

## Memorandum

To: Luigi Pontes c/o Gary Upper  
Site: Parcel 5315100417 Mercer Island, WA 98040  
Re: Feasibility Assessment  
Date: October 14, 2020  
Project Arborists: Sean Dugan, Registered Consulting Arborist # 457  
ISA Board Certified Master Arborist #PN-5459B  
ISA Qualified Tree Risk Assessor  
Tyler Bunton  
ISA Certified Arborist #PN-8715A  
ISA Qualified Tree Risk Assessor  
Attachments: Tree Site Map  
Table of Trees

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This memorandum documents the feasibility study conducted by Sean Dugan and Tyler Bunton at the above referenced site on October 7, 2020. We inventoried all trees 10-inches diameter at standard height (DSH) or greater, and all exceptional trees. Gary Upper requested these services for planning purposes. A Tree Site Map and Table of Trees with detailed information about each tree is attached, and a formal arborist report will be provided if it is determined the property will be developed.

## Appendix A Assumptions & Limiting Conditions

- 1 Consultant assumes that the site and its use do not violate, and is in compliance with, all applicable codes, ordinances, statutes or regulations.
- 2 The consultant may provide a report or recommendation based on published municipal regulations. The consultant assumes that the municipal regulations published on the date of the report are current municipal regulations and assumes no obligation related to unpublished city regulation information.
- 3 Any report by the consultant and any values expressed therein represent the opinion of the consultant, and the consultant's fee is in no way contingent upon the reporting of a specific value, a stipulated result, the occurrence of a subsequent event, or upon any finding to be reported.
- 4 All photographs included in this report were taken by Tree Solutions, Inc. during the documented site visit, unless otherwise noted. Sketches, drawings and photographs (included in, and attached to, this report) are intended as visual aids and are not necessarily to scale. They should not be construed as engineering drawings, architectural reports or surveys. The reproduction of any information generated by architects, engineers or other consultants and any sketches, drawings or photographs is for the express purpose of coordination and ease of reference only. Inclusion of such information on any drawings or other documents does not constitute a representation by the consultant as to the sufficiency or accuracy of the information.
- 5 Unless otherwise agreed, (1) information contained in any report by consultant covers only the items examined and reflects the condition of those items at the time of inspection; and (2) the inspection is limited to visual examination of accessible items without dissection, excavation, probing, climbing, or coring.
- 6 These findings are based on the observations and opinions of the authoring arborist, and do not provide guarantees regarding the future performance, health, vigor, structural stability or safety of the plants described and assessed.
- 7 Measurements are subject to typical margins of error, considering the oval or asymmetrical cross-section of most trunks and canopies.
- 8 Tree Solutions did not review any reports or perform any tests related to the soil located on the subject property unless outlined in the scope of services. Tree Solutions staff are not and do not claim to be soils experts. An independent inventory and evaluation of the site's soil should be obtained by a qualified professional if an additional understanding of the site's characteristics is needed to make an informed decision.
- 9 Our assessments are made in conformity with acceptable evaluation/diagnostic reporting techniques and procedures, as recommended by the International Society of Arboriculture.

DSH (Diameter at Standard Height) is measured 4.5 feet above grade, or as specified in the Guide for Plant Appraisal, 10th Edition, published by the Council of Tree and Landscape Appraisers.

DSH for multi-stem trees are noted as a single stem equivalent, which is calculated using the method defined in the Guide for Plant Appraisal, 10th Edition.

Recommended limits of disturbance (RLOD) are calculated as 8 times DSH.

Letters are used to identify trees on neighboring property with overhanging canopies.

Dripline is measured from the center of the tree to the outermost extent of the canopy.

Tree ID	Scientific Name	Common Name	DSH (inches)	DSH Multistem	Health Condition	Structural Condition	Dripline Radius (feet)				RLOD (ft)	Exceptional Threshold	Exceptional Size	Notes
							N	E	S	W				
1	<i>Salix sp.</i>	<i>Willow (native)</i>	11.3	4, 4.5, 5, 5, 6.5	Fair	Fair	8.5	9.5	11.5	9.5	8	8.0	Exceptional - Size	Multistem at base
2	<i>Salix sp.</i>	<i>Willow (native)</i>	18.0		Fair	Poor	8.8	11.8	7.8	7.8	12	8.0	Exceptional - Size	Mostly dead; main trunk decayed; poor retention candidate
3	<i>Prunus avium</i>	<i>Wild cherry</i>	11.8		Good	Good	8.5	11.5	12.5	11.5	8	-		Shallow roots
4	<i>Thuja plicata</i>	<i>Western Redcedar</i>	15.0		Good	Good	12.6	12.6	12.6	12.6	10	30.0		
5	<i>Thuja plicata</i>	<i>Western Redcedar</i>	18.4	11.5, 14.3	Fair	Fair	15.8	13.8	15.8	13.8	12	30.0		Old tags 16 & 17; north trunk vertical crack to 10 feet; north trunk dead top; south trunk broken and forked top
6	<i>Thuja plicata</i>	<i>Western Redcedar</i>	15.0		Poor	Poor	10.6	10.6	9.6	10.6	10	30.0		Mostly dead
7	<i>Salix sp.</i>	<i>Willow (native)</i>	9.5		Fair	Fair	4.4	6.4	4.4	4.4	6	8.0	Exceptional - Size	Topped; wound on lower east side of trunk, 30% circumference
8	<i>Pseudotsuga menziesii</i>	<i>Douglas-fir</i>	21.2		Good	Good	10.9	17.9	14.9	10.9	14	30.0		Probable shared tree
9	<i>Acer macrophyllum</i>	<i>Bigleaf Maple</i>	12.1	4, 5, 5.5, 7, 5	Good	Fair	18.5	18.5	4.5	18.5	8	30.0		Multistem at base; growing at base of tree 10
10	<i>Pseudotsuga menziesii</i>	<i>Douglas-fir</i>	31.3		Good	Good	19.3	19.3	19.3	19.3	21	30.0	Exceptional - Size	
11	<i>Arbutus menziesii</i>	<i>Madrone</i>	19.7		Good	Good	1.8	12.8	30.8	8.8	13	6.0	Exceptional - Size	Phototropic southeast
12	<i>Prunus avium</i>	<i>Wild cherry</i>	12.5		Good	Good	32.5	28.5	8.5	14.5	8	-		
13	<i>Pseudotsuga menziesii</i>	<i>Douglas-fir</i>	37.5		Good	Good	21.6	24.6	20.6	19.6	25	30.0	Exceptional - Size	Shared tree; superficial cracks from base to 10 feet
14	<i>Alnus rubra</i>	<i>Red alder</i>	15.0		Good	Good	22.6	22.6	9.6	8.6	10	-		
15	<i>Alnus rubra</i>	<i>Red alder</i>	13.0		Good	Poor	12.5	10.5	14.5	21.5	9	-		35% circumference missing on west side; central decay column
16	<i>Alnus rubra</i>	<i>Red alder</i>	13.5		Fair	Fair	17.6	23.6	16.6	8.6	9	-		Dead top; phytophthora canker
17	<i>Alnus rubra</i>	<i>Red alder</i>	14.0		Good	Fair	12.6	12.6	16.6	14.6	9	-		Broken top
18	<i>Alnus rubra</i>	<i>Red alder</i>	11.0		Good	Good	13.5	12.5	16.5	14.5	7	-		
19	<i>Alnus rubra</i>	<i>Red alder</i>	15.6		Good	Good	10.7	12.7	12.7	14.7	10	-		
20	<i>Prunus cerasifera</i>	<i>Flowering Plum</i>	10.0		Good	Good	13.4	13.4	14.4	13.4	7	21.0		
21	<i>Thuja plicata</i>	<i>Western Redcedar</i>	13.2		Fair	Fair	13.6	13.6	13.6	13.6	9	30.0		Dead top; live to 15 feet
22	<i>Alnus rubra</i>	<i>Red alder</i>	12.0		Fair	Poor	8.5	8.5	8.5	8.5	8	-		Decay column base to top failure at 25 feet
23	<i>Acer macrophyllum</i>	<i>Bigleaf Maple</i>	11.6		Good	Good	13.5	10.5	10.5	10.5	8	30.0		Swept base



# TOPOGRAPHIC & BOUNDARY SURVEY

## LEGAL DESCRIPTION

(PER STATUTORY WARRANTY DEED, AFN 20170925000093)

THAT PORTION OF LOTS 10 AND 11 IN BLOCK 5, MCGILVRA'S ISLAND ADDITION, N.E. 1/4 SEC. 12, T.W.N. 24 N., R. 4 E.W.M., ACCORDING TO PLAT RECORDED IN VOL. 16 OF PLATS, PAGE 58 IN KING COUNTY, WASHINGTON DESCRIBED AS FOLLOWS:

BEGINNING AT A POINT ON THE EAST LINE OF SAID LOT 11 WHICH IS 94.27 FEET SOUTH OF THE NORTHEAST CORNER THEREOF, AND RUNNING THENCE WEST, PARALLEL TO THE SOUTH LINE OF SAID BLOCK 134.87 FEET, THENCE SOUTH, PARALLEL TO THE EAST LINE OF SAID BLOCK 94.27 FEET; THENCE EAST, PARALLEL TO THE SOUTH LINE OF SAID BLOCK 134.87 FEET TO THE EAST LINE OF SAID LOT 10; THENCE NORTH ALONG THE EAST LINES OF SAID LOTS 10 AND 11, A DISTANCE OF 94.27 FEET TO THE POINT OF THE BEGINNING.

## BASIS OF BEARINGS

N 88°27'42" W BETWEEN SURVEY MONUMENTS FOUND ON THE CENTERLINE OF S.E. 27TH ST., PER GPS OBSERVATIONS, WASHINGTON STATE PLANE COORDINATE SYSTEM, NORTH ZONE.

## REFERENCES

- R1 MCGILVRA'S ISLAND ADDITION, RECORDED IN VOLUME 16 OF PLATS, PAGE 58, RECORDS OF KING COUNTY, WASHINGTON.
- R2 RECORD OF SURVEY, RECORDED IN BOOK 88 OF SURVEYS, PAGE 22, RECORDS OF KING COUNTY, WASHINGTON.

## VERTICAL DATUM

NAVD(88) PER GPS OBSERVATIONS.

## SURVEYOR'S NOTES

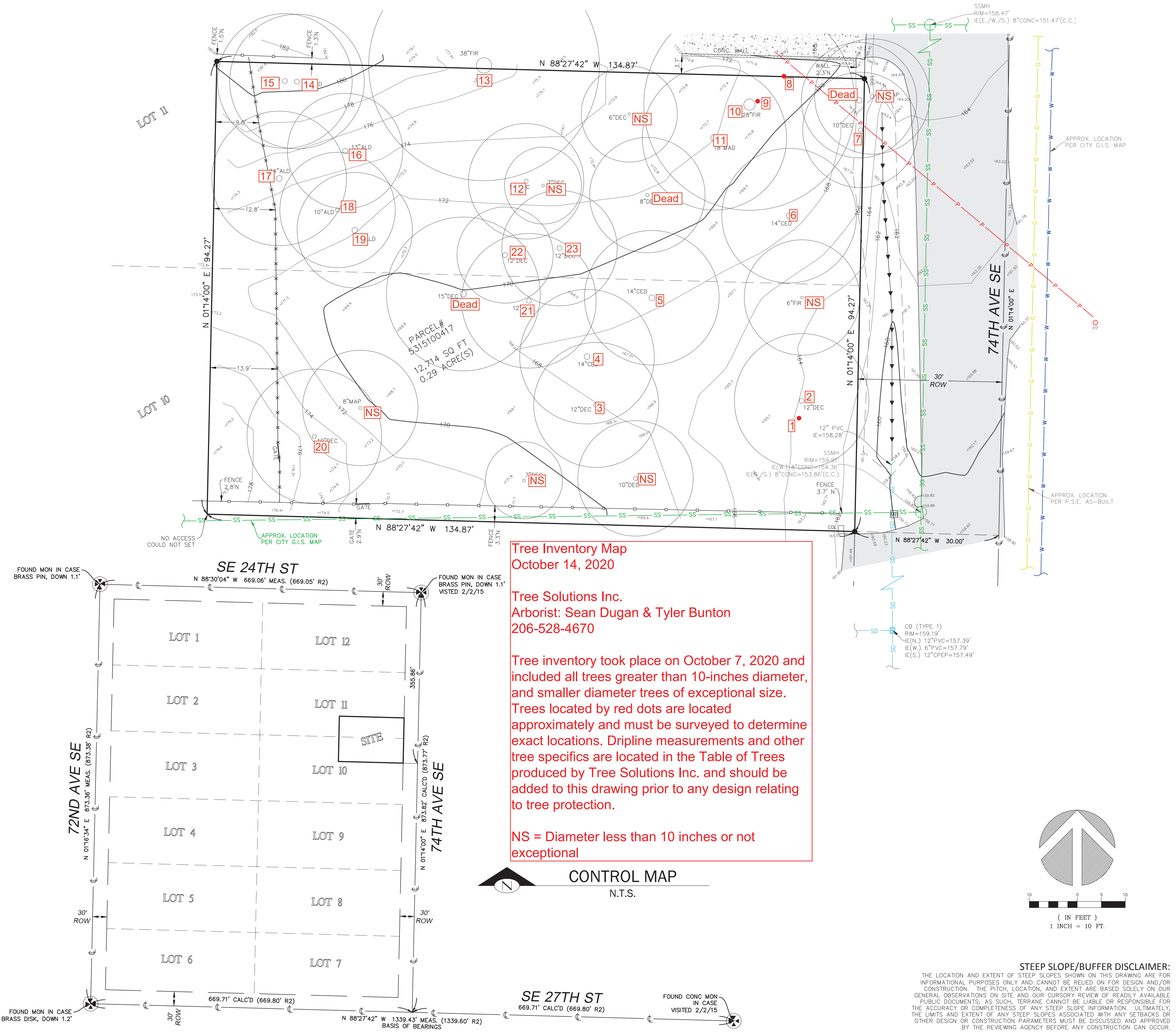
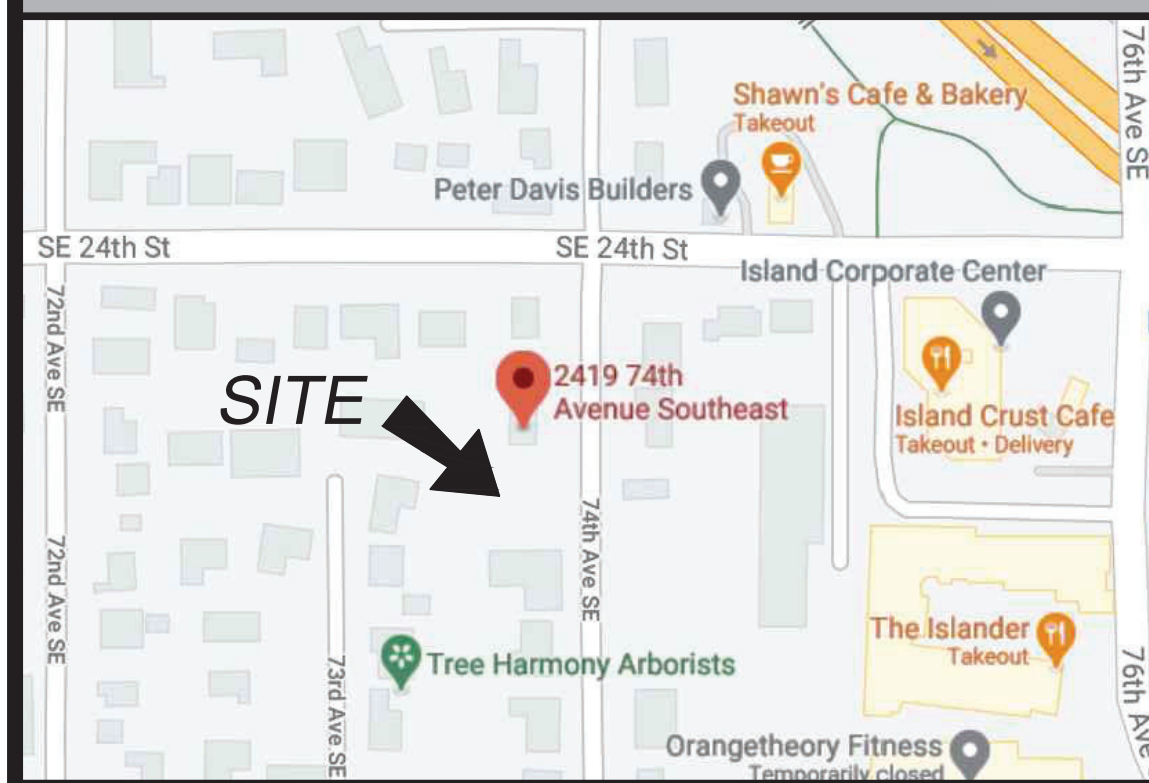
1. THE TOPOGRAPHIC SURVEY SHOWN HEREON WAS PERFORMED IN SEPTEMBER OF 2020. THE FIELD DATA WAS COLLECTED AND RECORDED ON MAGNETIC MEDIA THROUGH AN ELECTRONIC THEODOLITE. THE DATA FILE IS ARCHIVED ON DISC OR CD. WRITTEN FIELD NOTES MAY NOT EXIST. CONTOURS ARE SHOWN FOR CONVENIENCE ONLY. DESIGN SHOULD RELY ON SPOT ELEVATIONS.
2. ALL MONUMENTS SHOWN HEREON WERE LOCATED DURING THE COURSE OF THIS SURVEY UNLESS OTHERWISE NOTED.
3. THE TYPES AND LOCATIONS OF ANY UTILITIES SHOWN ON THIS DRAWING ARE BASED ON INFORMATION PROVIDED TO US, BY OTHERS OR GENERAL INFORMATION READILY AVAILABLE IN THE PUBLIC DOMAIN INCLUDING, AS APPLICABLE, IDENTIFYING MARKINGS PLACED BY UTILITY LOCATE SERVICES AND OBSERVED BY TERRANE IN THE FIELD. AS SUCH, THE UTILITY INFORMATION SHOWN ON THESE DRAWINGS ARE FOR INFORMATIONAL PURPOSES ONLY AND SHOULD NOT BE RELIED ON FOR DESIGN OR CONSTRUCTION PURPOSES; TERRANE IS NOT RESPONSIBLE OR LIABLE FOR THE ACCURACY OR COMPLETENESS OF THIS UTILITY INFORMATION. FOR THE ACCURATE LOCATION AND TYPE OF UTILITIES NECESSARY FOR DESIGN AND CONSTRUCTION, PLEASE CONTACT THE SITE OWNER AND THE LOCAL UTILITY LOCATE SERVICE (800-424-5555).
4. SUBJECT PROPERTY TAX PARCEL NO. 5315100417.
5. SUBJECT PROPERTY AREA PER THIS SURVEY IS 12,714± S.F. (0.29 ACRES)
6. THIS SURVEY WAS PERFORMED WITHOUT THE BENEFIT OF A TITLE REPORT. EASEMENTS AND OTHER ENCUMBRANCES MAY EXIST THAT ARE NOT SHOWN HEREON.
7. FIELD DATA FOR THIS SURVEY WAS OBTAINED BY DIRECT FIELD MEASUREMENTS WITH A CALIBRATED ELECTRONIC 5-SECOND TOTAL STATION AND/OR SURVEY GRADE GPS OBSERVATIONS. ALL ANGULAR AND LINEAR RELATIONSHIPS ARE ACCURATE AND MEET THE STANDARDS SET BY WAC 332-130-090.

## LEGEND

	ASPHALT SURFACE		POWER (OVERHEAD)
	CENTERLINE ROW		POWER POLE
	CULVERT PIPE		REBAR & CAP (SET)
	CONCRETE SURFACE		SEWER LINE
	RETAINING WALL		SEWER MANHOLE
	DITCH (FLOWLINE)		STORM DRAIN LINE
	FENCE LINE (CHAIN LINK)		SIZE TYPE TREE (AS NOTED)
	FENCE LINE (WOOD)		WATER LINE
	GAS LINE		COLUMN
	MAILBOX (RESIDENTIAL)		INLET (TYPE 1)
	MONUMENT IN CASE (FOUND)		

## VICINITY MAP

N.T.S.



**Tree Inventory Map**  
October 14, 2020

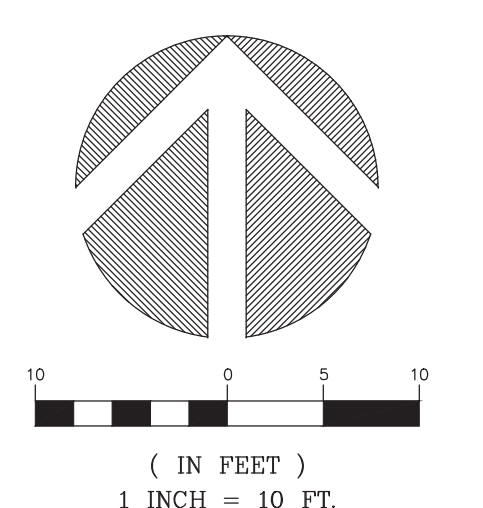
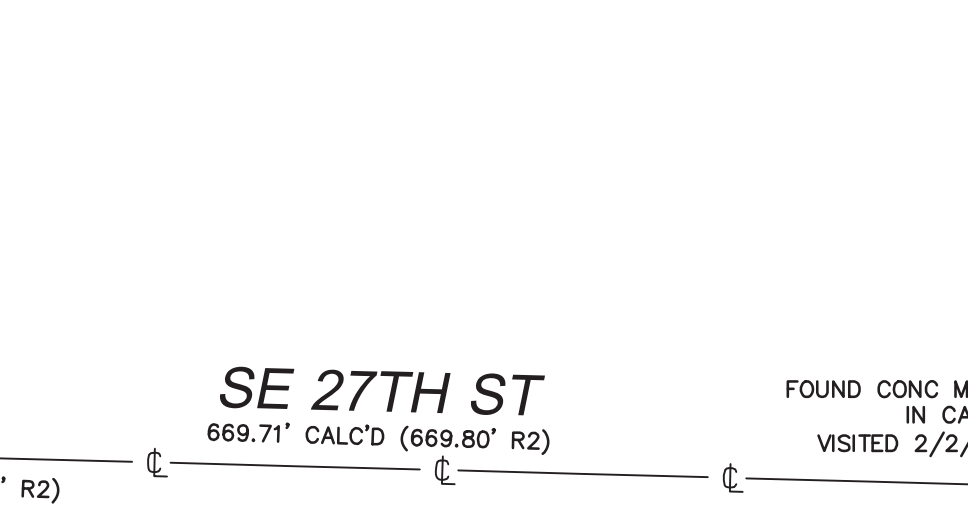
**Tree Solutions Inc.**  
Arborist: Sean Dugan & Tyler Bunton  
206-528-4670

Tree inventory took place on October 7, 2020 and included all trees greater than 10-inches diameter, and smaller diameter trees of exceptional size. Trees located by red dots are located approximately and must be surveyed to determine exact locations. Dripline measurements and other tree specifics are located in the Table of Trees produced by Tree Solutions Inc. and should be added to this drawing prior to any design relating to tree protection.

NS = Diameter less than 10 inches or not exceptional

## CONTROL MAP

N.T.S.



**STEEP SLOPE/BUFFER DISCLAIMER:**  
THE LOCATION AND EXTENT OF STEEP SLOPES SHOWN ON THIS DRAWING ARE FOR INFORMATIONAL PURPOSES ONLY AND CANNOT BE RELIED ON FOR DESIGN AND/OR CONSTRUCTION. THE PITCH, LOCATION, AND EXTENT ARE BASED SOLELY ON OUR GENERAL OBSERVATIONS ON SITE AND OUR CURSORY REVIEW OF READILY AVAILABLE PUBLIC DOCUMENTS. AS SUCH, TERRANE CANNOT BE LIABLE OR RESPONSIBLE FOR THE ACCURACY OR COMPLETENESS OF ANY STEEP SLOPE INFORMATION. ULTIMATELY, THE LIMITS AND EXTENT OF ANY STEEP SLOPES ASSOCIATED WITH ANY SETBACKS OR OTHER DESIGN OR CONSTRUCTION PARAMETERS MUST BE DISCUSSED AND APPROVED BY THE REVIEWING AGENCY BEFORE ANY CONSTRUCTION CAN OCCUR.

measure success

TOPOGRAPHIC & BOUNDARY SURVEY  
NE 1/4 OF NW 1/4 SEC 12, TWP. 24N., RGE 4E., W.M.  
PARCEL NO. 5315100417

FONG RESIDENCE  
74TH AVE SE  
MERCER ISLAND, WA 98040



**Terrane**  
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www.terrane.net

JOB NUMBER:	201543
DATE:	09/22/2020
DRAFTED BY:	RSN
CHECKED BY:	JGM/RLS
SCALE:	1" = 10'
REVISION HISTORY	
SHEET NUMBER	
1 OF 1	