAINTAIN UNDERGROUND CONDUITS, CABLES, PIPES, AND WIRES WITH NECESSARY FACILITIES AND OTHER EQUIPMENT FOR THE PURPOSE OF SERVING THIS SUBDIVISION AND OTHER PROPERTY WITH ELECTRIC, TELEPHONE, GAS, TELEVISION CABLE AND OTHER UTILITY SERVICES TOGETHER WITH THE RIGHT TO ENTER UPON THE LOTS AT ALL TIMES FOR THE PURPOSES HEREIN STATED. DRAINAGE EASEMENTS DESIGNATED ON THE BSP/ROS ARE HEREBY RESERVED FOR AND GRANTED TO THE CITY OF MILL CREEK, EXCEPT THOSE DESIGNATED ON THE BSP/ROS AS PRIVATE EASEMENTS. TOGETHER WITH THE RIGHT OF INGRESS AND EGRESS AND THE RIGHT TO EXCAVATE, CONSTRUCT, OPERATE, MAINTAIN, REPAIR AND/OR REBUILD AN ENCLOSED OR OPEN CHANNEL STORMWATER CONVEYANCE SYSTEM AND/OR OTHER DRAINAGE FACILITIES, UNDER, UPON OR THROUGH THE DRAINAGE EASEMENT.

GENERAL CONDITIONS

LOTS HAVE BEEN APPROVED BASED ON AN APPROVED DRAINAGE PLAN WHICH REQUIRES IMPERVIOUS SURFACES AND DRAINS TO BE CONNECTED TO THE STORMWATER SYSTEM. SEE DRAINAGE PLAN FOR MORE INFORMATION.

LAND AREA

TOTAL LAND AREA:	115,082 SF 2.64 ACRES
LOT 1:	57,016 SF 1.31 ACRES
TRACT 999:	58,065 SF 1.33 ACRES

Tract 998 Roadway Buffer

PARKING Requirements

15 TOTAL SPACES

PROPERTY INFORMATION

PROJECT TYPE:	28053100100400
SITE AREA:	115,082 SF 2.64 ACRES
ZONING:	COMMUNITY BUSINESS CB
EX. BUILDING FOOTPRINT:	0
PROPOSED BUILDING FOOTPRINT:	1,992 SF
USE OFFICE/ADMIN. GROUP B OCCUPANCY	
TOTAL EX. GROSS BUILDING AREA:	0 SF
TOTAL PROP. GROSS BUILDING AREA:	4,428 SF

~~PROPOSED SCOPE OF WORK FOR THIS PROJECT;DEVELOPE~~
(5) 560 SF PET DAY CARE FACILITIES
(1) 1,628 SF OFFICE
PARKING AND LANDSCAPE

MAX. LOT COVERAGE:	NONE
MAX. HEIGHT:	40 FT

SETBACKS:
STREETSCAPE/ROADWAY BUFFER,
35' FROM EDGE OF RIGHT OF WAY

PARKING / SPACE PER 300 SF
4,428 / 300 = 14.76
PROPOSED = 15 SPACES

IMPERVIOUS AREA:

PARKING LOT:	4,073 SF
ROAD:	1,731 SF
HOUSES:	5,659 SF
TOTAL	11,463 SF

~~(REQUIRES DETENTION VAULT)~~

LEGAL DESCRIPTION

ALL THAT PORTION OF THE NORTHEAST QUARTER OF SECTION 31, TOWNSHIP 28 NORTH, RANGE 5 EAST, W.M., IN SNOHOMISH COUNTY, WASHINGTON, DESCRIBED AS FOLLOWS:

BEGINNING AT THE NORTHEAST CORNER OF SAID SECTION 31;
THENCE SOUTH 00°54' WEST 160 FEET;
THENCE NORTH 51°03'15" WEST 113.57 FEET TO THE SOUTHEASTERLY RIGHT OF WAY LINE OF STATE HIGHWAY;
THENCE SOUTHWESTERLY ALONG SAID SOUTHEASTERY LINE ON A CURVE TO THE RIGHT HAVING A RADIUS OF 317.9 FEET, A DISTANCE OF 117.92 FEET;
THENCE SOUTH 74°11' WEST ALONG SAID SOUTHEASTERLY LINE 32.08 FEET TO THE TRUE POINT OF BEGINNING;
THENCE SOUTH 51°03'15" EAST TO EAST LINE OF SAID SECTION;
THENCE SOUTH TO A POINT WHICH IS 560 FEET SOUTH OF THE NORTHEAST CORNER OF SAID SECTION;
THENCE SOUTH 89°58' WEST 330 FEET;
THENCE NORTH 04°58'54" WEST 371.04 FEET TO THE SOUTHEASTERLY RIGHT OF WAYLINE OF STATE HIGHWAY;
THENCE NORTH 74°11' EAST 150 FEET, MORE OR LESS, TO THE TRUE POINT OF BEGINNING.

EXCEPT THAT PORTION CONVEYED TO THE STATE OF WASHINGTON UNDER SNOHOMISH COUNTY CAUSE NO. 02–207147–1.

SITUATE IN THE COUNTY OF SNOHOMISH, STATE OF WASHINGTON.

DARREN J. RIDDLE — STATE OF WASHINGTON — 37536 — REGISTERED PROFESSIONAL LAND SURVEYOR

Pacific Coast Surveys, Inc.
LAND SURVEYING & MAPPING
P.O. BOX 13619
MILL CREEK, WA 98082
PH. 425.512.7099 FAX 425.357.3577
www.PCSurveys.net

A.F. NO. _____

BINDING SITE PLAN FOR:
Muttley Square
~~JULIE NEALEY~~

NE 1/4, NE 1/4, SEC.31, T.28N., R.5E., W.M.

DRAWN BY	DATE	DRAWING FILE NAME	SCALE	JOB NO.
DP	08.27.18	181492bsp.dwg	N/A	18-1492

~~JULIE NEALEY~~

A BINDING SITE PLAN

RECORDING NO.	VOL/PG

LEGEND

- SET 1/2" X 24" REBAR W/CAP STAMPED "PCS 37536"
- EXISTING REBAR W/CAP, AS NOTED
- SET NAIL AND WASHER STAMPED "PCS 37536"
- EXISTING NAIL AND WASHER AS NOTED
- FOUND CONCRETE MONUMENT AS NOTED
- RIGHT OF WAY CENTERLINE
- STORM DRAIN MANHOLE
- INVERT/CULVERT
- CATCH BASIN
- WATER VALVE
- FIRE HYDRANT
- SANITARY SEWER MANHOLE
- MAILBOX
- SIGN POST
- UTILITY/POWER POLE
- GUY ANCHOR
- POWER VAULT
- LIGHT STANDARD
- CHAIN LINK FENCE
- WOOD FENCE
- EX. CHAIN LINK FENCE

N 88°46'29" W N. LINE SECTIION 31, TOWNSHIP 28 N., RANGE 5 E.

132ND ST. S.E. (S.R. 96)

47.11'

30 29 31 32

FOUND CASED CONC. MON. W/INV. NAIL IN LEAD. DOWN 1.5'. MAY 2018

N 01°45'29" E 333.71' (BASIS OF BEARING)

E. LINE SECTION 31, TOWNSHIP 28 N., RANGE 5 E.

BOTHELL-EVERETT HIGHWAY (S.R. 527)

168.63'

N 75°13'47" E 666.00'

497.37'

55'

50'

55.87'

15' TRANSMISSION EASEMENT AFN 200306240574

CONC. CURB

CONC. WALK

N 75°18'15" E 164.77'

27.58'

13.5'

35' ROADWAY BUFFER

FOUND REBAR W/CAP STAMPED "33658" 27.58' SOUTHEASTERLY OF CORNER ON PROP. LINE

108.03'

Label Tract 998 Roadway Buffer

28053200202800

LOT 2
LOWE'S BINDING SITE PLAN
ELECTRICAL EQUIPMENT SUB STATION

DOG PARK

LOT 1
57,016 SF

L1

CONC. WALL

EX. CHAIN LINK FENCE

N 50°13'01" W 238.32'

106.25'

13.2'

L10

44.05'

FOUND CASED CONC. MON. W/INV. NAIL IN LEAD. DOWN 1.5'. MAY 2018

FOUND REBAR W/CAP STAMPED "33658" AT CORNER

CONC. WALL 0.2'(E) AT PROP. COR.

FOUND REBAR W/CAP STAMPED "33658". 3.2'(N), 15.3'(S) OF PROP. COR.

CONC. WALK

P P P

Label width of access drive

CONC. CURB

CONC. WALK

28053100100700

LES SCHWAB TIRE STORE

CONC. WALL

N 03°28'51" W 345.57'

DOG HOUSE #5

DOG HOUSE #4

DOG HOUSE #3

DOG HOUSE #2

DOG HOUSE #1

PICNIC TABLE

PICNIC TABLE

C2 L2 C3 L3 C4 L4 C5 L5 C6 L6 L7 C7 C8 L8 L9 C9

Label 10 foot building setback from wetland

TOTAL LOT AREA
115,082 SF
28053100100400

100' WETLAND BUFFER

CATEGORY 2 WETLAND
1,513 SF

TRACT 999 NGPA
58,065 SF

WOOD FENCE

N 01°45'29" E 226.29'

28053200204500

CONC. CURB

CONC. CURB

CONC. CURB

CONCRETE

CONC. CURB

SUN DECK

MAIN OFFICE

SIGN

END OF WALL 1.1'(E) OF PROP. LINE

FUTURE ACCESS ROAD AS SHOWN ON LOWE'S BINDING SITE PLAN.

25' 25'

address easement agreement requirements

FOUND 1" IRON PIPE, 0.5'(W) & 0.3'(S) OF CORNER

4 YARD DUMSTER

FENCE COR. 0.7'(N) OF PROP. LINE

WOOD FENCE

N 89°10'31" W 330.00'

EX. CHAIN LINK FENCE

FENCE 3.7'(S) OF PROP. COR.

FOUND REBAR, NO CAP. 0.3'(E), 0.4'(S) OF PROP. COR.

28053100105000

TRACT 996
LOWE'S BINDING SITE PLAN
STORM WATER RETENTION POND

28053100100900

EQUIPMENT & PROCEDURES

METHOD OF SURVEY:
SURVEY PERFORMED BY FIELD TRAVERSE

INSTRUMENTATION:
LEICA TS15 ROBOTIC ELECTRONIC TOTAL STATION

PRECISION:
MEETS OR EXCEEDS STATE STANDARDS WAC 332-130-090

BASIS OF BEARING:
THE MONUMENTED EAST LINE OF THE NE/4 SECTION 31 AS THE BEARING OF NORTH 01°45'29" EAST.

CURVE TABLE

CURVE	RADIUS	LENGTH	ANGLE
C1	286.48'	200.68'	40°08'12"
C2	10.00'	6.84'	39°12'44"
C3	10.00'	5.20'	29°46'34"
C4	10.00'	4.16'	23°49'48"
C5	10.00'	6.71'	38°27'48"
C6	10.02'	13.73'	78°31'23"
C7	10.02'	15.29'	87°24'41"
C8	110.24'	227.14'	118°03'22"
C9	149.18'	98.50'	37°49'47"

LINE TABLE

LINE	BEARING	DISTANCE
L1	N 68°59'21" E	108.53'
L2	N 29°46'37" E	42.86'
L3	N 00°00'03" E	46.52'
L4	N 23°49'51" E	45.28'
L5	N 14°37'58" W	37.61'
L6	N 86°50'39" E	19.53'
L7	N 03°09'21" W	56.24'
L8	N 89°25'58" E	26.75'
L9	N 04°01'05" E	36.51'
L10	N 39°47'43" E	12.25'

NOTES

1.) THIS SURVEY HAS BEEN PREPARED FOR THE EXCLUSIVE USE OF PARTIES WHOSE NAMES APPEAR HEREON ONLY, AND DOES NOT EXTEND TO ANY UNNAMED THIRD PARTIES WITHOUT EXPRESS RECERTIFICATION BY THE LAND SURVEYOR.

2.) BOUNDARY LINES SHOWN AND CORNERS SET REPRESENT DEED LOCATIONS; OWNERSHIP LINES MAY VARY. NO GUARANTEE OF OWNERSHIP IS EXPRESSED OR IMPLIED.

SCALE: 1" = 40'

0 40 80

DARREN J. RIDDLE
STATE OF WASHINGTON
37536
REGISTERED
PROFESSIONAL LAND SURVEYOR

Pacific Coast Surveys, Inc.
LAND SURVEYING & MAPPING
P.O. BOX 13619
MILL CREEK, WA 98082
PH. 425.512.7099 FAX 425.357.3577
www.PCSurveys.net

BINDING SITE PLAN FOR:
Muttley Square
~~JULIE NEALEY~~

NE 1/4, NE 1/4, SEC.31, T.28N., R.5E., W.M.

DRAWN BY	DATE	DRAWING FILE NAME	SCALE	JOB NO.
DP	08.27.18	181492bsp.dwg	1" = 40'	18-1492

A.F. NO. _____ 3 of 3

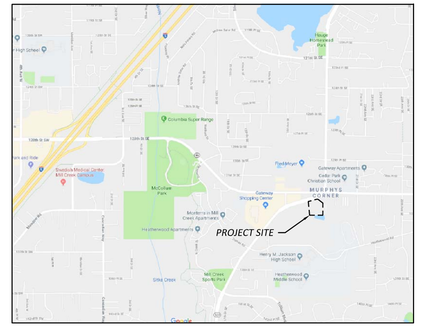
NE 1/4, NE 1/4, SECTION 31, TOWNSHIP 28 NORTH, RANGE 5 EAST, W.M.

STELLA & FLOYD'S DOG DC

13209 BOTHELL-EVERETT HWY

MILL CREEK, WA 98012

CAUTION!
CALL BEFORE YOU DIG!
BURIED UTILITIES EXIST IN THE AREA AND UTILITY INFORMATION SHOWN MAY NOT BE COMPLETE. CONTACT THE ONE- CALL UTILITY LOCATE SERVICE A MINIMUM OF 48 HOURS PRIOR TO CONSTRUCTION
1-800-424-5555



VICINITY MAP
NTS

APPLICANT

JULIE NEALEY
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425.408.3254
CONTACT: JULIE NEALEY

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CIVIL ENGINEER
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SOIL/GEOTECH ENGINEER
NELSON GEOTECHNICAL ASSOCIATES
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WOODINVILLE, WA 98072
425.486.1669
CONTACT: ALEX R

WETLAND ECOLOGIST
WETLAND RESOURCES, INC
9505 19TH AVE SE, STE 106
EVERETT, WA 98208
425.337.3174
CONTACT: SCOTT WALTERS

SURVEYOR
PACIFIC COAST SURVEYS, INC
PO BOX 13619
MILL CREEK, WA 98082
425.512.7099 FAX 357.3577
CONTACT: DARREN RIDDLE

UTILITIES

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SILVER LAKE WATER & SEWER DISTRICT
15205 41ST AVE SE
BOTHELL, WA 98012
425.337.3647

ELECTRIC
SEATTLE CITY LIGHT
3912 156TH ST SE
BOTHELL, WA 98012
425.338.9696

LEGAL DESCRIPTION

ALL THAT PORTION OF THE NORTHEAST QUARTER OF SECTION 31, TOWNSHIP 28 NORTH, RANGE 5 EAST, W.M., IN SNOHOMISH COUNTY, WASHINGTON, DESCRIBED AS FOLLOWS:

BEGINNING AT THE NORTHEAST CORNER OF SAID SECTION 31;
THENCE SOUTH 00°54' WEST 160 FEET;
THENCE NORTH 51°03'15" WEST 113.57 FEET TO THE SOUTHEASTERLY RIGHT OF WAY LINE OF STATE HIGHWAY;
THENCE SOUTHWESTERLY ALONG SAID SOUTHEASTERY LINE ON A CURVE TO THE RIGHT HAVING A RADIUS OF 317.9 FEET, A DISTANCE OF 117.92 FEET;
THENCE SOUTH 74°11' WEST ALONG SAID SOUTHEASTERLY LINE 32.08 FEET TO THE TRUE POINT OF BEGINNING;
THENCE SOUTH 51°03'15" EAST TO EAST LINE OF SAID SECTION;
THENCE SOUTH TO A POINT WHICH IS 560 FEET SOUTH OF THE NORTHEAST CORNER OF SAID SECTION;
THENCE SOUTH 89°58' WEST 330 FEET;
THENCE NORTH 04°58'54" WEST 371.04 FEET TO THE SOUTHEASTERLY RIGHT OF WAYLINE OF STATE HIGHWAY;
THENCE NORTH 74°11' EAST 150 FEET, MORE OR LESS, TO THE TRUE POINT OF BEGINNING.

EXCEPT THAT PORTION CONVEYED TO THE STATE OF WASHINGTON UNDER SNOHOMISH COUNTY CAUSE NO. 02-207147-1.

SITUATE IN THE COUNTY OF SNOHOMISH, STATE OF WASHINGTON.

SHEET INDEX

BASIS OF BEARING

THE MONUMENTED EAST LINE OF THE NE/4 SECTION 31 AS THE BEARING OF NORTH 01°45'29" EAST.

DATUM

NAVD 88

GENERAL NOTES

1. ALL WORK AND MATERIALS SHALL BE IN ACCORDANCE WITH THE CURRENT EDITION OF THE WSDOT "STANDARD SPECIFICATIONS FOR ROAD, BRIDGE, AND MUNICIPAL CONSTRUCTION", CITY OF MILL CREEK STANDARD PLANS AND ANY DEVELOPMENT CONDITIONS OF APPROVAL. IT SHALL BE THE SOLE RESPONSIBILITY OF THE APPLICANT AND THEIR PROFESSIONAL ENGINEER TO CORRECT AND NOTE ANY ERRORS, OMISSIONS, OR VARIATIONS FROM THE REQUIREMENTS FOUND IN THESE PLANS.
2. A CITY RIGHT-OF-WAY [ROW] PERMIT IS REQUIRED FOR ANY WORK THAT WILL IMPACT THE PUBLIC ROW IN ACCORDANCE WITH MCMC CHAPTER 12.04.
3. PRIOR TO BEGINNING ANY SITE CONSTRUCTION, THE APPLICANT, THEIR ENGINEER AND CONTRACTOR SHALL MEET WITH THE PUBLIC WORKS DEPARTMENT FOR A PRE-CONSTRUCTION MEETING.
4. A COPY OF THE APPROVED PLANS MUST BE ON THE SITE WHENEVER CONSTRUCTION IS IN PROGRESS.
5. PRIOR TO ANY TREE REMOVAL ON SITE, THE CLEARING LIMITS SHALL BE LOCATED AND PROTECTED AS REQUIRED ON THE APPROVED PLANS. BARRIER FENCING SHALL BE PLACED AROUND THE DRIPLINE OF THE TREES TO RETAINED AND CITY STAFF SHALL FIELD INSPECT THE TREES TO BE RETAINED PRIOR TO COMMENCEMENT OF CLEARING AND GRADING ACTIVITES.
6. IN ACCORDANCE WITH MCMC SECTION 15.10.075.B, WHERE TREES DESIGNATED TO BE RETAINED ARE DAMAGED, DESTROYED OR REMOVED DURING THE CONSTRUCTION OF THE PROPOSED IMPROVEMENTS, A PENALTY IN THE AMOUNT OF $1,000 MAY BE ASSESSED PER TREE, AND EACH TREE SHALL BE REPLACED AT A 3:1 RATIO.
7. APPROPRIATE BEST MANAGEMENT PRACTICES (BMP'S) FOR EROSION AND SEDIMENT CONTROL SHALL BE INSTALLED PRIOR TO ANY GRADING OR LAND CLEARING IN ACCORDANCE WITH THE APPROVED STORMWATER POLLUTION PREVENTION PLAN [SWPPP). THESE BMP'S MUST BE SATISFACTORILY MAINTAINED UNTIL CONSTRUCTION AND LANDSCAPING IS COMPLETED AND THE POTENTIAL FOR ONSITE EROSION HAS PASSED.
8. BETWEEN OCTOBER 1 AND APRIL 30, NO SOILS SHALL REMAIN EXPOSED AND UNWORKED FOR MORE THAN TWO DAYS. FROM MAY 1 THROUGH SEPTEMBER 30, NO SOILS SHALL REMAIN EXPOSED AND UNWORKED FOR MORE THAN SEVEN DAYS. ANY UNWORKED SOIL SHALL BE STABILIZED WITH AN APPROVED BMP UNLESS OTHERWISE APPROVED BY THE CITY ENGINEER.
9. PUBLIC STREETS SHALL BE CLEANED ONCE PER DAY WITH A REGENERATIVE AIR VACUUM SWEEPER OR AS DIRECTED BY THE CITY. FLUSHING OF STREETS WITH WATER WILL NOT BE ALLOWED.
10. LOCATIONS OF EXISTING UTILITIES ARE APPROXIMATE. THE CONTRACTOR SHALL CONTACT THE UNDERGROUND UTILITY LOCATE CENTER AT 811 NO LESS THAN 48 HOURS PRIOR TO BEGINNING OF CONSTRUCTION.
11. THE CONTRACTOR SHALL COMPLY WITH ALL OTHER NECESSARY PERMITS AND REQUIREMENTS BY THE CITY OF MILL CREEK OR OTHER GOVERNING AUTHORITY/AGENCY.

STORM DRAINAGE NOTES

1. ALL CATCH BASINS TO BE TYPE I UNLESS OTHERWISE REQUIRED.
2. ALL CATCH BASINS WITH A DEPTH OVER FIVE FEET TO THE FLOW LINE SHALL BE TYPE II.
3. STANDARD LADDER STEPS SHALL BE PROVIDED IN ALL CATCH BASINS AND MANHOLES EXTENDING OVER FIVE FEET IN DEPTH.
4. ALL DRAINAGE STRUCTURES SHALL INCORPORATE A DUCTILE IRON FRAME AND GRATE OR SOLID LID IN ACCORDANCE WITH THE FOLLOWING REQUIREMENTS:
   A) STRUCTURES RECEIVING FLOW IN ONLY ONE DIRECTION SHALL INCLUDE A VANED FRAME AND GRATE.
   B) STRUCTURES IN A CURB LINE RECEIVING FLOW IN TWO DIRECTIONS SHALL USE A THROUGH CURB INLET WITH A VANED BI-DIRECTIONAL GRATE WITH A FULL HEIGHT DIAMOND PLATE HOOD.
   C) ROLLED FRAME AND GRATES MAY BE USED ONLY WHERE APPROVED BY THE CITY ENGINEER.
   D) STRUCTURES OUTSIDE A CURB LINE [E.G. PARKING LOTS) RECEIVING FLOW FROM MULTIPLE DIRECTIONS MAY USE A FRAME AND GRATE WITH A FLAT HERRINGBONE PATTERN OR EQUIVALENT.
   E) ALL DRAINAGE STRUCTURES OUTSIDE A WATER COLLECTION AREA SHALL HAVE SOLID LIDS UNLESS OTHERWISE APPROVED BY THE CITY.
   F) ALL GRATES OR SOLID LIDS WITHIN THE PUBLIC RIGHT-OF-WAY SHALL BE NON-LOCKING. GRATES AND SOLID LIDS OUTSIDE THE PUBLIC RIGHT-OF-WAY MAY BE LOCKING AT THE OWNER'S DISCRETION.
   G) ALL FRAME AND GRATES OR SOLID LIDS SHALL HAVE AN HS-25 RATING.
5. THE CONTRACTOR SHALL BE RESPONSIBLE FOR ADJUSTING ALL FRAMES AND GRATES OR SOLID LIDS PRIOR TO FINAL PAVING. ALL UTILITY MANHOLES, VALVES AND SURVEY MONUMENTS SHALL BE ADJUSTED AFTER PAVING.
6. STUB OUTS FOR TRADITIONAL YARD, FOUNDATION AND ROOF DRAINS SHALL BE INSTALLED BEHIND THE SIDEWALK AS REQUIRED. POSITIVE DRAINAGE IS TO BE PROVIDED WITH A CONNECTION TO THE NEAREST CATCH BASIN STRUCTURE. THE LOCATION AND TYPE OFSTUB-OUT SHALL BE INDICATED WITH AN ABOVE GROUND MARKER.
7. ALL STORM WATER DETENTION AND WATER QUALITY FACILITIES, FLOW CONTROL STRUCTURES, PIPES AND CATCH BASINS SHALL BE JETTED AND CLEANED PRIOR TO FINAL CITY ACCEPTANCE.
8. ALL STORM DRAIN PIPES SHALL BE 12" MINIMUM DIAMETER UNLESS APPROVED BY THE CITY ENGINEER. PIPE AND JOINT MATERIALS SHALL BE IN ACCORDANCE WITH SECTIONS 7-04 AND 9-05 OF THE WSDOT STANDARD SPECIFICATIONS.

LOW IMPACT DEVELOPMENT CONSTRUCTION NOTES

1. CONTACT CITY PUBLIC WORKS STAFF FOR A SEPARATE PRE-CONSTRUCTION MEETING PRIOR TO BEGINNING WORK ON ALL LID SITES.
2. INSTALL PERIMETER PROTECTION AROUND ALL RAIN GARDEN, BIOSWALE, OR PERMEABLE PAVEMENT SITES AFTER ROUGH GRADING WORK.
3. PERIMETER PROTECTION MUST REMAIN IN PLACE AND BE MAINTAINED AROUND ALL LID SITES UNTIL FACILITY CONSTRUCTION BEGINS. THIS IS TO PREVENT COMPACTION OF NATIVE SOILS AND EXISTING SOILS FROM GETTING CLOGGED WITH SEDIMENT.
4. RAIN GARDEN CONSTRUCTION SHALL FOLLOW THE CURRENT RAIN GARDEN HANDBOOK FOR WESTERN WASHINGTON FOR SPECIFICATIONS AND CONSTRUCTION GUIDANCE.
5. BIOSWALE CONSTRUCTION SHALL FOLLOW THE CURRENT LID TECHNICAL GUIDANCE MANUAL FOR SPECIFICATIONS AND CONSTRUCTION GUIDANCE.
6. BIORETENTION SOIL MIX REQUIRES A LAB REPORT FOR PHYSICAL SUBMITTAL TO THE CITY INSPECTOR.
7. PERMEABLE PAVEMENT SHALL BE COVERED WITH PLASTIC AFTER INSTALLATION IN ORDER TO PREVENT CONSTRUCTION MATERIALS FROM CLOGGING THE SURFACE. PLASTIC SHALL NOT BE REMOVED UNTIL ALL EARTH WORK AND BUILDING CONSTRUCTION IS COMPLETE.
8. ALL RAIN GARDENS SHALL HAVE A CITY APPROVED EDUCATION SIGN INSTALLED AFTER COMPLETION.
9. LOW IMPACT DEVELOPMENT SITES SHALL BE FULLY FUNCTIONING PRIOR TO FINAL CITY ACCEPTANCE.

LANDSCAPE NOTES

1. TREES SHALL HAVE ONE CENTRAL LEADER. IF THE LEADER WAS HEADED, A NEW LEADER [WITH A LIVE TERMINAL BUD) AT LEAST ONE-HALFTHE DIAMETER OF THE PRUNING CUT SHALL BE PRESENT
   • ALL TREES ARE ASSUMED TO HAVE ONE CENTRAL LEADER TREES UNLESS A DIFFERENT FORM IS SPECIFIED IN THE PLANT LIST OR DRAWINGS.
2. TWINE AND BURLAP USED FOR WRAPPING THE ROOT BALL PACKAGE SHALL BE NATURAL, BIODEGRADABLE MATERIAL.
3. CONTAINER ROOT BALL SHAVING: THE OUTER SURFACES OF ALL CONTAINER TREES, INCLUDING THE TOP, SIDES AND BOTTOM OF THE ROOT BALL SHALL BE SHAVED TO REMOVE ALL CIRCLING, DESCENDING, AND MATTED ROOTS. SHAVING SHALL BE PERFORMED USING SAWS, KNIVES, SHARP SHOVELS OR OTHER SUITABLE EQUIPMENT THAT IS CAPABLE OF MAKING CLEAN CUTS ON THE ROOTS. SHAVING SHALL REMOVE A MINIMUM OF ONE INCH OF ROOT MAT OR UP TO 2 INCHES AS REQUIRED TO REMOVE ALL ROOT SEGMENTS THAT ARE NOT GROWING REASONABLY RADIAL TO THE TRUNK.
4. FOR TREES TO BE PLANTED IN PREPARED PLANTING SOIL THAT IS DEEPER THAN THE ROOT BALL DEPTH, COMPACT THE SOIL UNDER THE ROOT BALL USING A MECHANICAL TAMPER TO ASSURE A FIRM BEDDING FOR THE ROOT BALL. PLANTING SOIL IS THE SITE SOIL EXCAVATED FROM THE PLANTING PIT, MIXED WITH A MAXIMUM OF 5% ORGANIC MATTER.
5. ROOT BARRIER IS REQUIRED ADJACENT TO TREES PLANTED IN A PLANTER STRIP NARROWER THAN SIX FEET AND IN LANDSCAPE ISLANDS. BARRIER ADJACENT TO THE CURB SHALL BE 24 INCHES AND BARRIER ADJACENT TO THE SIDEWALK SHALL BE 18 INCHES.
6. SET TOP OUTER EDGE OF THE ROOT BALL AT THE AVERAGE ELEVATION OF THE PROPOSED FINISH. SET THE PLANT PLUMB AND UPRIGHT IN THE CENTER OF THE PLANTING HOLE. THE TREE GRAFT, IF APPLICABLE, SHALL BE VISIBLE ABOVE THE GRADE. DO NOT PLACE SOIL ON TOP OF THE ROOT BALL.
7. AFTER THE ROOT BALL HAS BEEN PLACED IN THE EXCAVATED PIT, REMOVE ROOT BALL WRAPPING (BURLAP, WIRE BASKET, TWINE, ETC.) FROM THE TOP 12 INCHES OR 2/3 OF THE ROOT BALL, WHICHEVER IS GREATER. CUT THE BURIAP AWAY; DO NOT FOLD DOWN ONTO THE PLANTING SOIL.
8. STABILIZE THE ROOT BALL BY FIRMING A RING OF BACKFILL SOIL AROUND THE BOTTOM OF THE ROOT BALL. PLACE ADDITIONAL PLANTING SOIL AROUND BASE AND SIDES OF BALL IN SIX-INCH (6") LIFTS. LIGHTLY TAMP EACH LIFT USING FOOT PRESSURE OR HAND TOOLS TO SETTLE BACKFILL, SUPPORT THE TREE AND ELIMINATE VOIDS. DO NOT OVER COMPACT THE BACKFILL OR USE MECHANICAL OR PNEUMATIC TAMPING EQUIPMENT.
9. WHEN THE PLANTING HOLE HAS BEEN BACKFILLED TO THREE QUARTERS OF ITS DEPTH, WATER SHALL BE POURED AROUND THE ROOT BALL AND ALLOWED TO SOAK INTO THE SOIL TO SETTLE THE SOIL. DO NOT FLOOD THE PLANTING SPACE. AIR POCKETS SHALL BE ELIMINATED AND BACKFILL CONTINUED UNTIL THE PLANTING SOIL IS BROUGHT TO GRADE LEVEL.
10. WHERE INDICATED ON THE DRAWINGS, BUILD A 4 INCH HIGH, LEVEL BERM OF PLANTING SOIL AROUND THE OUTSIDE OF THE ROOT BALL TO RETAIN WATER. TAMP THE BERM TO REDUCE LEAKING AND EROSION OF THE SAUCER.
11. THOROUGHLY WATER THE PLANTING SOIL AND ROOT BALL IMMEDIATELY AFTER PLANTING.
12. REMOVE ALL NURSERY PLANT IDENTIFICATION TAGS AND RIBBONS PRIOR TO FINAL INSPECTION.
13. DO NOT STAKE OR GUY TREES UNLESS SPECIFICALLY REQUIRED BY THE CONTRACT DOCUMENTS, OR IN THE EVENT THAT THE CONTRACTOR FEELS THAT STAKING IS THE ONLY ALTERNATIVE WAY TO KEEP PARTICULAR TREES PLUMB.
14. TREES THAT ARE GUYED SHALL HAVE THEIR GUYS AND STAKES REMOVED AFTER ONE FULL GROWING SEASON.
15. APPLY 2 TO 4 INCHES OFMULCH BEFORE SETTLEMENT, COVERING THE ENTIRE PLANTING BED AREA. INSTALL NO MORE THAN 1 INCH OFMULCH OVER THE TOP OF THE ROOT BALLS OF ALL PLANTS. TAPER TO 2 INCHES WHEN ABUTTING PAVEMENT.
16. MAINTENANCE DURING THE PERIOD PRIOR TO SUBSTANTIAL COMPLETION ACCEPTANCE SHALL CONSIST OF PRUNING, WATERING, CULTIVATING, WEEDING, MULCHING, REMOVAL OF DEAD MATERIAL, RESETTING PLANTS TO PROPER GRADES AND UPRIGHT POSITION, AND FURNISHING AND APPLYING SUCH SPRAYS AS ARE NECESSARY TO KEEP PLANTINGS REASONABLY FREE OF DAMAGING INSECTS AND DISEASE, AND IN HEALTHY CONDITION. THE THRESHOLD FOR APPLYING INSECTICIDES AND HERBICIDE SHALL FOLLOW ESTABLISHED INTEGRATED PEST MANAGEMENT (IPM) PROCEDURES. MULCH AREAS SHALL BE KEPT REASONABLY FREE OF WEEDS, GRASS.

AS-BUILT REQUIREMENTS

1. THE AS-BUILT DRAWINGS SHALL SHOW THE FINAL LOCATION OF ALL INFRASTRUCTURE LOCATED WITHIN THE PUBLIC RIGHT-OF-WAY, INCLUDING BUT NOT LIMITED TO: STREETS, CURBS, STORM DRAIN FACILITIES. CITY OWNED STREET LIGHTS, MEDIANS, SIDEWALKS, ETC. FINAL ELEVATIONS AND LOCATIONS OF ROADWAY AND DRAINAGE FACILITIES SHALL BE MEASURED BY A LICENSED SURVEYOR.
2. ELEVATIONS OF THE ROADWAY CENTERLINE AND CURB FLOW LINE SHALL BE MEASURED EVERY FIFTY FEET AFTER THE FINAL LIFT OF ASPHALT HAS BEEN PLACED, INCLUDING THE BEGINNING AND END OF BOTH HORIZONTAL AND VERTICAL CURVES AND ALL POINTS OF INTERSECTION.
3. THE AS-BUILT INFORMATION OF ALL STORM DRAINAGE CONVEYANCE FACILITIES SUCH AS CATCH BASINS, INLETS, PIPES AND SWALES SHALL INCLUDE INVERTS AND RIM ELEVATIONS, AS WELL AS THE MATERIAL TYPE AND SIZE. OPEN CHANNELS SHALL ALSO INCLUDE CROSS-SECTIONS AT APPROPRIATE LOCATIONS TO VERIFY DESIGN REQUIREMENTS.
4. THE FINAL AS-BUILT STORAGE VOLUME AND DIMENSIONS OF THE STORM WATER DETENTION FACILITIES, ALONG WITH THE ORIFICE SIZE (S) OF THE CONTROL STRUCTURE, SHALL BE FIELD MEASURED AND INCLUDED ON THE AS-BUILT DRAWINGS.
5. AS-BUILT INFORMATION CAN EITHER BE SHOWN BY ADDING NEW INFORMATION TO A SET OF THE APPROVED DRAWINGS OR CREATING A NEW SEPARATE PLAN SET. FOR ELEVATION DIFFERENCES, A LINE SHOULD CROSS OUT OLD ELEVATIONS AND NEW ELEVATIONS SHOULD BE ENTERED NEXT TO THE ORIGINAL INFORMATION. ORIGINAL INFORMATION SHALL NOT BE REMOVED FROM THE APPROVED PLANS UNLESS APPROVED BY THE CITY ENGINEER.
6. AS-BUILT DRAWINGS SHALL BE SUBMITTED ELECTRONICALLY TO THE CITY ENGINEER IN ONE COMPLETE FILE IN PDF FORMAT.

Include construction sequence

LEGEND

DESCRIPTION	EXISTING	PROPOSED
PROPERTY LINE		
ADJACENT PROPERTY LINE		
CENTERLINE		
CLEARING LIMITS		
SILT FENCE	X X	X X
CONTOUR LINE	100	100
FENCE		
SANITARY SEWER LINE	SS SS	SS SS
MANHOLE		
STORM DRAIN MAIN	SD SD	SD SD
STORM DRAIN PIPE		
ROOF DRAIN	R R	R R
FOOTING DRAIN	F F	F F
PRESSURE LINE	P P	P P
CATCH BASIN (TYPE 1)		
CATCH BASIN (TYPE 2)		
CLEANOUT		
CLEANOUT AND WYE		
GRADE BREAK		
SURFACE SWALE		
DRAINAGE ARROW		
WATER LINE	WA WA	WA WA
WATER METER		
FIRE HYDRANT		
FDC		
PIV		
GATE VALVE		
TEE		
90° BEND		
THRUST BLOCKING		
CAP		
CONCRETE PAVEMENT		
ASPHALT PAVEMENT		
CRUSHED SURFACING		
ROCKERY		
SPOT ELEVATION	20.0	20.0
TELEPHONE LINE	T T	T T
POWER LINE	E E	E E
GAS LINE	G G	G G
SIGN		

ABBREVIATIONS			
ABN	ABANDONED	MIN	MINIMUM
BLDG	BUILDING	MJ	MECHANICAL JOINT
BOW	BOTTOM OF WALL	MON	MONUMENT
℄	CENTERLINE	NTS	NOT TO SCALE
CB	CATCH BASIN	OC	ON CENTER
CMP	CORRUGATED METAL PIPE	PC	POINT OF CURVATURE
CO	CLEANOUT	PI	POINT OF INTERSECTION
CONC	CONCRETE	PIV	POST INDICATOR VALVE
CONST	CONSTRUCTION	PL	PROPERTY LINE
CP	CONCRETE PIPE	PT	POINT OF TANGENCY
CU YD	CUBIC YARD	PVC	POLYVINYL CHLORIDE PIPE
DDCVA	DOUBLE DETECTOR CHECK VALVE ASSEMBLY	PVI	POINT OF VERTICAL INTERSECTION
DI	DUCTILE IRON PIPE	PVMT	PAVEMENT
DIA	DIAMETER	PVT	POINT OF VERTICAL TANG.
DIP	DUCTILE IRON PIPE	R	RADIUS
EA	EACH	REINF	REINFORCEMENT
EJ	EXPANSION JOINT	RJ	RESTRAINED JOINT
ELEV	ELEVATION	RET	RETAINING
EOP	EDGE OF PAVEMENT	RT	RIGHT
EX	EXISTING	SD	STORM DRAIN
FDC	FIRE DEPT. CONNECTION	SECT	SECTION
FFE	FINISHED FLOOR ELEVATION	SDMH	STORM DRAIN MANHOLE
FH	FIRE HYDRANT	SIM	SIMILAR
FL	FLANGE	SQ	SQUARE
FT	FEET/FOOT	SS	SANITARY SEWER
GV	GATE VALVE	SSMH	SANITARY SEWER MANHOLE
HP	HIGH POINT	STA	STATION
HT	HEIGHT	STD	STANDARD
ID	INSIDE DIAMETER	STL	STEEL
IE	INVERT ELEVATION	TB	THRUST BLOCK
L	LENGTH/LINE	TOC	TOP OF CURB
LCPE	LINED CORRUGATED POLYETHYLENE PIPE	TOW	TOP OF WALL
LF	LINEAL FOOT	TOP	TOP ELEVATION
LP	LOW POINT	TYP	TYPICAL
LT	LEFT	VC	VERTICAL CURVE
MAX	MAXIMUM	W/	WITH
MECH	MECHANICAL	WM	WATER METER
MH	MANHOLE		

CG ENGINEERING
250 4TH AVE. S., SUITE 200
EDMONDS, WASHINGTON 98020
PHONE (425) 778-8500
FAX (425) 778-5536

PRELIMINARY
NOT FOR CONSTRUCTION
REGISTERED PROFESSIONAL ENGINEER
06/29/18

MARK	DATE	DESCRIPTION
	06/29/18	PRELIMINARY

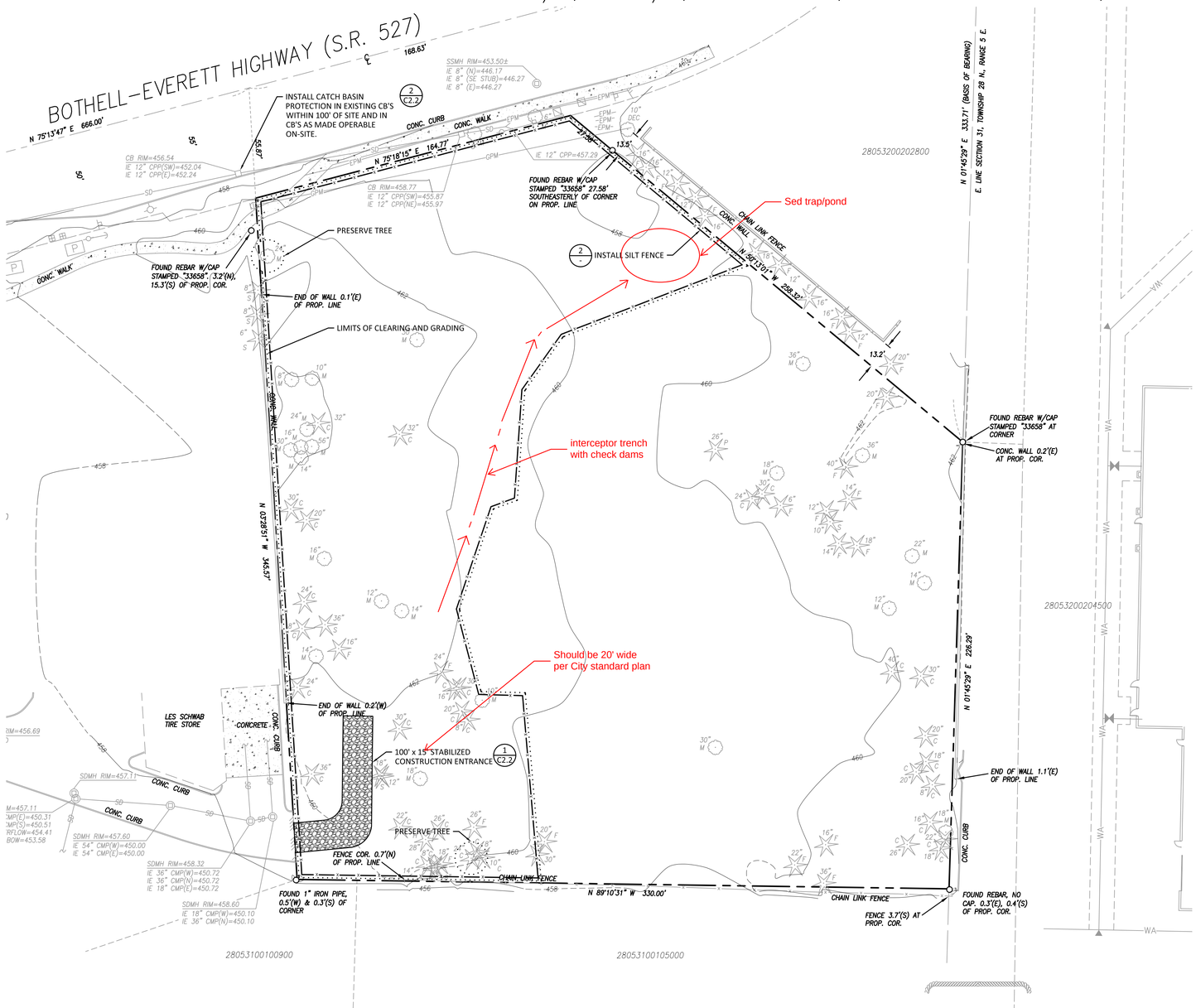
DESIGN: TAF
DRAWN: ATD
CHECK: JPU
JOB NO: 18129.20
DATE: 06/29/18

STELLA & FLOYD'S DOG DAYCARE
13209 BOTHELL-EVERETT HWY
MILL CREEK, WA 98012
COVER SHEET AND GENERAL NOTES

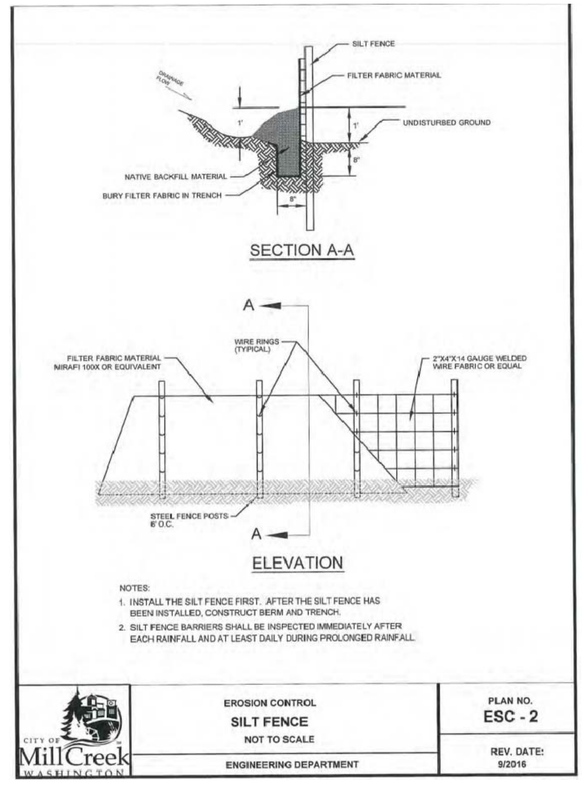
FILE NAME:

SHEET:
C1.1

NE 1/4, NE 1/4, SECTION 31, TOWNSHIP 28 NORTH, RANGE 5 EAST, W.M.



1 TEMPORARY EROSION CONTROL AND DEMOLITION PLAN
SCALE: 1" = 30'



2 CITY OF MILL CREEK STANDARD DETAIL
SCALE: NTS

CG ENGINEERING
250 4TH AVE. S., SUITE 200
EDMONDS, WASHINGTON 98020
PHONE (425) 778-8500
FAX (425) 778-5536

PRELIMINARY
NOT FOR CONSTRUCTION
REGISTERED GUILLEN
STATE OF WASHINGTON
33658
REGISTERED PROFESSIONAL ENGINEER
06/29/18

MARK	DATE	DESCRIPTION
	06/29/18	PRELIMINARY

DESIGN:	TAF
DRAWN:	ATD
CHECK:	JPU
JOB NO:	18129.20
DATE:	06/29/18

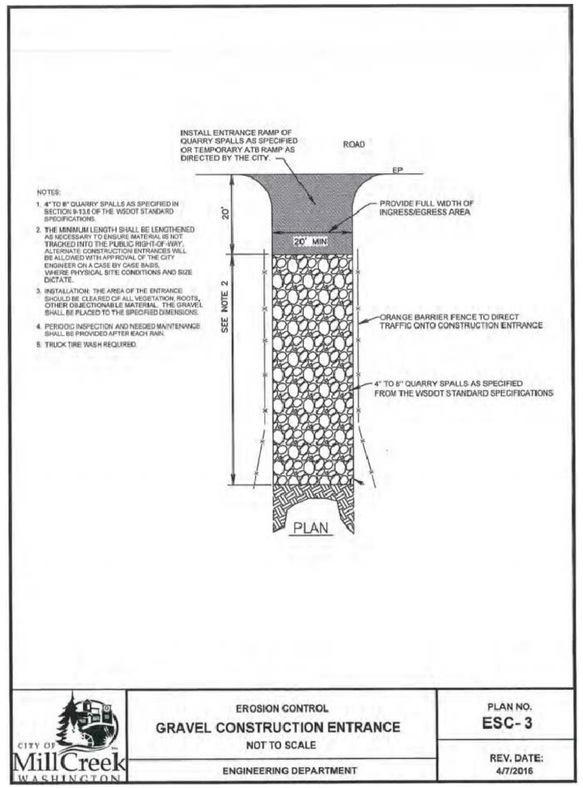
STELLA & FLOYD'S DOG DAYCARE
13209 BOTHELL-EVERETT HWY
MILL CREEK, WA 98012

TEMPORARY EROSION CONTROL AND DEMOLITION PLAN

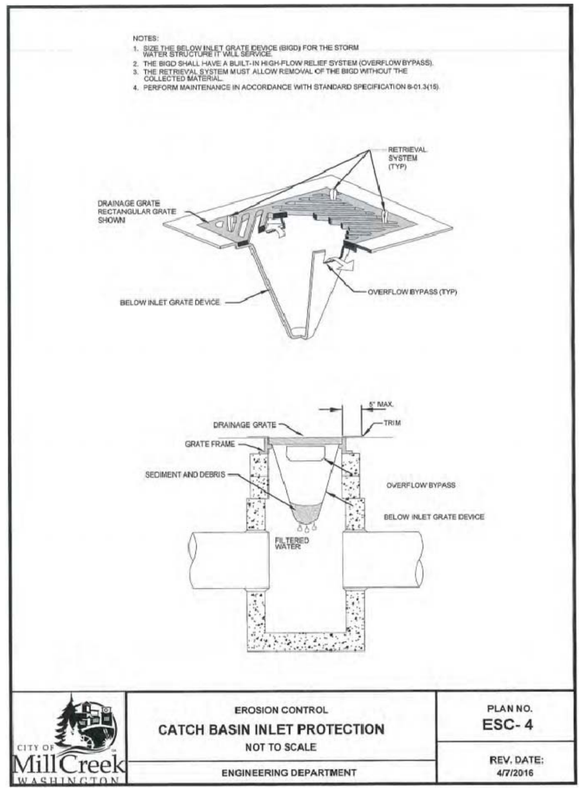
FILE NAME:

SHEET:

C2.1



1 CITY OF MILL CREEK STANDARD DETAIL
SCALE: NTS



2 CITY OF MILL CREEK STANDARD DETAIL
SCALE: NTS

ENGINEERING
250 4TH AVE. S., SUITE 200
EDMONDS, WASHINGTON 98020
PHONE (425) 778-8500
FAX (425) 778-5536

PRELIMINARY
NOT FOR CONSTRUCTION
REGISTERED PROFESSIONAL ENGINEER
06/29/18

MARK	DATE	DESCRIPTION
	06/29/18	PRELIMINARY

DESIGN:	TAF
DRAWN:	ATD
CHECK:	JPU
JOB NO:	18129.20
DATE:	06/29/18

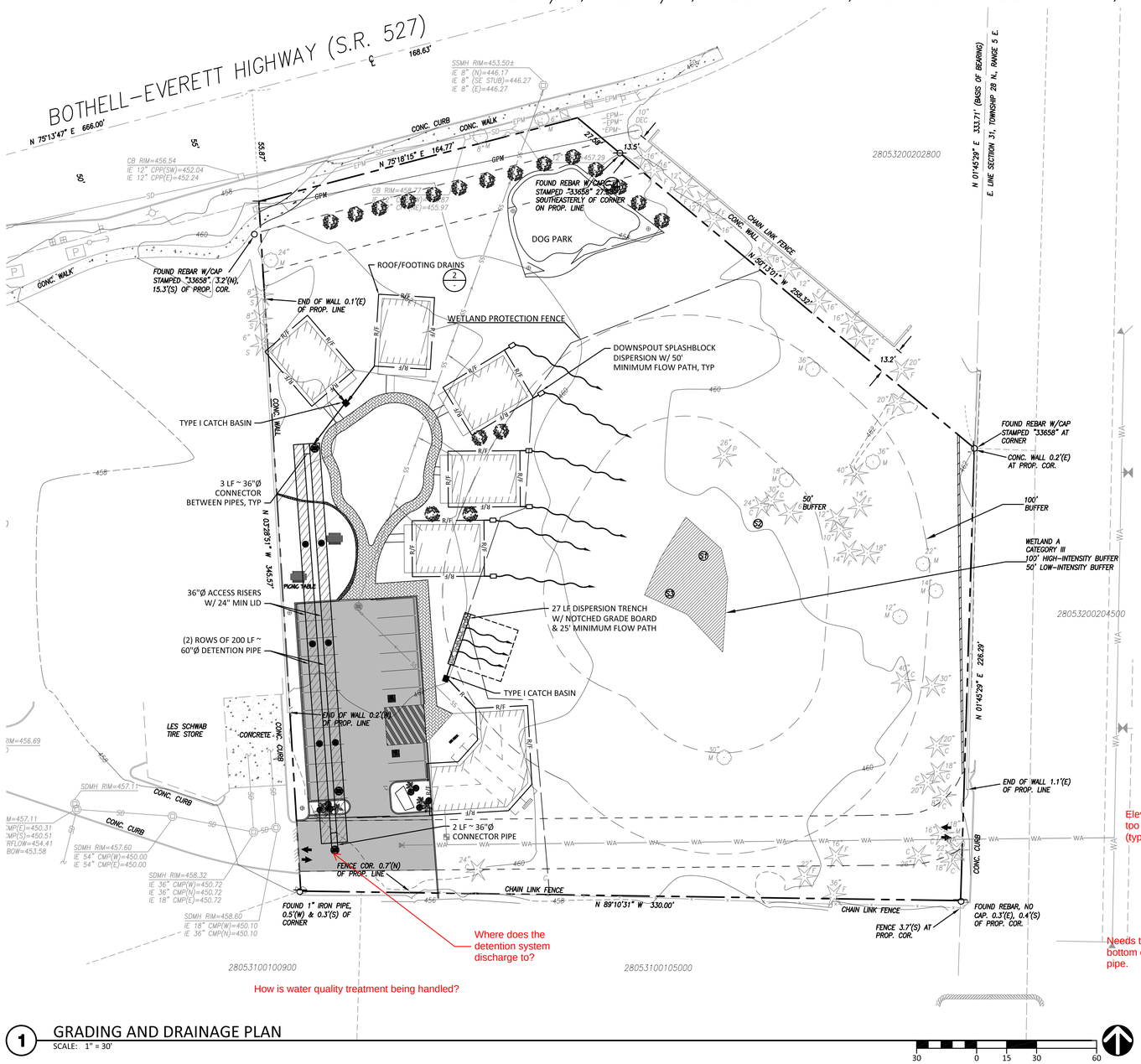
STELLA & FLOYD'S DOG DAYCARE
13209 BOTHELL-EVERETT HWY
MILL CREEK, WA 98012

EROSION CONTROL DETAILS

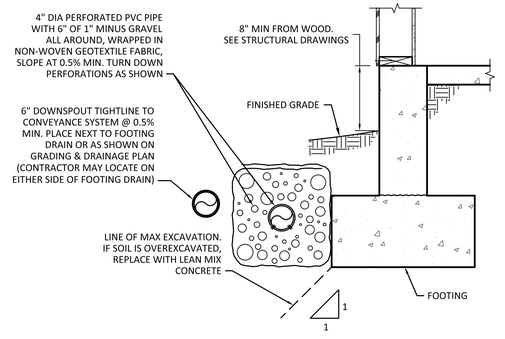
FILE NAME:

SHEET:
C2.2

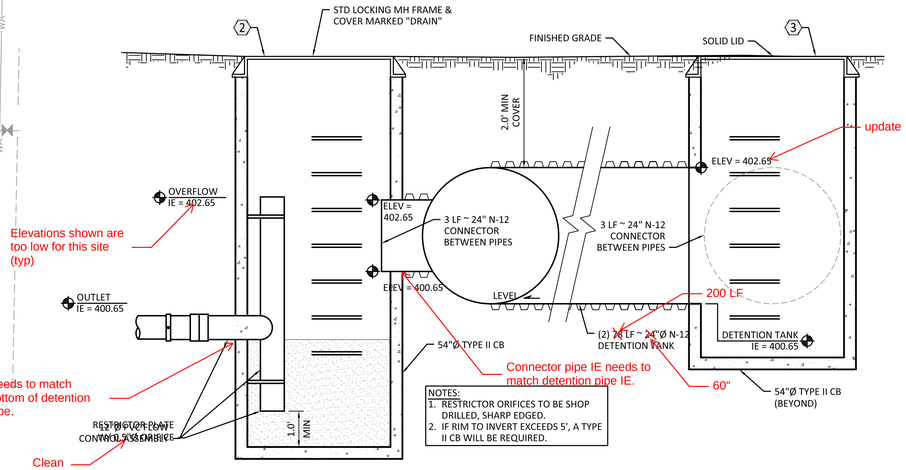
NE 1/4, NE 1/4, SECTION 31, TOWNSHIP 28 NORTH, RANGE 5 EAST, W.M.



1 GRADING AND DRAINAGE PLAN
SCALE: 1" = 30'



2 FOOTING AND ROOF DRAIN SECTION
SCALE: NTS



3 FLOW CONTROL STRUCTURE WITH DETENTION TANK - SECTION
SCALE: NTS

ENGINEERING
250 4TH AVE. S., SUITE 200
EDMONDS, WASHINGTON 98020
PHONE (425) 778-8500
FAX (425) 778-5536

PRELIMINARY
NOT FOR CONSTRUCTION
REG. GUILLEN STATE OF WASHINGTON 33658 REGISTERED PROFESSIONAL ENGINEER
06/29/18

MARK	DATE	DESCRIPTION
	06/29/18	PRELIMINARY

DESIGN:	TAF
DRAWN:	ATD
CHECK:	JPU
JOB NO:	18129.20
DATE:	06/29/18

STELLA & FLOYD'S DOG DAYCARE
13209 BOTHELL-EVERETT HWY
MILL CREEK, WA 98012

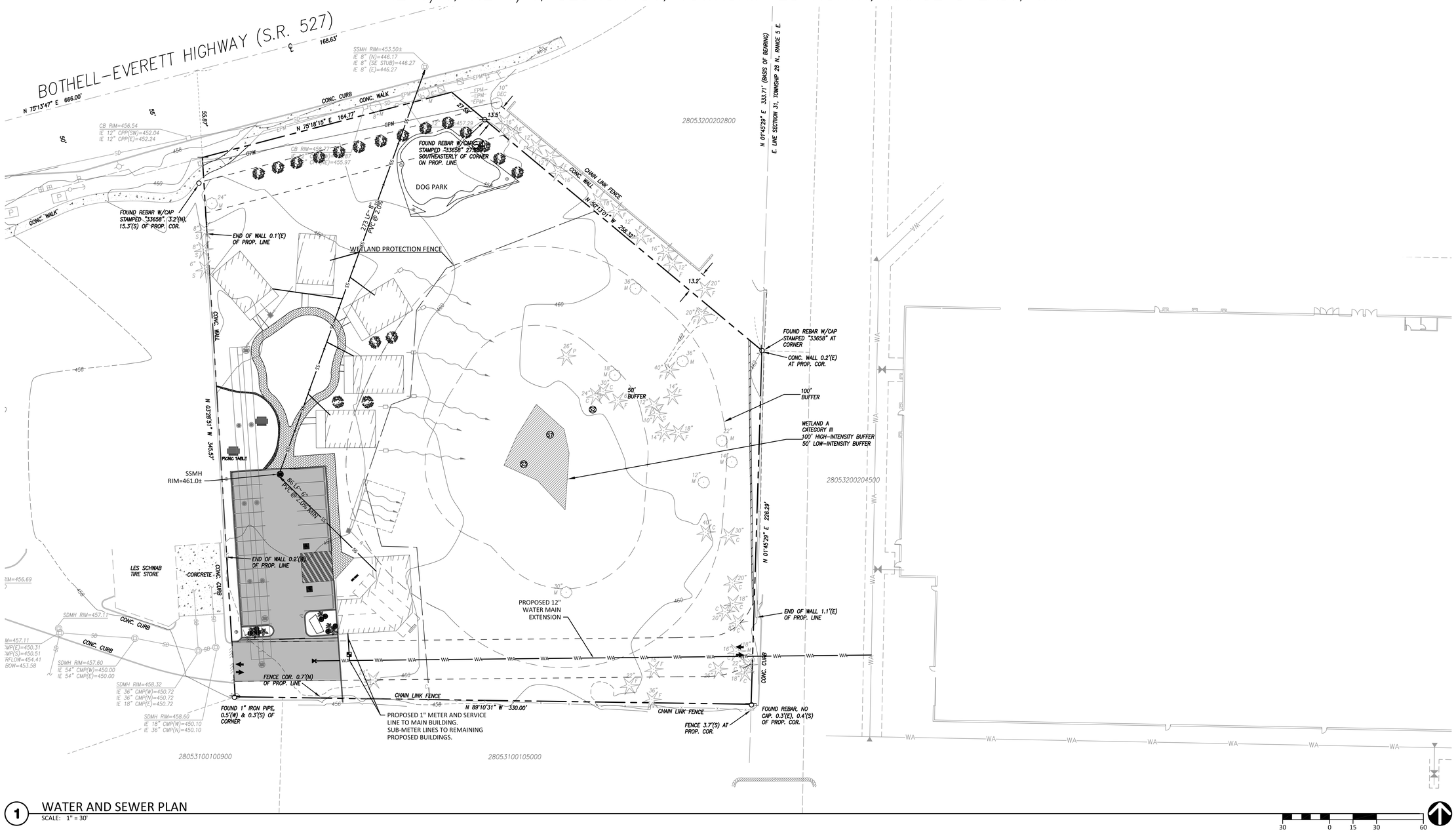
GRADING AND DRAINAGE PLAN AND DETAILS

FILE NAME:

SHEET:

C3.1

NE 1/4, NE 1/4, SECTION 31, TOWNSHIP 28 NORTH, RANGE 5 EAST, W.M.



1 WATER AND SEWER PLAN
SCALE: 1" = 30'

CG ENGINEERING
250 4TH AVE. S., SUITE 200
EDMONDS, WASHINGTON 98020
PHONE (425) 778-8500
FAX (425) 778-5536

MARK	DATE	DESCRIPTION
	06/29/18	PRELIMINARY

DESIGN:	TAF
DRAWN:	ATD
CHECK:	JPU
JOB NO:	18129.20
DATE:	06/29/18

STELLA & FLOYD'S DOG DAYCARE
13209 BOTHELL-EVERETT HWY
MILL CREEK, WA 98012

WATER AND SEWER PLAN

FILE NAME:

SHEET:

C4.1

City Comments: Please address and resubmit with new revision date and signature.

SEPA ENVIRONMENTAL CHECKLIST

Purpose of checklist:
Governmental agencies use this checklist to help determine whether the environmental impacts of your proposal are significant. This information is also helpful to determine if available avoidance, minimization or compensatory mitigation measures will address the probable significant impacts or if an environmental impact statement will be prepared to further analyze the proposal.

Instructions for applicants:
This environmental checklist asks you to describe some basic information about your proposal. Please answer each question accurately and carefully, to the best of your knowledge. You may need to consult with an agency specialist or private consultant for some questions. You may use "not applicable" or "does not apply" only when you can explain why it does not apply and not when the answer is unknown. You may also attach or incorporate by reference additional studies reports. Complete and accurate answers to these questions often avoid delays with the SEPA process as well as later in the decision-making process.

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

Instructions for Lead Agencies:
Please adjust the format of this template as needed. Additional information may be necessary to evaluate the existing environment, all interrelated aspects of the proposal and an analysis of adverse impacts. The checklist is considered the first but not necessarily the only source of information needed to make an adequate threshold determination. Once a threshold determination is made, the lead agency is responsible for the completeness and accuracy of the checklist and other supporting documents.

Use of checklist for nonproject proposals:
For nonproject proposals (such as ordinances, regulations, plans and programs), complete the applicable parts of sections A and B plus the SUPPLEMENTAL SHEET FOR NONPROJECT ACTIONS (part D). Please completely answer all questions that apply and note that the words "project," "applicant," and "property or site" should be read as "proposal," "proponent," and "affected geographic area," respectively. The lead agency may exclude (for non-projects) questions in Part B - Environmental Elements –that do not contribute meaningfully to the analysis of the proposal.

A. Background [HELP]

1. Name of proposed project, if applicable:
   Muttley Square

2. Name of applicant:
   Julie Nealey

3. Address and phone number of applicant and contact person:
   9402 224th St. Sw Edmonds, WA 98020

4. Date checklist prepared:

June 21, 2018

5. Agency requesting checklist:

City of Mill Creek

6. Proposed timing or schedule (including phasing, if applicable):

Site construction is proposed to begin as soon as all necessary permits have been obtained.

7. Do you have any plans for future additions, expansion, or further activity related to or connected with this proposal? If yes, explain.

No expansion is planned.

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

Wetland Determination Report, Critical Area Study, Traffic Study, Mitigation Plan, Geotechnical Report, Tree Survey, Topographic Survey, Binding Site Plan, Drainage Report, Grading & Drainage Plan, Erosion Control Plan, Water & Sewer Plan, Site & Street Improvement Plan.

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

No

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

- City of Mill Creek Development Application Approval
- SEPA determination
- City of Mill Creek Drainage Plan Approval
- Binding Site Plan
- Fire Department Approval
- City of Mill Creek Design Review Board Approval
- City of Mill Creek Clearing and Grading Permit
- City of Mill Creek Building Permit
- Utility permits and construction

11. Give brief, complete description of your proposal, including the proposed uses and the size of the project and site. There are several questions later in this checklist that ask you to describe certain aspects of your proposal. You do not need to repeat those answers on this page. (Lead agencies may modify this form to include additional specific information on project description.)

We propose to build 5 buildings to be used as a pet daycare/ indoor boarding facility (5,500 SF) with a parking lot and other miscellaneous site improvements.

12. Location of the proposal. Give sufficient information for a person to understand the precise location of your proposed project, including a street address, if any, and section, township, and range, if known. If a proposal would occur over a range of area, provide the range or boundaries of the site(s). Provide a legal description, site plan, vicinity map, and topographic

map, if reasonably available. While you should submit any plans required by the agency, you are not required to duplicate maps or detailed plans submitted with any permit applications related to this checklist.

13209 Bothell-Everett Highway, Mill Creek, WA 98012. South side of Bothell-Everett Highway, west of the Bothell-Everett Highway and 132nd St. SE intersection. Section 31 Township 28 Range 05 Quarter NE.

B. Environmental Elements [HELP]

1. *Earth* [help]

a. General description of the site:

(circle one): **Flat,** rolling, hilly, steep slopes, mountainous, other ___ _____

Ground surface is generally level to gently sloping.

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

~~NA~~ The site is relatively level (2%)

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

Site is mapped as glacial till. Till is generally described as a nonsorted mixture of mud, sand, pebbles, cobbles, and diamicton boulders. Encountered undocumented fill underlain by compact silty fine to medium sand with gravel consistent with native glacial till deposits at depth.

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

No indication of unstable soils has been observed in the immediate vicinity.

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

There will be minimal excavation as the project will be slab on grade; no fill will be required.

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

Erosion should not occur as a result of clearing as the site is relatively flat with gentle slopes.

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

About 15% of the site will be covered with impervious surfaces after project construction.

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

Erosion and settlement will be controlled by implementing BMPs. Erosion control will be built to code as designed by the civil engineer.consistent with City code and DOE regulations.

2. Air [help]

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

Diesel exhaust from heavy machinery being utilized during construction. Odors could be caused by roofing of homes or the paving of access and driveways. After construction, the principal source would be exhaust from vehicular traffic. The increase in automobiles associated with the development would contribute emissions to the ambient air, although these are regulated by the Washington State Department of Licensing. Fireplaces installed in the homes would contribute smoke to the ambient air as well.

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

Does not apply.

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

Does not apply as construction will be planned for the wet season which will aid in controlling emissions and dust.

3. Water [help]

a. Surface Water: [help]

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

A category III wetlands area and associated buffer encompass the central, eastern, and southern portions of the site. Include a brief description of downstream flow.

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

Yes, portions of the project will require work near the Category III Wetlands buffer located on site. ~~Buffer mitigation is included in the project~~. Buffer averaging is proposed consistent with City Code, see Critical Area Report dated___.

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

Does not apply.

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

There are no proposed surface water withdrawals or diversions.

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

No, the proposal is not within a 100-year floodplain.

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

~~Post development storm water runoff from the roof downspout splash block dispersion with a 50' minimum flow path may flow into the buffer area~~.

Revise and include a brief summary per updated Drainage report to include treatment method, retention, and release at pre-developed rates. Water flowing off-site is currently not treated and the proposal will not discharge waste materials into surface waters.

b. Ground Water: [help]

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

No ground water is proposed to be withdrawn and there is no anticipated water discharge to ground water.

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

Proposed project will tie in to the local sanitary sewer system, therefore there will be no major sources of waste material which could be discharged into the ground.

Provide method of disposal of animal waste from site.

c. Water runoff (including stormwater):

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

~~Through the construction of access, residences and driveways, the existing runoff pattern would be locally modified.~~ Runoff from the proposal would be generated by access, building roofs and driveways. Water from the access and driveway will be collected and directed to storm retention/detention pipes on site. The stormwater from the building roofs will be dispersed to the ground and it is anticipated that this runoff will not impact downstream drainage systems. See the attached drainage plans and report.

Currently no water quality treatment or retention is provided on site. The proposal would provide for water quality treatment and retention, therefore improving water quality on-site and downstream.

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

Refer to surface water response (#6) and ground water response (#2).

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

No, drainage is not impacted.

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

City approved temporary erosion control measures will be installed during construction. After construction, storm water runoff will be collected and directed to a retention/detention facility containing water quality features. See the attached conceptual storm drainage plans, drainage report and downstream analysis which is to be incorporated by reference into this SEPA checklist.

The proposal will provide water quality treatment and maintain existing water patterns and discharge rates per the City's adopted 2012 DOE Manual. It is anticipated that the development of this site and the proposed water retention will improve water quality and levels downstream.

4. Plants [help]

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

__X__ deciduous tree: alder, maple, aspen, other
__X__ evergreen tree: fir, cedar, pine, other
__X__ shrubs

__X__grass
____pasture
____crop or grain
____ Orchards, vineyards or other permanent crops.
__X__ wet soil plants: cattail, buttercup, bullrush, skunk cabbage, other
__X__water plants: water lily, eelgrass, milfoil, other
__X__other types of vegetation

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

Existing vegetation will be removed as necessary for access, utility construction, and building sites.

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

None known or observed on site.

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

Existing significant trees will be preserved where feasible. Majority of the site will be preserved in its natural state. Cleared and graded areas would be vegetated with native species as practical and mitigated for as required by code.

In addition, a 35 foot wide landscaped roadway buffer is required along the SR 527 frontage, subject to DRB review.

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

None known or observed on site.

5. Animals [help]

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

Examples include:

birds: hawk, heron, eagle, **songbirds**, other:
mammals: deer, bear, elk, beaver, other:
fish: bass, salmon, trout, herring, shellfish, other _____

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

None known or visually observed on site.

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

None known or visually observed on site.

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

Retention of existing vegetation as is compatible with grading, utility and building construction will preserve wildlife habitat.

The Category III wetland and buffer will be preserved on-site in a NGPA as required by City code.

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

None known or visually observed on site.

6. Energy and Natural Resources [help]

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

Electricity and natural gas would be the primary sources of energy for the proposal and would be used for heating, lighting and other miscellaneous household purposes. Wood burning would be secondary sources of heat. Verify?-Are the units going to have wood burning stoves?

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

No impact to any solar energy use on adjacent properties.

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

None at this time.

7. Environmental Health [help]

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

None known to our knowledge.

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

Unknown

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

Unknown

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

Not applicable

4) Describe special emergency services that might be required.

No special emergency services will be required by the proposed project beyond police and fire.

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

To meet all fire and building code provisions for fire and life safety.

b. Noise

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

Noise from traffic on surrounding roadways could have a minimal impact on the project.

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

Noise impact would be intermittent throughout construction but should be limited to normal waking hours. After construction, residential activity and traffic noise created by daily vehicular trips would increase ambient noise levels in the vicinity.

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

Use of proper construction equipment exhaust muffling devices and limitation of construction to normal waking hours would minimize construction related noise impacts. Standard soundproofing materials would be used in the construction of residences to reduce ambient noise levels in the completed homes. Address the question how will standard soundproofing be sufficient to minimize the noise of barking?

8. Land and Shoreline Use [help]

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

The property is an undeveloped site. A PUD power substation lies immediately northeast of the site. The adjacent properties to the east and west are commercial uses (Lowes & Les Schwab). North of the property is a traffic intersection. To the south is a detention pond for the Lowes development. The proposal will not affect current land uses on nearby or adjacent properties.

b. Has the project site been used as working farmlands or working forest lands? If so, describe. How much agricultural or forest land of long-term commercial significance will be converted to other uses as a result of the proposal, if any? If resource lands have not been designated, how many acres in farmland or forest land tax status will be converted to nonfarm or nonforest use?

No

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

No

c. Describe any structures on the site.

None

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

None

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

The current zoning classification of this site is ~~BP, Business Park~~ CB, Community Business.

f. What is the current comprehensive plan designation of the site?

~~Business Park~~ Community Business.

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

Not applicable

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

Yes, portions of the site contain a Wetland designation. There is currently a Category III Wetland designation on the site.

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

Upon competition, approximately 10 people would work in the development.

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

None

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

Not applicable

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

This project will follow the provisions of the zoning code to ensure compliance and compatibility.

m. Proposed measures to reduce or control impacts to agricultural and forest lands of long-term commercial significance, if any:

This project will follow the provisions of the zoning code to ensure compliance and compatibility.

9. Housing [help]

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

Traditional housing is not provided in this development.

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

None

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

None proposed

10. Aesthetics [help]

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

The tallest height of any structure would be per the building and zoning code. Exterior building materials are expected to be commercial grade manufactured siding and roofing.

The maximum height limit in the CB zone is 40 feet. The five residential units will be a max. height of ___ feet and the office is proposed to be ___ feet tall.

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

A privacy fence and sign indicating the location and access to the business will be placed along Bothell-Everett Highway as there is no direct access from this road.

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

We do not anticipate any aesthetic impact to the adjacent environment beyond the observance of building setbacks and zoning code.

The building elevations and materials, along with freestanding signs, and landscaping is subject to review by the City's Design Review Board after the public hearing.

11. Light and Glare [help]

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

The proposal would produce light from automobile headlights and home lighting, primarily at night. Lights on site will be LED with reduced glare protection. Parking lot and accessible route will be lighted for safety and security.

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

Not to our knowledge.

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

Traffic and surrounding commercial business.

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

Privacy fence and ~~landscape buffers on~~ frontage of the site will reduce glare from vehicles.

the 35 foot wide roadway buffer along the SR 527

12. Recreation [help]

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

The nearest City parks are Mc Collum Park approximately 1 mile to the west and Mill Creek Sports Park approximately .7 mile to the southwest.

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

No

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

None provided

13. Historic and cultural preservation [help]

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

None known

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

None known

c. Describe the methods used to assess the potential impacts to cultural and historic resources on or near the project site. Examples include consultation with tribes and the department of archeology and historic preservation, archaeological surveys, historic maps, GIS data, etc.

Reviewed the data from the DAHP website on their available mapping system.

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

Not applicable

14. Transportation [help]

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

SR527 Bothell-Everett Highway abuts the north property line. There is no direct access from this road on to the property. Access to property is through the Les Schwab parking area through a road easement shown on the site plans.

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

The site is currently served by public transit. The nearest transit stop is a bus stop located approximately .2 miles to the northwest of the property along SR527 Bothell-Everett Highway.

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

Parking will be provided on site, creating 19 parking spaces. No parking will be eliminated.

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

No new roads or improvements will be needed with this proposal as the access to the site is through the existing Les Schwab parking lot.

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

No

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

The proposal would generate 46 new average daily trips with 5.41 new PM peak hour subject to impact fees. Please refer to the Traffic Impact Analysis for this project for additional information.

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

No

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

Payment of City of Mill Creek traffic mitigation fees per the 5.41 new PM peak-hour trips generated.

15. Public Services [help]

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

The proposal may place additional demands on public services such as fire protection, police protection, public transit and schools; but generally, these services are already in place to handle these increased demands.

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

Per City Codes, applicable impact mitigation fees will be paid for impacts, if any, to roads, ~~schools~~, ~~parks~~, and Fire District.

16. Utilities [help]

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

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

The utilities that will be distributed to the proposed project are:

Electricity – Snohomish County PUD

Water & Sewer – Silver Lake Water & Sewer District

Natural Gas – Puget Sound Energy

See site map for location of connections within the access corridors.

C. Signature [HELP]

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

Signature: _____

Name of signee SANDRA HIGGINS

Position and Agency/Organization PRESIDENT

Date Submitted: 8.27.18

Revision date:_____

City of Mill Creek
Development Impact Mitigation Fee Program

The City of Mill Creek uses the authority granted in MCMC 17.48 to assess fees to mitigate identified impacts of new development on public facilities/services. Public facilities for which mitigation is required and the typical fees[1] assessed are listed below:

Project Name: Muttley Square, PL2018-0017, Binding Site Plan, 5,468 square feet of building			
Facility/Service	**Mitigation**		
City of Mill Creek Neighborhood Parks *			
Where land acquisition and development are necessary. (see note below)	$3,304.40 $2,227.41	Per owner-occupied (condominium/single-family) unit Per renter-occupied (multifamily) unit	N/A
Where only development is necessary.	$2,863.76 $1,930.38	Per owner-occupied (condominium/single-family) unit Per renter-occupied (multifamily) unit	N/A
City of Mill Creek Community Parks * (see note below)	$1,738.67 $1,171.99	Per owner-occupied (condominium/single-family) unit Per renter-occupied (multifamily) unit	N/A
City of Mill Creek Transportation	$3,000.00	Per PM Peak Hour vehicle trip on identified road segment (subject to verification of Traffic Study) 5.41 PM Trips	$16,230.00
Snohomish County Transportation	N/A	Determined by Snohomish County Public Works – Call 388-6440 for information	N/A
Snohomish County Fire Protection District # 7	**$365.00**	Per equivalent dwelling unit (2,400 square feet) (2.3 EDU)	$839.50
Everett School District (Fees effective as of January 1, 2018)	$4,284.00 $0.00 $2,233.00	Per single-family dwelling unit Per multifamily dwelling unit with zero-one bedroom Per multifamily dwelling unit with two or more bedrooms	N/A

* The public park and recreation facilities mitigation assessments shown above reflect the 25 percent discount authorized in Resolution 2013-503; for the full assessment amounts see the resolution. The twenty-five percent discount shall remain in full force and effect until such time as the Council adopts a resolution altering the discount rate and/or the formulas.

The following supporting documents are available on the Master Permit Application page of the City's website:

1. MCMC 17.48 - Development Impact Mitigation Ordinance
2. City of Mill Creek Resolution 2013-503 RE Park Impact Mitigation
3. City of Mill Creek Ordinance 2011-735 RE Traffic Impact Mitigation
4. City of Mill Creek/Snohomish County Interlocal Agreement RE Traffic Impact Mitigation
5. City of Mill Creek/Snohomish County Fire Protection District No. 7 Interlocal Agreement RE Fire Facilities/Services Impact Mitigation
6. City of Mill Creek/Everett School District Interlocal Agreement RE School Facilities Impact Mitigation
7. Letter from the Everett School District Updating School Mitigation Fees, dated December 13, 2017

ESA

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www.esassoc.com

memorandum

date	September 20, 2018
to	Christi Amrine, City of Mill Creek
from	Jessica Redman, Wetland Ecologist
subject	Muttley Square – Critical Areas Study and Mitigation Plan Review

At the request of the City of Mill Creek (City), Environmental Science Associates (ESA) reviewed the *Critical Areas Report and Mitigation Plan for Muttley Square*, prepared by Wetland Resources, Inc. (dated August 15, 2018, and hereinafter referred to as the Report). The property for the proposed project is a 2.68-acre parcel located at 13209 Bothell Everett Highway in Mill Creek, WA (Snohomish County Parcel 28053100100400). The parcel is currently undeveloped. The applicant has submitted a formal application of development of an animal boarding facility (Project) comprised of five 768 square foot (SF) pet boarding houses and a 1,652 SF main office. Other proposed developments include a private dog park, parking, and stormwater facilities. The purpose of this review is to determine if the proposed project complies with Mill Creek Municipal Code (MCMC) Chapter 18.06 – *Environmentally Critical Areas.*

In addition to the Report, ESA reviewed the *Preliminary Drainage Report* for the project, prepared by CG Engineering (dated August 23, 2018, and hereinafter referred to as the Drainage Report) and the Civil Plan Sheets for the project, also prepared by CG Engineering (dated June 29, 2018 and hereinafter referred to as the Plan Sheets). Both the Drainage Report and the Plan Sheets are titled using a previous name of the project, "Stella and Floyd's Dog Daycare." ESA also conducted a site visit on September 11, 2018.

Report Summary

According to the Report, one wetland (Wetland A) occurs onsite. Wetland A is a Category III wetland, which requires a 100-foot buffer per Mill Creek Municipal Code (MCMC) 18.06.930. A second wetland occurs offsite to the southwest and was not rated due to lack of access, and therefore the required wetland buffer is not known. A large stormwater pond and automotive repair store are located between the proposed project site and the offsite wetland. According to the Report, the buffer of the offsite wetland would not extend onto the project site because the area between the two parcels is developed and/or disturbed, and therefore, does not meet the City's definition of a buffer per MCMC 18.06.210. No direct impacts to the wetlands are proposed.

To accommodate development of the Project, the applicant proposes to reduce the buffer of Wetland A by 2,952 SF on its western side. An additional 2,952 SF of buffer will be added to two separate areas of the buffer located

north and southeast of the wetland, resulting in a no net loss of wetland buffer area. According to the Report, the proposed buffer averaging meets all the required criteria per MCMC 18.06.930.C.

A description of the proposed stormwater management plan is not included in the Report as required by MCMC 18.06.530.B. However, the Drainage Report states that a dispersion trench will be used for stormwater collected by the main office building and splash block dispersion will be used for three of the five pet boarding houses. Per the Plan Sheets, these facilities will be located in the outer portion of the buffer of Wetland A. The Drainage Report also states that runoff generated by the other two pet boarding houses will undergo flow control using a detention pipe. These facilities will be installed outside of the wetland buffer. Water will then be gradually released into the offsite wetland to the southeast. A detailed analysis of this was not included but will be provided in future submittal phases.

Review and Site Findings

Based on the site visits and document review, we have the following comments and recommendations:

- No wetland flags were observed in the field. However, based on the figures and descriptions provided in the Report and Site Plan, ESA generally agrees with the boundary of Wetland A. The approximate wetland area was located in a shallow depression near the center of the site where hydrophytic vegetation (Pacific willow, salmonberry, and hardhack) where hydric soils (containing redoximorphic features) were observed. Though hydrophytic species covered much of the site, hydric soils were not observed outside of the estimated wetland area.

- ESA agrees that Wetland A is a Category III wetland, warranting a 100-foot buffer.

- ESA agrees that the connection between the offsite wetland and the onsite buffer are not contiguous and therefore the buffer of the offsite wetland does not continue on to the proposed Project site. Based on observations made in the field, the only area between the two sites that is not developed appears to be part of an access road to the stormwater pond that is made of compact soils (likely fill) and dominated by Himalayan blackberry.

- ESA agrees that the proposed Project has met all the requirements for buffer averaging per MCMC 18.06.930.C and the proposed buffer averaging will not result in a net loss of buffer function or area.

- ESA agrees that the installation of the dispersion trench and splash block dispersion facilities in the outer portion of the wetland buffer are an allowed use of the buffer per MCMC 18.06.940.B. However, we recommend the Report be revised to include a description of the proposed stormwater plan, including an evaluation of impacts, for both the on- and offsite wetland, as required by MCMC 18.06.530.B(3).

- According to MCMC 18.06.610, “compensatory mitigation shall be provided for all unavoidable alterations of a critical area or buffer in accordance with an approved critical area report and mitigation plan.” To the best of our knowledge, a mitigation plan was not submitted with the Project proposal. Though parts of the buffer addition area are generally intact, there are several portions of the area that would benefit from buffer enhancement. Buffer enhancement in the form of invasive species removal (primarily Himalayan blackberry), subsequent native plantings, and refuse removal is recommended to ensure that post-construction, the buffer will be adequate to protect the functions and values of the

adjacent critical areas, as required per MCMC 18.06.930. We recommend that a buffer enhancement plan be developed for the buffer addition area. The buffer enhancement plan should include plans for construction, maintenance, monitoring, and contingencies as required in MCMC 18.06.620.

PERTEET

TECHNICAL MEMORANDUM

2707 Colby Avenue, Suite 900, Everett, WA 98201 | P 425.252.7700

To: Christi Amrine, Senior Planner, City of Mill Creek

From: Brian Caferro, PE, Perteet

Date: September 11, 2018

Re: Review Comments for Muttley Square

This memorandum provides a preliminary review for the Muttley Square development project in the City of Mill Creek. Submittal materials were reviewed based on the project's compliance with the City of Mill Creek Municipal Code (Chapter 15.14) and the minimum requirements of the 2012 Stormwater Management Manual for Western Washington (SWMMWW), as amended in December 2014. The preliminary grading, drainage, TESC plans and drainage report were reviewed. The geotech report was also reviewed, however it was not reviewed by a geotechnical engineer, rather from a civil engineering standpoint and as it relates to drainage elements associated with the project.

Plans

Sheet C1.1 (Cover Sheet and General Notes)

- Include Construction Sequence Notes on this sheet.

Sheet C2.1 (Temporary Erosion Control and Demo Plan)

- Stabilized construction entrance needs to be 20 feet wide per the City Standard Plan ESC-3.
- Include a sediment trap or pond and an interceptor trench which can collect and convey flows to the trap/pond.

Sheet C3.1 (Grading and Drainage Plan and Details)

- Where does the detention system discharge to? It is not shown on the plans.
- How is water quality treatment being addressed? There is no BMP shown on the plans.
- How is runoff from the pervious areas being collected and conveyed to the detention tank?
- Elevations shown in the flow control structure with detention tank section are way too low for this site. Revise accordingly.
- The flow control structure outlet invert should be the same elevation as the bottom of the 60-inch detention system.
- The bottom of the 24-inch connector pipe needs to match the bottom of the 60-inch detention tank.
- Length of the 60-inch detention tank is 200 feet, not 78 feet. Revise accordingly.

Drainage Report

- Section 1, Page 1 – Calculations also show that the pervious area is being captured and conveyed to the detention pipe for flow control. Mention that in this section as well.
- Minimum Requirements (MR)
    - The municipal code section references are for a different City. Revise to include the appropriate City of Mill Creek code sections.
    - MR #1: This requirement has been met.

- MR #2: It is acknowledged that this project is still in an early design phase and that a SWPPP, prepared from Ecology's SWPPP template, will be prepared and submitted for review prior to the start of construction.
- MR #3: Since this proposed development falls under Animal Handling Areas, source control will be required. The applicable mandatory operational BMPs are described under S402 BMPs for Commercial Animal Handling Areas in Volume IV, Chapter 2 (page 622) of the SWMMWW.
- MR #4: This requirement has been met.
- MR #5: This requirement has been met. Infiltration is not feasible based on geotechnical investigation which produced infiltration rates less than 0.30 inches per hour.
- MR #6: It is unclear how the applicant is satisfying this minimum requirement. There are no water quality treatment BMPs discussed in the drainage report or shown on the plans. The applicant needs to show how they will be addressing this minimum requirement. .
- MR #7: This requirement appears to have been met. A more thorough review will occur at the next design phase.
- MR #8: It is acknowledged that this project is still in an early design phase and that wetland protection will be addressed at the next design phase. A hydroperiod analysis, in accordance with Guide Sheet 3B in the SWMMWW, will need to be conducted. The latest version of WWHM provides the ability to perform a hydroperiod analysis.
- MR #9: It is acknowledged that this project is still in an early design phase and that an operation and maintenance manual will be provided at a later design phase.

- Section IV, Page 1 – Where infeasbility is being claimed due to slow infiltration rates, state what the rates are (from the geotechnical investigation) and that they are less than 0.30 inches per hour, thus infeasible.
- Section IV, Page 2 – Describe more specifically where the detention pipe will discharge to. Currently, the civil plans do not show where the discharge point is located.
- Section IV, Page 2 – There is no mention how water quality treatment will be satisfied. This needs to be addressed.
- Section IV, Page 3 – Provide a basin map which delineates the areas tributary to the detention pipe.

Geotechnical Report

- No comments.

civil & structural
engineering & planning

Preliminary Drainage Report

Stella and Floyd's Dog Daycare

13209 Bothell-Everett Highway
Mill Creek, WA 98012

08/23/2018

CG Project No.: 18129.20

250 4th Ave S Ste 200
Edmonds, WA 98020
Phone: (425) 778-8500
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Table of Contents

ENGINEERING

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Section I – Project Overview

Section I Summary

Narrative
Stormwater Management
Vicinity Map
Aerial Photograph
Minimum Requirements

The purpose of this report is to provide a preliminary overview of the drainage considerations on this project for the pre-application stages of the work.

The proposed project consists of the construction of (5) 900 sf~ buildings and an 1,874 sf~ main office building, along with an associated parking lot and walkways, for the development of a dog daycare on a property located at 13209 Bothell-Everett Highway, Mill Creek, WA 98012. The existing site is undeveloped and contains small to large trees, other vegetation, and a Category III Wetland. The parcel has a total area of 115,082 sf (2.64 ac).

The new and replaced impervious areas proposed are as follows:

Proposed Project Site	
Roofs:	6,434 sf (0.148 ac)
Walkways:	2,785 sf (0.064 ac)
Pavement:	7,938 sf (0.182 ac)
Impervious Areas Total:	*17,157 sf (0.394 ac)*

The project will comply with the 2012 (amended 2014) Stormwater Management Manual for Western Washington (herein referred to as the DOE Manual). The project is a New Development project and will comply with Minimum Requirements #1-9 (see Figure I-3 for Minimum Requirements flow chart). Minimum requirements for this project are discussed later in this section.

Stormwater Management

For On-site Stormwater Management, a dispersion trench will be used for the main office building and downspout splash block dispersion will be used for three out of the five other buildings. On-site Stormwater Management BMPs are infeasible for the remaining two buildings. Runoff generated by the other two buildings will be managed by a detention pipe for flow control.

For Flow Control, a detention pipe was selected in a configuration of two rows of 5-ft diameter, 200 lineal feet, totaling in about 406 lineal feet of pipe. This pipe will collect runoff from the two unmanaged roofs and other hard surfaces made up by walkways and the parking lot pavement via catch basins and conveyance pipes.

What about runoff from the pervious area, which was previously forested and now appears to be cleared and vegetated with grass. Calcs show that this area is also being collected and conveyed to the detention pipe.

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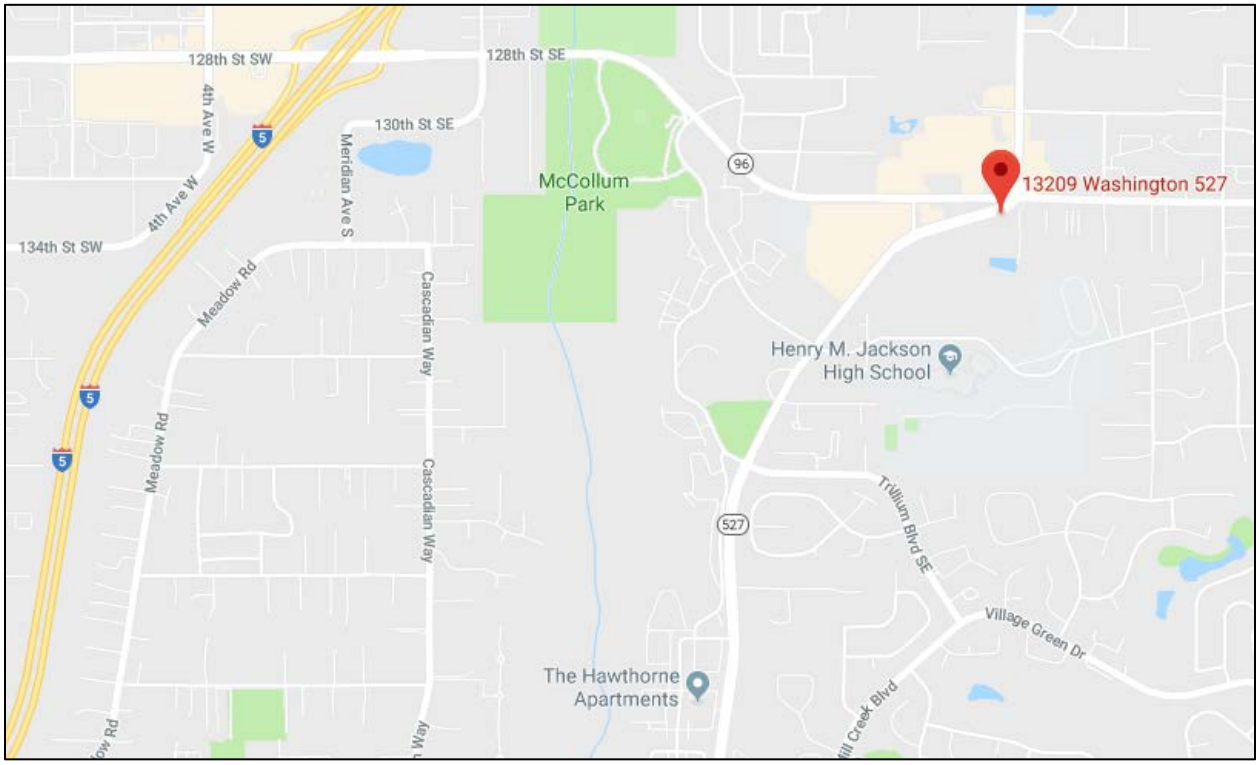

Figure I-1. Vicinity map (from Google Maps).

Figure I-2. Aerial photograph (from Google Maps).

Minimum Requirements

Revise to read the appropriate Mill Creek Municipal code section.

The project must comply with ECDC 18.30 – Stormwater Management Code, the 2014 Stormwater Management Manual of Western Washington (DOE Manual), ~~and the 2017 Edmonds Stormwater Addendum (Stormwater Addendum)~~. It is classified as a Category 2 project per ECDC 18.30 and must meet Minimum Requirements #1-9 because the amount of new plus replaced impervious surfaces total over 5,000 sf.

What is?

Revise

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Minimum Requirement #1: Preparation of Stormwater Site Plans: The stormwater site plan consists of this report and the civil drawings and is prepared in accordance with Chapter 3 of Volume I of the DOE Manual.

Minimum Requirement #2: **Construction Stormwater Pollution Prevention Plan (SWPPP)**: The SWPPP shall include a narrative and drawings. The SWPPP narrative shall include documentation that addresses the 13 elements of Construction Stormwater Pollution Prevention. See Section V and the civil drawings.

Minimum Requirement #3: Source Control of Pollution: All known, available and reasonable source control BMPs are required for all projects approved by the City.

Minimum Requirement #4: Preservation of Natural Drainage Systems and Outfalls: Natural drainage patterns shall be maintained, and discharges from the project site shall occur at the natural location, to the maximum extent practicable. The manner by which runoff is discharged from the project site must not cause a significant adverse impact to downstream receiving waters and down-gradient properties. All projects shall submit an off-site qualitative analysis.

Minimum Requirement #5: On-Site Stormwater Management: The proposed project will utilize On-site Stormwater Management where feasible. Runoff from the main office building will be conveyed to a dispersion trench and 3 out of the 5 dog buildings will use downspout splashblock dispersion. On-site Stormwater BMPs were found to be infeasible for all other hard surfaces on-site due to the locational limitations on-site. See Section IV.

Minimum Requirement #6: Runoff Treatment: This requirement applies to the new plus replaced hard surfaces and the converted vegetation areas. The following require construction of stormwater treatment facilities: i.) Projects in which the total of pollution-generating hard surface (PGHS) is 5,000 square feet or more in a threshold discharge area of the project, or ii.) projects in which the total of pollution-generating pervious surfaces (PGPS) – not including permeable pavements is 0.75 acres or more in a threshold discharge area, and from which there will be a surface discharge in a natural or man-made conveyance system from the site. The project's total amount of PGHS is more than 5,000 square feet. Runoff treatment is required for the new parking lot.

Minimum Requirement #7: Flow Control: This requirement applies to projects that discharge stormwater directly, or indirectly through a conveyance system, into a fresh waterbody. Flow control is not required for projects that discharge directly or indirectly to a Flow Control-Exempt Receiving Water (Appendix I-E in the 2014 SWMMWW). The following circumstances require achievement of the standard flow control requirement for western Washington: i.) Projects in which the total of effective impervious surfaces is 10,000 square feet or more in a threshold discharge area, or ii.) projects that convert 0.75 acres or more of vegetation to lawn or landscape, or iii.) projects that through a combination of hard surfaces and converted vegetation areas cause a 0.15 cubic feet per second (cfs) increase or greater in the 100-year flow frequency between existing and developed conditions from a

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threshold discharge area as estimated using the Western Washington Hydrology Model or other approved model and 15-minute time steps. The project will cause greater than a 0.15 cfs increase between existing and developed 100-year flow frequencies and Flow Control is required.

Minimum Requirement #8: Wetlands Protection: This requirement applies only to projects whose stormwater discharges into a wetland, either directly or indirectly through a conveyance system. Some stormwater on this site will discharge into a wetland on-site. Wetland protection will be implemented on this project.

Minimum Requirement #9: Operation and Maintenance: An operation and maintenance manual that is consistent with the provisions in Volume I and Volume V of the SWMMWW is required for proposed Stormwater Treatment and Flow Control BMPs/facilities. The party (or parties) responsible for maintenance and operation shall be identified in the operation and maintenance manual. For private facilities approved by the City, a copy of the operation and maintenance manual shall be retained on-site or within reasonable access to the site and shall be transferred with the property to the new owner. For public facilities, a copy of the operation and maintenance manual shall be retained in the appropriate department. A log of maintenance activity that indicates what actions were taken shall be kept and be available for inspection. See Section VIII.

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Section II –Existing Conditions Summary

Section II Summary

Narrative

The project site is located at 13209 Bothell-Everett Highway, Mill Creek, WA 98012. The site is undeveloped and contains small to large trees, other vegetation, and a Category III Wetland.

The parcel has five sides and has a total area of 115,082 sf (2.64 ac). The northwest property line runs parallel with Bothell-Everett Highway, the northeast property line faces a PUD electric utility parcel, the east property line faces a Lowe's building and parking lot, the south property line faces what appears to be a detention pond for Lowe's, and the west property line is shared by a Les Schwab building and parking lot. The parcel is mostly flat, but generally slopes down from north to south.

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Section III – Off-site Analysis Report

Section III Summary:

Narrative

An off-site analysis shall be prepared according to Chapter 3 of Volume I of the DOE Manual. It shall assess the potential off-site water quality, erosion, slope stability, and drainage impacts associated with the project and propose appropriate mitigation of those impacts. If a receiving water is within one-quarter mile, the analysis shall extend within the receiving water to one-quarter mile from the project site.

The natural discharge location from the site is to the south into an existing wetland. There is a detention pond that is used by Lowe's directly south of the site. Mitigation of stormwater impacts to the wetland will be accomplished by the implementation of about 400 ft of 60" diameter detention pipe. Stormwater runoff will bypass the detention pond and be gradually released into the wetland by a control structure near the south edge of the site. This analysis will be more thoroughly studied and complete in future submittal phases. See Figure III-1 below for the study area map.

A hydroperiod analysis will need to be conducted in accordance with Guide Sheet 3B in the SWMMWW. The latest version of WWHM provides the ability to perform a hydroperiod analysis.

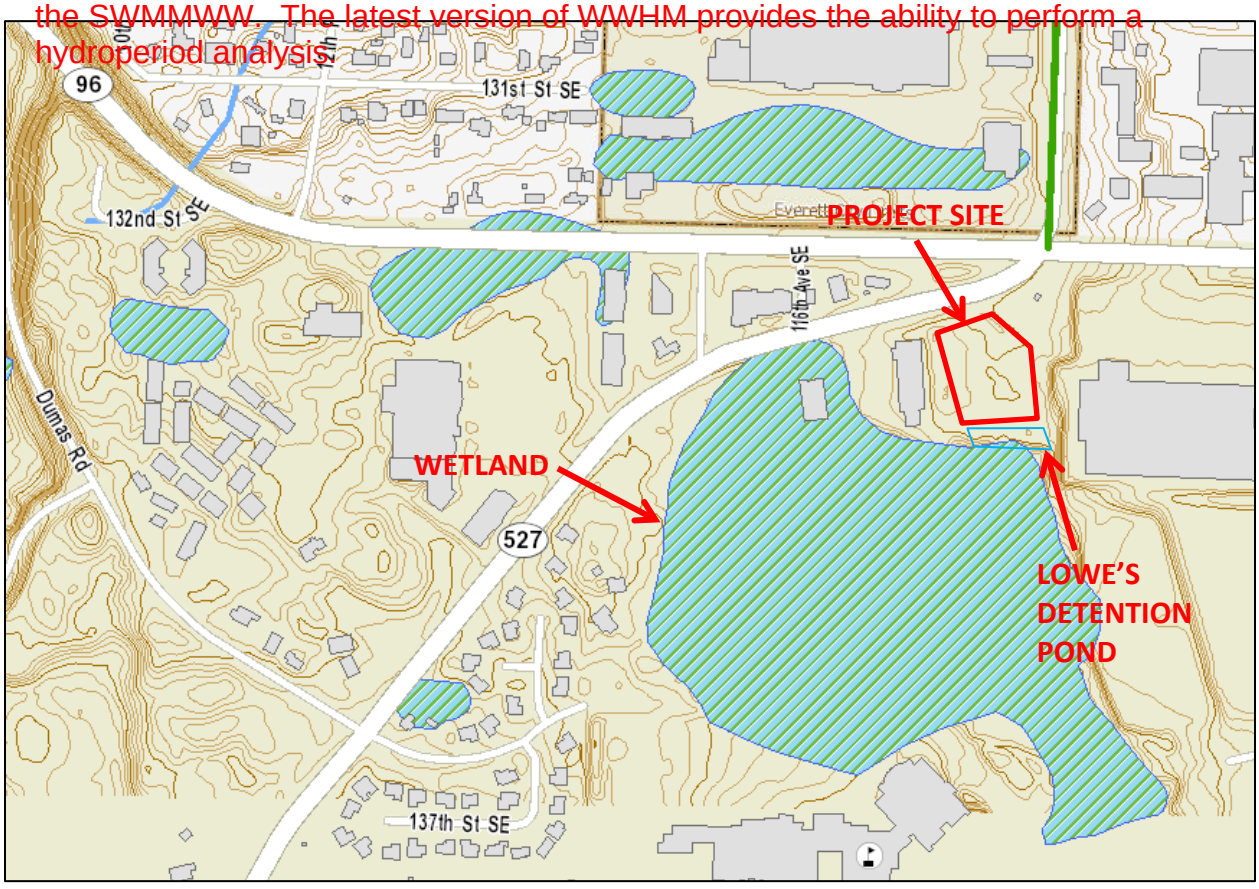

Figure III-1. Study area map.

Section IV – Permanent Stormwater Control Plan

Section IV Summary

Narrative
Feasibility Review
WWHM Report

On-site Stormwater Management (per Minimum Requirement #5) is required to be evaluated for this project because the project triggers Minimum Requirements #1-9. Also, because it is a New Development project inside the UGA, either the Low Impact Development Performance Standard must be met or On-site Stormwater Management BMPs from List #2 must be implemented where feasible. For this project, On-site Stormwater Management BMPs from List #2 will be implemented where feasible. A detention pipe has been sized for this project using WWHM 2012 and the report can be found later in this section.

Feasibility Review

The following is a feasibility review of On-site Stormwater Management BMPs from List #2 per Minimum Requirement #5 in Volume I of the DOE Manual. BMPs must be implemented where feasible.

Lawn and landscaped areas:

1. Post-Construction Soil Quality and Depth in accordance with BMP T5.13 in Chapter 5 of Volume V is **feasible** and will be used for all disturbed pervious areas.

Roofs:

1. Full Dispersion in accordance with BMP T5.30 in Chapter 5 of Volume V is **infeasible** because a vegetated 100' flowpath cannot be achieved for the buildings on-site. Downspout Full Infiltration Systems in accordance with BMP T5.10A in Section 3.1.1 in Chapter 3 of Volume III are **infeasible** due to a low infiltration rate. State what the rate is and that it is less than 0.30 inches per hour, therefore considered infeasible.
2. Bioretention facilities are **infeasible** due to a low infiltration rate.
3. Downspout Dispersion Systems in accordance with BMP T5.10B in Section 3.1.2 in Chapter 3 of Volume III are **feasible** for 3 of the 5 proposed buildings. They are **infeasible** for the other two buildings due to the locations of those buildings.
4. Perforated Stub-out Connections in accordance with BMP T5.10C in Section 3.1.3 in Chapter 3 of Volume III are **infeasible** because of the low permeability of the soil.

Other hard surfaces:

1. Full Dispersion in accordance with BMP T5.30 in Chapter 5 of Volume V is **infeasible** because a vegetated 100' flowpath cannot be achieved on-site.
2. Permeable pavement in accordance with BMP T5.15 in chapter 5 of Volume V is **infeasible** due to a low infiltration rate. State what the rate is and that it is less than 0.30 inches per hour, therefore considered infeasible.
3. Bioretention facilities are **infeasible** due to a low infiltration rate.

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4. Sheet Flow Dispersion in accordance with BMP T5.12 is **infeasible** because positive drainage for sheet flow runoff cannot be achieved. Concentrated Flow Dispersion in accordance with BMP T5.11 in Chapter 5 of Volume V is **infeasible** because a dispersion trench and 25-ft flowpath for every 700 sf of drainage area (within applicable setbacks) cannot be achieved.

A dispersion trench will be used for stormwater management for the main office building and downspout splash block dispersion will be used for three out of the five other buildings. On-site Stormwater Management BMPs are infeasible for the remaining two buildings and the walkways and parking lot. Runoff generated by the two remaining buildings and proposed parking lot and walkways will be managed by a detention pipe designed for flow control using WWHM 2012. The detention pipe was sized to collect runoff from two buildings, walkways, and the parking lot via roof drains, yard drains, and conveyance pipes. The outlet from the detention pipe will discharge to the south. See civil plans for more.

The Civil plans do not show where the detention pipe discharges to.

How will water quality treatment be addressed for this project? There is no mention of how this will occur.

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WWHM Report

Provide a basin map showing a delineation of the area where runoff is being collected and conveyed to the detention pipe.

WWHM2012
PROJECT REPORT

Project Name: Stella & Floyd's DD Detention Pipe
Site Name: Stella & Floyd's Dog Daycare
Site Address: 13209 Bothell-Everett Highway
City : Mill Creek
Report Date: 6/20/2018
Gage : Everett
Data Start : 1948/10/01
Data End : 2009/09/30
Precip Scale: 1.00
Version Date: 2017/04/14
Version : 4.2.13

Low Flow Threshold for POC 1 : 50 Percent of the 2 Year

High Flow Threshold for POC 1: 50 year

PREDEVELOPED LAND USE

Name : Basin 1
Bypass: No

GroundWater: No

Pervious Land Use	acre
C, Forest, Flat	1.09
Pervious Total	1.09

Impervious Land Use	acre
Impervious Total	0
Basin Total	1.09

Element Flows To:

Surface	Interflow	Groundwater

MITIGATED LAND USE

Name : Basin 1
Bypass: No

GroundWater: No

Pervious Land Use	acre
C, Lawn, Flat	.902
Pervious Total	**0.902**

Impervious Land Use	acre
ROOF TOPS FLAT	0.042
SIDEWALKS FLAT	0.064
PARKING FLAT	0.084
Impervious Total	**0.19**
Basin Total	**1.092**

Element Flows To:

Surface	Interflow	Groundwater
Tank 1	Tank 1	

Name : Tank 1
Tank Name: Tank 1

Dimensions
Depth: 5 ft.
Tank Type : Circular
Diameter : 5 ft.
Length : 406 ft.
Discharge Structure
Riser Height: 4.9 ft.
Riser Diameter: 12 in.
Orifice 1 Diameter: 0.5 in. **Elevation:** 0.5 ft.

Element Flows To:

Outlet 1	Outlet 2

Tank Hydraulic Table

Stage(feet)	Area(ac.)	Volume(ac-ft.)	Discharge(cfs)	Infilt(cfs)
0.0000	0.000	0.000	0.000	0.000
0.0556	0.009	0.000	0.000	0.000
0.1111	0.013	0.001	0.000	0.000
0.1667	0.016	0.001	0.000	0.000
0.2222	0.019	0.002	0.000	0.000
0.2778	0.021	0.004	0.000	0.000
0.3333	0.023	0.005	0.000	0.000
0.3889	0.025	0.006	0.000	0.000
0.4444	0.026	0.008	0.000	0.000
0.5000	0.028	0.009	0.000	0.000

0.5556	0.029	0.011	0.001	0.000
0.6111	0.030	0.012	0.002	0.000
0.6667	0.031	0.014	0.002	0.000
0.7222	0.032	0.016	0.003	0.000
0.7778	0.033	0.018	0.003	0.000
0.8333	0.034	0.020	0.003	0.000
0.8889	0.035	0.022	0.004	0.000
0.9444	0.036	0.024	0.004	0.000
1.0000	0.037	0.026	0.004	0.000
1.0556	0.038	0.028	0.005	0.000
1.1111	0.038	0.030	0.005	0.000
1.1667	0.039	0.032	0.005	0.000
1.2222	0.040	0.034	0.005	0.000
1.2778	0.040	0.036	0.006	0.000
1.3333	0.041	0.039	0.006	0.000
1.3889	0.041	0.041	0.006	0.000
1.4444	0.042	0.043	0.006	0.000
1.5000	0.042	0.046	0.006	0.000
1.5556	0.043	0.048	0.007	0.000
1.6111	0.043	0.051	0.007	0.000
1.6667	0.043	0.053	0.007	0.000
1.7222	0.044	0.055	0.007	0.000
1.7778	0.044	0.058	0.007	0.000
1.8333	0.044	0.060	0.007	0.000
1.8889	0.045	0.063	0.008	0.000
1.9444	0.045	0.065	0.008	0.000
2.0000	0.045	0.068	0.008	0.000
2.0556	0.045	0.070	0.008	0.000
2.1111	0.046	0.073	0.008	0.000
2.1667	0.046	0.076	0.008	0.000
2.2222	0.046	0.078	0.008	0.000
2.2778	0.046	0.081	0.009	0.000
2.3333	0.046	0.083	0.009	0.000
2.3889	0.046	0.086	0.009	0.000
2.4444	0.046	0.088	0.009	0.000
2.5000	0.046	0.091	0.009	0.000
2.5556	0.046	0.094	0.009	0.000
2.6111	0.046	0.096	0.009	0.000
2.6667	0.046	0.099	0.010	0.000
2.7222	0.046	0.101	0.010	0.000
2.7778	0.046	0.104	0.010	0.000
2.8333	0.046	0.107	0.010	0.000
2.8889	0.046	0.109	0.010	0.000
2.9444	0.045	0.112	0.010	0.000
3.0000	0.045	0.114	0.010	0.000
3.0556	0.045	0.117	0.010	0.000
3.1111	0.045	0.119	0.011	0.000
3.1667	0.044	0.122	0.011	0.000
3.2222	0.044	0.124	0.011	0.000
3.2778	0.044	0.127	0.011	0.000
3.3333	0.043	0.129	0.011	0.000
3.3889	0.043	0.132	0.011	0.000
3.4444	0.043	0.134	0.011	0.000
3.5000	0.042	0.136	0.011	0.000
3.5556	0.042	0.139	0.011	0.000
3.6111	0.041	0.141	0.012	0.000

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3.6667	0.041	0.143	0.012	0.000
3.7222	0.040	0.146	0.012	0.000
3.7778	0.040	0.148	0.012	0.000
3.8333	0.039	0.150	0.012	0.000
3.8889	0.038	0.152	0.012	0.000
3.9444	0.038	0.154	0.012	0.000
4.0000	0.037	0.157	0.012	0.000
4.0556	0.036	0.159	0.012	0.000
4.1111	0.035	0.161	0.012	0.000
4.1667	0.034	0.163	0.013	0.000
4.2222	0.033	0.164	0.013	0.000
4.2778	0.032	0.166	0.013	0.000
4.3333	0.031	0.168	0.013	0.000
4.3889	0.030	0.170	0.013	0.000
4.4444	0.029	0.171	0.013	0.000
4.5000	0.028	0.173	0.013	0.000
4.5556	0.026	0.175	0.013	0.000
4.6111	0.025	0.176	0.013	0.000
4.6667	0.023	0.177	0.013	0.000
4.7222	0.021	0.179	0.013	0.000
4.7778	0.019	0.180	0.014	0.000
4.8333	0.016	0.181	0.014	0.000
4.8889	0.013	0.182	0.014	0.000
4.9444	0.009	0.182	0.113	0.000
5.0000	0.000	0.183	0.347	0.000
5.0556	0.000	0.000	0.651	0.000

ANALYSIS RESULTS
Stream Protection Duration

Predeveloped Landuse Totals for POC #1
Total Pervious Area:1.09
Total Impervious Area:0

Mitigated Landuse Totals for POC #1
Total Pervious Area:0.902
Total Impervious Area:0.19

Flow Frequency Return Periods for Predeveloped. POC #1

Return Period	Flow(cfs)
2 year	0.023365
5 year	0.034584
10 year	0.042265
25 year	0.052171
50 year	0.059666
100 year	0.067241

Flow Frequency Return Periods for Mitigated. POC #1

Return Period	Flow(cfs)
2 year	0.012823

5 year	0.025003
10 year	0.037583
25 year	0.060793
50 year	0.085135
100 year	0.117333

Stream Protection Duration
Annual Peaks for Predeveloped and Mitigated. POC #1

Year	Predeveloped	Mitigated
1949	0.013	0.009
1950	0.026	0.012
1951	0.021	0.010
1952	0.017	0.010
1953	0.014	0.009
1954	0.052	0.011
1955	0.035	0.048
1956	0.031	0.032
1957	0.034	0.013
1958	0.023	0.011
1959	0.025	0.011
1960	0.022	0.011
1961	0.023	0.013
1962	0.020	0.009
1963	0.024	0.010
1964	0.021	0.008
1965	0.023	0.012
1966	0.013	0.009
1967	0.029	0.010
1968	0.033	0.012
1969	0.025	0.010
1970	0.018	0.010
1971	0.026	0.041
1972	0.023	0.010
1973	0.018	0.012
1974	0.032	0.011
1975	0.018	0.009
1976	0.018	0.011
1977	0.015	0.009
1978	0.018	0.009
1979	0.033	0.010
1980	0.021	0.010
1981	0.017	0.009
1982	0.022	0.013
1983	0.031	0.011
1984	0.023	0.050
1985	0.030	0.017
1986	0.075	0.087
1987	0.033	0.061
1988	0.018	0.011
1989	0.015	0.008
1990	0.024	0.012
1991	0.026	0.011
1992	0.020	0.012
1993	0.013	0.007
1994	0.012	0.011

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1995	0.025	0.013
1996	0.043	0.014
1997	0.082	0.193
1998	0.016	0.010
1999	0.022	0.011
2000	0.012	0.013
2001	0.004	0.006
2002	0.024	0.013
2003	0.017	0.010
2004	0.027	0.013
2005	0.020	0.011
2006	0.046	0.168
2007	0.039	0.013
2008	0.063	0.085
2009	0.020	0.011

Stream Protection Duration
Ranked Annual Peaks for Predeveloped and Mitigated. POC #1

Rank	Predeveloped	Mitigated
1	0.0817	0.1934
2	0.0748	0.1678
3	0.0625	0.0868
4	0.0517	0.0852
5	0.0462	0.0611
6	0.0428	0.0498
7	0.0393	0.0476
8	0.0351	0.0414
9	0.0344	0.0323
10	0.0334	0.0172
11	0.0332	0.0135
12	0.0329	0.0133
13	0.0320	0.0133
14	0.0313	0.0132
15	0.0310	0.0130
16	0.0303	0.0129
17	0.0285	0.0128
18	0.0270	0.0128
19	0.0258	0.0126
20	0.0257	0.0123
21	0.0256	0.0122
22	0.0251	0.0121
23	0.0250	0.0121
24	0.0246	0.0118
25	0.0244	0.0118
26	0.0242	0.0115
27	0.0236	0.0115
28	0.0232	0.0114
29	0.0232	0.0114
30	0.0231	0.0114
31	0.0230	0.0113
32	0.0228	0.0113
33	0.0225	0.0110
34	0.0222	0.0110
35	0.0221	0.0108
36	0.0209	0.0108

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37	0.0206	0.0106
38	0.0206	0.0105
39	0.0202	0.0105
40	0.0199	0.0102
41	0.0196	0.0102
42	0.0196	0.0101
43	0.0184	0.0101
44	0.0184	0.0099
45	0.0183	0.0099
46	0.0182	0.0099
47	0.0182	0.0098
48	0.0175	0.0096
49	0.0172	0.0096
50	0.0168	0.0095
51	0.0166	0.0093
52	0.0155	0.0093
53	0.0155	0.0091
54	0.0147	0.0090
55	0.0137	0.0088
56	0.0132	0.0087
57	0.0128	0.0086
58	0.0126	0.0083
59	0.0124	0.0083
60	0.0120	0.0073
61	0.0041	0.0063

Stream Protection Duration
POC #1
The Facility PASSED
The Facility PASSED.

Flow(cfs)	Predev	Mit	Percentage	Pass/Fail
0.0117	22651	15793	69	Pass
0.0122	20561	10900	53	Pass
0.0127	18585	8025	43	Pass
0.0131	16816	5632	33	Pass
0.0136	15150	3711	24	Pass
0.0141	13721	2325	16	Pass
0.0146	12459	1791	14	Pass
0.0151	11304	1744	15	Pass
0.0156	10264	1693	16	Pass
0.0160	9311	1638	17	Pass
0.0165	8466	1576	18	Pass
0.0170	7685	1506	19	Pass
0.0175	6951	1432	20	Pass
0.0180	6314	1369	21	Pass
0.0185	5781	1299	22	Pass
0.0190	5283	1247	23	Pass
0.0194	4855	1203	24	Pass
0.0199	4438	1158	26	Pass
0.0204	4094	1124	27	Pass
0.0209	3700	1087	29	Pass
0.0214	3375	1060	31	Pass
0.0219	3050	1027	33	Pass
0.0223	2751	997	36	Pass

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0.0228	2505	961	38	Pass
0.0233	2304	932	40	Pass
0.0238	2108	899	42	Pass
0.0243	1949	878	45	Pass
0.0248	1825	853	46	Pass
0.0253	1698	829	48	Pass
0.0257	1582	808	51	Pass
0.0262	1480	775	52	Pass
0.0267	1398	754	53	Pass
0.0272	1329	734	55	Pass
0.0277	1261	709	56	Pass
0.0282	1197	694	57	Pass
0.0286	1138	677	59	Pass
0.0291	1081	663	61	Pass
0.0296	1025	644	62	Pass
0.0301	952	629	66	Pass
0.0306	915	616	67	Pass
0.0311	879	606	68	Pass
0.0316	845	594	70	Pass
0.0320	808	585	72	Pass
0.0325	767	567	73	Pass
0.0330	733	554	75	Pass
0.0335	700	543	77	Pass
0.0340	676	533	78	Pass
0.0345	655	523	79	Pass
0.0349	639	510	79	Pass
0.0354	620	497	80	Pass
0.0359	604	483	79	Pass
0.0364	587	470	80	Pass
0.0369	573	455	79	Pass
0.0374	560	440	78	Pass
0.0379	551	429	77	Pass
0.0383	539	420	77	Pass
0.0388	523	409	78	Pass
0.0393	511	399	78	Pass
0.0398	496	384	77	Pass
0.0403	473	378	79	Pass
0.0408	457	367	80	Pass
0.0412	448	360	80	Pass
0.0417	438	351	80	Pass
0.0422	426	343	80	Pass
0.0427	417	337	80	Pass
0.0432	402	329	81	Pass
0.0437	396	324	81	Pass
0.0442	385	315	81	Pass
0.0446	374	308	82	Pass
0.0451	362	302	83	Pass
0.0456	355	294	82	Pass
0.0461	349	286	81	Pass
0.0466	338	280	82	Pass
0.0471	329	273	82	Pass
0.0475	320	270	84	Pass
0.0480	310	262	84	Pass
0.0485	306	259	84	Pass
0.0490	300	253	84	Pass
0.0495	296	248	83	Pass

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0.0500	288	245	85	Pass
0.0505	283	239	84	Pass
0.0509	276	234	84	Pass
0.0514	270	226	83	Pass
0.0519	260	223	85	Pass
0.0524	252	220	87	Pass
0.0529	245	216	88	Pass
0.0534	239	211	88	Pass
0.0538	234	208	88	Pass
0.0543	227	205	90	Pass
0.0548	215	203	94	Pass
0.0553	205	198	96	Pass
0.0558	200	194	97	Pass
0.0563	194	191	98	Pass
0.0568	188	184	97	Pass
0.0572	184	180	97	Pass
0.0577	176	176	100	Pass
0.0582	170	171	100	Pass
0.0587	165	168	101	Pass
0.0592	158	162	102	Pass
0.0597	152	159	104	Pass

Water Quality BMP Flow and Volume for POC #1
On-line facility volume: 0 **acre-feet**
On-line facility target flow: 0 **cfs.**
Adjusted for 15 min: 0 **cfs.**
Off-line facility target flow: 0 **cfs.**
Adjusted for 15 min: 0 **cfs.**

LID Report

LID Technique	Used for Water Quality	Total Volumn Percent Treatment? Needs Treatment (ac-ft)	Volumn Through Facility (ac-ft)	Infiltration Volumn (ac-ft.)	Cumulative Volumn Infiltration Credit	Comment
Tank 1 POC	N	89.09			N	
0.00						
Total Volume Infiltrated		89.09	0.00	0.00		
0.00	0.00	0%	No Treat. Credit			

Compliance with LID Standard 8
Duration Analysis Result = Passed

Perlnd and Implnd Changes

No changes have been made.

Section V – Construction Stormwater Pollution Prevention Plan Narrative

Section V Summary:

Narrative

The proposed project consists of the construction of (5) 900 sf~ buildings and an 1,874 sf~ main office building, along with an associated parking lot and walkways, for the development of a dog daycare on a parcel located at 13209 Bothell-Everett Highway, Mill Creek, WA 98012. The existing site is undeveloped and contains small to large trees, other vegetation, and a Category III Wetland. The parcel has a total area of 115,082 sf (2.64 ac).

Erosion control details will be provided consistent with the City of Mill Creek guidelines. Erosion control plan sheets are provided in full size as a part of the civil drawing set. As shown on the plan, disturbance is expected to affect the entire lot area outside of the wetland buffer. Sediment and Erosion Best Management Practices (BMPs) are addressed as follows:

Element 1: Mark Clearing Limits

To protect adjacent properties and to reduce the area of soil exposed to construction, the limits of construction will be clearly marked before land-disturbing activities begin. Clearing limits will be to the extents of necessary land disturbance for the new buildings and associated parking area and walkways. The BMPs relevant to marking the clearing limits that will be applied for this project include:

High Visibility Plastic or Metal Fence (BMP C103)

Element 2: Establish Construction Access

Construction access or activities occurring on unpaved areas shall be minimized, yet where necessary, access points shall be stabilized to minimize the tracking of sediment onto public roads. A 100' stabilized construction entrance should be implemented near the SW corner of the lot and expanded to a 15' minimum width. The BMPs relevant to establishing construction access that will be applied for this project include:

Stabilized Construction Entrance (BMP C105)

Element 3: Control Flow Rates

The site is flat enough that flow rates are not expected to be an issue.

Element 4: Install Sediment Controls

All stormwater runoff from disturbed areas shall pass through an appropriate sediment removal BMP before leaving the construction site or prior to being discharged. Silt fence will be installed around the

perimeter of the property, while staying outside of the proposed wetland protection fence. Pollution prevention facilities on the erosion control plan must be constructed prior to or in conjunction with all clearing and grading to ensure that the transport of sediment to surface waters and adjacent properties is minimized. The specific BMPs to be used for controlling sediment on this project include:

Silt Fence (BMP C233)

Element 5: Stabilize Soils

Exposed and unworked soils shall be stabilized with the application of effective BMPs to prevent erosion throughout the life of the project. The specific BMPs for soil stabilization that shall be used on this project include:

Temporary and Permanent Seeding (BMP C120)
Mulching (BMP C121)
Nets and Blankets (BMP C122)
Plastic Covering (BMP C123)
Sodding (BMP C124)
Topsoiling/Composting (BMP C125)
Surface Roughening (BMP C130)
Dust Control (BMP C140)

Element 6: Protect Slopes

Slopes are not expected to be an issue on this site. However, slopes created by piling of material shall be stabilized with BMPs found in Element 5.

Element 7: Protect Drain Inlets

Drain inlets within 100' of the site and those made operable on-site will be protected from sedimentation. Stormwater shall not enter the conveyance system without first being filtered or treated to remove sediment. Inlet protection devices shall be cleaned or removed and replaced when sediment has filled one-third of the available storage (or as specified by the manufacturer). The specific BMPs to be used for protecting drain inlets are:

Storm Drain Inlet Protection (BMP C220)

Element 8: Stabilize Channels and Outlets

Conveyance channels are not located on or in the immediate vicinity of the site.

Element 9: Control Pollutants

Design, install, implement and maintain effective pollution prevention measures to minimize the discharge of pollutants. The suggested BMPs are:

Concrete Handling (BMP C151)
Sawcutting and Surfacing Pollution Prevention (BMP C152)
Material Delivery, Storage and Containment (BMP C153)

Element 10: Control Dewatering

Groundwater was not encountered during the geotechnical explorations of the site.

Element 11: Maintain BMPs

All temporary and permanent erosion and sediment control BMPs shall be maintained and repaired as needed to ensure continued performance of their intended function.

Element 12: Manage the Project

- Phase development projects to the maximum degree practicable and consider seasonal work limits.
- Inspection and monitoring – Inspect, maintain, and repair all BMPs as needed to assure continued performance of their intended function. Conduct site inspections and monitoring in accordance with the Construction Stormwater General Permit or local plan approval authority.
- Maintain an Updated Construction SWPPP
  - This SWPPP shall be retained on-site or within reasonable access to the site.
  - The SWPPP shall be modified whenever there is a change in the design, construction, operation, or maintenance at the construction site that has, or could have, a significant effect on the discharge of pollutants to waters of the state.
  - The SWPPP shall be modified if, during inspections or investigations conducted by the owner/operator, or the applicable local or state regulatory authority, it is determined that the SWPPP is ineffective in eliminating or significantly minimizing pollutants in stormwater discharges from the site. The SWPPP shall be modified as necessary to include additional or modified BMPs designed to correct problems identified. Revisions to the SWPPP shall be completed within seven (7) days following the inspection.

Element 13: Protect Low Impact Development BMPs

Low Impact Development (LID) BMPs should be protected from compaction during construction by clearly marking those areas with high visibility plastic fence. The BMPs relevant to protecting LID BMPs that will be applied for this project include:

High Visibility Plastic or Metal Fence (BMP C103)

Section VI – Special Reports and Studies

Section VI Summary:

Narrative

Included in this section are the following reports:

Geotechnical Engineering Evaluation by Nelson Geotechnical Associates dated June 20, 2018.

Critical Areas Study and Mitigation Plan by Wetland Resources Environmental Consultants dated August 15, 2018

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June 20, 2018

Ms. Julie Nealey
9402 – 224th Street SW
Edmonds, WA 98020
stellanfloyds@gmail.com

Geotechnical Engineering Evaluation
Stella and Floyds Commercial Development
13209 Bothell-Everett Highway
Mill Creek, Washington
NGA Job No. 10362B18

Dear Ms. Nealey:

We are pleased to submit the attached report titled "Geotechnical Engineering Evaluation – Stella and Floyds Commercial Development – 13209 Bothell-Everett Highway – Bothell, Washington." This report summarizes our observations of the existing surface and subsurface conditions within the site, and provides general recommendations for the proposed site development. Our services were completed in general accordance with the proposals signed by you on April 13, 2018 and May 31, 2018.

The property is currently undeveloped and heavily vegetated with underbrush and a dense canopy of young to mature trees. The ground surface is generally level to gently sloping. A large wetlands area occupies the majority of the site within the central, eastern, and southeastern portions of the property. Specific grading plans were not available at the time this report was prepared, however, we understand that the proposed development plan will likely include the construction of an office building, five dog house structures, and a parking area, along with associated access roadways and underground utilities.

We monitored the excavation of six test pit explorations throughout the property. Within one of our test pits we conducted a small-scale pilot infiltration test (PIT). Our explorations indicated that the site was underlain by surficial undocumented fill with competent, native glacial soils at depth.

It is our opinion that the proposed site development is feasible from a geotechnical engineering standpoint, provided that our recommendations for site development are incorporated into project plans. In general, the native soils underlying the site should adequately support the planned structures. Foundations should be advanced through any loose soils down to the competent glacial material interpreted to underlie the site, for bearing capacity and settlement considerations. These soils should generally be encountered approximately one to three feet below the existing ground surface, based on our explorations. If loose soils or undocumented fill are encountered in unexplored areas of the site, they should be removed and replaced with structural fill for foundation and pavement support. Final stormwater plans have also not been developed, but we understand that on-site infiltration is being considered for this site. Based on our onsite testing it our opinion that stormwater infiltration is marginally feasible within the site. The subsurface soils generally consisted of surficial undocumented fill soils underlain by dense silty fine to medium sand with varying amounts of gravel and iron-oxide

weathering that we interpreted as native glacial soils at relatively shallow depths. We did not encounter groundwater within our explorations throughout the site. We recommend that any stormwater infiltration systems within the site be designed with an incorporated overflow system and maintain the minimum groundwater separation as specified in the 2014 Department of Ecology Stormwater Management Manual for Western Washington.

In the attached report, we have also provided general recommendations for site grading, slabs-on-grade, structural fill placement, retaining walls, erosion control, and drainage. We should be retained to review and comment on final development plans and observe the earthwork phase of construction. We also recommend that NGA be retained to provide monitoring and consultation services during construction to confirm that the conditions encountered are consistent with those indicated by the explorations, to provide recommendations for design changes should the conditions revealed during construction differ from those anticipated, and to evaluate whether or not earthwork and foundation installation activities comply with contract plans and specifications.

It has been a pleasure to provide service to you on this project. Please contact us if you have any questions regarding this report or require further information.

Sincerely,

NELSON GEOTECHNICAL ASSOCIATES, INC.

Khaled M. Shawish, PE
Principal Engineer

TABLE OF CONTENTS

LIST OF FIGURES

Geotechnical Engineering Evaluation
Stella and Floyds Commercial Development
13209 Bothell-Everett Highway
Mill Creek, Washington

INTRODUCTION

This report presents the results of our geotechnical engineering investigation and evaluation of the planned Stella and Floyds Commercial Development project in the Mill Creek area of Snohomish County, Washington. The project site is located at 13209 Bothell-Everett Highway, as shown on the Vicinity Map in Figure 1. The purpose of this study is to explore and characterize the site's surface and subsurface conditions and to provide geotechnical recommendations for the planned site development. For our use in preparing this report, we have been provided with a preliminary site plan showing the proposed development, titled "Stella and Floyds," dated May 1, 2017, prepared by Capitol Architects Group.

The property is currently undeveloped and heavily forested with dense underbrush and young to mature trees. A wetlands area occupies the majority of the central, eastern, and southeastern portions of the site. We understand the proposed developments will consist of constructing several dog houses, a parking lot, and office building along the western and northern portions of the site. Final development and grading plans have not been prepared at the time this report was issued. Final stormwater plans have also not been developed, however, we understand that stormwater may be directed to on-site infiltration systems, if feasible. The existing and proposed site layout is shown on the Site Plan in Figure 2.

SCOPE

The purpose of this study is to explore and characterize the site surface and subsurface conditions, and provide general recommendations for site development. Specifically, our scope of services includes the following:

1. Review available soil and geologic maps of the area.
2. Explore the subsurface soil and groundwater conditions within the site with trackhoe excavated test pits. Trackhoe to be provided/subcontracted by NGA.
3. Provide long-term design infiltration rates based on on-site Pilot Infiltration Testing (PIT) per the 2014 DOE SWMMWW.
4. Perform laboratory grain-size sieve analysis on soil samples, as necessary.
5. Provide recommendations for earthwork, foundation support, and slabs-on-grade.
6. Provide recommendations for temporary and permanent slopes.
7. Provide recommendations for pavement subgrade.
8. Provide recommendations for infiltration system installation.
9. Provide recommendations for site drainage and erosion control.
10. Document the results of our findings, conclusions, and recommendations in a written geotechnical report.

SITE CONDITIONS

Surface Conditions

The site consists of a roughly rectangular-shaped parcel covering approximately 2.68 acres. The site is undeveloped and heavily forested with young to mature trees and dense underbrush. A wetlands area and associated buffer encompass the central, eastern, and southeastern portions of the site. The ground surface within the site is relatively level to gently sloping. The site is bounded to the north by Bothell-Everett Highway, to the east by Lowe's, to the south by Lowe's detention pond, and to the west by Les Schwab Tire. We did not observe surface water throughout the site during our site visits on April 26 and June 6, 2018.

Subsurface Conditions

Geology: The site is mapped on the Geologic map of the Everett 7.5 minute quadrangle, Snohomish County, Washington, by James P. Minard (US Geological Survey, 1985). The site is mapped as glacial till (Qvt). Till is generally described as a nonsorted mixture or mud, sand, pebbles, cobbles, and diamicton boulders. Our explorations typically encountered undocumented fill underlain by compact silty fine to medium sand with gravel consistent with the description of native glacial till deposits at depth.

Explorations: The subsurface conditions within the site were explored on April 26 and June 6, 2018 by monitoring the excavation of six total track hoe excavated test pits that ranged in depth from 3.0 to 7.0 feet below the existing ground surface. The approximate locations of our explorations are shown on the Site Plan in Figure 2. A geologist from NGA was present during the explorations, examined the soils and geologic conditions encountered, obtained samples of the different soil types, and maintained logs of the test pits.

The soils were visually classified in general accordance with the Unified Soil Classification System, presented in Figure 3. The logs of our test pits are attached to this report and are presented as Figures 4 and 5. We present a brief summary of the subsurface conditions in the following paragraphs. For a detailed description of the subsurface conditions, the logs of the test pits should be reviewed.

At the surface of each exploration we generally encountered 1.5 to 2.0 feet of dark brown to reddish brown, organic-rich silty sand with varying amounts of gravel, and roots, which we interpreted as topsoil and/or undocumented fill soils. Underlying the topsoil and undocumented fill we encountered medium dense or better orange-brown to gray, silty fine to medium sand with gravel, iron-oxide staining, and trace roots, which we interpreted as weathered and unweathered glacial till soils. Test Pit 1 through 5 and Infiltration Pit 1 terminated at respective depths of 7.0, 7.0, 4.5, 7.0, 3.0, and 4.5 feet below the existing ground surface, respectively.

Hydrogeologic Conditions

We did not encounter groundwater within our explorations throughout the site. If groundwater is encountered during construction we would interpret this as perched groundwater. Perched water occurs when surface water infiltrates through less dense, more permeable soils and accumulates on top of relatively low permeability materials. The more permeable soils consist of the topsoil/weathered soils and undocumented fill. The low permeability soil consists of relatively silty native glacial deposits. Perched water does not represent a regional groundwater "table" within the upper soil horizons. Perched water tends to vary spatially and is dependent upon the amount of rainfall. We would expect the amount of perched groundwater to decrease during drier times of the year and increase during wetter periods.

SENSITIVE AREA EVALUATION

Seismic Hazard

We reviewed the 2018 International Building Code (IBC) for seismic site classification for this project. Since competent glacial till soils are inferred to underlie the site at depth, the site conditions best fit the IBC description for Site Class D.

Table 1 below provides seismic design parameters for the site that are in conformance with the 2018 IBC, which specifies a design earthquake having a 2% probability of occurrence in 50 years (return interval of 2,475 years), and the 2008 USGS seismic hazard maps.

Table 1 – 2018 IBC Seismic Design Parameters

Site Class	Spectral Acceleration at 0.2 sec. (g) S_s	Spectral Acceleration at 1.0 sec. (g) S_1	Site Coefficients		Design Spectral Response Parameters	
			F_a	F_v	S_{DS}	S_{D1}
D	1.36	0.531	1.000	1.500	0.907	0.531

The spectral response accelerations were obtained from the USGS Earthquake Hazards Program Interpolated Probabilistic Ground Motion website (2008 data) for the project latitude and longitude.

The site is located within the South Whidbey Island Fault Zone (SWIFZ): an active, shallow region of seismicity within central Puget Sound stretching from the Strait of Juan de Fuca to North Bend. Information published in 2013 by the Washington State Department of Natural Resources suggests the SWIFZ last ruptured less than 2,700 years ago, and that the fault zone can produce a M7.5 earthquake. In our opinion, the possibility of faulting ground rupture caused by this fault zone is considered low.

Hazards associated with seismic activity include liquefaction potential and amplification of ground motion. Liquefaction is caused by a rise in pore pressures in a loose, fine sand deposit beneath the groundwater table. It is our opinion that the medium dense or better glacial deposits interpreted to underlie the site have a low potential for liquefaction or amplification of ground motion.

Erosion Hazard

The criteria used for determination of the erosion hazard for affected areas include soil type, slope gradient, vegetation cover, and groundwater conditions. The erosion sensitivity is related to vegetative cover and the specific surface soil types, which are related to the underlying geologic soil units. The Soil Survey of King County Area, Washington, by the Soil Conservation Service (SCS) was reviewed to determine the erosion hazard of the on-site soils. The surface soils for this site were mapped as Alderwood-Urban land complex, 2 to 8 percent slopes. The erosion hazard for this material is listed as slight. This site is relatively level to gently sloping and there are no steep slopes on the property. It is our opinion that the erosion hazard for site soils should be low in areas where the site is not disturbed.

CONCLUSIONS AND RECOMMENDATIONS

General

It is our opinion that the site is generally compatible with the planned development from a geotechnical standpoint. Our explorations indicated that the site is generally underlain by competent native soils at depth. The native soils encountered at depth should provide adequate support for foundation, slab, and pavement loads. We recommend that the planned structure be designed utilizing shallow foundations. Footings should extend through any loose soil or undocumented fill soils and be founded on the underlying medium dense or better native soil, or structural fill extending to these soils. The medium dense or better native glacial soils should typically be encountered approximately one to three feet below the existing surface, based on our explorations. We should note that localized areas of deeper unsuitable soils and/or undocumented fill could be encountered at this site. This condition would require additional excavations in foundation, slab, and pavement areas to remove the unsuitable soils.

Based on the results of our infiltration testing and soil explorations throughout the site, it is our opinion that traditional stormwater infiltration systems within this site are not feasible, however low-impact design infiltration systems, such as pervious pavements, rain gardens, and bio-swales may be feasible. We recommend any low-impact systems within the site be designed with an incorporated overflow system directed towards an approved point of discharge. This is further discussed in the **Site Drainage** section of this report.

The surficial soils encountered on this site are considered moisture-sensitive and will disturb easily when wet. We recommend that construction take place during the drier summer months, if possible. If construction is to take place during wet weather, the soils may disturb and additional expenses and delays may be expected due to the wet conditions. Additional expenses could include the need for placing a blanket of rock spalls to protect exposed subgrades and construction traffic areas. Some of the native on-site soils may be suitable for use as structural fill depending on the moisture content of the soil during construction. This will depend on the moisture content of the soils at the time of construction. NGA should be retained to determine if the on-site soils can be used as structural fill material during construction.

Erosion Control

The erosion hazard for the on-site soils is interpreted to slight for exposed soils, but actual erosion potential will be dependent on how the site is graded and how water is allowed to concentrate. Best Management Practices (BMPs) should be used to control erosion. Areas disturbed during construction should be protected from erosion. Erosion control measures may include diverting surface water away from the stripped or disturbed areas. Silt fences and/or straw bales should be erected to prevent muddy water from leaving the site. Disturbed areas should be planted as soon as practical and the vegetation should be maintained until it is established. The erosion potential of areas not stripped of vegetation should be low.

Site Preparation and Grading

After erosion control measures are implemented, site preparation should consist of stripping the topsoil, undocumented fill and loose soils from foundation, slab, pavement areas, and other structural areas, to expose medium dense or better native soils. The stripped soil should be removed from the site or stockpiled for later use as a landscaping fill. Based on our observations, we anticipate stripping depths of one to three feet, depending on the specific locations. However, additional stripping may be required if areas of deeper undocumented fill and/or loose soil are encountered in unexplored areas of the site.

After site stripping, if the exposed subgrade is deemed loose, it should be compacted to a non-yielding condition and then proof-rolled with a heavy rubber-tired piece of equipment. Areas observed to pump or weave during the proof-roll test should be reworked to structural fill specifications or over-excavated and replaced with properly compacted structural fill or rock spalls. If loose soils are encountered in the pavement areas, the loose soils should be removed and replaced with rock spalls or granular structural fill. If significant surface water flow is encountered during construction, this flow should be diverted around areas to be developed, and the exposed subgrades should be maintained in a semi-dry condition.

If wet conditions are encountered, alternative site stripping and grading techniques might be necessary. These could include using large excavators equipped with wide tracks and a smooth bucket to complete site grading and covering exposed subgrade with a layer of crushed rock for protection. If wet conditions are encountered or construction is attempted in wet weather, the subgrade should not be compacted as this could cause further subgrade disturbance. In wet conditions it may be necessary to cover the exposed subgrade with a layer of crushed rock as soon as it is exposed to protect the moisture sensitive soils from disturbance by machine or foot traffic during construction. The prepared subgrade should be protected from construction traffic and surface water should be diverted around areas of prepared subgrade.

The site soils are considered to be moisture-sensitive and will disturb easily when wet. We recommend that construction take place during the drier summer months if possible. However, if construction takes place during the wet season, additional expenses and delays should be expected due to the wet conditions. Additional expenses could include the need for placing a blanket of rock spalls on exposed subgrades, construction traffic areas, and paved areas prior to placing structural fill. Wet weather grading will also require additional erosion control and site drainage measures. Some of the on-site soils may be suitable for use as structural fill, depending on the moisture content of the soil at the time of construction. NGA should be retained to evaluate the suitability of all on-site and imported structural fill material during construction.

Temporary and Permanent Slopes

Temporary cut slope stability is a function of many factors, including the type and consistency of soils, depth of the cut, surcharge loads adjacent to the excavation, length of time a cut remains open, and the presence of surface or groundwater. It is exceedingly difficult under these variable conditions to estimate a stable, temporary, cut slope angle. Therefore, it should be the responsibility of the contractor to maintain safe slope configurations at all times as indicated in OSHA guidelines for cut slopes.

The following information is provided solely for the benefit of the owner and other design consultants and should not be construed to imply that Nelson Geotechnical Associates, Inc. assumes responsibility for job site safety. Job site safety is the sole responsibility of the project contractor.

For planning purposes, we recommend that temporary cuts in the upper undocumented fill soils be no steeper than 2 Horizontal to 1 Vertical (2H:1V). Temporary cuts in the competent native glacial soils at depth should be no steeper than 1.5H:1V. If significant groundwater seepage or surface water flow were encountered, we would expect that flatter inclinations would be necessary. We recommend that cut slopes be protected from erosion. The slope protection measures may include covering cut slopes with plastic sheeting and diverting surface runoff away from the top of cut slopes. We do not recommend

vertical slopes for cuts deeper than four feet, if worker access is necessary. We recommend that cut slope heights and inclinations conform to appropriate OSHA/WISHA regulations.

Permanent cut and fill slopes should be no steeper than 2H:1V. However, flatter inclinations may be required in areas where loose soils are encountered. Permanent slopes should be vegetated and the vegetative cover maintained until established.

Foundations

Conventional shallow spread foundations should be placed on medium dense or better native soils, or be supported on structural fill or rock spalls extending to those soils. Medium dense soils should be encountered approximately one to three feet below ground surface based on our explorations. Where undocumented fill or less dense soils are encountered at footing bearing elevation, the subgrade should be over-excavated to expose suitable bearing soil. The over-excavation may be filled with structural fill, or the footing may be extended down to the competent native soils. If footings are supported on structural fill, the fill zone should extend outside the edges of the footing a distance equal to one half of the depth of the over-excavation below the bottom of the footing.

Footings should extend at least 18 inches below the lowest adjacent finished ground surface for frost protection and bearing capacity considerations. Foundations should be designed in accordance with the 2018 IBC. Footing widths should be based on the anticipated loads and allowable soil bearing pressure. Water should not be allowed to accumulate in footing trenches. All loose or disturbed soil should be removed from the foundation excavation prior to placing concrete.

For foundations constructed as outlined above, we recommend an allowable design bearing pressure of not more than 2,500 pounds per square foot (psf) be used for the design of footings founded on the medium dense or better native soils or structural fill extending to the competent native material. The foundation bearing soil should be evaluated by a representative of NGA. We should be consulted if higher bearing pressures are needed. Current IBC guidelines should be used when considering increased allowable bearing pressure for short-term transitory wind or seismic loads. Potential foundation settlement using the recommended allowable bearing pressure is estimated to be less than 1-inch total and ½-inch differential between adjacent footings or across a distance of about 20 feet, based on our experience with similar projects.

Lateral loads may be resisted by friction on the base of the footing and passive resistance against the subsurface portions of the foundation. A coefficient of friction of 0.35 may be used to calculate the base friction and should be applied to the vertical dead load only. Passive resistance may be calculated as a triangular equivalent fluid pressure distribution. An equivalent fluid density of 200 pounds per cubic foot (pcf) should be used for passive resistance design for a level ground surface adjacent to the footing. This

level surface should extend a distance equal to at least three times the footing depth. These recommended values incorporate safety factors of 1.5 and 2.0 applied to the estimated ultimate values for frictional and passive resistance, respectively. To achieve this value of passive resistance, the foundations should be poured "neat" against the native medium dense soils or compacted fill should be used as backfill against the front of the footing. We recommend that the upper one foot of soil be neglected when calculating the passive resistance.

Retaining Walls

Specific grading plans for this project were not available at the time this report was prepared, but retaining walls may be incorporated into project plans. In general, the lateral pressure acting on subsurface retaining walls is dependent on the nature and density of the soil behind the wall, the amount of lateral wall movement which can occur as backfill is placed, wall drainage conditions, and the inclination of the backfill. For walls that are free to yield at the top at least one thousandth of the height of the wall (active condition), soil pressures will be less than if movement is limited by such factors as wall stiffness or bracing (at-rest condition). We recommend that walls supporting horizontal backfill and not subjected to hydrostatic forces, be designed using a triangular earth pressure distribution equivalent to that exerted by a fluid with a density of 40 pcf for yielding (active condition) walls, and 60 pcf for non-yielding (at-rest condition) walls. A seismic design loading of 8H should also be included in the wall design. It represents the total height of the wall.

These recommended lateral earth pressures are for a drained granular backfill and are based on the assumption of a horizontal ground surface behind the wall for a distance of at least the subsurface height of the wall, and do not account for surcharge loads. Additional lateral earth pressures should be considered for surcharge loads acting adjacent to subsurface walls and within a distance equal to the subsurface height of the wall. This would include the effects of surcharges such as traffic loads, floor slab loads, slopes, or other surface loads. We could consult with the structural engineer regarding additional loads on retaining walls during final design, if needed.

The lateral pressures on walls may be resisted by friction between the foundation and subgrade soil, and by passive resistance acting on the below-grade portion of the foundation. Recommendations for frictional and passive resistance to lateral loads are presented in the **Foundations** subsection of this report.

All wall backfill should be well compacted as outlined in the **Structural Fill** subsection of this report. Care should be taken to prevent the buildup of excess lateral soil pressures due to over-compaction of the wall backfill. This can be accomplished by placing wall backfill in 8-inch loose lifts and compacting the backfill with small, hand-operated compactors within a distance behind the wall equal to at least one-half

the height of the wall. The thickness of the loose lifts should be reduced to accommodate the lower compactive energy of the hand-operated equipment. The recommended level of compaction should still be maintained.

Permanent drainage systems should be installed for retaining walls. Recommendations for these systems are found in the **Subsurface Drainage** subsection of this report. We recommend that we be retained to evaluate the proposed wall drain backfill material and observe installation of the drainage systems.

Structural Fill

General: Fill placed beneath foundations, pavement, or other settlement-sensitive structures should be placed as structural fill. Structural fill, by definition, is placed in accordance with prescribed methods and standards, and is monitored by an experienced geotechnical professional or soils technician. Field monitoring procedures would include the performance of a representative number of in-place density tests to document the attainment of the desired degree of relative compaction. The area to receive the fill should be suitably prepared as described in the **Site Preparation and Grading** subsection prior to beginning fill placement.

Materials: Structural fill should consist of a good quality, granular soil, free of organics and other deleterious material, and be well graded to a maximum size of about three inches. All-weather fill should contain no more than five-percent fines (soil finer than U.S. No. 200 sieve, based on that fraction passing the U.S. 3/4-inch sieve). Some of the more granular on-site soils may be suitable for use as structural fill, but this will be highly dependent on the moisture content of these soils at the time of construction. We should be retained to evaluate all proposed structural fill material prior to placement.

Fill Placement: Following subgrade preparation, placement of structural fill may proceed. All filling should be accomplished in uniform lifts up to eight inches thick. Each lift should be spread evenly and be thoroughly compacted prior to placement of subsequent lifts. All structural fill underlying building areas and pavement subgrade should be compacted to a minimum of 95 percent of its maximum dry density. Maximum dry density, in this report, refers to that density as determined by the ASTM D-1557 Compaction Test procedure. The moisture content of the soils to be compacted should be within about two percent of optimum so that a readily compactable condition exists. It may be necessary to over-excavate and remove wet soils in cases where drying to a compactable condition is not feasible. All compaction should be accomplished by equipment of a type and size sufficient to attain the desired degree of compaction.

Slab-on-Grade

Slabs-on-grade should be supported on subgrade soils prepared as described in the **Site Preparation and Grading** subsection of this report. We recommend that all floor slabs be underlain by at least six inches of free-draining gravel with less than three percent by weight of the material passing Sieve #200 for use as a capillary break. We recommend that the capillary break be hydraulically connected to the footing drain system to allow free drainage from under the slab. A suitable vapor barrier, such as heavy plastic sheeting (6-mil minimum), should be placed over the capillary break material. An additional 2-inch-thick moist sand layer may be used to cover the vapor barrier. This sand layer may be used to protect the vapor barrier membrane and to aid in curing the concrete.

Pavements

Pavement subgrade preparation and structural filling where required, should be completed as recommended in the **Site Preparation and Grading** and **Structural Fill** subsections of this report. The pavement subgrade should be proof-rolled with a heavy, rubber-tired piece of equipment, to identify soft or yielding areas that require repair. The pavement section should be underlain by a minimum of six inches of clean granular pit run. We should be retained to observe the proof-rolling and recommend repairs prior to placement of the asphalt or hard surfaces.

Utilities

We recommend that underground utilities be bedded with a minimum six inches of pea gravel prior to backfilling the trench with on-site or imported material. Trenches within settlement sensitive areas should be compacted to 95% of the modified proctor as described in the **Structural Fill** subsection of this report. Trenches located in non-structural areas should be compacted to a minimum 90% of the maximum dry density.

Site Drainage

Infiltration: We conducted a Small PIT within Infiltration Pit 1, located as shown on the attached Schematic Site Plan in Figure 2. The test was conducted within a pit that measured 4.5-feet long by 3.0-feet wide by 4.5-feet deep. The pit was filled with 12-inches of water at the beginning of the day and we began the soaking period of the PIT for approximately 6 hours. At this time, the water flow rate into the hole was monitored with a Great Plains Industries (GPI) TM 075 water flow meter for the pre-soak period.

After the 6-hour soaking period was completed, the water level was maintained at approximately 12-inches for one hour for the steady-state period. The flow rate for Infiltration Pit 1 stabilized at 0.0235 gallons per minute (1.41 gallons per hour). This equated to an approximate infiltration rate of 0.168 inches per hour. The water was shut off after the steady-state period and monitored at least every 15

minutes for one hour. After 60 minutes, the water level within the pit dropped approximately 0.125 inches, resulting in a measured infiltration rate of 0.125 inch per hour.

In accordance with the Table 3.5 of the Department of Ecology 2014 SWMMWW, correction factors of 1.0, 0.5, and 0.9 for CFv, CFt, CFm, respectively were applied to the field measured infiltration rate of 0.125 inches per hour, obtained from the falling-head portion of the testing in Infiltration Pit 1. A total correction factor of 0.45 was applied to the measured field infiltration rate obtained from the falling head portion of the test to determine the long-term design infiltration rate.

Using the above correction factor, we calculated a long-term design infiltration rate of approximately 0.056 inches per hour. In our opinion, a long-term design infiltration rate of 0.056 inches per hour could be utilized to design the on-site low-impact infiltration systems within the native, silty fine to medium sand with gravel found on this site at depth.

It is our opinion that the subsurface soils within the site are not suitable for traditional stormwater infiltration systems, however low-impact design systems may be feasible within the site. The subsurface soils generally consisted of surficial undocumented fill soils underlain by silty fine to medium sand with gravel that we interpreted as native glacial till deposits. We did not encounter groundwater within our explorations to a maximum depth of 7.0 feet below the ground surface. We recommend that low-impact infiltration facilities, such as permeable pavements have an incorporated overflow component directed towards an approved point of discharge. We recommend these systems be sized and designed in accordance with the 2014 Department of Ecology Stormwater Management Manual for Western Washington in conjunction with the provided long-term design infiltration rate of 0.056 inches per hour.

We recommend that any proposed infiltration systems be placed as to not negatively impact any proposed or existing nearby structures and also meet all required setbacks from existing property lines, structures, and sensitive areas as discussed in the drainage manual. In general, infiltration systems should not be located within proposed fill areas within the site associated with site grading or retaining wall backfill as such condition could lead to failures of the placed fills and/or retaining structures. We should be retained to evaluate the infiltration system design and installation during construction.

Surface Drainage: The finished ground surface should be graded such that stormwater is directed to an appropriate stormwater collection system. Water should not be allowed to stand in any areas where footings, slabs, or pavements are to be constructed. Final site grades should allow for drainage away from the residences. We suggest that the finished ground be sloped at a minimum gradient of three percent, for a distance of at least 10 feet away from the residences. Surface water should be collected by permanent catch basins and drain lines, and be discharged into an appropriate discharge system.

Subsurface Drainage: If groundwater is encountered during construction, we recommend that the contractor slope the bottom of the excavation and collect the water into ditches and small sump pits where the water can be pumped out and routed into a permanent storm drain.

We recommend the use of footing drains around the structures. Footing drains should be installed at least one foot below planned finished floor elevation. The drains should consist of a minimum 4-inch-diameter, rigid, slotted or perforated, PVC pipe surrounded by free-draining material wrapped in a filter fabric. We recommend that the free-draining material consist of an 18-inch-wide zone of clean (less than three-percent fines), granular material placed along the back of walls. Pea gravel is an acceptable drain material. The free-draining material should extend up the wall to one foot below the finished surface. The top foot of backfill should consist of impermeable soil placed over plastic sheeting or building paper to minimize surface water or fines migration into the footing drain. Footing drains should discharge into tightlines leading to an appropriate collection and discharge point with convenient cleanouts to prolong the useful life of the drains. Roof drains should not be connected to wall or footing drains.

CONSTRUCTION MONITORING

We should be retained to provide construction monitoring services during the earthwork phase of the project to evaluate subgrade conditions, temporary cut conditions, fill compaction, and drainage system installation.

USE OF THIS REPORT

NGA has prepared this report for Ms. Julie Nealey and her agents, for use in the planning and design of the development on this site only. The scope of our work does not include services related to construction safety precautions and our recommendations are not intended to direct the contractors' methods, techniques, sequences, or procedures, except as specifically described in our report for consideration in design. There are possible variations in subsurface conditions between the explorations and also with time. Our report, conclusions, and interpretations should not be construed as a warranty of subsurface conditions. A contingency for unanticipated conditions should be included in the budget and schedule.

We recommend that NGA be retained to provide monitoring and consultation services during construction to confirm that the conditions encountered are consistent with those indicated by the explorations, to provide recommendations for design changes should the conditions revealed during the work differ from those anticipated, and to evaluate whether or not earthwork and foundation installation activities comply with contract plans and specifications. We should be contacted a minimum of one week prior to construction activities and could attend pre-construction meetings if requested.

Within the limitations of scope, schedule, and budget, our services have been performed in accordance with generally accepted geotechnical engineering practices in effect in this area at the time this report was prepared. No other warranty, expressed or implied, is made. Our observations, findings, and opinions are a means to identify and reduce the inherent risks to the owner.

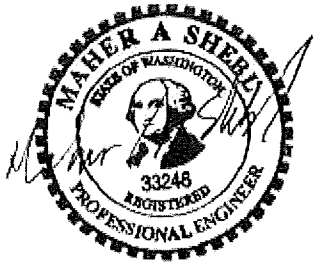
o-o-o

It has been a pleasure to provide service to you on this project. If you have any questions or require further information, please call.

Sincerely,

NELSON GEOTECHNICAL ASSOCIATES, INC.

Alex B. Rinaldi, GIT
Staff Geologist II



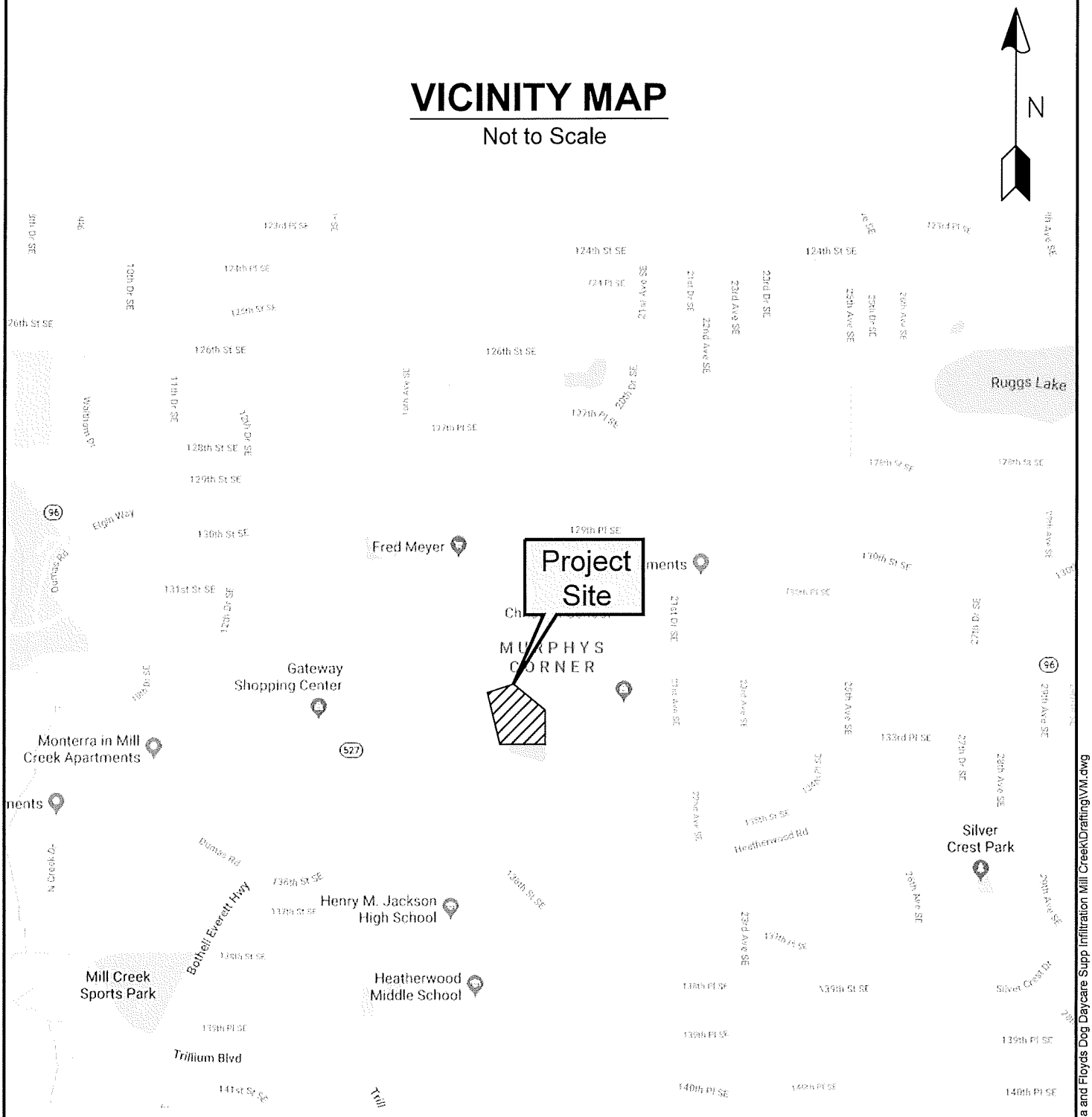
Maher A. Shebl, PE
Senior Engineer

ABR:MAS:dy

Five Figures Attached

VICINITY MAP

Not to Scale



Mill Creek, WA

Project Number 10362B18	Stella and Floyds Supplemental Infiltration Vicinity Map	NELSON GEOTECHNICAL ASSOCIATES, INC. NGA GEOTECHNICAL ENGINEERS & GEOLOGISTS Woodinville Office: 17311-135th Ave. NE, A-500, Woodinville, WA 98072, (425) 486-1669 / Fax: 481-2510 East Wenatchee Office: 5526 Industry Lane, #2, East Wenatchee, WA 98802, (509) 665-7696 / Fax: 665-7692 www.nelsongeotech.com
Figure 1		

No.	Date	Revision	By	CK
1	5/4/18	Original	DPN	ABR
2	6/12/18	Revision	DPN	ABR

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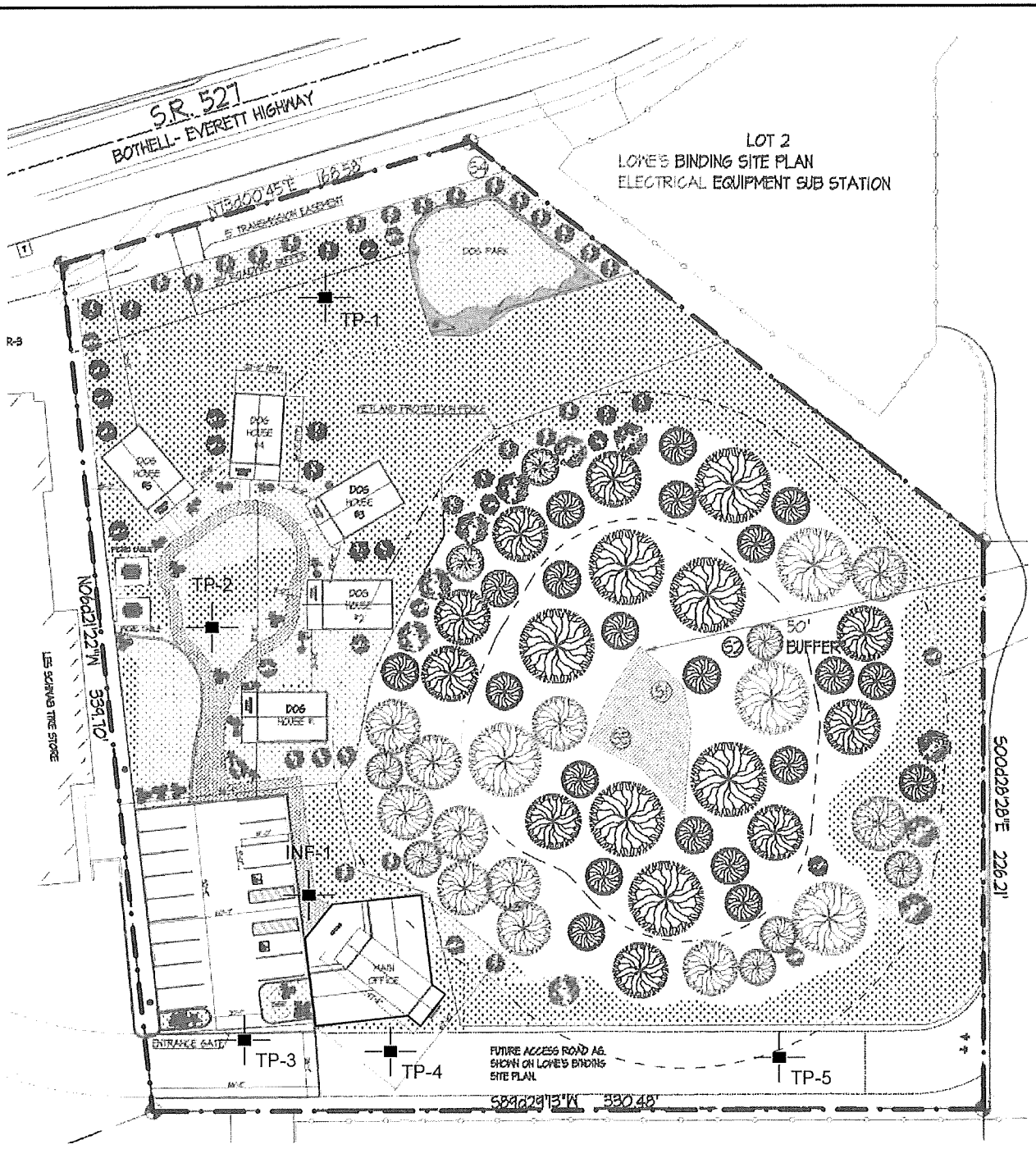

LEGEND

Property line

INF-1

Number and approximate location of infiltration test pit

TP-1

Number and approximate location of test pit

0 60 120

Scale: 1 inch = 60 feet

Reference: Site Plan based on a plan dated May 1, 2017 titled "Stella & Floyds," prepared by Capital Group.

Project Number 10362B18	Stella and Floyds Supplemental Infiltration Site Plan	NELSON GEOTECHNICAL ASSOCIATES, INC. NGA GEOTECHNICAL ENGINEERS & GEOLOGISTS
Figure 2		Woodinville Office: 17311-135th Ave, NE, A-500, Woodinville, WA 98072, (425) 486-1669 / Fax: 481-2510 — East Wenatchee Office: 5526 Industry Lane, #2, East Wenatchee, WA 98802, (509) 665-7696 / Fax: 665-7692 — www.nelsongeotech.com

No.	Date	Revision	By	CK
1	5/4/18	Original	DPN	ABR
2	6/12/18	Revision	DPN	ABR

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UNIFIED SOIL CLASSIFICATION SYSTEM

MAJOR DIVISIONS			GROUP SYMBOL	GROUP NAME
COARSE - GRAINED SOILS MORE THAN 50 % RETAINED ON NO. 200 SIEVE	GRAVEL MORE THAN 50 % OF COARSE FRACTION RETAINED ON NO. 4 SIEVE	CLEAN GRAVEL	GW	WELL-GRADED, FINE TO COARSE GRAVEL
			GP	POORLY-GRADED GRAVEL
		GRAVEL WITH FINES	GM	SILTY GRAVEL
			GC	CLAYEY GRAVEL
	SAND MORE THAN 50 % OF COARSE FRACTION PASSES NO. 4 SIEVE	CLEAN SAND	SW	WELL-GRADED SAND, FINE TO COARSE SAND
			SP	POORLY GRADED SAND
		SAND WITH FINES	SM	SILTY SAND
			SC	CLAYEY SAND
FINE - GRAINED SOILS MORE THAN 50 % PASSES NO. 200 SIEVE	SILT AND CLAY LIQUID LIMIT LESS THAN 50 %	INORGANIC	ML	SILT
			CL	CLAY
		ORGANIC	OL	ORGANIC SILT, ORGANIC CLAY
	SILT AND CLAY LIQUID LIMIT 50 % OR MORE	INORGANIC	MH	SILT OF HIGH PLASTICITY, ELASTIC SILT
			CH	CLAY OF HIGH PLASTICITY, FAT CLAY
		ORGANIC	OH	ORGANIC CLAY, ORGANIC SILT
HIGHLY ORGANIC SOILS			PT	PEAT

NOTES:

1) Field classification is based on visual examination of soil in general accordance with ASTM D 2488-93.

2) Soil classification using laboratory tests is based on ASTM D 2488-93.

3) Descriptions of soil density or consistency are based on interpretation of blowcount data, visual appearance of soils, and/or test data.

SOIL MOISTURE MODIFIERS:

Dry - Absence of moisture, dusty, dry to the touch

Moist - Damp, but no visible water.

Wet - Visible free water or saturated, usually soil is obtained from below water table

Project Number 10362B18	Stella and Floyds Supplemental Infiltration Soil Classification Chart
Figure 3	

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No.	Date	Revision	By	CK
1	5/4/18	Original	DPN	ABR
2	6/12/18	Revision	DPN	ABR

LOG OF EXPLORATION

DEPTH (FEET)	USC	SOIL DESCRIPTION
TEST PIT ONE		
0.0 – 1.5		DARK BROWN, ORGANIC-RICH SILTY FINE TO MEDIUM SAND WITH ROOTS (LOOSE TO MEDIUM DENSE, MOIST) (**TOPSOIL**)
1.5 – 3.6	SM	ORANGE-BROWN, SILTY FINE TO MEDIUM SAND WITH GRAVEL, IRON-OXIDE STAINING, AND TRACE ROOTS (MEDIUM DENSE TO DENSE, MOIST)
3.6 – 7.0	SM	GRAY, SILTY FINE TO MEDIUM SAND WITH GRAVEL AND TRACE IRON-OXIDE STAINING (MEDIUM DENSE TO DENSE, MOIST)
		SAMPLES WERE COLLECTED AT 2.3 AND 4.0 FEET GROUNDWATER SEEPAGE WAS NOT ENCOUNTERED TEST PIT CAVING WAS NOT ENCOUNTERED TEST PIT WAS COMPLETED AT 7.0 FEET ON 4/26/2018
TEST PIT TWO		
0.0 – 2.0		DARK BROWN, ORGANIC-RICH SILTY FINE TO MEDIUM SAND WITH ROOTS AND TRACE GARBAGE (LOOSE TO MEDIUM DENSE, MOIST) (**UNDOCUMENTED FILL**)
2.0 – 3.5	SM	ORANGE-BROWN, SILTY FINE TO MEDIUM SAND WITH GRAVEL, IRON-OXIDE STAINING, AND TRACE ROOTS (MEDIUM DENSE, MOIST)
3.5 – 7.0	SM	GRAY, SILTY FINE TO MEDIUM SAND WITH GRAVEL AND IRON-OXIDE STAINING (MEDIUM DENSE TO DENSE, MOIST)
		SAMPLES WERE COLLECTED AT 3.0 AND 7.0 FEET GROUNDWATER SEEPAGE WAS NOT ENCOUNTERED TEST PIT CAVING WAS NOT ENCOUNTERED TEST PIT WAS COMPLETED AT 7.0 FEET ON 4/26/2018
TEST PIT THREE		
0.0 – 2.0		DARK BROWN, ORGANIC-RICH SILTY FINE TO MEDIUM SAND WITH ROOTS AND TRACE GARBAGE (LOOSE TO MEDIUM DENSE, MOIST) (**UNDOCUMENTED FILL**)
2.0 – 3.3	SM	ORANGE-BROWN, SILTY FINE TO MEDIUM SAND WITH GRAVEL, IRON-OXIDE STAINING, AND SCATTERED ROOTS (MEDIUM DENSE, MOIST)
3.3 – 4.5	SM	GRAY, SILTY FINE TO MEDIUM SAND WITH GRAVEL AND IRON-OXIDE STAINING (MEDIUM DENSE TO DENSE, MOIST)
		SAMPLE WAS COLLECTED AT 4.0 FEET GROUNDWATER SEEPAGE WAS NOT ENCOUNTERED TEST PIT CAVING WAS NOT ENCOUNTERED TEST PIT WAS COMPLETED AT 4.5 FEET ON 4/26/2018
TEST PIT FOUR		
0.0 – 2.0		DARK BROWN, ORGANIC-RICH SILTY FINE TO MEDIUM SAND WITH ROOTS GARBAGE (LOOSE TO MEDIUM DENSE, MOIST) (**TOPSOIL**)
2.0 – 4.0	SM	ORANGE-BROWN, SILTY FINE TO MEDIUM SAND WITH GRAVEL, IRON-OXIDE STAINING, AND TRACE ROOTS (MEDIUM DENSE, MOIST)
4.0 – 7.0	SM	GRAY, SILTY FINE TO MEDIUM SAND WITH GRAVEL (MEDIUM DENSE TO DENSE, MOIST)
		SAMPLE WAS COLLECTED AT 7.0 FEET GROUNDWATER SEEPAGE WAS NOT ENCOUNTERED TEST PIT CAVING WAS NOT ENCOUNTERED TEST PIT WAS COMPLETED AT 7.0 FEET ON 4/26/2018

LOG OF EXPLORATION

DEPTH (FEET)	USC	SOIL DESCRIPTION
TEST PIT FIVE		
0.0 – 1.5		DARK BROWN TO REDDISH, ORGANIC-RICH SILTY FINE TO MEDIUM SAND WITH ROOTS AND WOOD DEBRIS (LOOSE TO MEDIUM DENSE, MOIST) (**TOPSOIL**)
1.5 – 2.5	SM	ORANGE-BROWN, SILTY FINE TO MEDIUM SAND WITH GRAVEL, IRON-OXIDE STAINING, AND TRACE ROOTS (MEDIUM DENSE, MOIST)
2.5 – 3.0	SM	GRAY, SILTY FINE TO MEDIUM SAND WITH GRAVEL (MEDIUM DENSE TO DENSE, MOIST)
		SAMPLE WAS NOT COLLECTED GROUNDWATER SEEPAGE WAS NOT ENCOUNTERED TEST PIT CAVING WAS NOT ENCOUNTERED TEST PIT WAS COMPLETED AT 3.0 FEET ON 4/26/2018
INFILTRATION PIT ONE		
0.0 – 2.8		UNDERBRUSH UNDERLAIN BY BROWN, SILTY FINE TO MEDIUM SAND WITH GRAVEL, ROOTS, ORGANICS, AND WOOD DEBRIS (LOOSE TO MEDIUM DENSE, MOIST) (**TOPSOIL/FILL**)
2.8 – 4.5	SM	GRAY, WELL-CEMENTED SILTY FINE TO MEDIUM SAND WITH GRAVEL AND IRON-OXIDE STAINING (MEDIUM DENSE TO DENSE, MOIST)
		SAMPLE WAS NOT COLLECTED GROUNDWATER SEEPAGE WAS NOT ENCOUNTERED TEST PIT CAVING WAS NOT ENCOUNTERED TEST PIT WAS COMPLETED AT 4.5 FEET ON 4/26/2018

CRITICAL AREAS STUDY
AND
MITIGATION PLAN

FOR

13209 BOTHELL EVERETT HWY
MUTTLEY SQUARE
SEATTLE, WA

Wetland Resources, Inc. Project #16263

Prepared By
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August 15, 2018

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1.0 INTRODUCTION

The subject site is a 2.68-acre parcel located at 13209 Bothell Everett Highway in the City of Mill Creek, Washington, (parcel #: 28053100100400) within a portion of Section 31, Township 28N, Range 5E, W.M. Access to the subject site is from the northeast via 132nd Street SE. Surrounding land use consists primarily of large commercial centers and dense suburban residences within a heavily developed area. A PUD power substation lies immediately northeast of the site, a Lowes shopping center to the east, a detention pond to the south, and an automotive business to the west. On-site topography varies, sloping down to the southwest overall. However, a small depressional area is present near the center of the site, and a low swale is in the northwestern corner.

Currently the property is undeveloped scrub-shrub and forest. Some refuse is present near the property boundaries. The on-site vegetation is dominated by western red cedar (*Thuja plicata*), Douglas fir (*Pseudotsuga menziesii*), Himalayan blackberry (*Rubus armeniacus*), salmonberry (*Rubus spectabilis*), bracken fern (*Pteridium aquilinum*), and false lily of the valley (*Maianthemum dilatatum*).

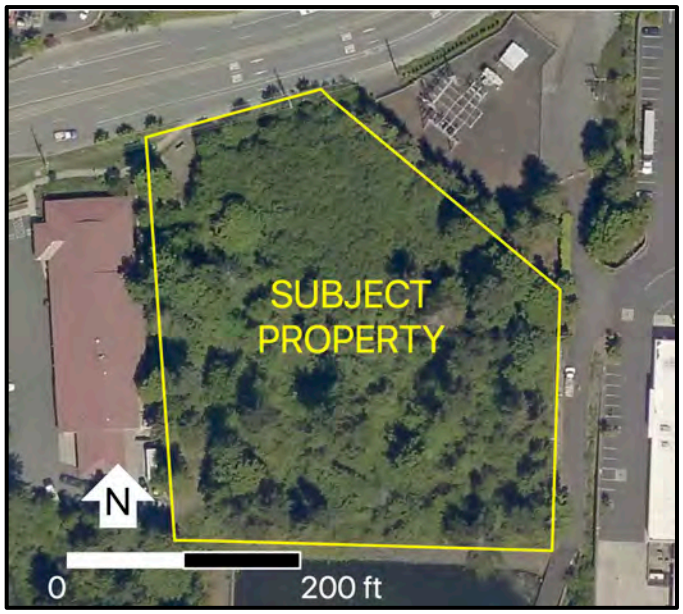

Figure 1: Aerial view of the subject property.

Wetland Resources, Inc. (WRI) visited the subject property on September 28, 2016 to determine the presence of any jurisdictional critical areas that exist on or adjacent to the subject site. There is one Category III wetland (A) near the center of the subject property. A large off-site wetland is present to the south. Existing development is present between the site and the off-site wetland.

Wetland A receives an overall score of 16 points under the Department of Ecology's *Washington State Wetland Rating System for Western Washington: 2014 Update* (Hruby 2014). In the City of Mill Creek, Category III wetlands typically require 100-foot standard buffers on sites with high-intensity land use, and 50-foot buffers for sites with low-intensity land uses [per Mill Creek Municipal Code (MCMC) 18.06.930(B)].

1.1 CRITICAL AREAS CLASSIFICATIONS

1.1.1 Cowardin System Classifications

According to the Cowardin System, as described in *Classification of Wetlands and Deepwater Habitats of the United States* (Cowardin 1979), the classification for the on-site critical area is as follows:

Wetland A: Palustrine, Forested Wetland, Nontidal, Seasonally Flooded (PFOC).

Off-site Wetland: Palustrine, Scrub-shrub, Nontidal, Permanently Flooded (PSSH).

1.1.2 City of Mill Creek Classifications

Under Chapter 18.06 of the MCMC, the on-site critical area is classified as follows:

Wetland A
Category III wetland: This wetland scores a total of 16 points on the Wetland Rating Form (2014) for Western Washington, which equates to a Category III rating. Wetland A has two vegetation classes throughout its matrix, two hydroperiods, and has disturbed habitat connections. This wetland scores 4 points (low) for habitat functions. In the City of Mill Creek, Category III wetlands typically receive a standard buffer of 100 feet for high-intensity land uses and 50-foot buffers for low-intensity.

Off-site Wetland
Given the lack of off-site property access, we were not able to rate the wetland in question. From aerial photography it appears that the wetland is permanently flooded and is primarily vegetated with scrub-shrub vegetation. The buffer width for this wetland has not been determined, but does not extend onto the subject property due to intervening development that functionally and effectively disconnects the wetland from the subject site. This determination is consistent with the definition of "buffer" in MCMC 18.06.210. See *section 3.3.3* for more details,

1.2 PROJECT INFORMATION

Julie Nealey, hereafter referred to as the applicant, proposes to construct a canine boarding facility on the subject site. The development will consist of multiple dog lodging buildings, a main office, parking, pathways, and associated utilities and infrastructure. The overall footprint of the facility slightly extends into the standard buffer associated with Wetland A. In order to avoid potential buffer impacts related to project activities, the applicant further proposes to implement buffer averaging as stipulated in Mill Creek Municipal Code (MCMC) 18.06.930(C). The standard buffer will be modified to exclude a 2,952 square-foot area near and overlaying the proposed development. As compensation, an equal amount of buffer will be provided between two areas, one on either side of the buffer exclusion. This additional buffer area is of equal quality as that being reduced. Per MCMC 18.06.80, the modified buffer edge will be demarcated by fencing and critical area signage.

2.0 STATEMENT OF QUALIFICATIONS

The work for this Report was conducted by Jim Rothwell and Scott Walters.

Jim Rothwell holds a Bachelor of Science degree in Environmental Science. Additional training includes a post-Baccalaureate certificate in Wetland Science and Management from the University of Washington as well as numerous continuing education classes. Jim has been a wetland ecologist for over 15 years and became a certified Professional Wetland Scientist (PWS) in 2009.

Scott Walters holds a Bachelor of Science degree in Wildlife Conservation Biology and Applied Vertebrate Ecology. Additional training includes an advanced certificate in Aquarium and Aquatic Sciences, and a post-Baccalaureate certificate in Wetland Science and Management from the University of Washington. Scott has worked as an ecologist on projects across the country for over 8 years, including scientific study of wetlands, environmental restoration monitoring, endangered species monitoring, and shorebird population research.

3.0 CRITICAL AREAS DETERMINATION REPORT

3.1 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 critical areas. These sources included *USDA/NRCS Web Soil Survey*, *DNR FPAMT Mapping Application*, *WDFW SalmonScape Interactive Mapping System*, *WDFW Priority Habitat and Species (PHS) Interactive Map*, *USFWS National Wetlands Inventory (NWI)*, *and Snohomish County SnoScape mapping application.*

USDA/NRCS Web Soil Survey
Soils on-site are mapped as Alderwood-Urban Land Complex, 2 to 8 percent slopes. A more detailed soil map unit description is provided in the *3.2.2 Soils Criteria* section below.

USFWS National Wetlands Inventory (NWI)
A relatively large scrub-shrub and forested wetland system is identified adjacent to the subject site to the southwest. No wetlands are shown on the subject property.

WDFW Priority Habitat and Species (PHS) Interactive Map
Depicts the same wetland system as identified on the NWI maps. Additionally, the site and the surrounding landscape are identified as potential little brown bat (*Myotis lucifugus*) habitat areas.

WDFW SalmonScape Interactive Mapping System
North Creek is located approximately 0.8 miles west of the subject site, and Penny Creek

approximately 1 mile to the southeast. Both of these stream systems support multiple runs of salmon species. However, there is no direct connection between these streams and the subject property.

DNR FPAMT Mapping Application
This public resource verifies the approximate location of the streams identified by S*almonScape.*

Snohomish County PDS Map Portal
Sitka Creek is located approximately a half-mile west of the subject site, and is designated as fish-bearing. This stream is a tributary of North Creek.

3.2 WETLAND DETERMINATION AND DELINEATION METHODOLOGY

Wetland boundaries were determined using the routine approach described in the Corps of Engineers Wetlands Delineation Manual (Environmental Laboratory 1987) and the Regional Supplement to the Corps of Engineers Wetland Delineation Manual: Western Mountains, Valleys, and Coast Region (Version 2.0) (U.S. Army Corps of Engineers 2010). Under the routine methodology, the process for making a wetland determination is based on three steps:

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 following criteria must be met in order to make a positive wetland determination:

3.2.1 Vegetation Criteria

The Corps Manual and 2010 Regional Supplement define hydrophytic vegetation as "the assemblage of macrophytes that occurs in areas where inundation or soil saturation is either permanent or of sufficient frequency and duration to influence plant occurrence." Field indicators are used to determine whether the hydrophytic vegetation criteria have been met. Examples of these indicators include, but are not limited to, the rapid test for hydrophytic vegetation, a dominance test result of greater than 50%, and/or a prevalence index score less than or equal to 3.0.

3.2.2 Soils Criteria

The 2010 Regional Supplement (per the National Technical Committee for Hydric Soils) defines hydric soils as soils "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 to determine whether a given soil meets the definition for hydric soils. Indicators are numerous and include, but are not limited to, presence of a histosol or histic epipedon, a sandy gleyed matrix, depleted matrix, and redoximorphic depressions.

Alderwood-Urban land complex, 2-8 percent slopes, is about 60 percent Alderwood gravelly sandy loam and about 25 percent urban land. Included in this unit are small areas of McKenna

and Norma soils and Terric Medisaprists in depressional areas and drainage-ways on plains. Also included are small areas of soils that are very shallow over a hardpan; small areas of Everett, Indianola, and Ragnar soils on terraces and outwash plains; and soils that have a stony and bouldery surface layer. Included areas make up about 15 percent of the total acreage.

The Alderwood soil is moderately deep over a hardpan and is moderately well drained. It formed in glacial till. Typically the surface layer is very dark grayish brown gravelly sandy loam about 7 inches thick. The upper part of the subsoil is dark yellowish brown and dark brown very gravelly sandy loam about 23 inches thick. A weakly cemented hardpan is at a depth of about 35 inches. Permeability of this soil is moderately rapid above the hardpan and very slow through it. Available water capacity is low.

3.2.3 Hydrology Criteria

Wetland hydrology encompasses all hydrologic characteristics of areas that are periodically inundated or have soils saturated to the surface for a sufficient duration during the growing season. Areas with evident characteristics of wetland hydrology are those where the presence of water has an overriding influence on the characteristics of vegetation and soils due to anaerobic and chemically reducing conditions, respectively. The strongest indicators include the presence of surface water, a high water table, and/or soil saturation within at least 12 inches of the soil surface.

3.3 WETLAND BOUNDARY DETERMINATION FINDINGS

3.3.1 Wetland A

Dominant vegetation in this wetland is represented by Scouler's willow (*Salix scouleriana*; FAC), Pacific willow (*Salix lasiandra*; FACW), red alder (*Alnus rubra*; FAC), salmonberry (FAC), and hardhack (*Spiraea douglasii*; FACW). These observed species all rate as facultative or wetter, indicating a hydrophytic vegetation community.

Soils in Wetland A from 0 to 7 inches below the surface have a Munsell color of black (10YR 2/1) with distinct brown (7.5YR 3/3) redoximorphic features, and have a loam texture. From 7 to 10 inches below the surface, soils are very dark grayish brown (10YR 3/2) with distinct yellowish brown (10YR 5/4) and prominent yellowish red (5YR 4/6) redoximorphic features, and have a clay loam texture. From 10 to 18 inches below the surface, soils are light olive brown (2.5Y 5/3) with prominent dark reddish brown (2.5YR 2.5/3) and prominent dark yellowish brown (10YR 4/6) redoximorphic features, and have a silty clay loam texture.

The topographic depression has multiple hydrology indicators present, including Geomorphic Position (D2). Additionally, administration of a FAC-neutral test (where "facultative" vegetation species are not considered) leaves only Pacific willow (FACW) and hard hack (FACW), thus meeting the FAC-Neutral Test (D5) secondary wetland hydrology indicator.Soils were dry at the time of our September 2016 site visit.

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. The approximate location of Wetland A is depicted on the map associated with this report (*Appendix C*).

3.3.2 Non-wetland Areas Adjacent to Wetland A

The subject site is relatively undisturbed and is vegetated with an assemblage commonly associated with upland areas. The dominant on-site vegetation adjacent to Wetland A (Data Site S2) consists of western red cedar (FAC), black cottonwood (*Populus balsamifera*; FAC), salmonberry (FAC), salal (*Gaultheria shallon*; FAC), and bracken fern (FACU). The majority of the on-site vegetation is facultative or wetter, indicating a hydrophytic vegetation community.

Typical soils on the subject site, which is mapped as non-wetland, have a Munsell color of very dark brown (7.5YR 2.5/3), with a loam texture, extending at least 17 inches below the surface. These soil characteristics do not meet any hydric soil indicators. Soils were dry at the time of our July 2016 site investigation.

Although hydrophytic vegetation is technically present, hydric soils show no indication of sustained inundation, and direct hydrologic indicators are lacking. Therefore, field observations indicate that the on-site area mapped as non-wetland is not flooded, ponded, or saturated long enough during the growing season to develop anaerobic conditions in the upper part of the soils.

3.3.3 Off-site Wetland

The off-site wetland located southwest of the subject site is a large forested and scrub-shrub system that appears to be permanently flooded. Lack of access prevented us from delineating or rating this critical area. An existing automotive repair facility and large stormwater detention pond (fenced) bisect the area between the subject parcel and the off-site wetland. Only a very small (<50 foot) gap is between these intervening structures. However, even the gap area is highly disturbed with a dirt roadway between the wetland and the proposed development area. Given these existing conditions, the subject site is not contiguous with the off-site critical area and is unable to provide functions or protections. As such, it has been determined that any buffer associate with the off-site wetland does not extend into the project area. This is consistent with the definition of buffer in MCMC 18.06.210, which is provided below. Therefore, the wetland category is not germane to this project.

> *MCMC 18.06.210*
> *"Buffer" or "buffer area" means the area or zone contiguous to a critical area that protects the integrity or functions and values of a critical area from potential adverse impacts. Buffers shall not include areas that are functionally and effectively disconnected from the wetland by a road or other substantial developed surface.*

Figure 2: Photo taken from stormwater pond, facing the automotive facility.

3.3.4 Wildlife

The on-site critical areas are of poor habitat quality, and are only suitable to support wildlife species commonly present in heavily developed urban areas. Nevertheless, Wetland A and its buffer do provide important habitat elements in the form of resources such as food, water, perches, thermal cover, and hiding cover.

Burrows created by small burrowing animals, such as mountain beaver (*Aplodontia rufa*) and cottontail rabbit (*Sylvilagus floridanus*) are present throughout much of the site. Other mammalian species expected to occur on the subject site include gray squirrels (*Sciurus* spp.), Douglas squirrels (*Tamiasciurus douglasii*), and raccoon (*Procyon lotor*). Given the habitat available, it is expected that the following avian species use the area: American Crow (*Corvus brachyrhynchos),* American Robin (*Turdus migratorius*), Steller's Jay (*Cyanocitta stelleri*), Black-capped Chickadee (*Poecile atricapilla)*, Golden-crowned Kinglet (*Regulus satrapa*), Ruby-crowned Kinglet (*Regulus calendula*), Dark-eyed Junco (*Junco hyemalis*), and Song Sparrow (*Melospiza melodia*).

Although the WDFW PHS map identifies the site and the surrounding landscape as potential little brown bat (*Myotis lucifugus*) habitat areas, this priority habitat is applied broadly (over a quarter section) and appropriate habitat features are not present on the subject site. Little brown bats generally use mature forest areas with copious tree cavities available for roosting. The on-site forest age is too young to provide such habitat. Therefore, use by this species is unlikely.

4.0 COMPLIANCE WITH MCMC 18.06.930(C) [BUFFER AVERAGING]

Pursuant to MCMC 18.06.930(C), development of the proposed project follows buffer averaging guidelines as detailed below. Portions of the MCMC are provided in *italics*, with responses provided in normal text underneath:

C. The director shall have the authority to "average" buffer widths on a case-by-case basis where a qualified professional demonstrates to the director's satisfaction that all the following criteria are met:

1. The total area contained in the buffer area after averaging is no less than that which would be contained within the standard buffer;

The total area of proposed buffer reduction (2,952 square feet) is equal to that proposed as additional buffer. The compensatory area of buffer being provided is divided into two areas (2,573 and 379 square feet), one on either side of the buffer reduction area.

2. The buffer averaging does not reduce the functions or values of the wetland;

Areas provided as additional buffer are of at least the same quality or better compared to that being removed. Both buffer addition and reduction areas are multi- strata forest with past disturbance and some invasive Himalayan blackberry. Vegetation structure and habitat complexity are similar, and buffer functionality is not expected to be affected. Any functional alteration will be insignificant and discountable.

3. The portion of the buffer reduced through buffer averaging is less than 25 percent of the total buffer length on a project site;

A length of 199 linear feet of the standard buffer perimeter being is proposed for reduction through buffer averaging. Given that the total length of the perimeter is 797 linear feet, the portion of the buffer being reduced is less than 25 percent of the total buffer length.

4. The wetland contains variations in sensitivity due to existing physical characteristics or the character of the buffer varies in slope, soils, or vegetation; and

The on-site wetland varies in sensitivity due to the proximity of multiple surrounding disturbances beyond the buffer. Additionally, vegetation within the standard buffer is not consistent in its composition or structure throughout the entire buffer. However, the area being averaged do not differ significantly. These conditions meet the requirements of this stipulation.

5. The buffer width is not reduced to less than 50 percent of the standard width, except that no buffer dimension shall be less than 25 feet.

The averaged buffer will be 67 feet wide at its narrowest point, leaving a width of over 50-percent throughout the 100-foot standard buffer.

5.0 USE OF THIS REPORT

This Critical Area Study and Mitigation Plan is supplied to Capital Architects Group as a means of determining on-site critical area conditions as required by the City of Mill Creek 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 conforms 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 Ecologist

Jim Rothwell
Senior Ecologist

6.0 REFERENCES

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APPENDIX A

DEPARTMENT OF ECOLOGY WETLAND RATING FORM

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Wetland name or number **A**

RATING SUMMARY – Western Washington

Name of wetland (or ID #): Wetland A Date of site visit: Sept 29, 2016

Rated by S. Walters & J. Rothwell Trained by Ecology? ✔ Yes ___No Date of training March 2015

HGM Class used for rating DEPRESSIONAL Wetland has multiple HGM classes? ___Y ✔ N

NOTE: **Form is not complete without the figures requested** *(figures can be combined)*.
Source of base aerial photo/map ESRI World Imagery

OVERALL WETLAND CATEGORY III (based on functions___ or special characteristics___)

1. Category of wetland based on FUNCTIONS

_____**Category I** – Total score = 23 - 27

_____**Category II** – Total score = 20 - 22

✔ **Category III** – Total score = 16 - 19

_____**Category IV** – Total score = 9 - 15

FUNCTION	Improving Water Quality	Hydrologic	Habitat	
	Circle the appropriate ratings			
Site Potential	H [M] L	H [M] L	H M [L]	
Landscape Potential	H [M] L	H [M] L	H M [L]	
Value	H [M] L	H [M] L	H [M] L	TOTAL
Score Based on Ratings	**6**	**6**	**4**	**16**

Score for each function based on three ratings *(order of ratings is not important)*

9 = H,H,H
8 = H,H,M
7 = H,H,L
7 = H,M,M
6 = H,M,L
6 = M,M,M
5 = H,L,L
5 = M,M,L
4 = M,L,L
3 = L,L,L

2. Category based on SPECIAL CHARACTERISTICS of wetland

CHARACTERISTIC	CATEGORY
Estuarine	**I** **II**
Wetland of High Conservation Value	**I**
Bog	**I**
Mature Forest	**I**
Old Growth Forest	**I**
Coastal Lagoon	**I** **II**
Interdunal	**I** **II** **III** **IV**
None of the above	✔

Wetland name or number **A**

Maps and figures required to answer questions correctly for Western Washington

Depressional Wetlands

Map of:	To answer questions:	Figure #
Cowardin plant classes	D 1.3, H 1.1, H 1.4	A1
Hydroperiods	D 1.4, H 1.2	A1
Location of outlet (*can be added to map of hydroperiods)*	D 1.1, D 4.1	A1
Boundary of area within 150 ft of the wetland *(can be added to another figure)*	D 2.2, D 5.2	A1
Map of the contributing basin	D 4.3, D 5.3	A2
1 km Polygon: Area that extends 1 km from entire wetland edge - including polygons for accessible habitat and undisturbed habitat	H 2.1, H 2.2, H 2.3	A2
Screen capture of map of 303(d) listed waters in basin (from Ecology website)	D 3.1, D 3.2	A3
Screen capture of list of TMDLs for WRIA in which unit is found (from web)	D 3.3	A4

Riverine Wetlands

Map of:	To answer questions:	Figure #
Cowardin plant classes	H 1.1, H 1.4	
Hydroperiods	H 1.2	
Ponded depressions	R 1.1	
Boundary of area within 150 ft of the wetland *(can be added to another figure)*	R 2.4	
Plant cover of trees, shrubs, and herbaceous plants	R 1.2, R 4.2	
Width of unit vs. width of stream *(can be added to another figure)*	R 4.1	
Map of the contributing basin	R 2.2, R 2.3, R 5.2	
1 km Polygon: Area that extends 1 km from entire wetland edge - including polygons for accessible habitat and undisturbed habitat	H 2.1, H 2.2, H 2.3	
Screen capture of map of 303(d) listed waters in basin (from Ecology website)	R 3.1	
Screen capture of list of TMDLs for WRIA in which unit is found (from web)	R 3.2, R 3.3	

Lake Fringe Wetlands

Map of:	To answer questions:	Figure #
Cowardin plant classes	L 1.1, L 4.1, H 1.1, H 1.4	
Plant cover of trees, shrubs, and herbaceous plants	L 1.2	
Boundary of area within 150 ft of the wetland *(can be added to another figure)*	L 2.2	
1 km Polygon: Area that extends 1 km from entire wetland edge - including polygons for accessible habitat and undisturbed habitat	H 2.1, H 2.2, H 2.3	
Screen capture of map of 303(d) listed waters in basin (from Ecology website)	L 3.1, L 3.2	
Screen capture of list of TMDLs for WRIA in which unit is found (from web)	L 3.3	

Slope Wetlands

Map of:	To answer questions:	Figure #
Cowardin plant classes	H 1.1, H 1.4	
Hydroperiods	H 1.2	
Plant cover of **dense** trees, shrubs, and herbaceous plants	S 1.3	
Plant cover of **dense, rigid** trees, shrubs, and herbaceous plants (*can be added to figure above)*	S 4.1	
Boundary of 150 ft buffer (can be added to another figure)	S 2.1, S 5.1	
1 km Polygon: Area that extends 1 km from entire wetland edge - including polygons for accessible habitat and undisturbed habitat	H 2.1, H 2.2, H 2.3	
Screen capture of map of 303(d) listed waters in basin (from Ecology website)	S 3.1, S 3.2	
Screen capture of list of TMDLs for WRIA in which unit is found (from web)	S 3.3	

Wetland name or number **A**

HGM Classification of Wetlands in Western Washington

For questions 1-7, the criteria described must apply to the entire unit being rated.

If the hydrologic criteria listed in each question do not apply to the entire unit being rated, you probably have a unit with multiple HGM classes. In this case, identify which hydrologic criteria in questions 1-7 apply, and go to Question 8.

1. Are the water levels in the entire unit usually controlled by tides except during floods?

   NO – go to 2 **YES** – the wetland class is **Tidal Fringe** – go to 1.1

   1.1 Is the salinity of the water during periods of annual low flow below 0.5 ppt (parts per thousand)?

   NO – Saltwater Tidal Fringe (Estuarine) **YES – Freshwater Tidal Fringe**
   *If your wetland can be classified as a Freshwater Tidal Fringe use the forms for **Riverine** wetlands. If it is Saltwater Tidal Fringe it is an **Estuarine** wetland and is not scored. This method **cannot** be used to score functions for estuarine wetlands.*

2. The entire wetland unit is flat and precipitation is the only source (>90%) of water to it. Groundwater and surface water runoff are NOT sources of water to the unit.

   NO – go to 3 **YES** – The wetland class is **Flats**
   *If your wetland can be classified as a Flats wetland, use the form for **Depressional** wetlands.*

3. Does the entire wetland unit **meet all** of the following criteria?
   The vegetated part of the wetland is on the shores of a body of permanent open water (without any plants on the surface at any time of the year) at least 20 ac (8 ha) in size;
   At least 30% of the open water area is deeper than 6.6 ft (2 m).

   NO – go to 4 **YES –** The wetland class is **Lake Fringe** (Lacustrine Fringe)

4. Does the entire wetland unit **meet all** of the following criteria?
   The wetland is on a slope (*slope can be very gradual*),
   The water flows through the wetland in one direction (unidirectional) and usually comes from seeps. It may flow subsurface, as sheetflow, or in a swale without distinct banks,
   The water leaves the wetland **without being impounded**.

   NO – go to 5 **YES –** The wetland class is **Slope**

   NOTE: Surface water does not pond in these type of wetlands except occasionally in very small and shallow depressions or behind hummocks (depressions are usually <3 ft diameter and less than 1 ft deep).

5. Does the entire wetland unit **meet all** of the following criteria?
   The unit is in a valley, or stream channel, where it gets inundated by overbank flooding from that stream or river,
   The overbank flooding occurs at least once every 2 years.

Wetland name or number **A**

NO – go to 6 **YES** – The wetland class is **Riverine**

NOTE: The Riverine unit can contain depressions that are filled with water when the river is not flooding

6. Is the entire wetland unit in a topographic depression in which water ponds, or is saturated to the surface, at some time during the year? *This means that any outlet, if present, is higher than the interior of the wetland.*

NO – go to 7 **YES** – The wetland class is **Depressional**

7. Is the entire wetland unit located in a very flat area with no obvious depression and no overbank flooding? The unit does not pond surface water more than a few inches. The unit seems to be maintained by high groundwater in the area. The wetland may be ditched, but has no obvious natural outlet.

NO – go to 8 **YES** – The wetland class is **Depressional**

8. Your wetland unit seems to be difficult to classify and probably contains several different HGM classes. For example, seeps at the base of a slope may grade into a riverine floodplain, or a small stream within a Depressional wetland has a zone of flooding along its sides. GO BACK AND IDENTIFY WHICH OF THE HYDROLOGIC REGIMES DESCRIBED IN QUESTIONS 1-7 APPLY TO DIFFERENT AREAS IN THE UNIT (make a rough sketch to help you decide). Use the following table to identify the appropriate class to use for the rating system if you have several HGM classes present within the wetland unit being scored.

NOTE: Use this table only if the class that is recommended in the second column represents 10% or more of the total area of the wetland unit being rated. If the area of the HGM class listed in column 2 is less than 10% of the unit; classify the wetland using the class that represents more than 90% of the total area.

HGM classes within the wetland unit being rated		HGM class to use in rating
Slope + Riverine	☐	Riverine
Slope + Depressional	☐	Depressional
Slope + Lake Fringe	☐	Lake Fringe
Depressional + Riverine along stream within boundary of depression	☐	Depressional
Depressional + Lake Fringe	☐	Depressional
Riverine + Lake Fringe	☐	Riverine
Salt Water Tidal Fringe and any other class of freshwater wetland	☐	Treat as ESTUARINE

*If you are still unable to determine which of the above criteria apply to your wetland, or if you have **more than 2 HGM classes** within a wetland boundary, classify the wetland as Depressional for the rating.*

Wetland name or number **A**

DEPRESSIONAL AND FLATS WETLANDS

Water Quality Functions - Indicators that the site functions to improve water quality

D 1.0. Does the site have the potential to improve water quality?	
D 1.1. Characteristics of surface water outflows from the wetland: ☑ Wetland is a depression or flat depression (QUESTION 7 on key) with no surface water leaving it (no outlet). points = 3 ☐ Wetland has an intermittently flowing stream or ditch, OR highly constricted permanently flowing outlet. points = 2 ☐ Wetland has an unconstricted, or slightly constricted, surface outlet that is permanently flowing points = 1 ☐ Wetland is a flat depression (QUESTION 7 on key), whose outlet is a permanently flowing ditch. points = 1	**3**
D 1.2. The soil 2 in below the surface (or duff layer) is true clay or true organic *(use NRCS definitions).* Yes = 4 [No = 0]	**0**
D 1.3. Characteristics and distribution of persistent plants (Emergent, Scrub-shrub, and/or Forested Cowardin classes): ☑ Wetland has persistent, ungrazed, plants > 95% of area points = 5 ☐ Wetland has persistent, ungrazed, plants > ½ of area points = 3 ☐ Wetland has persistent, ungrazed plants > $^{1}/_{10}$ of area points = 1 ☐ Wetland has persistent, ungrazed plants < $^{1}/_{10}$ of area points = 0	**5**
D 1.4. Characteristics of seasonal ponding or inundation: *This is the area that is ponded for at least 2 months. See description in manual.* ☐ Area seasonally ponded is > ½ total area of wetland points = 4 ☐ Area seasonally ponded is > ¼ total area of wetland points = 2 ☑ Area seasonally ponded is < ¼ total area of wetland points = 0	**0**
Total for D 1 Add the points in the boxes above	**8**

Rating of Site Potential If score is: ___ **12-16 = H** ✔ **6-11 = M** ___ **0-5 = L** *Record the rating on the first page*

D 2.0. Does the landscape have the potential to support the water quality function of the site?	
D 2.1. Does the wetland unit receive stormwater discharges? [Yes = 1] No = 0	**1**
D 2.2. Is > 10% of the area within 150 ft of the wetland in land uses that generate pollutants? Yes = 1 [No = 0]	**0**
D 2.3. Are there septic systems within 250 ft of the wetland? Yes = 1 [No = 0]	**0**
D 2.4. Are there other sources of pollutants coming into the wetland that are not listed in questions D 2.1-D 2.3? Source_____ Yes = 1 [No = 0]	**0**
Total for D 2 Add the points in the boxes above	**1**

Rating of Landscape Potential If score is: ___ **3 or 4 = H** ✔ **1 or 2 = M** ___ **0 = L** *Record the rating on the first page*

D 3.0. Is the water quality improvement provided by the site valuable to society?	
D 3.1. Does the wetland discharge directly (i.e., within 1 mi) to a stream, river, lake, or marine water that is on the 303(d) list? Yes = 1 [No = 0]	**0**
D 3.2. Is the wetland in a basin or sub-basin where an aquatic resource is on the 303(d) list? [Yes = 1] No = 0	**1**
D 3.3. Has the site been identified in a watershed or local plan as important for maintaining water quality (*answer YES if there is a TMDL for the basin in which the unit is found*)? Yes = 2 [No = 0]	**0**
Total for D 3 Add the points in the boxes above	**1**

Rating of Value If score is: ___ **2-4 = H** ✔ **1 = M** ___ **0 = L** *Record the rating on the first page*

Wetland name or number **A**

DEPRESSIONAL AND FLATS WETLANDS

Hydrologic Functions - Indicators that the site functions to reduce flooding and stream degradation

D 4.0. Does the site have the potential to reduce flooding and erosion?

D 4.1. Characteristics of surface water outflows from the wetland:

- [✔] Wetland is a depression or flat depression with no surface water leaving it (no outlet) points = 4
- [ ] Wetland has an intermittently flowing stream or ditch, OR highly constricted permanently flowing outlet points = 2
- [ ] Wetland is a flat depression (QUESTION 7 on key), whose outlet is a permanently flowing ditch points = 1
- [ ] Wetland has an unconstricted, or slightly constricted, surface outlet that is permanently flowing points = 0

4

D 4.2. Depth of storage during wet periods: *Estimate the height of ponding above the bottom of the outlet. For wetlands with no outlet, measure from the surface of permanent water or if dry, the deepest part.*

- [ ] Marks of ponding are 3 ft or more above the surface or bottom of outlet points = 7
- [ ] Marks of ponding between 2 ft to < 3 ft from surface or bottom of outlet points = 5
- [ ] Marks are at least 0.5 ft to < 2 ft from surface or bottom of outlet points = 3
- [ ] The wetland is a "headwater" wetland points = 3
- [ ] Wetland is flat but has small depressions on the surface that trap water points = 1
- [✔] Marks of ponding less than 0.5 ft (6 in) points = 0

0

D 4.3. Contribution of the wetland to storage in the watershed: *Estimate the ratio of the area of upstream basin contributing surface water to the wetland to the area of the wetland unit itself.*

- [ ] The area of the basin is less than 10 times the area of the unit points = 5
- [✔] The area of the basin is 10 to 100 times the area of the unit points = 3
- [ ] The area of the basin is more than 100 times the area of the unit points = 0
- [ ] Entire wetland is in the Flats class points = 5

3

Total for D 4 — Add the points in the boxes above: **7**

Rating of Site Potential If score is: ___ **12-16 = H** ✔ **6-11 = M** ___ **0-5 = L** *Record the rating on the first page*

D 5.0. Does the landscape have the potential to support hydrologic functions of the site?

D 5.1. Does the wetland receive stormwater discharges? [Yes = 1] No = 0 — **1**

D 5.2. Is >10% of the area within 150 ft of the wetland in land uses that generate excess runoff? Yes = 1 [No = 0] — **0**

D 5.3. Is more than 25% of the contributing basin of the wetland covered with intensive human land uses (residential at >1 residence/ac, urban, commercial, agriculture, etc.)? Yes = 1 [No = 0] — **0**

Total for D 5 — Add the points in the boxes above: **1**

Rating of Landscape Potential If score is: ___ **3 = H** ✔ **1 or 2 = M** ___ **0 = L** *Record the rating on the first page*

D 6.0. Are the hydrologic functions provided by the site valuable to society?

D 6.1. The unit is in a landscape that has flooding problems. *Choose the description that best matches conditions around the wetland unit being rated. Do not add points. Choose the highest score if more than one condition is met.*
The wetland captures surface water that would otherwise flow down-gradient into areas where flooding has damaged human or natural resources (e.g., houses or salmon redds):

- [ ] • Flooding occurs in a sub-basin that is immediately down-gradient of unit. points = 2
- [✔] • Surface flooding problems are in a sub-basin farther down-gradient. points = 1
- [ ] Flooding from groundwater is an issue in the sub-basin. points = 1
- [ ] The existing or potential outflow from the wetland is so constrained by human or natural conditions that the water stored by the wetland cannot reach areas that flood. *Explain why* _____ points = 0
- [ ] There are no problems with flooding downstream of the wetland. points = 0

1

D 6.2. Has the site been identified as important for flood storage or flood conveyance in a regional flood control plan? Yes = 2 [No = 0] — **0**

Total for D 6 — Add the points in the boxes above: **1**

Rating of Value If score is: ___ **2-4 = H** ✔ **1 = M** ___ **0 = L** *Record the rating on the first page*

Wetland name or number **A**

These questions apply to wetlands of all HGM classes.

HABITAT FUNCTIONS - Indicators that site functions to provide important habitat

H 1.0. Does the site have the potential to provide habitat?

H 1.1. Structure of plant community: *Indicators are Cowardin classes and strata within the Forested class.* Check the Cowardin plant classes in the wetland. *Up to 10 patches may be combined for each class to meet the threshold of ¼ ac or more than 10% of the unit if it is smaller than 2.5 ac. Add the number of structures checked.*

____Aquatic bed — 4 structures or more: points = 4
____Emergent — 3 structures: points = 2
__✔__Scrub-shrub (areas where shrubs have > 30% cover) — [2 structures: points = 1]
__✔__Forested (areas where trees have > 30% cover) — 1 structure: points = 0

If the unit has a Forested class, check if:

____The Forested class has 3 out of 5 strata (canopy, sub-canopy, shrubs, herbaceous, moss/ground-cover) that each cover 20% within the Forested polygon

1

H 1.2. Hydroperiods

Check the types of water regimes (hydroperiods) present within the wetland. The water regime has to cover more than 10% of the wetland or ¼ ac to count (*see text for descriptions of hydroperiods*).

____Permanently flooded or inundated — 4 or more types present: points = 3
__✔__Seasonally flooded or inundated — 3 types present: points = 2
____Occasionally flooded or inundated — [2 types present: points = 1]
__✔__Saturated only — 1 type present: points = 0
____Permanently flowing stream or river in, or adjacent to, the wetland
____Seasonally flowing stream in, or adjacent to, the wetland
____**Lake Fringe wetland** — **2 points**
____**Freshwater tidal wetland** — **2 points**

1

H 1.3. Richness of plant species

Count the number of plant species in the wetland that cover at least 10 ft^2.

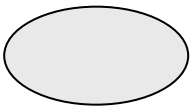
Different patches of the same species can be combined to meet the size threshold and you do not have to name the species. ***Do not include Eurasian milfoil, reed canarygrass, purple loosestrife, Canadian thistle***

If you counted: > 19 species — points = 2
[5 - 19 species] — [points = 1]
< 5 species — points = 0

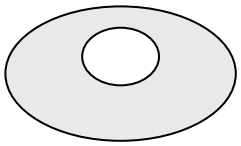
1

H 1.4. Interspersion of habitats

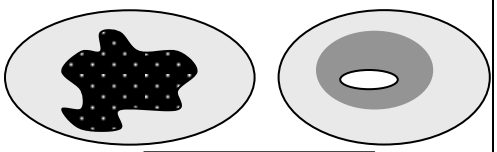
Decide from the diagrams below whether interspersion among Cowardin plants classes (described in H 1.1), or the classes and unvegetated areas (can include open water or mudflats) is high, moderate, low, or none. *If you have four or more plant classes or three classes and open water, the rating is always high.*



None = 0 points

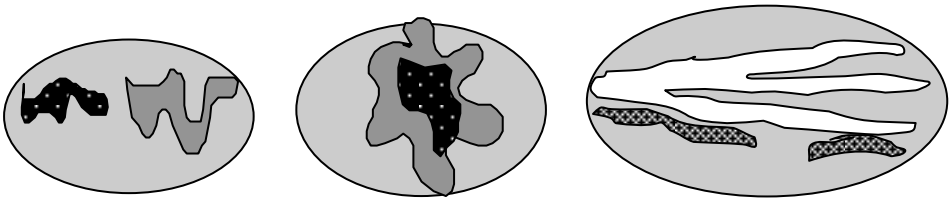


Low = 1 point



[**Moderate** = 2 points]

All three diagrams in this row are **HIGH** = 3points



2

Wetland name or number **A**

H 1.5. Special habitat features: Check the habitat features that are present in the wetland. *The number of checks is the number of points.* ____Large, downed, woody debris within the wetland (> 4 in diameter and 6 ft long). ____Standing snags (dbh > 4 in) within the wetland ____Undercut banks are present for at least 6.6 ft (2 m) **and/or** overhanging plants extends at least 3.3 ft (1 m) over a stream (or ditch) in, or contiguous with the wetland, for at least 33 ft (10 m) ____Stable steep banks of fine material that might be used by beaver or muskrat for denning (> 30 degree slope) OR signs of recent beaver activity are present *(cut shrubs or trees that have not yet weathered where wood is exposed)* ____At least ¼ ac of thin-stemmed persistent plants or woody branches are present in areas that are permanently or seasonally inundated *(structures for egg-laying by amphibians)* __✔__Invasive plants cover less than 25% of the wetland area in every stratum of plants (*see H 1.1 for list of strata*)	**1**
Total for H 1 Add the points in the boxes above	**6**

Rating of Site Potential If score is:___**15-18 = H** ___**7-14 = M** __✔__**0-6 = L** *Record the rating on the first page*

H 2.0. Does the landscape have the potential to support the habitat functions of the site?	
H 2.1. Accessible habitat (include *only habitat that directly abuts wetland unit*). *Calculate:* % undisturbed habitat 4 **+** [(% moderate and low intensity land uses)/2] 0 **=** 4 % If total accessible habitat is: ☐ > 1/3 (33.3%) of 1 km Polygon points = 3 ☐ 20-33% of 1 km Polygon points = 2 ☐ 10-19% of 1 km Polygon points = 1 ☑ < 10% of 1 km Polygon points = 0	**0**
H 2.2. Undisturbed habitat in 1 km Polygon around the wetland. *Calculate:* % undisturbed habitat 15 **+** [(% moderate and low intensity land uses)/2] 3 **=** 18 % ☐ Undisturbed habitat > 50% of Polygon points = 3 ☐ Undisturbed habitat 10-50% and in 1-3 patches points = 2 ☑ Undisturbed habitat 10-50% and > 3 patches points = 1 ☐ Undisturbed habitat < 10% of 1 km Polygon points = 0	**1**
H 2.3. Land use intensity in 1 km Polygon: If ☑ > 50% of 1 km Polygon is high intensity land use points = (- 2) ☐ ≤ 50% of 1 km Polygon is high intensity points = 0	**-2**
Total for H 2 Add the points in the boxes above	**-1**

Rating of Landscape Potential If score is**:**___**4-6 = H** ___**1-3 = M** __✔__**< 1 = L** *Record the rating on the first page*

H 3.0. Is the habitat provided by the site valuable to society?	
H 3.1. Does the site provide habitat for species valued in laws, regulations, or policies? *Choose only the highest score that applies to the wetland being rated.* Site meets ANY of the following criteria: points = 2 ☐ It has 3 or more priority habitats within 100 m (see next page) ☐ It provides habitat for Threatened or Endangered species (any plant or animal on the state or federal lists) ☐ It is mapped as a location for an individual WDFW priority species ☐ It is a Wetland of High Conservation Value as determined by the Department of Natural Resources ☐ It has been categorized as an important habitat site in a local or regional comprehensive plan, in a Shoreline Master Plan, or in a watershed plan ☑ Site has 1 or 2 priority habitats (listed on next page) within 100 m points = 1 ☐ Site does not meet any of the criteria above points = 0	**1**

Rating of Value If score is:___**2 = H** __✔__**1 = M** ___**0 = L** *Record the rating on the first page*

Wetland name or number **A**

WDFW Priority Habitats

Priority habitats listed by WDFW (see complete descriptions of WDFW priority habitats, and the counties in which they can be found, in: Washington Department of Fish and Wildlife. 2008. Priority Habitat and Species List. Olympia, Washington. 177 pp. http://wdfw.wa.gov/publications/00165/wdfw00165.pdf or access the list from here: http://wdfw.wa.gov/conservation/phs/list/)

Count how many of the following priority habitats are within 330 ft (100 m) of the wetland unit: ***NOTE:*** *This question is independent of the land use between the wetland unit and the priority habitat.*

☐ **Aspen Stands:** Pure or mixed stands of aspen greater than 1 ac (0.4 ha).

☐ **Biodiversity Areas and Corridors**: Areas of habitat that are relatively important to various species of native fish and wildlife (*full descriptions in WDFW PHS report*).

☐ **Herbaceous Balds:** Variable size patches of grass and forbs on shallow soils over bedrock.

☐ **Old-growth/Mature forests:** Old-growth west of Cascade crest – Stands of at least 2 tree species, forming a multi-layered canopy with occasional small openings; with at least 8 trees/ac (20 trees/ha) > 32 in (81 cm) dbh or > 200 years of age. Mature forests – Stands with average diameters exceeding 21 in (53 cm) dbh; crown cover may be less than 100%; decay, decadence, numbers of snags, and quantity of large downed material is generally less than that found in old-growth; 80-200 years old west of the Cascade crest.

☐ **Oregon White Oak:** Woodland stands of pure oak or oak/conifer associations where canopy coverage of the oak component is important (*full descriptions in WDFW PHS report p. 158 – see web link above*).

☐ **Riparian**: The area adjacent to aquatic systems with flowing water that contains elements of both aquatic and terrestrial ecosystems which mutually influence each other.

☐ **Westside Prairies:** Herbaceous, non-forested plant communities that can either take the form of a dry prairie or a wet prairie (*full descriptions in WDFW PHS report p. 161 – see web link above*).

☐ **Instream:** The combination of physical, biological, and chemical processes and conditions that interact to provide functional life history requirements for instream fish and wildlife resources.

☐ **Nearshore**: Relatively undisturbed nearshore habitats. These include Coastal Nearshore, Open Coast Nearshore, and Puget Sound Nearshore. (*full descriptions of habitats and the definition of relatively undisturbed are in WDFW report – see web link on previous page).*

☐ **Caves:** A naturally occurring cavity, recess, void, or system of interconnected passages under the earth in soils, rock, ice, or other geological formations and is large enough to contain a human.

☐ **Cliffs:** Greater than 25 ft (7.6 m) high and occurring below 5000 ft elevation.

☐ **Talus:** Homogenous areas of rock rubble ranging in average size 0.5 - 6.5 ft (0.15 - 2.0 m), composed of basalt, andesite, and/or sedimentary rock, including riprap slides and mine tailings. May be associated with cliffs.

☑ **Snags and Logs:** Trees are considered snags if they are dead or dying and exhibit sufficient decay characteristics to enable cavity excavation/use by wildlife. Priority snags have a diameter at breast height of > 20 in (51 cm) in western Washington and are > 6.5 ft (2 m) in height. Priority logs are > 12 in (30 cm) in diameter at the largest end, and > 20 ft (6 m) long.

Note: All vegetated wetlands are by definition a priority habitat but are not included in this list because they are addressed elsewhere.

Wetland name or number **A**

CATEGORIZATION BASED ON SPECIAL CHARACTERISTICS

Wetland Type *Check off any criteria that apply to the wetland. Circle the category when the appropriate criteria are met.*	**Category**
SC 1.0. Estuarine wetlands Does the wetland meet the following criteria for Estuarine wetlands? ☐ The dominant water regime is tidal, ☐ Vegetated, and ☐ With a salinity greater than 0.5 ppt Yes –Go to **SC 1.1** No= **Not an estuarine wetland**	
SC 1.1. Is the wetland within a National Wildlife Refuge, National Park, National Estuary Reserve, Natural Area Preserve, State Park or Educational, Environmental, or Scientific Reserve designated under WAC 332-30-151? Yes = **Category I** No - Go to **SC 1.2**	**Cat. I**
SC 1.2. Is the wetland unit at least 1 ac in size and meets at least two of the following three conditions? ☐ The wetland is relatively undisturbed (has no diking, ditching, filling, cultivation, grazing, and has less than 10% cover of non-native plant species. (If non-native species are *Spartina*, see page 25) ☐ At least ¾ of the landward edge of the wetland has a 100 ft buffer of shrub, forest, or un-grazed or un-mowed grassland. ☐ The wetland has at least two of the following features: tidal channels, depressions with open water, or contiguous freshwater wetlands. Yes = **Category I** No = **Category II**	**Cat. I** **Cat. II**
SC 2.0. Wetlands of High Conservation Value (WHCV) SC 2.1. Has the WA Department of Natural Resources updated their website to include the list of Wetlands of High Conservation Value? Yes **–** Go to **SC 2.2** No **–** Go to **SC 2.3** SC 2.2. Is the wetland listed on the WDNR database as a Wetland of High Conservation Value? Yes **= Category I** No **= Not a WHCV** SC 2.3. Is the wetland in a Section/Township/Range that contains a Natural Heritage wetland? http://www1.dnr.wa.gov/nhp/refdesk/datasearch/wnhpwetlands.pdf Yes **– Contact WNHP/WDNR and go to SC 2.4** No **= Not a WHCV** SC 2.4. Has WDNR identified the wetland within the S/T/R as a Wetland of High Conservation Value and listed it on their website? Yes **= Category I** No **= Not a WHCV**	**Cat. I**
SC 3.0. Bogs Does the wetland (or any part of the unit) meet both the criteria for soils and vegetation in bogs? *Use the key below.* ***If you answer YES you will still need to rate the wetland based on its functions.*** SC 3.1. Does an area within the wetland unit have organic soil horizons, either peats or mucks, that compose 16 in or more of the first 32 in of the soil profile? Yes – Go to **SC 3.3** No – Go to **SC 3.2** SC 3.2. Does an area within the wetland unit have organic soils, either peats or mucks, that are less than 16 in deep over bedrock, or an impermeable hardpan such as clay or volcanic ash, or that are floating on top of a lake or pond? Yes – Go to **SC 3.3** No = **Is not a bog** SC 3.3. Does an area with peats or mucks have more than 70% cover of mosses at ground level, AND at least a 30% cover of plant species listed in Table 4? Yes = **Is a Category I bog** No – Go to **SC 3.4** **NOTE:** If you are uncertain about the extent of mosses in the understory, you may substitute that criterion by measuring the pH of the water that seeps into a hole dug at least 16 in deep. If the pH is less than 5.0 and the plant species in Table 4 are present, the wetland is a bog. SC 3.4. Is an area with peats or mucks forested (> 30% cover) with Sitka spruce, subalpine fir, western red cedar, western hemlock, lodgepole pine, quaking aspen, Engelmann spruce, or western white pine, AND any of the species (or combination of species) listed in Table 4 provide more than 30% of the cover under the canopy? Yes = **Is a Category I bog** No **= Is not a bog**	**Cat. I**

Wetland name or number **A**

SC 4.0. Forested Wetlands Does the wetland have at least 1 contiguous acre of forest that meets one of these criteria for the WA Department of Fish and Wildlife's forests as priority habitats? ***If you answer YES you will still need to rate the wetland based on its functions.*** ☐ **Old-growth forests** (west of Cascade crest): Stands of at least two tree species, forming a multi-layered canopy with occasional small openings; with at least 8 trees/ac (20 trees/ha) that are at least 200 years of age OR have a diameter at breast height (dbh) of 32 in (81 cm) or more. ☐ **Mature forests** (west of the Cascade Crest): Stands where the largest trees are 80- 200 years old OR the species that make up the canopy have an average diameter (dbh) exceeding 21 in (53 cm). Yes = **Category I** No = **Not a forested wetland for this section**	**Cat. I**
SC 5.0. Wetlands in Coastal Lagoons Does the wetland meet all of the following criteria of a wetland in a coastal lagoon? ☐ The wetland lies in a depression adjacent to marine waters that is wholly or partially separated from marine waters by sandbanks, gravel banks, shingle, or, less frequently, rocks ☐ The lagoon in which the wetland is located contains ponded water that is saline or brackish (> 0.5 ppt) during most of the year in at least a portion of the lagoon *(needs to be measured near the bottom)* Yes – Go to **SC 5.1** No = **Not a wetland in a coastal lagoon** SC 5.1. Does the wetland meet all of the following three conditions? ☐ The wetland is relatively undisturbed (has no diking, ditching, filling, cultivation, grazing), and has less than 20% cover of aggressive, opportunistic plant species (see list of species on p. 100). ☐ At least ¾ of the landward edge of the wetland has a 100 ft buffer of shrub, forest, or un-grazed or un-mowed grassland. ☐ The wetland is larger than $^{1}/_{10}$ ac (4350 ft^2) Yes = **Category I** No = **Category II**	**Cat. I** **Cat. II**
SC 6.0. Interdunal Wetlands Is the wetland west of the 1889 line (also called the Western Boundary of Upland Ownership or WBUO)? ***If you answer yes you will still need to rate the wetland based on its habitat functions.*** In practical terms that means the following geographic areas: ☐ Long Beach Peninsula: Lands west of SR 103 ☐ Grayland-Westport: Lands west of SR 105 ☐ Ocean Shores-Copalis: Lands west of SR 115 and SR 109 Yes – Go to **SC 6.1** No = **not an interdunal wetland for rating** SC 6.1. Is the wetland 1 ac or larger and scores an 8 or 9 for the habitat functions on the form (rates H,H,H or H,H,M for the three aspects of function)? Yes = **Category I** No – Go to **SC 6.2** SC 6.2. Is the wetland 1 ac or larger, or is it in a mosaic of wetlands that is 1 ac or larger? Yes = **Category II** No – Go to **SC 6.3** SC 6.3. Is the unit between 0.1 and 1 ac, or is it in a mosaic of wetlands that is between 0.1 and 1 ac? Yes = **Category III** No = **Category IV**	**Cat I** **Cat. II** **Cat. III** **Cat. IV**
Category of wetland based on Special Characteristics If you answered No for all types, enter "Not Applicable" on Summary Form	**N/A**

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16263 CAPITAL ARCHITECTS - NEALEY SITE
WETLAND RATING FIGURE A1 - WETLAND A

LEGEND

- FORESTED VEGETATION
- SCRUB-SHRUB
- SATURATED ONLY
- SEASONALLY FLOODED
- 150' FROM WL BOUNDARY

Scale 1" = 100'

0 100 200

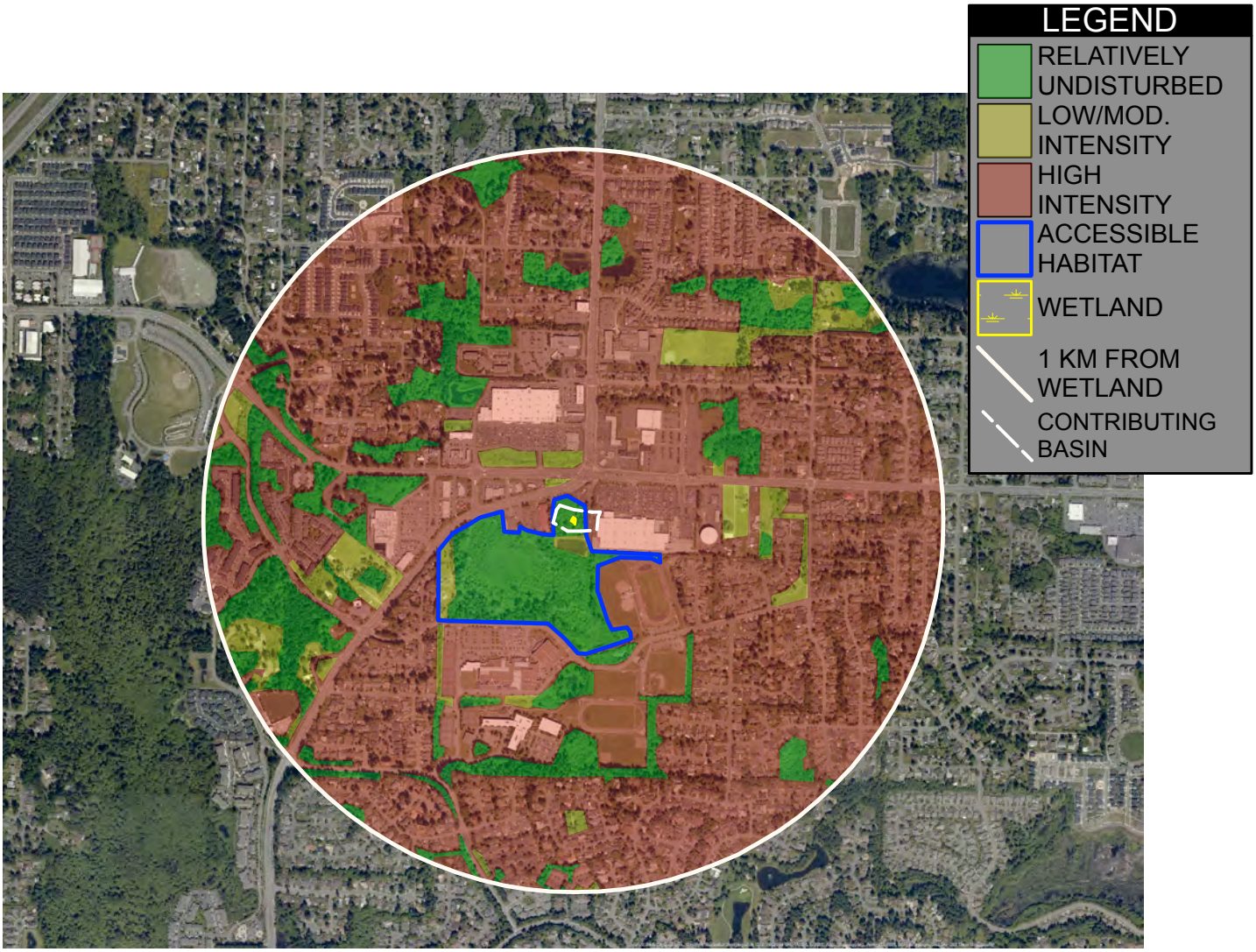
Wetland Resources, Inc.
Delineation / Mitigation / Restoration / Habitat Creation / Permit Assistance
9505 19th Avenue S.E. Suite 106 Everett, Washington 98208
Phone: (425) 337-3174
Fax: (425) 337-3045
Email: mailbox@wetlandresources .com

WETLAND RATING
Wetland A

Capital Architects Group
Attn: Sandra Martin
2813 Rockefeller Ave
Everett, WA 98201

Figure A1
WRI Job # 16263
Drawn by: SW

16263 CAPITAL ARCHITECTS - NEALEY SITE
WETLAND RATING FIGURE A2 - WETLAND A



CONTRIBUTING BASIN AREA RELATIVE TO WETLAND UNIT IS 47:1

Scale 1" = 1,500'

0 1,500 3,000

Wetland Resources, Inc.
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WETLAND RATING
Wetland A

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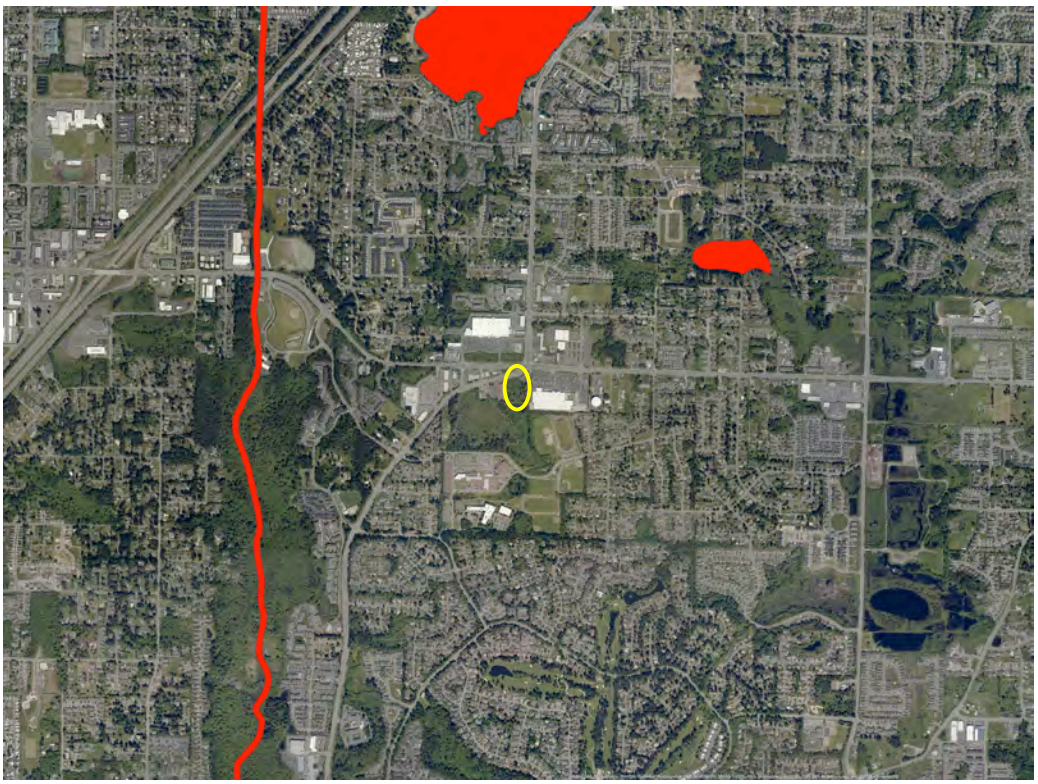
Everett, WA 98201

Figure A2
WRI Job # 16263
Drawn by: SW

16263 CAPITAL ARCHITECTS - NEALEY SITE
WETLAND RATING FIGURE A3 - WETLAND A



Scale 1" = 3,000'

0 3,000 6,000

LEGEND

WETLAND LOCATION

AQUATIC RESOURCES ON THE 303(d) LIST

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

WETLAND RATING
Wetland A

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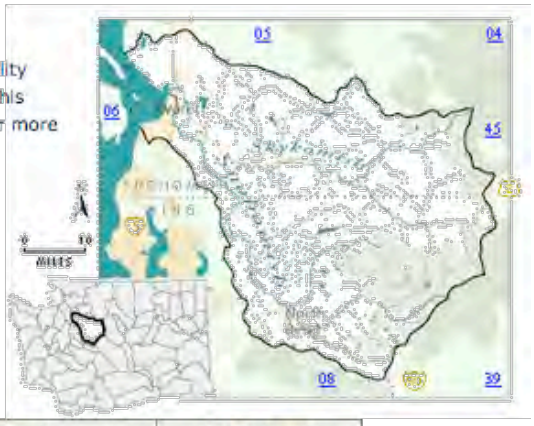
2813 Rockefeller Ave
Everett, WA 98201

Figure A3
WRI Job # 16263
Drawn by: SW

16263 CAPITAL ARCHITECTS - NEALEY SITE
WETLAND RATING FIGURE A4 - WETLAND A

WRIA 7: Snohomish

The following table lists overview information and links to specific water quality improvement projects (including total maximum daily loads, or TMDLs) for this water resource inventory area (WRIA). Please use links (where available) for more information on a project.



Counties

- King
- Snohomish

Waterbody Name	Pollutant(s)	Status**	TMDL Lead
Lake Loma	Total Phosphorus	Straight to implementation project under development	Tricia Shoblom 425-649-7288
Snohomish River	French Creek / Pilchuck River • Dissolved Oxygen • Temperature	Under development	Ralph Svrjcek 425-649-7165
	Dioxin	EPA approved	Ralph Svrjcek 425-649-7165
	Estuary • Ammonia • BOD	EPA approved	Ralph Svrjcek 425-649-7165
	Tributaries • Fecal Coliform Tributaries: • Allen Creek • Quilceda Creek • French Creek • Woods Creek • Pilchuck River • Marshlands (Wood Creek) {2}	EPA approved	Ralph Svrjcek 425-649-7165
	Snoqualmie River • Ammonia-N • BOD (5-day) • Fecal Coliform Temperature	EPA approved EPA approved Has an implementation plan	Ralph Svrjcek 425-649-7165

** ***Status*** *will be listed as one of the following: Approved by EPA, Under Development or Implementation*

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WETLAND RATING
Wetland A

Capital Architects Group
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Everett, WA 98201

Figure A4
WRI Job # 16263
Drawn by: SW

APPENDIX B

CORPS OF ENGINEERS WETLAND
DETERMINATION DATA FORMS

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WETLAND DETERMINATION DATA FORM – Western Mountains, Valleys, and Coast Region

Project/Site: Nealey Site - 13209 Bothell Everett Hwy City/County: Mill Creek Sampling Date: Sept 28, 2016

Applicant/Owner: Capital Architects Group State: WA Sampling Point: S1

Investigator(s): J. Rothwell & S. Walters Section, Township, Range: S31, T28N, R05E

Landform (hillslope, terrace, etc.): depression Local relief (concave, convex, none): concave Slope (%): <5%

Subregion (LRR): LRR A Lat: 47.877354 Long: -122.207437 Datum: WSG 84

Soil Map Unit Name: Alderwood Urban Land Complex, 2 to 8 percent slopes NWI classification: none

Are climatic / hydrologic conditions on the site typical for this time of year? Yes ☑ No ☐ (If no, explain in Remarks.)

Are Vegetation ☐, Soil ☐, or Hydrology ☐ significantly disturbed? Are "Normal Circumstances" present? Yes ☑ No ☐

Are Vegetation ☐, Soil ☐, or Hydrology ☐ naturally problematic? (If needed, explain any answers in Remarks.)

SUMMARY OF FINDINGS – Attach site map showing sampling point locations, transects, important features, etc.

Hydrophytic Vegetation Present?	Yes ☑ No ☐	**Is the Sampled Area within a Wetland?** Yes ☑ No ☐
Hydric Soil Present?	Yes ☑ No ☐	
Wetland Hydrology Present?	Yes ☑ No ☐	

Remarks:

Soil indicator not present; hydric condition determination based on surrounding environmental conditions.

VEGETATION – Use scientific names of plants.

Tree Stratum (Plot size: 10 meter radius)	Absolute % Cover	Dominant Species?	Indicator Status
1. Salix scouleriana	12	Y	FAC
2. Alnus rubra	10	Y	FAC
3. Salix lasiandra	9	Y	FACW
4. Populus balsamifera	3	N	FAC
	24	= Total Cover	
Sapling/Shrub Stratum (Plot size: 3 meter radius)			
1. Spiraea douglasii	80	Y	FACW
2. Rubus spectabilis	20	Y	FAC
3.			
4.			
5.			
	100	= Total Cover	
Herb Stratum (Plot size: 1 meter radius)			
1.			
2.			
3.			
4.			
5.			
6.			
7.			
8.			
9.			
10.			
11.			
		= Total Cover	
Woody Vine Stratum (Plot size:)			
1.			
2.			
		= Total Cover	

% Bare Ground in Herb Stratum ____

Dominance Test worksheet:

Number of Dominant Species That Are OBL, FACW, or FAC: 5 (A)

Total Number of Dominant Species Across All Strata: 5 (B)

Percent of Dominant Species That Are OBL, FACW, or FAC: 100% (A/B)

Prevalence Index worksheet:

Total % Cover of:	Multiply by:
OBL species ____	x 1 = 0
FACW species ____	x 2 = 0
FAC species ____	x 3 = 0
FACU species ____	x 4 = 0
UPL species ____	x 5 = 0
Column Totals: 0 (A)	0 (B)

Prevalence Index = B/A = ____

Hydrophytic Vegetation Indicators:

- ☐ Rapid Test for Hydrophytic Vegetation
- ☑ Dominance Test is >50%
- ☐ Prevalence Index is ≤3.0[1]
- ☐ Morphological Adaptations[1] (Provide supporting data in Remarks or on a separate sheet)
- ☐ Wetland Non-Vascular Plants[1]
- ☐ Problematic Hydrophytic Vegetation[1] (Explain)

[1]Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic.

Hydrophytic Vegetation Present? Yes ☑ No ☐

Remarks:

SOIL

Sampling Point: S1

Profile Description: (Describe to the depth needed to document the indicator or confirm the absence of indicators.)

Depth (inches)	Matrix Color (moist)	%	Redox Features Color (moist)	%	Type[1]	Loc[2]	Texture	Remarks
0-7	10YR 2/2	99	2.5YR 2.5/4	1	C	M	Loam	
7-9	10YR 5/6	70	2.5YR 2.5/3	30	C	M	Si Cl Lo	
9-18	2.5Y 4/3	100	-	-	-	-	Cl Lo	

[1]Type: C=Concentration, D=Depletion, RM=Reduced Matrix, CS=Covered or Coated Sand Grains. [2]Location: PL=Pore Lining, M=Matrix.

Hydric Soil Indicators: (Applicable to all LRRs, unless otherwise noted.)

- ☐ Histosol (A1)
- ☐ Histic Epipedon (A2)
- ☐ Black Histic (A3)
- ☐ Hydrogen Sulfide (A4)
- ☐ Depleted Below Dark Surface (A11)
- ☐ Thick Dark Surface (A12)
- ☐ Sandy Mucky Mineral (S1)
- ☐ Sandy Gleyed Matrix (S4)
- ☐ Sandy Redox (S5)
- ☐ Stripped Matrix (S6)
- ☐ Loamy Mucky Mineral (F1) (**except MLRA 1**)
- ☐ Loamy Gleyed Matrix (F2)
- ☐ Depleted Matrix (F3)
- ☐ Redox Dark Surface (F6)
- ☐ Depleted Dark Surface (F7)
- ☐ Redox Depressions (F8)

Indicators for Problematic Hydric Soils[3]:

- ☐ 2 cm Muck (A10)
- ☐ Red Parent Material (TF2)
- ☐ Very Shallow Dark Surface (TF12)
- ☐ Other (Explain in Remarks)

[3]Indicators of hydrophytic vegetation and wetland hydrology must be present, unless disturbed or problematic.

Restrictive Layer (if present):

Type:_____

Depth (inches):_____

Hydric Soil Present? Yes ☑ No ☐

Remarks:

Nearly meets F6 indicator, but abundance of redoximorphic features in the upper horizon was below the threshold. Despite direct presence of a specific indicator, this data site is located within an area determined to most likely be wetland due to strong signs of hydrology and hydrophytic vegetation. The soil is presumed hydric.

HYDROLOGY

Wetland Hydrology Indicators:

Primary Indicators (minimum of one required; check all that apply)

- ☐ Surface Water (A1)
- ☐ High Water Table (A2)
- ☐ Saturation (A3)
- ☐ Water Marks (B1)
- ☐ Sediment Deposits (B2)
- ☐ Drift Deposits (B3)
- ☐ Algal Mat or Crust (B4)
- ☐ Iron Deposits (B5)
- ☐ Surface Soil Cracks (B6)
- ☐ Inundation Visible on Aerial Imagery (B7)
- ☐ Sparsely Vegetated Concave Surface (B8)
- ☐ Water-Stained Leaves (B9) (**except MLRA 1, 2, 4A, and 4B**)
- ☐ Salt Crust (B11)
- ☐ Aquatic Invertebrates (B13)
- ☐ Hydrogen Sulfide Odor (C1)
- ☐ Oxidized Rhizospheres along Living Roots (C3)
- ☐ Presence of Reduced Iron (C4)
- ☐ Recent Iron Reduction in Tilled Soils (C6)
- ☐ Stunted or Stressed Plants (D1) (**LRR A**)
- ☐ Other (Explain in Remarks)

Secondary Indicators (2 or more required)

- ☐ Water-Stained Leaves (B9) (**MLRA 1, 2, 4A, and 4B**)
- ☐ Drainage Patterns (B10)
- ☐ Dry-Season Water Table (C2)
- ☐ Saturation Visible on Aerial Imagery (C9)
- ☑ Geomorphic Position (D2)
- ☐ Shallow Aquitard (D3)
- ☑ FAC-Neutral Test (D5)
- ☐ Raised Ant Mounds (D6) (**LRR A**)
- ☐ Frost-Heave Hummocks (D7)

Field Observations:

Surface Water Present? Yes ☐ No ☑ Depth (inches): _____

Water Table Present? Yes ☐ No ☑ Depth (inches): _____

Saturation Present? (includes capillary fringe) Yes ☐ No ☑ Depth (inches): _____

Wetland Hydrology Present? Yes ☑ No ☐

Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:

Remarks:

WETLAND DETERMINATION DATA FORM – Western Mountains, Valleys, and Coast Region

Project/Site: Nealey Site - 13209 Bothell Everett Hwy City/County: Mill Creek Sampling Date: Sept 28, 2016

Applicant/Owner: Capital Architects Group State: WA Sampling Point: S2

Investigator(s): J. Rothwell & S. Walters Section, Township, Range: S31, T28N, R05E

Landform (hillslope, terrace, etc.): depression Local relief (concave, convex, none): concave Slope (%): <5%

Subregion (LRR): LRR A Lat: 47.877354 Long: -122.207437 Datum: WSG 84

Soil Map Unit Name: Alderwood Urban Land Complex, 2 to 8 percent slopes NWI classification: none

Are climatic / hydrologic conditions on the site typical for this time of year? Yes ☑ No ☐ (If no, explain in Remarks.)

Are Vegetation ☐, Soil ☐, or Hydrology ☐ significantly disturbed? Are "Normal Circumstances" present? Yes ☑ No ☐

Are Vegetation ☐, Soil ☐, or Hydrology ☐ naturally problematic? (If needed, explain any answers in Remarks.)

SUMMARY OF FINDINGS – Attach site map showing sampling point locations, transects, important features, etc.

Hydrophytic Vegetation Present?	Yes ☑ No ☐	**Is the Sampled Area within a Wetland?** Yes ☐ No ☑
Hydric Soil Present?	Yes ☐ No ☑	
Wetland Hydrology Present?	Yes ☐ No ☑	

Remarks:

VEGETATION – Use scientific names of plants.

Tree Stratum (Plot size: 10 meter radius)	Absolute % Cover	Dominant Species?	Indicator Status
1. Thuja plicata	25	Y	FAC
2. Populus balsamifera	20	Y	FAC
3.			
4.			
	= Total Cover		
Sapling/Shrub Stratum (Plot size: 3 meter radius)			
1. Rubus spectabilis	60	Y	FAC
2. Spiraea douglasii	15	N	FACW
3. Malus fusca	5	N	FACW
4. Vaccinium parvifolium	2	N	FACU
5.			
	82 = Total Cover		
Herb Stratum (Plot size: 1 meter radius)			
1. Gaultheria shallon	20	Y	FAC
2. Pteridium aquilinum	20	Y	FACU
3. Rubus ursinus	10	N	FACU
4. Polystichum munitum	5	N	FACU
5.			
6.			
7.			
8.			
9.			
10.			
11.			
	55 = Total Cover		
Woody Vine Stratum (Plot size:)			
1.			
2.			
	= Total Cover		

% Bare Ground in Herb Stratum ____

Dominance Test worksheet:

Number of Dominant Species That Are OBL, FACW, or FAC: 4 (A)

Total Number of Dominant Species Across All Strata: 5 (B)

Percent of Dominant Species That Are OBL, FACW, or FAC: 80% (A/B)

Prevalence Index worksheet:

Total % Cover of:	Multiply by:
OBL species ____	x 1 = 0
FACW species ____	x 2 = 0
FAC species ____	x 3 = 0
FACU species ____	x 4 = 0
UPL species ____	x 5 = 0
Column Totals: 0 (A)	0 (B)

Prevalence Index = B/A = ____

Hydrophytic Vegetation Indicators:

- ☐ Rapid Test for Hydrophytic Vegetation
- ☑ Dominance Test is >50%
- ☐ Prevalence Index is ≤3.0[1]
- ☐ Morphological Adaptations[1] (Provide supporting data in Remarks or on a separate sheet)
- ☐ Wetland Non-Vascular Plants[1]
- ☐ Problematic Hydrophytic Vegetation[1] (Explain)

[1]Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic.

Hydrophytic Vegetation Present? Yes ☑ No ☐

Remarks:

SOIL

Sampling Point: S2

Profile Description: (Describe to the depth needed to document the indicator or confirm the absence of indicators.)

Depth (inches)	Matrix Color (moist)	Matrix %	Redox Features Color (moist)	Redox Features %	Type[1]	Loc[2]	Texture	Remarks
0-17	7.5YR	2.5/3	-	-	-	-	Loam	

[1]Type: C=Concentration, D=Depletion, RM=Reduced Matrix, CS=Covered or Coated Sand Grains. [2]Location: PL=Pore Lining, M=Matrix.

Hydric Soil Indicators: (Applicable to all LRRs, unless otherwise noted.)

- ☐ Histosol (A1)
- ☐ Histic Epipedon (A2)
- ☐ Black Histic (A3)
- ☐ Hydrogen Sulfide (A4)
- ☐ Depleted Below Dark Surface (A11)
- ☐ Thick Dark Surface (A12)
- ☐ Sandy Mucky Mineral (S1)
- ☐ Sandy Gleyed Matrix (S4)
- ☐ Sandy Redox (S5)
- ☐ Stripped Matrix (S6)
- ☐ Loamy Mucky Mineral (F1) (**except MLRA 1**)
- ☐ Loamy Gleyed Matrix (F2)
- ☐ Depleted Matrix (F3)
- ☐ Redox Dark Surface (F6)
- ☐ Depleted Dark Surface (F7)
- ☐ Redox Depressions (F8)

Indicators for Problematic Hydric Soils[3]:

- ☐ 2 cm Muck (A10)
- ☐ Red Parent Material (TF2)
- ☐ Very Shallow Dark Surface (TF12)
- ☐ Other (Explain in Remarks)

[3]Indicators of hydrophytic vegetation and wetland hydrology must be present, unless disturbed or problematic.

Restrictive Layer (if present):

Type:_____

Depth (inches):_____

Hydric Soil Present? Yes ☐ No ☑

Remarks:

HYDROLOGY

Wetland Hydrology Indicators:

Primary Indicators (minimum of one required; check all that apply)

- ☐ Surface Water (A1)
- ☐ High Water Table (A2)
- ☐ Saturation (A3)
- ☐ Water Marks (B1)
- ☐ Sediment Deposits (B2)
- ☐ Drift Deposits (B3)
- ☐ Algal Mat or Crust (B4)
- ☐ Iron Deposits (B5)
- ☐ Surface Soil Cracks (B6)
- ☐ Inundation Visible on Aerial Imagery (B7)
- ☐ Sparsely Vegetated Concave Surface (B8)
- ☐ Water-Stained Leaves (B9) (**except MLRA 1, 2, 4A, and 4B**)
- ☐ Salt Crust (B11)
- ☐ Aquatic Invertebrates (B13)
- ☐ Hydrogen Sulfide Odor (C1)
- ☐ Oxidized Rhizospheres along Living Roots (C3)
- ☐ Presence of Reduced Iron (C4)
- ☐ Recent Iron Reduction in Tilled Soils (C6)
- ☐ Stunted or Stressed Plants (D1) (**LRR A**)
- ☐ Other (Explain in Remarks)

Secondary Indicators (2 or more required)

- ☐ Water-Stained Leaves (B9) (**MLRA 1, 2, 4A, and 4B**)
- ☐ Drainage Patterns (B10)
- ☐ Dry-Season Water Table (C2)
- ☐ Saturation Visible on Aerial Imagery (C9)
- ☐ Geomorphic Position (D2)
- ☐ Shallow Aquitard (D3)
- ☐ FAC-Neutral Test (D5)
- ☐ Raised Ant Mounds (D6) (**LRR A**)
- ☐ Frost-Heave Hummocks (D7)

Field Observations:

Surface Water Present? Yes ☐ No ☑ Depth (inches): _____

Water Table Present? Yes ☐ No ☑ Depth (inches): _____

Saturation Present? (includes capillary fringe) Yes ☐ No ☑ Depth (inches): _____

Wetland Hydrology Present? Yes ☐ No ☑

Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:

Remarks:

WETLAND DETERMINATION DATA FORM – Western Mountains, Valleys, and Coast Region

Project/Site: Nealey Site - 13209 Bothell Everett Hwy City/County: Mill Creek Sampling Date: Sept 28, 2016

Applicant/Owner: Capital Architects Group State: WA Sampling Point: S3

Investigator(s): J. Rothwell & S. Walters Section, Township, Range: S31, T28N, R05E

Landform (hillslope, terrace, etc.): depression Local relief (concave, convex, none): concave Slope (%): <5%

Subregion (LRR): LRR A Lat: 47.877354 Long: -122.207437 Datum: WSG 84

Soil Map Unit Name: Alderwood Urban Land Complex, 2 to 8 percent slopes NWI classification: none

Are climatic / hydrologic conditions on the site typical for this time of year? Yes ☑ No ☐ (If no, explain in Remarks.)

Are Vegetation ☐, Soil ☐, or Hydrology ☐ significantly disturbed? Are "Normal Circumstances" present? Yes ☑ No ☐

Are Vegetation ☐, Soil ☐, or Hydrology ☐ naturally problematic? (If needed, explain any answers in Remarks.)

SUMMARY OF FINDINGS – Attach site map showing sampling point locations, transects, important features, etc.

Hydrophytic Vegetation Present? Yes ☑ No ☐ Hydric Soil Present? Yes ☑ No ☐ Wetland Hydrology Present? Yes ☑ No ☐	**Is the Sampled Area within a Wetland?** Yes ☑ No ☐

Remarks:

VEGETATION – Use scientific names of plants.

Tree Stratum (Plot size: 10 meter radius)	Absolute % Cover	Dominant Species?	Indicator Status
1. Salix scouleriana	16	Y	FAC
2. Salix lasiandra	9	Y	FACW
3. Alnus rubra	8	Y	FAC
4. Populus balsamifera	4	N	FAC
	37	= Total Cover	
Sapling/Shrub Stratum (Plot size: 3 meter radius)			
1. Spiraea douglasii	85	Y	FACW
2. Vaccinium parvifolium	18	N	FACU
3. Rubus spectabilis	10	N	FAC
4.			
5.			
	113	= Total Cover	
Herb Stratum (Plot size: 1 meter radius)			
1.			
2.			
3.			
4.			
5.			
6.			
7.			
8.			
9.			
10.			
11.			
		= Total Cover	
Woody Vine Stratum (Plot size:)			
1.			
2.			
		= Total Cover	

% Bare Ground in Herb Stratum ____

Dominance Test worksheet:

Number of Dominant Species That Are OBL, FACW, or FAC: 4 (A)

Total Number of Dominant Species Across All Strata: 4 (B)

Percent of Dominant Species That Are OBL, FACW, or FAC: 100% (A/B)

Prevalence Index worksheet:

Total % Cover of:	Multiply by:
OBL species ____	x 1 = 0
FACW species ____	x 2 = 0
FAC species ____	x 3 = 0
FACU species ____	x 4 = 0
UPL species ____	x 5 = 0
Column Totals: 0 (A)	0 (B)

Prevalence Index = B/A = ____

Hydrophytic Vegetation Indicators:

- ☐ Rapid Test for Hydrophytic Vegetation
- ☑ Dominance Test is >50%
- ☐ Prevalence Index is ≤3.0[1]
- ☐ Morphological Adaptations[1] (Provide supporting data in Remarks or on a separate sheet)
- ☐ Wetland Non-Vascular Plants[1]
- ☐ Problematic Hydrophytic Vegetation[1] (Explain)

[1]Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic.

Hydrophytic Vegetation Present? Yes ☑ No ☐

Remarks:

SOIL

Sampling Point: S3

Profile Description: (Describe to the depth needed to document the indicator or confirm the absence of indicators.)

Depth (inches)	Matrix Color (moist)	Matrix %	Redox Features Color (moist)	Redox Features %	Type[1]	Loc[2]	Texture	Remarks
0-7	10YR 2/1	99	7.5YR 3/3	1	C	M	Loam	
7-10	10YR 3/2	50	10YR 5/4	30	C	M	Cl Lo	
-	-	-	5YR 4/6	20	C	M	-	
10-18	2.5Y 5/3	84	2.5YR 2.5/3	1	C	M	Si Cl Lo	
-	-	-	10YR 4/6	15	C	M	-	

[1]Type: C=Concentration, D=Depletion, RM=Reduced Matrix, CS=Covered or Coated Sand Grains. [2]Location: PL=Pore Lining, M=Matrix.

Hydric Soil Indicators: (Applicable to all LRRs, unless otherwise noted.)

- ☐ Histosol (A1)
- ☐ Histic Epipedon (A2)
- ☐ Black Histic (A3)
- ☐ Hydrogen Sulfide (A4)
- ☐ Depleted Below Dark Surface (A11)
- ☐ Thick Dark Surface (A12)
- ☐ Sandy Mucky Mineral (S1)
- ☐ Sandy Gleyed Matrix (S4)
- ☐ Sandy Redox (S5)
- ☐ Stripped Matrix (S6)
- ☐ Loamy Mucky Mineral (F1) (**except MLRA 1**)
- ☐ Loamy Gleyed Matrix (F2)
- ☐ Depleted Matrix (F3)
- ☐ Redox Dark Surface (F6)
- ☐ Depleted Dark Surface (F7)
- ☐ Redox Depressions (F8)

Indicators for Problematic Hydric Soils[3]:

- ☐ 2 cm Muck (A10)
- ☐ Red Parent Material (TF2)
- ☐ Very Shallow Dark Surface (TF12)
- ☐ Other (Explain in Remarks)

[3]Indicators of hydrophytic vegetation and wetland hydrology must be present, unless disturbed or problematic.

Restrictive Layer (if present):

Type:_____

Depth (inches):_____

Hydric Soil Present? Yes ☑ No ☐

Remarks:

Nearly meets F6 indicator, but thickness of the low chroma horizon with redoximorphic features (from 7 to 10 inches) is too thin. Despite direct presence of a specific indicator, this data site is located within an area determined to most likely be wetland due to strong signs of hydrology and hydrophytic vegetation. The soil is presumed hydric.

HYDROLOGY

Wetland Hydrology Indicators:

Primary Indicators (minimum of one required; check all that apply)

- ☐ Surface Water (A1)
- ☐ High Water Table (A2)
- ☐ Saturation (A3)
- ☐ Water Marks (B1)
- ☐ Sediment Deposits (B2)
- ☐ Drift Deposits (B3)
- ☐ Algal Mat or Crust (B4)
- ☐ Iron Deposits (B5)
- ☐ Surface Soil Cracks (B6)
- ☐ Inundation Visible on Aerial Imagery (B7)
- ☐ Sparsely Vegetated Concave Surface (B8)
- ☐ Water-Stained Leaves (B9) (**except MLRA 1, 2, 4A, and 4B**)
- ☐ Salt Crust (B11)
- ☐ Aquatic Invertebrates (B13)
- ☐ Hydrogen Sulfide Odor (C1)
- ☐ Oxidized Rhizospheres along Living Roots (C3)
- ☐ Presence of Reduced Iron (C4)
- ☐ Recent Iron Reduction in Tilled Soils (C6)
- ☐ Stunted or Stressed Plants (D1) (**LRR A**)
- ☐ Other (Explain in Remarks)

Secondary Indicators (2 or more required)

- ☐ Water-Stained Leaves (B9) (**MLRA 1, 2, 4A, and 4B**)
- ☐ Drainage Patterns (B10)
- ☐ Dry-Season Water Table (C2)
- ☐ Saturation Visible on Aerial Imagery (C9)
- ☑ Geomorphic Position (D2)
- ☐ Shallow Aquitard (D3)
- ☑ FAC-Neutral Test (D5)
- ☐ Raised Ant Mounds (D6) (**LRR A**)
- ☐ Frost-Heave Hummocks (D7)

Field Observations:

Surface Water Present? Yes ☐ No ☑ Depth (inches): _____

Water Table Present? Yes ☐ No ☑ Depth (inches): _____

Saturation Present? (includes capillary fringe) Yes ☐ No ☑ Depth (inches): _____

Wetland Hydrology Present? Yes ☑ No ☐

Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:

Remarks:

WETLAND DETERMINATION DATA FORM – Western Mountains, Valleys, and Coast Region

Project/Site: Nealey Site - 13209 Bothell Everett Hwy City/County: Mill Creek Sampling Date: Sept 28, 2016

Applicant/Owner: Capital Architects Group State: WA Sampling Point: S4

Investigator(s): J. Rothwell & S. Walters Section, Township, Range: S31, T28N, R05E

Landform (hillslope, terrace, etc.): depression Local relief (concave, convex, none): concave Slope (%): <5%

Subregion (LRR): LRR A Lat: 47.877354 Long: -122.207437 Datum: WSG 84

Soil Map Unit Name: Alderwood Urban Land Complex, 2 to 8 percent slopes NWI classification: none

Are climatic / hydrologic conditions on the site typical for this time of year? Yes ☑ No ☐ (If no, explain in Remarks.)

Are Vegetation ☐, Soil ☐, or Hydrology ☐ significantly disturbed? Are "Normal Circumstances" present? Yes ☑ No ☐

Are Vegetation ☐, Soil ☐, or Hydrology ☐ naturally problematic? (If needed, explain any answers in Remarks.)

SUMMARY OF FINDINGS – Attach site map showing sampling point locations, transects, important features, etc.

Hydrophytic Vegetation Present? Yes ☑ No ☐ Hydric Soil Present? Yes ☐ No ☑ Wetland Hydrology Present? Yes ☑ No ☐	**Is the Sampled Area within a Wetland?** Yes ☐ No ☑

Remarks:

VEGETATION – Use scientific names of plants.

Tree Stratum (Plot size: 10 meter radius)	Absolute % Cover	Dominant Species?	Indicator Status
1. Alnus rubra	80	Y	FAC
2. Pseudotsuga menziesii	14	N	FACU
3. Prunus emarginata	3	N	FACU
4.			
	97	= Total Cover	
Sapling/Shrub Stratum (Plot size: 3 meter radius)			
1. Rubus armeniacus	40	Y	FAC
2. Lonicera involucrata	7	N	FAC
3. Phalaris arundinacea	5	N	FACW
4. Spiraea douglasii	5	N	FACW
5.			
	57	= Total Cover	
Herb Stratum (Plot size: 1 meter radius)			
1.			
2.			
3.			
4.			
5.			
6.			
7.			
8.			
9.			
10.			
11.			
		= Total Cover	
Woody Vine Stratum (Plot size:)			
1.			
2.			
		= Total Cover	

% Bare Ground in Herb Stratum ____

Dominance Test worksheet:

Number of Dominant Species That Are OBL, FACW, or FAC: 2 (A)

Total Number of Dominant Species Across All Strata: 2 (B)

Percent of Dominant Species That Are OBL, FACW, or FAC: 100% (A/B)

Prevalence Index worksheet:

Total % Cover of:		Multiply by:	
OBL species		x 1 =	0
FACW species		x 2 =	0
FAC species		x 3 =	0
FACU species		x 4 =	0
UPL species		x 5 =	0
Column Totals:	0 (A)		0 (B)

Prevalence Index = B/A = ____

Hydrophytic Vegetation Indicators:

- ☐ Rapid Test for Hydrophytic Vegetation
- ☑ Dominance Test is >50%
- ☐ Prevalence Index is ≤3.0[1]
- ☐ Morphological Adaptations[1] (Provide supporting data in Remarks or on a separate sheet)
- ☐ Wetland Non-Vascular Plants[1]
- ☐ Problematic Hydrophytic Vegetation[1] (Explain)

[1]Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic.

Hydrophytic Vegetation Present? Yes ☑ No ☐

Remarks:

SOIL

Sampling Point: S4

Profile Description: (Describe to the depth needed to document the indicator or confirm the absence of indicators.)

Depth (inches)	Matrix Color (moist)	%	Redox Features Color (moist)	%	Type[1]	Loc[2]	Texture	Remarks
0-5	10YR 2/2	100	-	-	-	-	Loam	
5-10	10YR 3/3	95	5YR 4/6	5	C	M	Sa Lo	
10-17	10YR 3/4	95	5YR 4/6	5	C	M	Sa Lo	

[1]Type: C=Concentration, D=Depletion, RM=Reduced Matrix, CS=Covered or Coated Sand Grains. [2]Location: PL=Pore Lining, M=Matrix.

Hydric Soil Indicators: (Applicable to all LRRs, unless otherwise noted.)

- ☐ Histosol (A1)
- ☐ Histic Epipedon (A2)
- ☐ Black Histic (A3)
- ☐ Hydrogen Sulfide (A4)
- ☐ Depleted Below Dark Surface (A11)
- ☐ Thick Dark Surface (A12)
- ☐ Sandy Mucky Mineral (S1)
- ☐ Sandy Gleyed Matrix (S4)
- ☐ Sandy Redox (S5)
- ☐ Stripped Matrix (S6)
- ☐ Loamy Mucky Mineral (F1) (**except MLRA 1**)
- ☐ Loamy Gleyed Matrix (F2)
- ☐ Depleted Matrix (F3)
- ☐ Redox Dark Surface (F6)
- ☐ Depleted Dark Surface (F7)
- ☐ Redox Depressions (F8)

Indicators for Problematic Hydric Soils[3]:

- ☐ 2 cm Muck (A10)
- ☐ Red Parent Material (TF2)
- ☐ Very Shallow Dark Surface (TF12)
- ☐ Other (Explain in Remarks)

[3]Indicators of hydrophytic vegetation and wetland hydrology must be present, unless disturbed or problematic.

Restrictive Layer (if present):

Type:_____

Depth (inches):_____

Hydric Soil Present? Yes ☐ No ☑

Remarks:

Water ponds in the area surrounding this data site, but does not appear to accumulate for a sufficient duration to develop hydric soil conditions; possibly due to high sand content and irregular hydrologic inputs.

HYDROLOGY

Wetland Hydrology Indicators:

Primary Indicators (minimum of one required; check all that apply)

- ☐ Surface Water (A1)
- ☐ High Water Table (A2)
- ☐ Saturation (A3)
- ☐ Water Marks (B1)
- ☐ Sediment Deposits (B2)
- ☐ Drift Deposits (B3)
- ☐ Algal Mat or Crust (B4)
- ☐ Iron Deposits (B5)
- ☐ Surface Soil Cracks (B6)
- ☐ Inundation Visible on Aerial Imagery (B7)
- ☐ Sparsely Vegetated Concave Surface (B8)
- ☑ Water-Stained Leaves (B9) (**except MLRA 1, 2, 4A, and 4B**)
- ☐ Salt Crust (B11)
- ☐ Aquatic Invertebrates (B13)
- ☐ Hydrogen Sulfide Odor (C1)
- ☐ Oxidized Rhizospheres along Living Roots (C3)
- ☐ Presence of Reduced Iron (C4)
- ☐ Recent Iron Reduction in Tilled Soils (C6)
- ☐ Stunted or Stressed Plants (D1) (**LRR A**)
- ☐ Other (Explain in Remarks)

Secondary Indicators (2 or more required)

- ☐ Water-Stained Leaves (B9) (**MLRA 1, 2, 4A, and 4B**)
- ☐ Drainage Patterns (B10)
- ☐ Dry-Season Water Table (C2)
- ☐ Saturation Visible on Aerial Imagery (C9)
- ☑ Geomorphic Position (D2)
- ☐ Shallow Aquitard (D3)
- ☐ FAC-Neutral Test (D5)
- ☐ Raised Ant Mounds (D6) (**LRR A**)
- ☐ Frost-Heave Hummocks (D7)

Field Observations:

Surface Water Present? Yes ☐ No ☑ Depth (inches): _____

Water Table Present? Yes ☐ No ☑ Depth (inches): _____

Saturation Present? (includes capillary fringe) Yes ☐ No ☑ Depth (inches): _____

Wetland Hydrology Present? Yes ☑ No ☐

Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:

Remarks:

Hydrology clearly collects in this area, but does not appear to persist for significant periods of time.

APPENDIX C

CRITICAL AREAS STUDY AND
MITIGATION PLAN MAP (SHEET 1/1)

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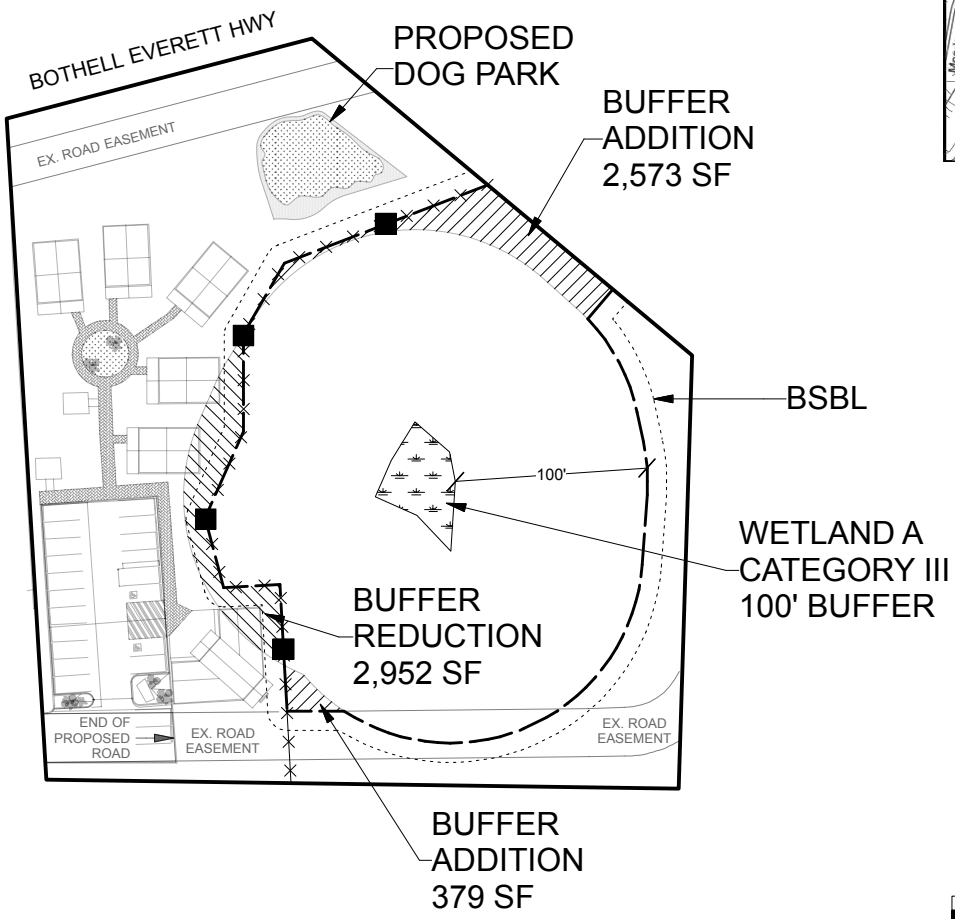
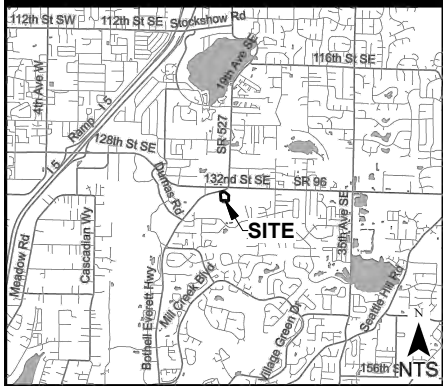
CRITICAL AREAS REPORT AND BUFFER MITIGATION PLAN MAP

13209 BOTHELL EVERETT HIGHWAY

PORTION OF SECTION 31, TOWNSHIP 28N, RANGE 05E, W.M.

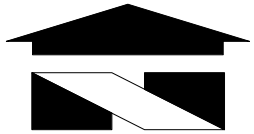


VICINITY MAP



LEGEND

- WETLAND
- BUFFER
- 10-FOOT BSBL
- CRITICAL AREA SIGNAGE
- SPLIT-RAIL FENCING
- BUFFER REDUCTION
- BUFFER ADDITION
- PROPERTY BOUNDARY



Scale 1" = 100'

0 50 100 150 200

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

CRITICAL AREAS REPORT AND MITIGATION PLAN MAP
13209 Bothell Everett Highway
Mill Creek, Washington

Julie Nealey
c/o Capital Architects Group, PC
Attn: Sandra Martin
2813 Rockefeller Avenue
Mill Creek, WA 98201

Sheet 1/1
WRI Job#: 16263
Drawn by: S. Walters
Date: August 15, 2018

Section VII – Other Permits

Section VII Summary:

Narrative

Outside of the City of Mill Creek, the site will need to be approved for water and sewer through the Silver Lake Water and Sewer District.

250 4th Avenue South, Suite 200
Edmonds, WA 98020
ph. 425.778.8500 | f. 425.778.5536
www.cgengineering.com

Section VIII – Bond Quantities, Declaration of Covenant, & Operation and Maintenance Manual

Section VIII Summary:

Narrative

To be completed for construction drawing submittal phases of the project.

ENGINEERING

250 4th Avenue South, Suite 200
Edmonds, WA 98020
ph. 425.778.8500 | f. 425.778.5536
www.cgengineering.com

PERTEET

TECHNICAL MEMORANDUM

2707 Colby Avenue, Suite 900, Everett, WA 98201 | P 425.252.7700

To: Christie Amrine, Senior Planner, City of Mill Creek

From: Rory Cameron, PE, Perteet

Date: September 15, 2018

Re: Traffic Impact Analysis Review Comments for the Muttley Square

---

Perteet Inc. has been retained by the City of Mill Creek to review the Traffic Impact Analysis prepared by Gibson Traffic Consultants for the Muttley Square development. Gibson Traffic prepared this analysis in June of 2018, and reviews the proposed condition of building a dog day care facility adjacent to the existing Les Schwab business, and will utilize the Les Schwab access.

The analysis reviews trips generated by the development, as well as a parking demand evaluation. A summary of the traffic impact analysis' comments are found below:

1. This development will contribute new volumes to the driveway access point for Les Schwab, along SR-527. Developer shall coordinate with WSDOT as needed.
2. We concur with the use of ITE Land Use code 565 and pass by rate. We also concur with the trip generation proposed in table 1.
3. We concur with the assessment of Mill Creek traffic mitigation fees

After Recording Please Return To
Mary Jo Grimes
Les Schwab Main Office
PO Box 667
Prineville, Oregon

IRREVOCABLE OFFER TO GRANT RECIPROCAL ACCESS EASEMENT

This Irrevocable Offer to Grant Reciprocal Access Easement (Offer) is made on this 1st day of August, 2000 by SFP-B Limited Partnership, an Oregon limited partnership (SFP-B)

RECITALS:

A SFP-B owns the real property located at 13223 and 13227 Bothell-Everett Highway and legally described on attached Exhibit A (SFP-B's Property)

B SFP-B desires to grant an irrevocable offer of reciprocal access easement over and across a portion of SFP-B's Property for the benefit of two properties located to the east of SFP-B's Property and legally described on attached Exhibit B (Adjacent Properties) according to the terms and conditions of this Offer

AGREEMENTS:

1 In consideration of a reciprocal access easement over the Adjacent Properties for the benefit of SFP-B's Property, SFP-B hereby offers to grant for the benefit of the Adjacent Properties a perpetual, non-exclusive reciprocal access easement (Easement) over and across that portion of SFP-B's Property shown on attached Exhibit C (Easement Area), for the purpose of pedestrian and vehicular ingress to and egress from SR 527 to the Adjacent Properties by the owners of the Adjacent Properties, their contractors, invitees, permittees, customers, employees, agents, heirs, successors and assigns

2 The Easement is contingent and shall automatically become effective upon the happening of the following events (Effective Date)

a The grant of a reciprocal access over and across the Adjacent Properties for the benefit of SFP-B's Property for the purpose of pedestrian and vehicular access from SFP-B's Property to SR 96 which shall accommodate large vehicle circulation from SFP-B's Property as shown on attached Exhibit C, and

b Construction of a reciprocal access drive over and across the Adjacent Properties

NO EXCISE TAX REQUIRED

AUG 11 2000

BOB DANTINI, Snohomish County Treasurer
By BOB DANTINI

Please Return To:

Mary Jo Grimes
Les Schwab Main Office
PO Box 667
Prineville, OR 97754

200008110061
08/11/2000 09:51 AM Snohomish County
P.0008 RECORDED

200008110061

RECORDER'S NOTE.
PORTIONS OF THIS DOCUMENT
ARE POOR QUALITY FOR SCANNING.

WASHINGTON STATE COUNTY AUDITOR/RECORDER/S
INDEXING FORM *(Cover Sheet)*

Document Title(s) *(or transactions contained therein)*:
1. IRREVOCABLE OFFER TO GRANT RECIPROCAL ACCESS EASEMENT
2.

Reference Numbers of Documents assigned or released:
on page of document

Grantor(s) *(Last name first, then first name and initials)*
1. SFP-B LIMITED PARTNERSHIP Tax #93-1156602
2. ☒ Additional names on page __ of document

Grantee(s): *(Last name first; then first name and initials)*
1. ADJACENT PROPERTIES
2.
☒ Additional names on page __ of document

Legal Description: (abbreviated form i.e lot, block, plat name, section-township-range)
A portion of the NE 1/4 of the NE 1/4 of Section 31, Township 28 N, Range 5 E, Willamette Meridain, City of Mill Creek, Snohomish County, State of Washington.

☒ Additional legal is included as "Exhibit A"

Assessor's Property Tax Parcel Account Number(s):
APN #312805-1-007-0007 and #312805-1-007-0106

City of Mill Creek Reference:
Project Number PB 99-43 Project Name Les Schwab Tire Centers

The Auditor/Recorder will rely on the information provided on the form. The staff will not read the document to verify the accuracy or completeness of the indexing information provided herein

subject to the aforementioned reciprocal access easement, connecting the Easement Area to SR 96

3 The Offer granted hereunder benefits, burdens runs with and is appurtenant to the Adjacent Properties and SFP-B's Property, shall be binding upon the parties' heirs, successors, assigns, tenants and subtenants and is irrevocable

4 The owner(s) of the Adjacent Properties shall indemnify and hold harmless SFP-B from and against any damage to persons or properties caused by said owner(s), their contractors, invitees, permittees, customers, employees and/or agents while using the Easement Area SFP-B shall indemnify and hold harmless the owner(s) of the Adjacent Properties from and against any damage to persons or properties caused by SFP-B, its contractors, invitees, permittees, customers, employees and/or agents while using the Easement Area

5 SFP-B hereby covenants and agrees that SFP-B shall not build or install any structure or other improvement within the Easement Area which interferes with the Offer granted hereunder

6 Upon the Effective Date, SFP-B and the owner(s) of the Adjacent Properties shall be responsible for their pro-rata share of the cost of maintenance and repair of the Easement Area determined according to this paragraph 6 Each party's pro-rata share shall be equal to a fraction, the numerator of which fraction shall be the total square footage of the party's property and the denominator of which fraction shall be the total square footage of SFP-B's Property and the Adjacent Properties combined

7 In the event any legal proceeding is commenced for the purpose of interpreting or enforcing any provision of this Access Easement Agreement, the prevailing party in such proceeding shall be entitled to recover a reasonable attorneys' fee in such proceeding or any appeal thereof, to be set by the court without the necessity of hearing testimony or receiving evidence, in addition to the costs and disbursements allowed by law

DATED this 4th day of August, 2000

SFP-B LIMITED PARTNERSHIP

By: _____
Tom Freedman, President of SSC-B, Inc.,
General Partner

[Notarial Acknowledgment Follows]

EXHIBIT A
LEGAL DESCRIPTION OF SFP-B'S PROPERTY

BEGINNING AT THE NORTHEAST CORNER OF SECTION 31, TOWNSHIP 28 NORTH, RANGE 5 EAST, W.M., IN SNOHOMISH COUNTY, WASHINGTON;
THENCE SOUTH 0°54' WEST ALONG THE EAST LINE OF SAID SECTION 31 FOR A DISTANCE OF 560 FEET;
THENCE SOUTH 89°58" WEST PARALLEL TO THE SOUTH BOUNDARY OF SECTION 31 A DISTANCE OF 330 FEET TO THE TRUE POINT OF BEGINNING;
THENCE NORTH 04°58'54" WEST FOR A DISTANCE OF 371.04 FEET TO THE SOUTH BOUNDARY OF STATE HIGHWAY NO. 2, ALSO KNOWN AS SR 527;
THENCE SOUTHWESTERLY ALONG SAID HIGHWAY A DISTANCE OF 270 FEET;
THENCE SOUTH 8° EAST A DISTANCE OF 385 FEET;
THENCE NORTHEASTERLY A DISTANCE OF 270 FEET, MORE OR LESS, TO THE TRUE POINT OF BEGINNING.

EXHIBIT B
LEGAL DESCRIPTION OF ADJACENT PROPERTIES

Parcel Number 312805-1-004-0000

All that portion of the Northeast quarter of the Northeast quarter of Section 31, Township 28 North, Range 5 East, W M , described as follows

Beginning at the Northeast corner of said Section 31 , thence South 0°54' West 160 feet, thence North 51°03'15" West 113 57 feet to Southeasterly right of way State Highway, thence Southeasterly along said Southeasterly line on a curve to the right having a radius of 317 9 feet a distance of 117 92 feet, thence South 74°11' West along said Southeasterly line 32 08 feet to the true point of beginning, thence South 52°03'15" East to East line of said section, thence South to a point which is 560 feet South of the Northeast corner of said Section, thence South 69°58' West 330 feet, thence North 4°58'54" West 371 04 feet to Southeasterly right of way State Highway, thence North 74°11' East 150 feet more or less to the true point of beginning

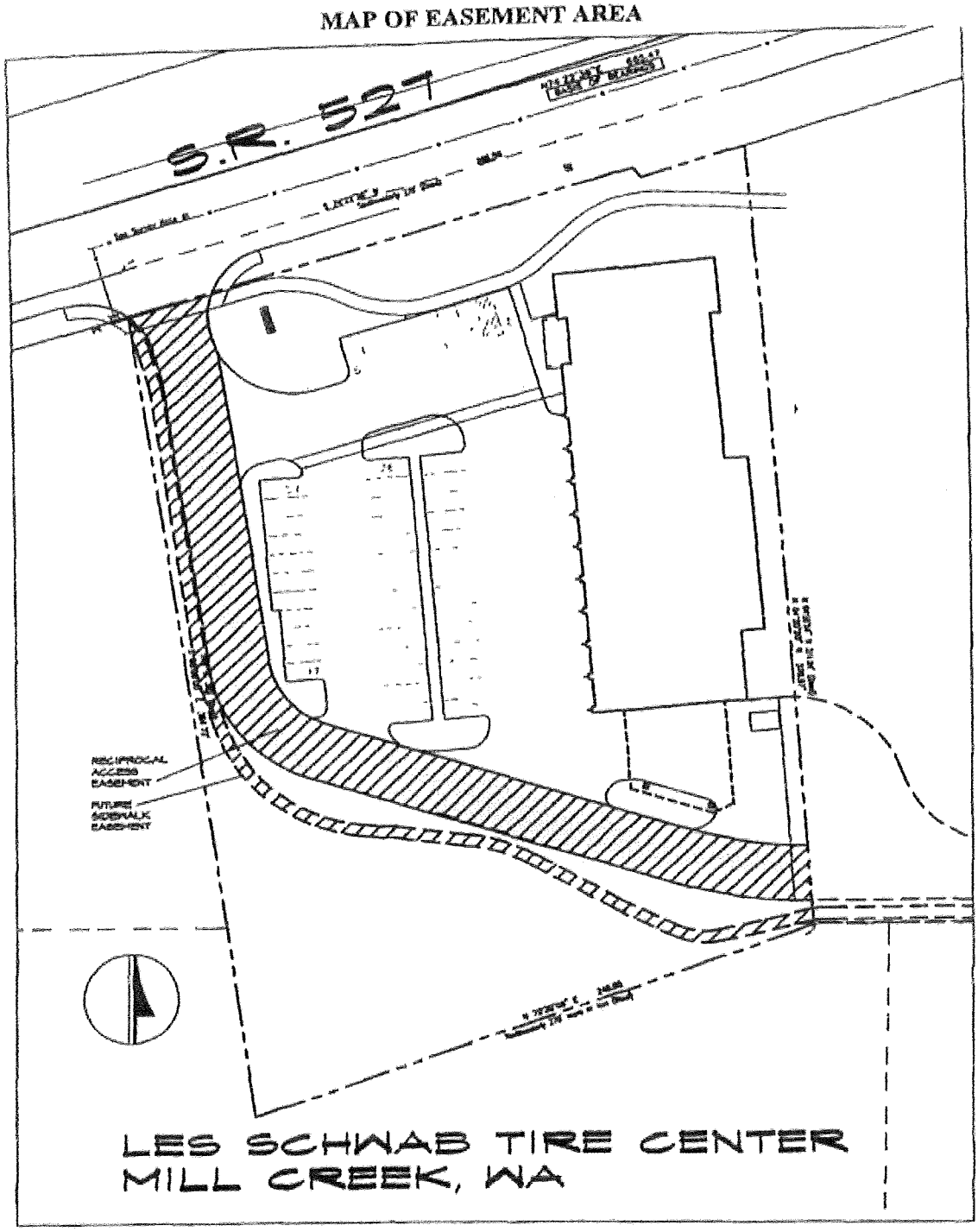
Parcel Number 322805-2-017-0002

Beginning at the Northwest corner of Section 32, Township 28 North, Range 5 East, W M , Thence East 335 feet to the point of beginning, thence continue East 329 66 feet, thence South 680 feet, thence West 343 8 feet, thence North 680 feet to the point of beginning, EXCEPT the Easterly 20 feet thereof for 21st Drive SE ALSO EXCEPT all that portion lying Northerly of the following described line·
BEGINNING at a point 85 feet South of the centerline of 132nd Street SE and 20 feet West of the centerline of 21st Drive SE, thence North 87°46'29" West 10 feet, thence Northwesterly to a point 50 feet South of said centerline of 132nd Street SE and 48.23 feet West of the centerline of 21st Drive SE, Thence North 87°46'29 West to the Westerly boundary of the above-described parcel as conveyed to Snohomish County by Deeds recorded under Recording Nos 219552 and 8403160219 Situate in the County of Snohomish, State of Washington

Parcel Number 322805-2-018-0001

The West 335 feet of the following described Tract as measured parallel to and 335 feet distant from the West section line of Section 32, Township 28 North, Range 5 East, W M >, said Tract being described as follows BEGINNING at the Northwest corner of said Section 32, in Township 28 North, Range 5 East, W M , Thence East 664 66 feet, Thence South 680 feet, Thence West 678 80 feet, Thence North 680 feet to the Point of Beginning, Except the North 30 feet and the West 30 feet thereof, Also except the following described tract Beginning at a point 30 feet South and 30 feet East of the Northwest corner of said Section 32, thence East 220 feet along the South line of County Road; Thence South 100 feet, Thence West 220 feet to the East line of the County Road, Thence North 100 feet along said East line to the Point of Beginning, Also Except the North 20 feet condemned in Snohomish County Superior Court Cause No 84-2-02704-3 **Continued**

EXHIBIT C
MAP OF EASEMENT AREA



NO EXCISE TAX REQUIRED

AUG 11 2000

BOB DANTINI, Snohomish County Treasurer
By BOB DANTINI

Please Return To:

Mary Jo Grimes
Les Schwab Main Office
PO Box 667
Prineville, OR 97754

200008110061
08/11/2000 09:51 AM Snohomish County
P.0008 RECORDED

200008110061

RECORDER'S NOTE.
PORTIONS OF THIS DOCUMENT
ARE POOR QUALITY FOR SCANNING.

WASHINGTON STATE COUNTY AUDITOR/RECORDER/S
INDEXING FORM *(Cover Sheet)*

Document Title(s) (*or transactions contained therein*):
1. IRREVOCABLE OFFER TO GRANT RECIPROCAL ACCESS EASEMENT
2.

Reference Numbers of Documents assigned or released:
on page of document

Grantor(s) (*Last name first, then first name and initials*)
1. SFP-B LIMITED PARTNERSHIP Tax #93-1156602
2. ☒ Additional names on page __ of document

Grantee(s): (*Last name first; then first name and initials*)
1. ADJACENT PROPERTIES
2.
☒ Additional names on page __ of document

Legal Description: (abbreviated form i.e lot, block, plat name, section-township-range)
A portion of the NE 1/4 of the NE 1/4 of Section 31, Township 28 N, Range 5 E, Willamette Meridain, City of Mill Creek, Snohomish County, State of Washington.

☒ Additional legal is included as "Exhibit A"

Assessor's Property Tax Parcel Account Number(s):
APN #312805-1-007-0007 and #312805-1-007-0106

City of Mill Creek Reference:
Project Number PB 99-43 Project Name Les Schwab Tire Centers

The Auditor/Recorder will rely on the information provided on the form. The staff will not read the document to verify the accuracy or completeness of the indexing information provided herein

After Recording Please Return To
Mary Jo Grimes
Les Schwab Main Office
PO Box 667
Prineville, Oregon

IRREVOCABLE OFFER TO GRANT RECIPROCAL ACCESS EASEMENT

This Irrevocable Offer to Grant Reciprocal Access Easement (Offer) is made on this 1st day of August, 2000 by SFP-B Limited Partnership, an Oregon limited partnership (SFP-B)

RECITALS:

A SFP-B owns the real property located at 13223 and 13227 Bothell-Everett Highway and legally described on attached Exhibit A (SFP-B's Property)

B SFP-B desires to grant an irrevocable offer of reciprocal access easement over and across a portion of SFP-B's Property for the benefit of two properties located to the east of SFP-B's Property and legally described on attached Exhibit B (Adjacent Properties) according to the terms and conditions of this Offer

AGREEMENTS:

1 In consideration of a reciprocal access easement over the Adjacent Properties for the benefit of SFP-B's Property, SFP-B hereby offers to grant for the benefit of the Adjacent Properties a perpetual, non-exclusive reciprocal access easement (Easement) over and across that portion of SFP-B's Property shown on attached Exhibit C (Easement Area), for the purpose of pedestrian and vehicular ingress to and egress from SR 527 to the Adjacent Properties by the owners of the Adjacent Properties, their contractors, invitees, permittees, customers, employees, agents, heirs, successors and assigns

2 The Easement is contingent and shall automatically become effective upon the happening of the following events (Effective Date)

a The grant of a reciprocal access over and across the Adjacent Properties for the benefit of SFP-B's Property for the purpose of pedestrian and vehicular access from SFP-B's Property to SR 96 which shall accommodate large vehicle circulation from SFP-B's Property as shown on attached Exhibit C, and

b Construction of a reciprocal access drive over and across the Adjacent Properties

subject to the aforementioned reciprocal access easement, connecting the Easement Area to SR 96

3 The Offer granted hereunder benefits, burdens runs with and is appurtenant to the Adjacent Properties and SFP-B's Property, shall be binding upon the parties' heirs, successors, assigns, tenants and subtenants and is irrevocable

4 The owner(s) of the Adjacent Properties shall indemnify and hold harmless SFP-B from and against any damage to persons or properties caused by said owner(s), their contractors, invitees, permittees, customers, employees and/or agents while using the Easement Area SFP-B shall indemnify and hold harmless the owner(s) of the Adjacent Properties from and against any damage to persons or properties caused by SFP-B, its contractors, invitees, permittees, customers, employees and/or agents while using the Easement Area

5 SFP-B hereby covenants and agrees that SFP-B shall not build or install any structure or other improvement within the Easement Area which interferes with the Offer granted hereunder

6 Upon the Effective Date, SFP-B and the owner(s) of the Adjacent Properties shall be responsible for their pro-rata share of the cost of maintenance and repair of the Easement Area determined according to this paragraph 6 Each party's pro-rata share shall be equal to a fraction, the numerator of which fraction shall be the total square footage of the party's property and the denominator of which fraction shall be the total square footage of SFP-B's Property and the Adjacent Properties combined

7 In the event any legal proceeding is commenced for the purpose of interpreting or enforcing any provision of this Access Easement Agreement, the prevailing party in such proceeding shall be entitled to recover a reasonable attorneys' fee in such proceeding or any appeal thereof, to be set by the court without the necessity of hearing testimony or receiving evidence, in addition to the costs and disbursements allowed by law

DATED this 4th day of August, 2000

SFP-B LIMITED PARTNERSHIP

By: _____
Tom Freedman, President of SSC-B, Inc.,
General Partner

[Notarial Acknowledgment Follows]

STATE OF OREGON)
) ss.
County of Crook)

On this 4th day of August, ~~1999~~ 2000, before me personally appeared **Tom Freedman, President of SSC-B, Inc., General Partner,** and executed the within and foregoing instrument and acknowledged the said instrument to be his free and voluntary act and deed

Mary J. Jones
Notary Public for the State of Oregon
Residing at Prineville, Oregon
My Commission Expires 1-24-2005

Recorder's Note Notorial Seal Not Affixed

20000811006

EXHIBIT A
LEGAL DESCRIPTION OF SFP-B'S PROPERTY

BEGINNING AT THE NORTHEAST CORNER OF SECTION 31, TOWNSHIP 28 NORTH, RANGE 5 EAST, W.M., IN SNOHOMISH COUNTY, WASHINGTON;
THENCE SOUTH 0°54' WEST ALONG THE EAST LINE OF SAID SECTION 31 FOR A DISTANCE OF 560 FEET;
THENCE SOUTH 89°58" WEST PARALLEL TO THE SOUTH BOUNDARY OF SECTION 31 A DISTANCE OF 330 FEET TO THE TRUE POINT OF BEGINNING;
THENCE NORTH 04°58'54" WEST FOR A DISTANCE OF 371.04 FEET TO THE SOUTH BOUNDARY OF STATE HIGHWAY NO. 2, ALSO KNOWN AS SR 527;
THENCE SOUTHWESTERLY ALONG SAID HIGHWAY A DISTANCE OF 270 FEET;
THENCE SOUTH 8° EAST A DISTANCE OF 385 FEET;
THENCE NORTHEASTERLY A DISTANCE OF 270 FEET, MORE OR LESS, TO THE TRUE POINT OF BEGINNING.

EXHIBIT B
LEGAL DESCRIPTION OF ADJACENT PROPERTIES

Parcel Number 312805-1-004-0000

All that portion of the Northeast quarter of the Northeast quarter of Section 31, Township 28 North, Range 5 East, W M , described as follows

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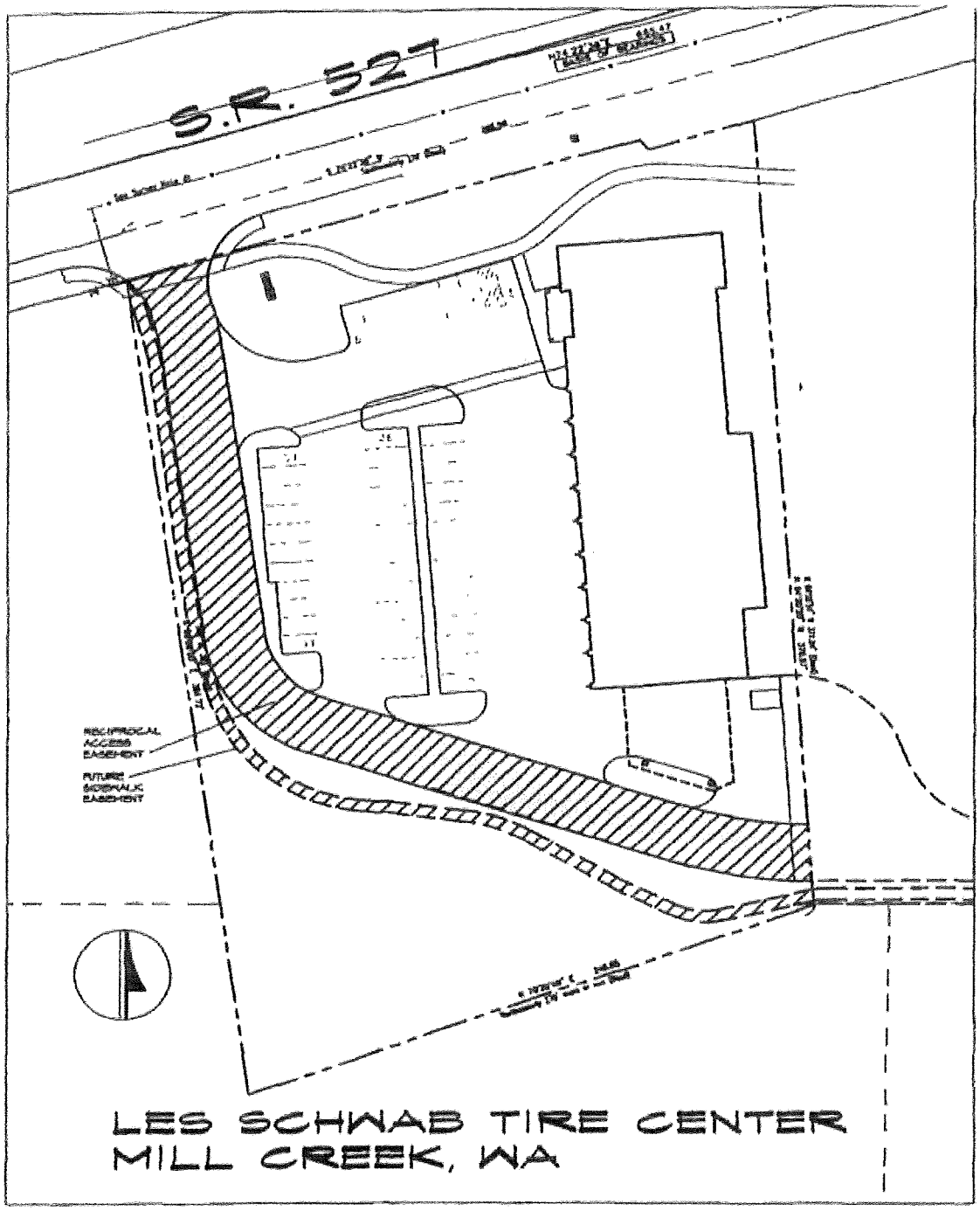

Snohomish County
FIRE DISTRICT 7
Earning Trust Through Action

September 14, 2018

Christi Amrine
City of Mill Creek
Via email: christia@cityofmillcreek.com

Re: Muttley Square BSP – PL2018-0017 – 13200 Bothell Everett Hwy

Christi –

I have reviewed the available documents available on the city's website for this proposed project. Based upon my understanding of the material presented, I have the following comments.

1. The completion of "future access road as shown on Lowe's binding site plan" north of Tract 996 shall be required as a permit condition. Adequate easements must be in place to allow for access from both the Bothell Everett Hwy side and the 132nd St SE side.

2. The site, as proposed, requires a fire apparatus turnaround because of the dead end road created at the wheel stops adjacent to the "future access road."

3. Consideration should be given to determine whether a 20' drive aisle provides adequate turning radii for parked vehicles to back out of parking spaces.

4. The proposed fire apparatus access roadway width is adequate for fire apparatus access.

5. A fire hydrant providing the required volume of fire flow (minimum of 1500gpm) is required at an approved location along the access roadway.

6. A Knox Key Switch or padlock is required for the gate, which must open fully to provide a minimum of 20' clearance.

7. A separate permit is required during the civil process for a gate or barricade.

Yours in public service,

Michael Fitzgerald
Deputy Fire Chief

Silver Lake Water & Sewer District

September 14, 2018

Christi Amrine, Senior Planner
City of Mill Creek
15720 Main Street
Mill Creek, WA 98012

Subject: Request for TRC Comments to proposed TPN 280531-001-004-00 for Doggie Day Care AKA Muttley Square

Dear Christi,

The referenced proposed project agent for the developer has requested the Silver Lake Water and Sewer District (SLWSD) provide a letter for consideration by the Technical Review Committee (TRC) describing the availability of water and sewer service to their project site. SLWSD has water and sewer facilities adjacent to the proposed project site. Construction and or easement requirements for mainline extension or service connection installations will be evaluated when the request for service is made to the District.

The preliminary drawings attached to your notice of TRC meeting showed a water main extension from Lowes. This will require offsite easement acquisition. Additional easements may be required depending on the hydrant spacing and fire sprinkler system requirements you might identify when the project is evaluated.

Our facilities have the capacity to provide water and sewer service. Connections would be conditioned on full compliance with all District Standards, Specifications and Requirements.

Sincerely,

Richard Q. Gilmore, P.E,
District Engineer
425-337-3647

Electronically transmitted, no hard copy mailed.

SNOHOMISH COUNTY PUD
PUBLIC UTILITY DISTRICT NO. 1

Providing quality water, power and service at a competitive price that our customers value

September 25, 2018

Sherrie Ringstad
City of Mill Creek
15728 Mill Creek Boulevard
Mill Creek, WA 98012

Dear Ms. Ringstad:

Reference No.: PLN2018 0017 Muttley Square Binding Site Plat

District DR Number: 18-169

The District presently has sufficient electric system capacity to serve the proposed development. However, the existing District facilities in the local area may require upgrading. The developer is required to supply the District with suitable locations/easements on all parcels where electrical facilities must be installed to serve the proposed development. It is unlikely that easements will be granted on District-owned property, or consents granted within District transmission line corridors. Existing PUD facilities may need relocations or modifications at the developer's expense. Any relocation, alteration or removal of District facilities to accommodate this project shall be at the expense of the project developer, and must be coordinated with the PUD in advance of final design. Please include any utility work in all applicable permits.

The project is adjacent to a PUD substation property. Please coordinate with the PUD's Facilities department regard to property line vegetation. The project design must also ensure there is no runoff onto the substation property.

Cost of any work, new or upgrade, to existing facilities that is required to connect this proposed development to the District electric system shall be in accordance with the applicable District policy. The developer will be required to supply the District with suitable locations/easements upon its property for any electrical facilities that must be installed to serve the proposed development.

Please contact the District prior to design of the proposed project. For information about specific electric service requirements, please call the District's Everett office at 425-783-8272 to contact a Customer Engineer.

Sincerely,

Jason Zyskowski

Jason Zyskowski
Senior Manager
Planning, Engineering, & Technical Services