CITY OF PUYALLUP

Development Services Center
333 S. Meridian, Puyallup, WA 98371
(253) 864-4165 | Fax (253) 840-6678
www.cityofpuyallup.org

SEPTIC SYSTEM LOCATION APPROVAL

12/1/2020

RE: Septic system approval for 409 43RD Ave SW, Puyallup WA 98373

Permit #: P-19-0061

The planning division has approved the location of your septic system as depicted in Attachment A. Due to its location near a wetland buffer, mitigation of any impacts to the wetland will be required if they do occur as a result of constructing this septic system.

Best Regards,

Rachael Brown

Rachael Brown
Assistant Planner
City of Puyallup

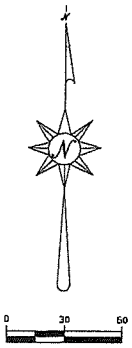
Attachments:

A. Wetland Site Map

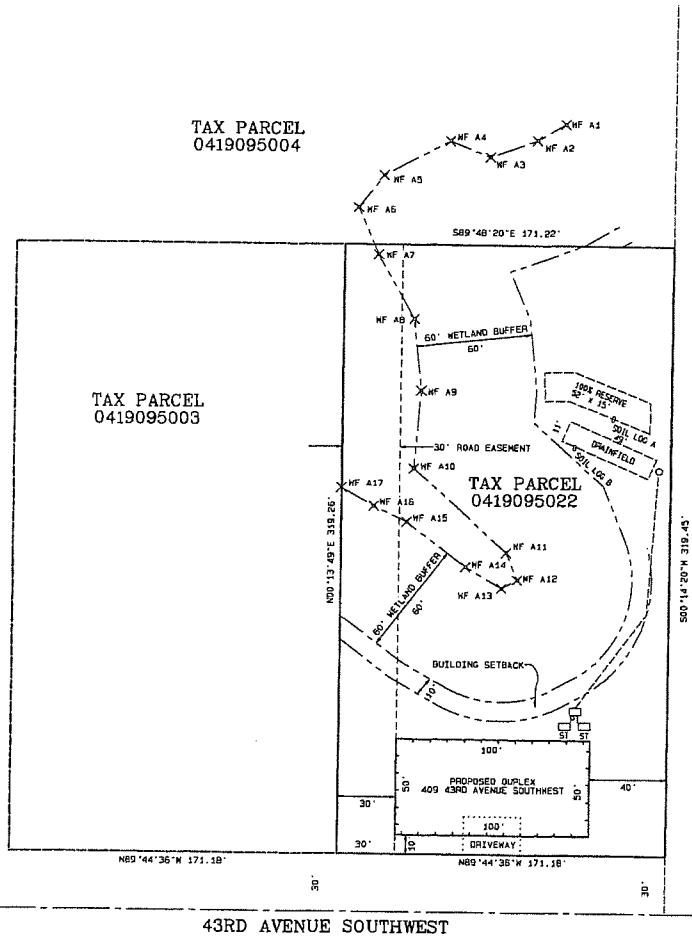
Attachment A

SITE EXHIBIT

A PORTION OF THE NE 1/4 OF THE NE 1/4 OF SECTION 9, TOWNSHIP 19 N., RANGE 4 E., W.M.
PIERCE COUNTY, WASHINGTON



SCALE:
1" = 30'



VERTICAL DATUM:

NORTH AMERICAN VERTICAL DATUM OF 1988 (NAVD 88)

BENCHMARKS:

BASE:
PIERCE COUNTY BENCHMARK NO.21 037 (SPSN-0137) (NGS DL2772)
FOUND NGS, THE MARK IS AN N.G.S. CLASS A MARK (STAINLESS STEEL ROD IN AN ALUMINUM CASE WITH LID.
ELEVATION: 448.08 FEET.

BASIS OF BEARING:

GEODETIC NORTH. BASED UPON GLOBAL POSITIONING SYSTEM (GPS) LAMBERT GRID WASHINGTON STATE NORTH ZONE COORDINATES. A CONVERGENCE ANGLE OF 01°18'08.74" COUNTERCLOCKWISE WAS APPLIED AT A BRASS PIN IN CONCRETE, INCASED, LOCATED AT THE INTERSECTION OF MERIDIAN AVENUE EAST AND 47TH AVENUE SE. THE MONUMENT IS THE EAST QUARTER CORNER OF SECTION 9, TOWNSHIP 19 NORTH, RANGE 4 EAST OF THE W.M. THE NORTH AMERICAN DATUM OF 1983/1991 (NAD 83/91) GRID COORDINATES WERE FOUND TO BE 666644.065 / 1194302.130 AT THAT POINT. THE INVERSE OF BOTH THE SEA LEVEL CORRECTION FACTOR OF 0.999981618 AND THE GRID SCALE FACTOR OF 0.999982785 WAS APPLIED TO THE GRID COORDINATES FOR SHOWN GROUND DISTANCES.

SURVEYOR'S NOTES:

1) THE MONUMENT CONTROL SHOWN FOR THIS SITE WAS ACCOMPLISHED BY FIELD TRAVERSE UTILIZING A ONE (1) SECOND THEODOLITE WITH INTEGRAL ELECTRONIC DISTANCE MEASURING METER (GEODIMETER 600) AND REAL TIME KINEMATIC (RTK) / STATIC GLOBAL POSITIONING SYSTEM (GPS). LINEAR AND ANGULAR CLOSURE OF THE TRAVERSES MEET THE STANDARDS OF WAC 332-130-090.

2) LOCATIONS OF UNDERGROUND UTILITIES SHOWN HEREON ARE BASED UPON FIELD MEASUREMENT.

3) THIS SURVEY REPRESENTS PHYSICAL IMPROVEMENT CONDITIONS AS THEY EXISTED JULY 28, 2020, THE DATE OF THIS FIELD SURVEY. SURVEY DURING THE COURSE OF THE SURVEY EARTHWORK WAS BEING CONDUCTED ON-SITE AND THE TOPOGRAPHY WAS CHANGING.

4) THIS IS SURVEY WAS MADE WITHOUT THE BENEFIT OF A TITLE REPORT. NO ADDITIONAL RESEARCH HAS BEEN ATTEMPTED.

5) IT IS NOT THE INTENT OF THIS SURVEY TO SHOW EASEMENTS OR RESERVATIONS WHICH MAY EFFECT THIS SITE.

6) THE PURPOSE OF THIS SURVEY IS TO PROVIDE EXISTING CONDITIONS FOR ENGINEERING DESIGN.

7) CONTOURS SHOWN WERE DERIVED FROM THE DIRECT FIELD MEASUREMENTS SHOWN HEREON.

8) CONTOURS SHOWN HEREON ARE TO NATIONAL MAPPING STANDARDS, ONE HALF CONTOUR INTERVAL.

9) THERE ARE NO DIRECT LIMITATIONS OF USE PER WAC 332-130-145 20.

10) BOUNDARY INFORMATION SHOWN HEREON IS FROM A PRIOR BOUNDARY SURVEY OF THE PARCEL.

11) UTILITIES THAT WERE VISIBLE DURING THE COURSE OF THIS SURVEY ARE SHOWN AND REFLECT THEIR FIELD MEASUREMENT.

12) THE INTENT OF THIS SURVEY WAS TO LOCATE VISIBLE UTILITIES, STRUCTURES, CONTOURS, SPOT ELEVATIONS AND DESIGN FEATURES IN THE AREA OF THE REQUESTED SURVEY. BEYOND WHAT WAS VISIBLE ON-SITE, NO ATTEMPT WAS MADE TO LOCATE UNDERGROUND UTILITIES.

LEGEND:
WF = WETLAND FLAG

NORMAN E. LARSON — STATE OF WASHINGTON — 22338 — REGISTERED PROFESSIONAL LAND SURVEYOR

CENTRE POINTE Civil Engineering, Surveying, Planning, P.S.
14205 29th Street East, #100 - Sumner, WA 98390
253-987-5924 main 253-987-7959 fax

DRAWN BY: D WOODS	CHECKED BY: N LARSON
DATE: AUG. 21, 2020	JOB NAME: EXHIBIT
SCALE: 1" = 30'	JOB NO.: 3999

GRID DATA: NE-NE 9, T19N., R4E., W.M.

SURVEY FOR:
DAVID ARTZ
7917 110th STREET NORTHWEST
GIG HARBOR, WA 98330

PIERCE COUNTY, WASHINGTON

SHEET 1 OF 1

Innovative GEO-Services, LLC
17903 82nd ST E, Bonney Lake, WA 98391
253-279-4205 c rex@enggeologist.com

January 29, 2020

DAVID ARTZ
4807 51ST STCT E
TACOMA, WA 98443
253 307-1002

Artz Site and Soil Evaluation
Parcel No. 0419095003, 5004 & 5022
Site Address 409, 427 and 433 43rd AV SW
Site Observations January 20, 2020

Introduction

It is the intent of this letter to presence site and soil characteristics with regard to potential critical areas which may exist on the above-mentioned property. Site conditions and evaluation are required to support on-site septic designs prepared for two of the three parcels. Site observations, subsurface soil observations and research conducted for the three lots and specifically the two southern parcels found no critical areas as defined by the City of Puyallup ordinance. The soil and site conditions are considered consistent with the development proposed.

Project Description

A landslide hazard report is necessary to satisfy the City of Puyallup's Municipal Code requirements relating to building activities in the area of qualifying slopes. Specifically, the applicant intends to complete a remodel and deck addition on an existing single-family home which is located near slopes meeting the criteria for report submission. We understand that these improvements are planned on the nearly level portion of the site, although all slopes will be evaluated relative to the City's ordinance.

Per Puyallup Municipal Code 21.06.1210(3)(ii); a geotechnical report is required if all three of the following characteristics are met:

A. Slopes steeper than 15%

B. Hillsides intersecting geologic contacts with a relatively permeable sediment overlying a relatively impermeable sediment or bedrock; and

C. Springs or groundwater seepage

As part of this assessment we made observations of adjacent slopes for the presence of landslide hazard indicators. We also reviewed available published soil and geological records, aerial photography, topographical maps, and LiDAR terrain maps to help gain an understanding of the area morphology and establish an opinion on slope morphology and stability.

Information Sources

The regulatory standard for this assessment is outlined in the City of Puyallup Municipal Code, Chapter 21.06.1210-70. Soil identification and mapping for this assessment is supported by information from the Natural Resource Conservation Service (the Survey), and on-site soil evaluation performed during the wastewater system design phase as documented in the Tacoma-Pierce County Health Department records. Geologic information for this assessment is supported by information from the United States Geological Survey (USGS) *Draft* Geologic Map Geologic Map of the Puyallup 7.5 Minute Quadrangle. Our understanding of slope morphology is supported by the review of published topographic and relief map layers from the Pierce County Geographical Information System (GIS). Our slope stability opinions

are based on our interpretation of the cumulative information and the contemporary conditions of the geologic setting.

Published Information Accuracy

It should be noted that the Survey, the USGS and/or DNR geologic maps, and the Pierce County GIS define general areas of soil deposits, geology, and landforms. Given the large areas to identify and limited sample points, the authors of the above sources had to infer boundaries, contacts, and other representations in some areas. Only through on site reconnaissance can we further detail and adjust information from the maps as they relate to each site. They are not (from our experience) accurate on a lot by lot basis in all cases. In this case, the Survey, the DNR unit identification, and the published soil logs are generally in concurrence.

Site Description

General

The project involves of three parcels located north of 43rd AV SW (116th ST E) between 4th ST PL SW and 98th AV E on South Hill, Puyallup. The two southern lots are currently being developed; the northern lot will not be developed at this time. The two southern parcels are 54,450 sf each (1.25 ac.) and the northern parcel is 109,336 sf (2.51 ac). The vacant land is covered with berry vines and a few hardwood and conifer trees. Topographically the surface of the three lots is best described as nearly level with a rolling surface descending gently to the northeast and northwest. There are isolated areas with short moderate slopes with grades measured in the field of less than 5%.

Development plans involve the southern portion of the two southern lots for residential housing. The development will be supported by on-site septic systems designed for the type of structure and soil textures, municipal water and on-site storm water control.

Soil

As discussed in the 'Published Information Accuracy' section above, on-site reconnaissance is necessary to verify soil conditions on specific properties. The NRCS identifies the soil on the two southern lots as Everett gravelly sandy loam (13B) In this case; test pits excavated north and east of the proposed structure as a portion of the wastewater permitting phase confirmed soil typical of Everett gravelly sandy loamy.

Everett 13B – Everett gravelly sandy loam, 0 – 6 percent slopes

This rolling soil is somewhat excessively drained. It formed in gravelly glacial outwash under conifers. The typical elevation range for this soil is from 200 to 700 feet. Included with this soil in mapping are about eight percent Alderwood soils. Also included are some areas that are as much as five percent sandy Indianola soils and ten percent gravelly Neilton soils and less sloping Everett soils. In a typical profile the surface layer is very dark brown gravelly sandy loam about two inches thick. The subsoil, between depths of two and 19 inches, is dark yellowish brown gravelly sandy loam and dark brown very gravelly coarse sandy loam. The substratum, between depths of 19 and more than 60 inches, is clean, loose very gravelly sand.

Permeability is rapid. The available water capacity is low. Surface runoff is slow, and the erosion hazard is low. The effective rooting depth is more than four feet.

This nearly level to undulating soil is somewhat excessively drained. It formed in gravelly glacial outwash under conifers. Elevation ranges from 200 to 700 feet. The annual precipitation is 35 to 45 inches, and the mean annual air temperature is about 50 degrees F. The frost-free season is about 180 days. Most areas of this soil are gently sloping, but some places are broken by steep slopes 15 to 70 feet long.

Included with this soil in mapping are ten percent Neilton gravelly loamy sand and less than 10 percent Alderwood and sandy Indianola soils.

In a typical profile the surface layer is very dark brown gravelly sandy loam about two inches thick. The subsoil, between depths of two and 19 inches, is dark yellowish brown gravelly sandy loam and dark brown very gravelly coarse sandy loam. The substratum, between depths of 10 and more than 60 inches, is clean loose very gravelly sand. Reaction is medium acid.

Permeability is rapid. The available water capacity is low. Surface runoff is slow, and there is little or no erosion hazard. The effective rooting depth is more than four feet.

Large areas of this soil are under native vegetation, but they are being rapidly urbanized. This soil is among the least desirable in the area for farming, but it is one of the most desirable for and home sites and as a source of gravel for construction purposes. There are no limitations for urban development. However, septic waste from drain fields endanger ground water supplies because the soil is rapidly permeable.

NRCS Soil Map

Map Unit Legend

Map Unit Symbol	Map Unit Name	Acres in AOI	Percent of AOI
13B	Everett very gravelly sandy loam, 0 to 6 percent slopes	49.2	67.6%
13C	Everett very gravelly sandy loam, 6 to 15 percent slopes	16.3	22.3%
26A	Norma fine sandy loam	6.7	9.2%
W	Water	0.8	1.0%
Totals for Area of Interest		72.9	100.0%

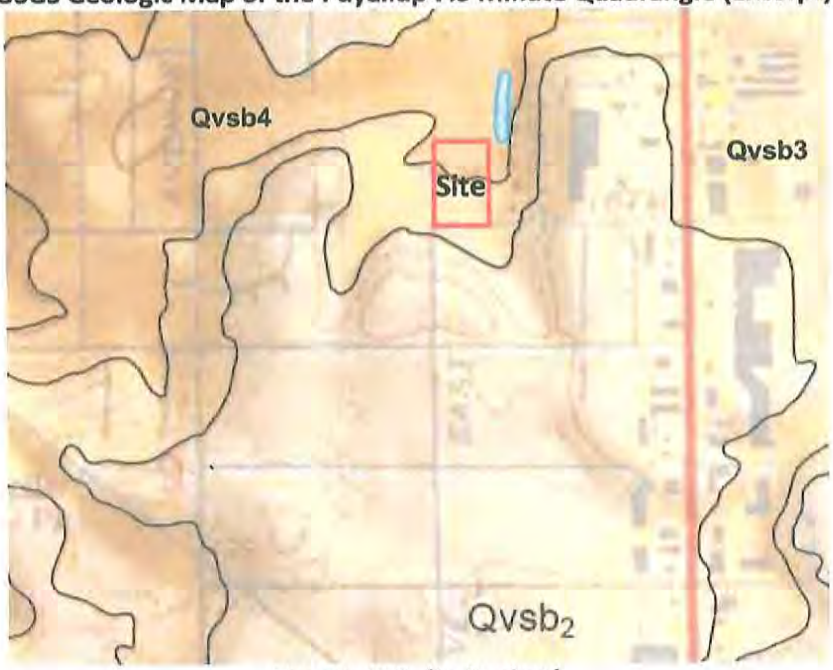
Geology

According to the USGS *Draft* Geologic Map of the Puyallup 7.5 Minute Quadrangle in Figure 2 below: this plateau region was formed by the gradual emplacement glacial drift stratigraphy; followed by the erosion of the previously emplaced glacial drift deposits by channelized glacial meltwater incision along the west side, and by ice lobe truncation within the Puyallup valley. The map shows that the slope section dipping to the northeast provides a depositional record of the pre-vashon mixed fine and coarse deposits, overlain by the Vashon advance outwash, overlain by the Vashon till, and finally overlain by the Vashon recessional outwash. The slope face represents the location where the much larger glacier within the valley truncated the slope face thus exposing a stratigraphic record of deposits. Figure 2 illustrates the site's position relative to the geology.

Hydrology

The NRCS along with soil logs prepared from the Tacoma-Pierce County Health Department (TPCHD) on-site septic system design documented the soil profiles as medium sand with gravel (ie: Everett 13B). These well drained soils existing on a rolling plain would suggest any precipitation entering the area can readily evacuate given the slope and high soil permeability. Isolated areas of surface perched water were observed across the northwest corner of the western lot. We do not see the conditions existing where large scale ground water buildup (and thus de-stabilizing pore pressure) can occur.

USGS Geologic Map of the Puyallup 7.5 Minute Quadrangle (Excerpt)



Troost, K.G. (In Review)

Qvs Steilacoom Gravel of Walters and Kimmel (1968)—Sandy gravel and cobbles; clean to silty; poorly to well sorted; horizontally to cross bedded; loose to dense. Deposits vary from veneer of 1 to 15 m (3 to ~ 50 ft) thick. Deposited by multiple outburst floods from subsequently lower elevations of Glacial Lake Puyallup. Locally subdivided first by channel affiliation (Clover Creek or Bradley) and secondarily by relative age in descending series of deposits; higher number denotes younger (lower) deposit. Clover Creek channel (Bretz, 1913) begins in section 8, T19N, R4E. Bradley channel; herein named for Lake Bradley in section 3, T19N, R4E; begins in section 2, T19N, R4E. Numbering system contiguous w/adjacent Tacoma South quadrangle where multiple Clover Creek deposits are mapped (Troost, 2006). Mapable deposits consist of:

Qvs_{cc1}	Clover Creek deposit at elevation ~380 ft
Qvs_{b4}	Bradley deposit at elevation ~400 ft
Qvs_{b3}	Bradley deposit at elevation 420 – 440 ft
Qvs_{b2}	Bradley deposit at elevation 440 – 460 ft
Qvs_{b1}	Bradley deposit at elevation 460 – 480 ft

Critical Area Review

On January 24th, 2020, site observations were made for the presence of indicators associated with landforms susceptible or undergoing mass movement due to a combination of geologic, seismic, topographic, hydrologic, or man-made factors. Per the ***City of Puyallup Chapter 21.06 – "Critical Areas" (and specifically Section 21.06.1210);***

Geologically hazardous areas shall be classified as follows:

(a) Landslide and erosion hazard areas are areas of potential slope instability. Erosion hazard areas include those identified by the U.S. Department of Agriculture Natural Resources Conservation Service as having a moderate to severe, severe, or very severe erosion hazard because of natural characteristics, including vegetative cover, soil texture, slope, gradient, and

rainfall patterns, or human-induced changes to natural characteristics. Landslide and erosion hazard areas include areas with the following characteristics:

(i) Areas that have shown mass movement during the Holocene epoch (from 10,000 years ago to the present) or that are underlain or covered by mass wastage debris of that epoch;

(ii) Slopes that are parallel or subparallel to planes of weakness (such as bedding planes, joint systems, and fault planes) in subsurface materials;

(iii) Slopes having gradients steeper than 80 percent subject to rock fall during seismic shaking;

(iv) Areas potentially unstable because of stream incision or stream bank erosion;

(v) Areas located in a canyon, ravine, or on an active alluvial fan, presently or potentially subject to inundation by debris flows or flooding;

(vi) Any area with a slope of 40 percent or steeper and a vertical relief of 10 or more feet, except areas composed of consolidated rock and properly engineered manmade slopes/retained fill. A slope is delineated by establishing its toe and top and measured by averaging the inclination over at least 10 feet of vertical relief;

(vii) Areas with a severe limitation for building development because of slope conditions, according to the Natural Resource Conservations Service; and

(viii) Areas meeting all three of the following criteria: (A) slopes steeper than 15 percent, except that slopes of less than 15 percent may be considered erosion hazard areas if they have certain unstable soil and drainage characteristics; (B) hillsides intersecting geologic contacts with a relatively permeable sediment overlying a relatively impermeable sediment or bedrock; and (C) wet season springs or ground water seepage.

Findings and Conclusions

In addition to the list of indicators above (i through viii), we reviewed published geologic maps, topographic maps, shaded relief maps, and aerial photography to form an opinion on slope morphology. We did not observe any of the potential landslide hazard indicators from the list above, nor does the landform show the classic, morphologic signatures associated with mass movement. This would be expected given that the angle of repose (the maximum angle at which a material is stable) has not been exceeded per our measurements.

Based on our observations and review of the published geology, soils, and topography, it is our opinion areas proposed for application of the on-site septic systems are stable landforms resulting from the depositional mechanisms contemporary with glacial meltwater. In our opinion, the slopes appear to be globally stable and not at risk for mass movement. The application of the on-site waste water will be

designed in accordance with state and local design criteria based on the soil textures and application rate for the soil characteristics. The proposed drainfield areas are consistent with the design criteria and will not create an unstable condition.

Closure

The conclusions and recommendations presented in this letter are based, in part, on our interpretations and assumptions regarding subsurface conditions; therefore, if variations in the site conditions are observed at a later time, we may need to modify this letter to reflect those changes. We appreciate the opportunity to be of service on this project. If you have any questions regarding this letter or any aspects of the project, please feel free to contact our office.

Respectfully submitted,

Innovative GEO-Services, LLC

1/30/2020

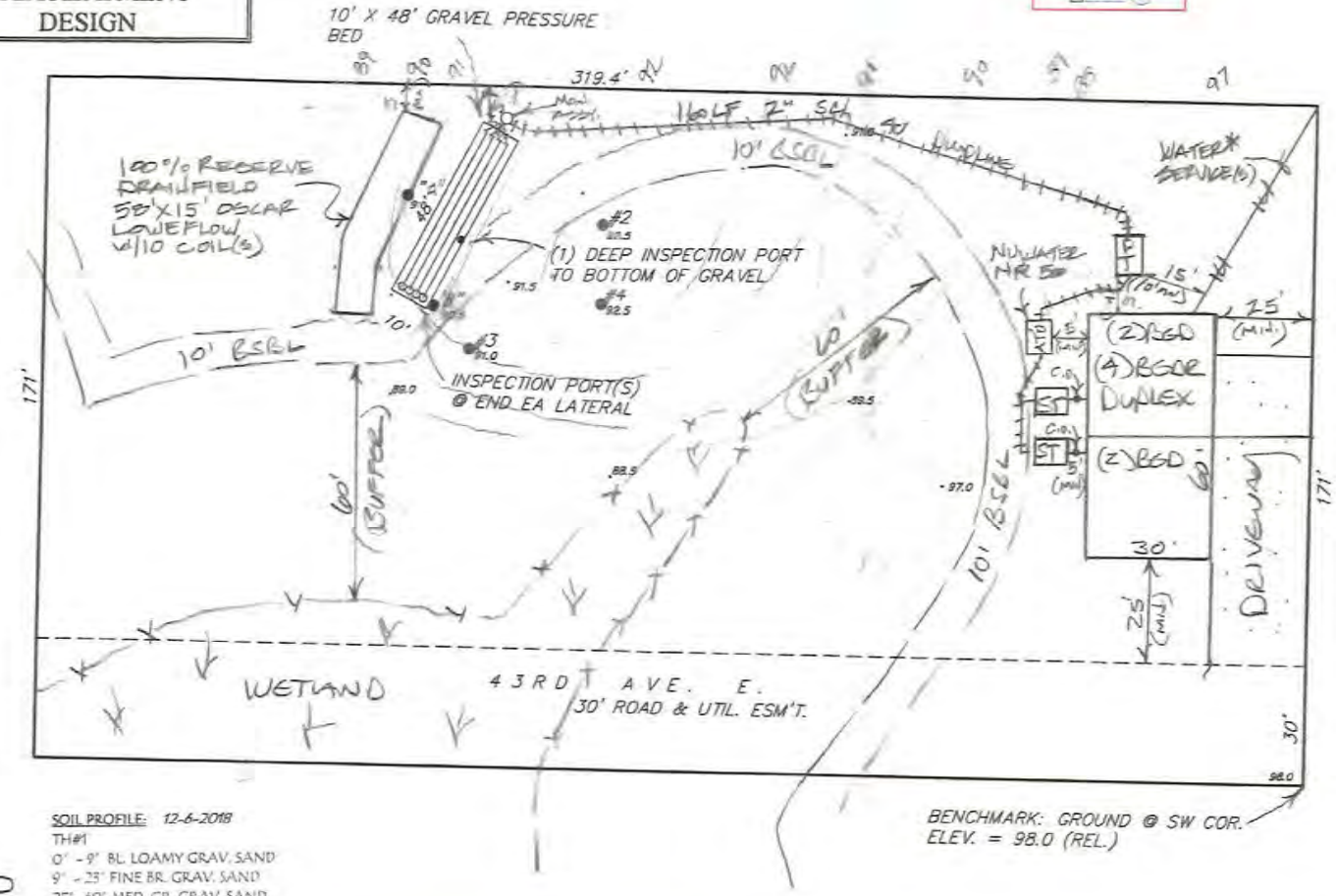
REX B. HUMPHREY

Rex Humphrey, L.E.G.
Engineering Geologist

409
43rd Ave SW.

PRETREATMENT DESIGN

Received
01/13/2021



INVERT ELEVATIONS

FIN. FL.	=	97.0
STUB OUT	=	94.5
SEPTIC IN	=	94.25
OUT	=	94.0
ATU IN	=	93.75
PUMP IN	=	93.5
LAT. IE	=	90.25

ALL TANKS MUST HAVE RISERS TO FINISH GRADE

NOTE: FOOTING DRAINS INSTALLED MUST BE USED IN CONJUNCTION WITH INFILTRATION TRENCHES AND MUST MAINTAIN A 10FT. (MIN.) SETBACK FROM ALL DRAINFIELD COMPONENTS.
NOTE: ROOF TOP DRAINS INSTALLED, MUST EITHER DAYLIGHT INTO THE STREET OR MUST BE USED IN CONJUNCTION WITH AN INFILTRATION TRENCH, MAINTAINING 10FT. (MIN.) SETBACKS FROM ALL DRAINFIELD COMPONENTS.

NOTE TO HOMEOWNER, BUILDER, OR DEVELOPER:
* CLEARING IN THE DRAINFIELD AREA TO BE DONE UNDER THE SUPERVISION OF THE INSTALLER.
* MINIMUM HOME SETBACKS TO BE VERIFIED BY THE BUILDING DEPARTMENT. WE ASSUME NO LIABILITY IF GREATER SETBACKS ARE REQUIRED

THIS DESIGN IS NOT A SURVEY:
ALL PROPERTY LINES AND DIMENSIONS, AS SHOWN ARE FROM INFORMATION SUPPLIED BY THE CLIENT OR COUNTY OFFICE. WE ASSUME NO LIABILITY FOR VARIATIONS ASCERTAINED BY ACTUAL OR MORE RECENT SURVEYS.

* **WATER SERVICE**- KEEP 10' (MIN.) FROM ALL DRAINFIELD TRENCHES AND SEPTIC TANKS AND PIPES OR ENCASE WITH SCH 40 PIPE. ALSO PROVIDE CRUSH PROOF SLEEVE UNDER DRIVING SURFCES.
* ——W——W——W——W—

PROVIDE TEST ORIFICES @ END OF EACH LATERAL FACING UP (ALL ORIFICES TO BE FACING UP). SYSTEM TO BE TESTED PRIOR TO FINAL SIGN-OFF OF THE INSTALLATION.

SOIL PROFILE: 12-6-2018
TH#1
0' - 9" BL. LOAMY GRAV. SAND
9" - 25" FINE BR. GRAV. SAND
25" - 60" MED. GR. GRAV. SAND
9-24-2020
TH "A"
0" - 25" BR. SANDY & COBBLES
25" - 65" MED. GR. SAND & COBBLES
TH "B"
0" - 24" BR. SAND & COBBLES
24" - 60" MED. GR. SAND & COBBLES

PLAN 1"=30'

0 15 30 60 90

On-Site Sewage
Approved for Permit Release
Kristen Farley, RS
01/20/2021
Tacoma-Pierce County Health Department

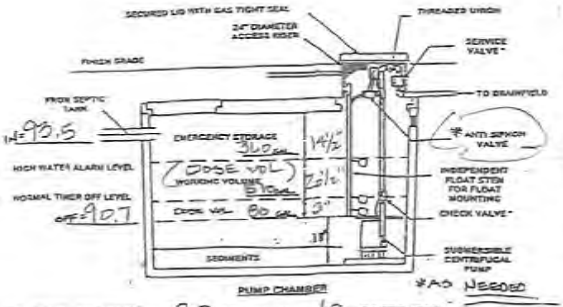
Sandra R. Smith
EXPIRES 11-27-2022

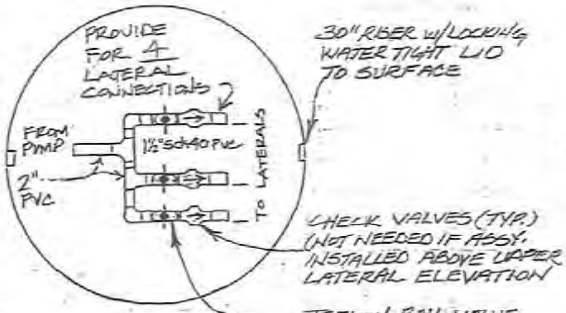
LAT 1 @ 2 OF 3@ 79.857 COMP = 0

CLIENT: DAVID ARTZ (253) 307-1022
4807 51ST ST. CT. E.
TACOMA, WA. 98443
SITE ADDRESS: 409 - 43RD AVE SW **DATE:** 1-7-19
PARCEL NO.: 04-19-09-5-022 **REV. DATE:** 1-13-21

PENINSULA SEPTIC DESIGNS
SANDRA R. SMITH
P.O. BOX 1444, GIG HARBOR WA 98335 PH#(253) 851-2178

ARTZ #8021-1 PG 1 OF 3

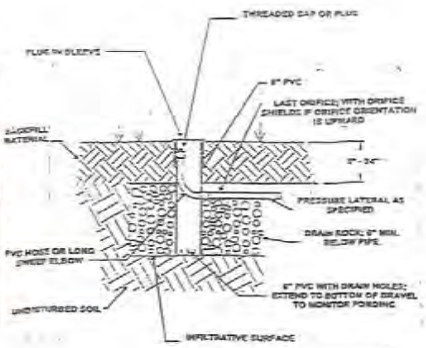




MANIFOLD ASSY. DETAIL
N.T.S.

LAT.#	SPACING	#3/16" ORIFICES/ LATERAL	LAT. LENGTH	LAT. DISC.
1-4	2'	23	44'	15.18

ORIFICES TO FACE @ 3 O'CLOCK POSITION
TO DRAIN BETWEEN DOSES



ACCESS PORT DETAIL (TYPE INSTALLED)

* DOSE VOLUME: 80 GAL. FOR 6 DOSES/DAY.

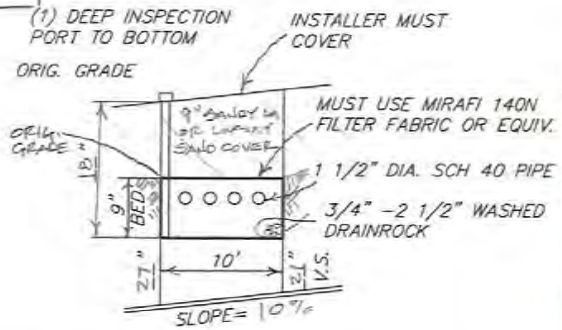
* DO NOT INSTALL TANKS IN RESERVE AREA.

* TANK(S) MUST BE WATERTIGHT TO A LEVEL ABOVE ANY POSSIBLE SEASONAL GROUND WATER. (LEAK TEST MAY BE REQ'D.)

TIMED DOSING

TIMER SPECIFICATIONS: INTENT TO PROVIDE 80 GAL./DOSE @ 4HR. INTERVALS.
TIMER MUST BE ADJUSTED TO PROVIDE A 80 GAL. DOSE BASED ON ACTUAL DRAW DOWN TEST (See example below).
EXAMPLE DRAWDOWN: 3" per. MIN. = 56.2 GPM (based @ 19.4 gal/inch).
120 GAL. DOSE / 58.2 GPM =
2.06 MIN. TIME SETTING.

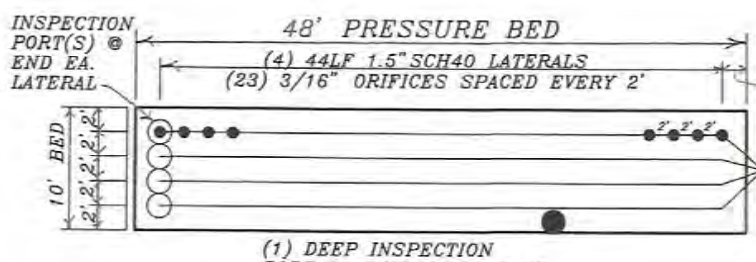
USE RHOMBUS IFS PANEL



REFER TO Pg 3 FOR ADD'L DET.

Received

On-Site Sewage
Approved for Permit Release
Kristen Farley, RS
01/20/2021
Tacoma Pierce County Health Department

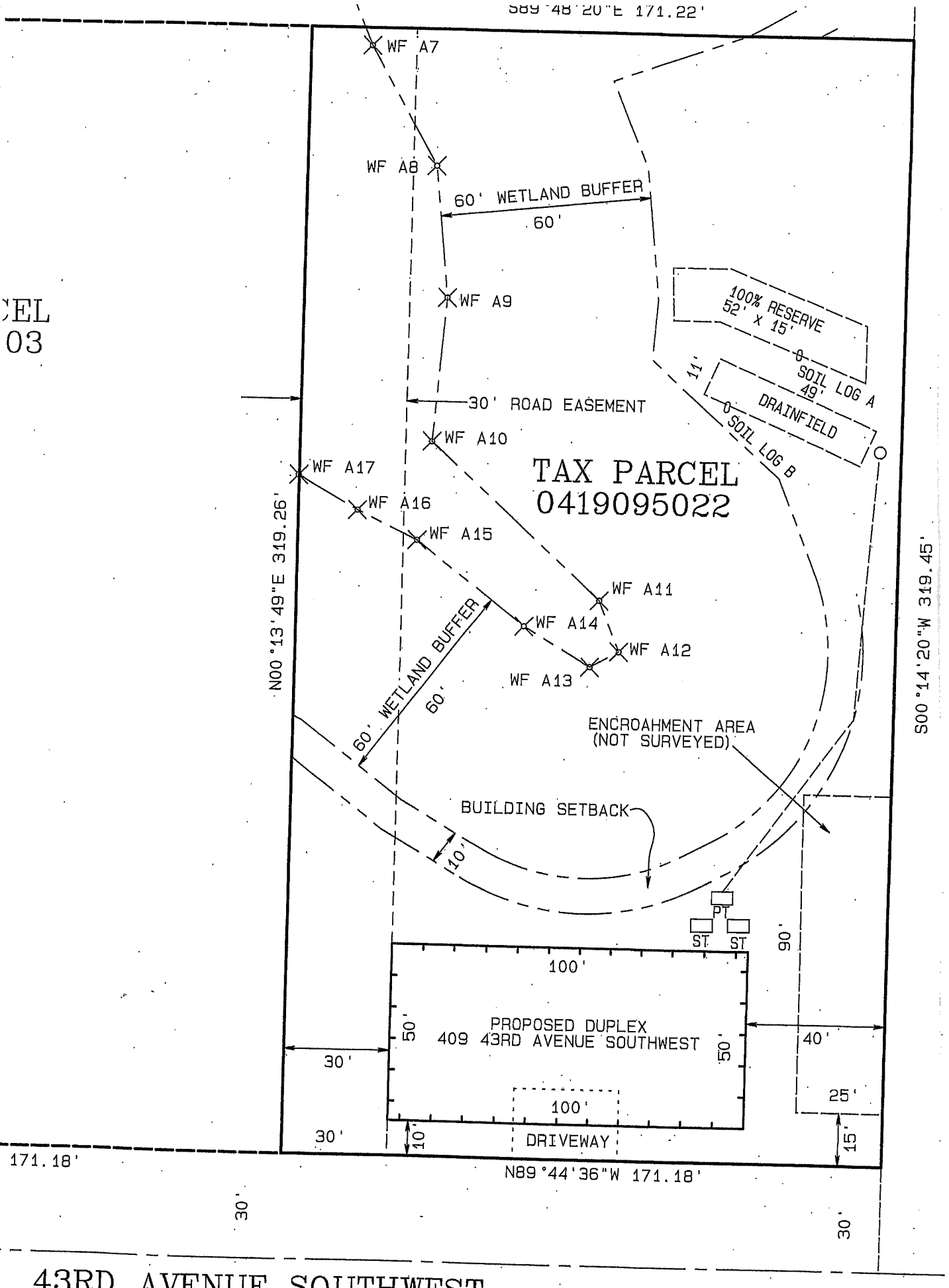


(1) DEEP INSPECTION PORT TO BOTTOM OF SAND

NOTES:
1. ASCERTAIN LOCATION OF UNDERGROUND UTILITIES BEFORE DIGGING.
2. THIS DESIGN IS BASED UPON 4 BEDROOM SF HOME. DAILY USAGE: 120GAL/BR/DAY. APPLICATION RATE: 1.0 GAL/SF/DAY. ↳ (2) 2 BEDROOM DUPLEX
3. PROVIDE (2) 1,250 GAL (MIN.) 2 COMPARTMENT SEPTIC TANKS WITH RISERS TO FINISH GRADE. (ALL TANKS MUST HAVE RISERS TO GRADE).
4. INSTALL A: EFFLUENT FILTER IN THE SEPTIC TANK OUTLET ACCESS PORT(S).
5. INSTALL 176 LF (MIN.) 1½" SCH 40 LAT. IN 10' X 48' DRAINFIELD BED.
6. DRAINFIELD BED TO BE LEVEL FOLLOWING CONTOURS.
7. ALL SURFACE WATER RUNOFF FROM DRIVEWAYS AND ROOF DRAINS SHALL BE DIRECTED AWAY FROM DRAINFIELD.
8. NOT DESIGNED FOR A GARBAGE DISPOSAL.
9. CONSTRUCTION AND MATERIALS SHALL CONFORM TO THE LATEST REGULATIONS AND REQ. OF THE LOCAL COUNTY HEALTH DEPART. AND WSDOH. THIS SYSTEM REQUIRES PERIODIC MAINTENANCE AND AN OPERATIONS AND MAINTENANCE AGREEMENT THE CERTIFICATION OF THE DESIGN AND INSTALLATION DOES NOT INSURE CONTINUOUS TROUBLE-FREE SERVICE.
10. NO EXCAVATION OR ALTERATION AFFECTING THE DRAINFIELD SITE IS PERMITTED. ENCROACHMENTS INTO THE DRAINFIELD AREA MAY RENDER THE SITE UNUSABLE. RE-DESIGNS AND/OR ECONOMIC LOSSES DUE TO DAMAGE OR ENCROACHMENTS WILL BE AT THE OWNERS EXPENSE.
11. CONTACT DESIGNER BEFORE CREATING ANY VERTICAL CUT(S) WITHIN 50FT. OF DF AREA.
12. MAXIMUM DAILY WASTE WATER FLOW SHALL NOT EXCEED 480 GPD WITH A MAX. WASTE STRENGTH OF 140 mg/L BOD5; 50mg/L TSS; AND 10mg/L FOG. EXCEEDING THE MAX. LEVELS WILL CAUSE SEPTIC SYSTEM FAILURE FOR WHICH THE OWNER ACCEPTS RESPONSIBILITY.

PRESSURE NOTES:
1. PUMP TANK TO BE SINGLE COMP., WATERPROOF TANK WITH A MIN. OF 1,250 GAL. CAPACITY. ALL TANKS MUST BE STATE APPROVED. ALL PUMP CHAMBERS MUST HAVE A 24" WATERPROOF, CHILD RESISTANT RISER WITH COMPATIBLE LOCKING LID AT FINISH GRADE.
2. ALL CONTROLS SHALL USE MERCURY SWITCHES COMPATIBLE WITH THE PUMP. A VISUAL ALARM SYSTEM IS REQ.
3. THIS DESIGN IS BASED UPON THE FOLLOWING: TOTAL HEAD 33 FT.; FLOW: 61 GPM. PROVIDE LIBERTY FL-75 OR EQUIVALENT.
4. THIS SYSTEM WILL USE A RHOMBUS IFS CONTROL PANEL, WITH TIMER TO REGULATE FLOWS FROM THE PUMP TO THE SSAS. SET TIMER TO DOSE 80 GALLONS EVERY 4 HOURS FOR A TOTAL OF 120 GAL/DAY. INSTALLER TO VERIFY DOSE AMOUNT BY PERFORMING DRAW DOWN AND RUN TIME. TEST RESULTS SHALL BE PROVIDED TO THE COUNTY DESIGNER FOR INCLUSION WITH THE AS-BUILT. L-#1 & #2 SP#79-537

CLIENT: DAVID ARTZ (253) 307-1022
4807 51ST ST. CT. E.
TACOMA, WA 98443
SITE ADDRESS: 409 13TH AVE. CT. NW DATE: 1-7-20
PARCEL NO.: 04-19-09-5-022 REV. DATE: 1-13-21
PENINSULA SEPTIC DESIGNS
SANDRA R. SMITH
P.O. BOX 1444, GIG HARBOR WA 98335 PH#(253) 851-2178
ON SITE SEPTIC DESIGN Pg 2 OF 3
JOB NO. 8021-1


S89°48'20"E 171.22'
WF A7
WF A8
60' WETLAND BUFFER
60'
WF A9
100% RESERVE
52' X 15'
SOIL LOG A
49'
11'
DRAINFIELD
SOIL LOG B
30' ROAD EASEMENT
WF A10
WF A17
WF A16
WF A15
TAX PARCEL
0419095022
WF A11
WF A14
WF A12
WF A13
N00°13'49"E 319.26'
60' WETLAND BUFFER
60'
ENCROAHMENT AREA
(NOT SURVEYED)
BUILDING SETBACK
10'
PT
ST
ST
90'
100'
50'
PROPOSED DUPLEX
409 43RD AVENUE SOUTHWEST
50'
40'
30'
100'
25'
30'
10'
DRIVEWAY
15'
171.18'
N89°44'36"W 171.18'
S00°14'20"W 319.45'
30'
30'
43RD AVENUE SOUTHWEST