ARBOR INFO LLC
2406 N Castle Way Brier, WA, 98036

Tree Assessment
For
Medved Residence
At
4752 89th Ave SE
Mercer Island, Washington

Date
8/21//2020

Table of Contents

Addenda

1. Introduction

I was contacted by Kati Eitzman, Sturman Architects to describe and assess the condition, viability and protection of trees at the Medved residence, 4752 89th Ave SE, Mercer Island, WA. This report summarizes my observations and conclusions.

2. Competence

- Certified Arborist (International Society of Arboriculture, ISA #23136, PN 0426 A)
- Registered Consulting Arborist (American Society of Consulting Arborists #499).
- Tree Risk Assessment Qualified (ISA).
- Certified forester (Society of American Foresters #951)
- Bachelor of Science degree in Forest Management from the University of Washington
- Licensed Washington State Real Estate Managing Broker #11534

3. Client

The client to whom this report is addressed is:

Kati Eitzman
Sturman Architects
9-103rd Ave NE
Bellevue, WA 98004
BradS@Sturmanarchitects.com
Kati@Sturmanarchitects.com

4. Assignment, Purpose and Use of Report

The assignment is to describe and assess the condition and viability of on-site trees and to provide protection recommendations in conformance with the City of Mercer Island "Tree Submittal Check List", Attached.

5. Limits of Assignment

The assignment is limited to the information gathered during the site visit May 11, 2020 (date of assessment) and references noted in this report. No excavation or sampling was undertaken to determine unseen defects. No inspection of trees not reported herein was made.

A site plan indicating a proposed development plan was provided and is included in the Addenda with tree locations noted.

6. Site Description
4752 -89th Ave SE,Mercer Island, WA, King County Parcel No. 0191101168. The subject property consists of a single-family residence on 11,475 square feet.

A house remodel project is planned or the site.

7. Methodology

Each tree was measured for diameter at 4.5-feet above ground, (or equivalent) total height, percentage of live green crown, and dripline (extent of live limbs).

Each tree was assessed as to its condition, or vigor and viability:

Vigor or condition:

Health: Biotic

- Good: No evidence of fungal infection or decay; expected to survive without disturbance to its normal life expectancy. (40-100 years in this case)

- Fair: Tree has initial fungal decay or evidence of insect habitat and is less likely to survive to normal life expectancy. Some with minor defects, are rated viable,

- Poor: Tree has significant fungal decay and defects that render it not likely to survive three years.

Structural: Abiotic

- Good: no significant abiotic or mechanical defects

- Fair: less than preferred form, defects such as breaks in the bole, poor limb attachments, included bark, poor root contact, etc.

- Poor: Broken or cracked bole or limbs; root plate compromised

Viability:

- A measure of whether the tree is likely to live to its "normal" life span or has defects limiting that potential or poses a risk to the residence or proposed development is a simple 'yes/no' rating.

8. Tree Description

Refer to the attached Tree Assessment Summary Form. A total of thirty-two on-site trees as indicated on the Site Plan provided were found. They are classified by the City Municipal Code (MICC) 19.10 –"Trees" as indicated following in Table 1.

Species	Exceptional	Large	Small
W. red cedar	4	3	1
Bigleaf maple	1	2	1
Red alder		1	1
Douglas-fir		5	
Portugal Laurel			7
Holly			3
Japanese maple			2
Dogwood			1

Only one tree, No. 17, a western red cedar is non-viable. Replacement would not be required under Mercer Island regulations.

9. Root Zone Impacts

Trees 6,7 and 31 will be removed. Tree 31is a non-exceptional tree and is not required to be replaced. (MICC19.10.070). Trees potentially affected by construction are Nos. 5 and 8.

The limits of disturbance are determined on a case by case basis for each tree in consideration of the tree size, estimate of the extent of the root zone and consideration of the planned root zone disturbance. Distances from the face of each tree to the excavation limit were provided by the client. There appears to be little or not impact to the retained trees.

Table 2 – Root Zone Impacts

		Diameter	Facing Dripline	Measured Distance to Excavation Limit	Excavation Type	Root Zone impact
5	Douglas-fir	22.3	16,	15'	Footing	None
8	W. red cedar	25.1	12'	4'	Footing	~20%

10. Discussion

Mercer Island Code does not specify root zone protection areas. The encroachments projected for trees 5 and 8 are within the general tolerances for trees and it can be expected that these will remain viable.

Trees 6 and 7 are both exceptional by MIC 19.10.060 but can be removed (19.10.060 A.2.b.) as retention will significantly affect the root zones resulting in hazard conditions or will long term viability. These trees will be replaced with 6 trees per MIC 19.10.070.

An arborist inspection of all impacted trees is recommended on bi-yearly basis.

11. Summary

Thirty one of the thirty-two of the on-site trees are healthy and structurally sound indicating full-term viability.

Tree protections in addition to city regulations should include:

Tree Protections during construction should include:

- Certified Arborist on site during excavation activities within the defined root zone of all trees.
- All trees to be retained are to be fenced at the edge of the recommended tree protection zone with 6-foot high cyclone type fencing.
- Utility lines should be bored. Bore access pits to be developed with 18" buckets or hand dug.
- Retaining wall footings to be minimally deep, no more than 12-inches.
- Tree roots over 1-1/2 inches in diameter encountered in all excavations are to be cut cleanly to the trench wall with clean sharp tools. Roots to be covered with soil or wetted burlap if they must remain exposed.
- Supplemental irrigation is to be provided during summer months (generally June-September) for all trees in the construction zones.
- Recommended protected tree root zones are to be covered with 4-inches of hog fuel at all times. Where machinery access is needed, the root zones should be covered with 12-inches of hog fuel, plywood or steel sheets.
- Stumps for trees to be removed are to be ground out (not excavated).

12. Assumptions and Limiting Conditions

1. Any legal description provided to the consultant is assumed to be correct. Ownership of the subject trees as provided by the client is assumed to be correct. No responsibility is assumed for legal matters. No opinion as to the property line location is made.
2. Care has been taken to obtain all information from reliable sources. The consultant can neither guarantee nor be responsible for the accuracy of information provided by others.

3. The consultant shall not be required to give testimony or attend court by reason of this report unless subsequent contractual arrangements are made, including additional fees.
4. This report and any values expressed herein represent the opinion of the consultant, and the consultant's fee is in no way contingent upon the reporting of a specified value, a stipulated result, the occurrence of a subsequent event, nor upon any finding to be reported.
5. The exhibits in this report are included to assist the reader and are not necessarily to scale.
6. Unless expressed otherwise, information in this report covers only items that were examined, and reflects the condition of those items at the time of inspection. The subject site was cleared of all vegetation at the time of inspection therefore the extent of removals is inferred from adjacent undisturbed areas. The inspection is limited to visual examination of accessible portions of the trees and plants.
7. Loss or alteration of any part of the report invalidates the entire report. Ownership of any documents related to this report passes to the client only.
8. The liability of ArborInfo LLC its contractors and employees is limited to the client only and only up to the amount of the fee actually received for the assignment.
9. *There is no warranty suggested for any of the trees subject to this report. Weather, latent tree conditions, and future man-caused activities could cause physiologic changes and deteriorating tree condition. Over time, deteriorating tree conditions may appear and there may be conditions, which are not now visible which, could cause tree failure. This report or the verbal comments made at the site in no way warrant the structural stability or long-term condition of any tree, but represent my opinion based on the observations made.*
10. *NEARLY ALL TREES IN ANY CONDITION STANDING WITHIN REACH OF IMPROVEMENTS OR HUMAN USE AREAS REPRESENT HAZARDS THAT COULD LEAD TO DAMAGE OR INJURY. THE ASSESSMENT IS VALID FOR TWO YEARS FROM THE DATE OF INSPECTION, ONLY.*
11. PERTINENT JURISDICTION RULES AND REGULATIONS SHOULD BE CONSULTED PRIOR TO THE REMOVAL OF ANY TREE.

Respectfully Submitted,

Tom Hanson

Thomas M. Hanson, CF, RCA

I. Tree Location Map
II. Tree Assessment Summary Table
III. Tree Plan
IV. Mercer Island Check list
V. Mercer Island Tree Inventory Form

Tree Assessment

Site: , Medved Residence, 4752 - 89th Ave SE, Mercer Island, WA **Date: May 12, 2020**

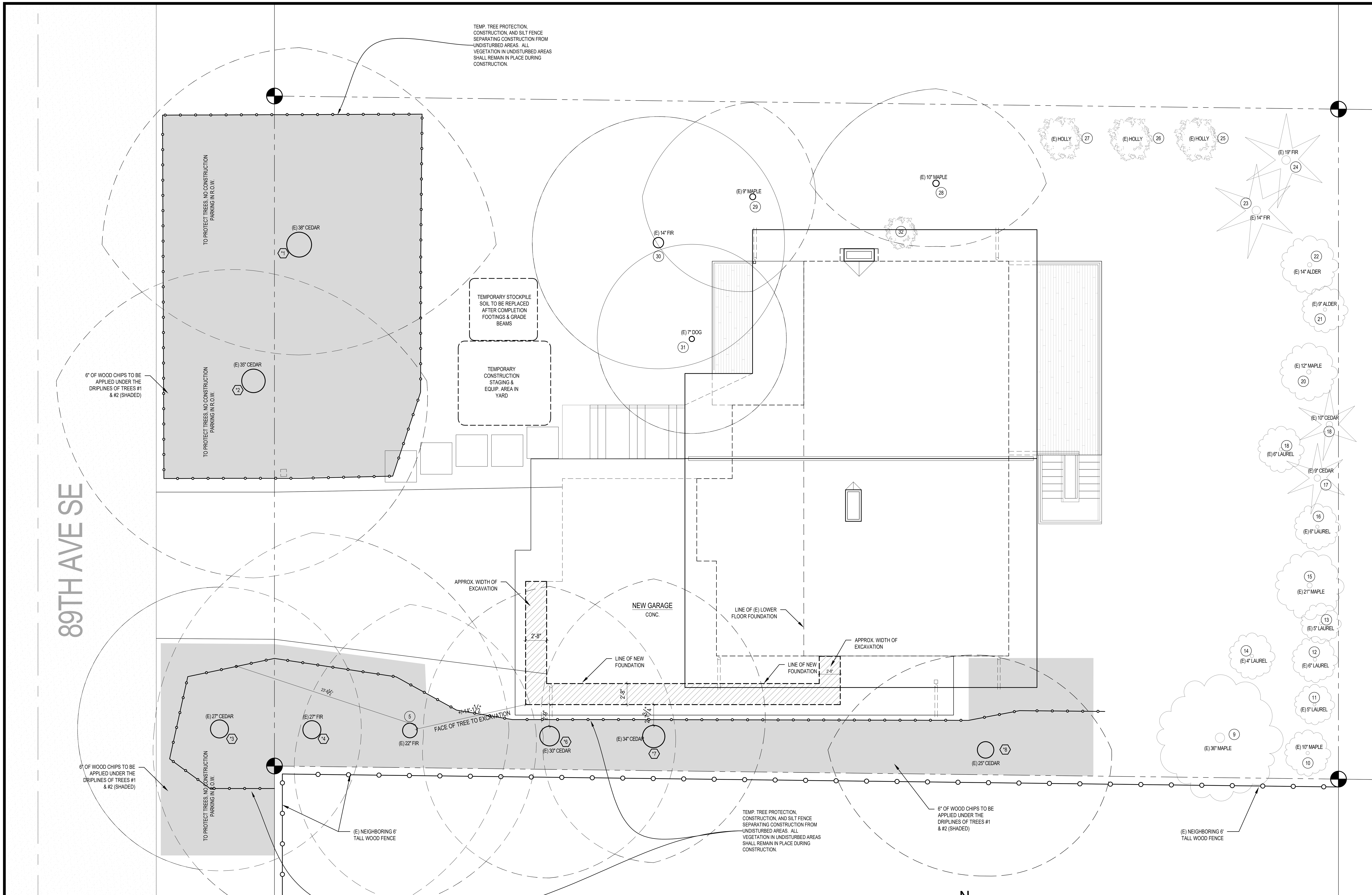
Tree #	Species		DBH	Height	Crown	Dripline				Class	LOD/Critical	Vigor		Viable	Defects/Comments
	Common	Scientific	(inches)	(feet)	Ratio (%)	N	S	E	W		Root Zone	Health	Structure	Yes/No	
On Site															
1	W. Red Cedar	*Thuja Plicata*	37.9	75	90	25	14	25	25	Exceptional	22	Good	Good	Yes	
2	W. Red Cedar	*Thuja Plicata*	35.7	75	90	14	25	22	20	Exceptional	20	Good	Good	Yes	Utility Vault at base
3	W. Red Cedar	*Thuja Plicata*	27.5	75	90	18	18	18	18	Large	18	Good	Good	Yes	
4	Douglas-fir	*Psuedtosuga menziesii*	27.4	105	60	25	25	25	20	Large	24	Good	Good	Yes	Crown lifited
5	Douglas-fir	*Psuedtosuga menziesii*	22.3	105	60	16	22	16	14	Large	17	Good	Good	Yes	Crown lifited
6	W. Red Cedar	*Thuja Plicata*	30.6	95	80	19	18	16	16	Exceptional	17	Good	Good	Yes	Minor butt rot
7	W. Red Cedar	*Thuja Plicata*	34.5	90	80	20	14	16	14	Exceptional	16	Good	Good	Yes	Heartwood decay to 6-feet
8	W. Red Cedar	*Thuja Plicata*	25.1	68	70	12	16	16	20	Large	16	Good	Good	Yes	Minor root scalping
9	Bigleaf maple	*Acer macrophyllum*	36.5*	75	80	24	24	35	30	Exceptional	28	Good	Good	Yes	
10	Bigleaf maple	*Acer macrophyllum*	9.9	60	30	10	12	0	24	Small	12	Good	Good	Yes	Asymetric
11	Portugal Laurel	*Prunus lusitanica*	5	16	40	6	6	6	6	Small	6	Good	Fair	Yes	
12	Portugal Laurel	*Prunus lusitanica*	5.8	18	40	8	2	0	10	Small	5	Good	Fair	Yes	
13	Portugal Laurel	*Prunus lusitanica*	5.4	20	30	4	6	0	10	Small	5	Good	Fair	Yes	
14	Portugal Laurel	*Prunus lusitanica*	3.7	14	30	6	4	0	8	Small	5	Good	Fair	Yes	
15	Bigleaf maple	*Acer macrophyllum*	21.1	75	60	26	18	22	22	Large	22	Good	Good	Yes	
16	Portugal Laurel	*Prunus lusitanica*	6	22	60	16	0	14	0	Small	8	Good	Fair	Yes	
17	W. Red Cedar	*Thuja Plicata*	8.8	22	30	14	0	16	0	Small	8	Poor	Poor	No	Major decay
18	Portugal Laurel	*Prunus lusitanica*	6.1	25	30	12	0	12	0	Small	6	Good	Fair	Yes	
19	W. Red Cedar	*Thuja Plicata*	10.7	60	40	10	12	16	0	Large	10	Good	Good	Yes	
20	Bigleaf maple	*Acer macrophyllum*	11.8	60	40	10	8	16	16	Large	13	Good	Good	Yes	Asymetric
21	Red alder	*Alnus rubra*	9.4	65	60	6	4	30	10	Small	13	Good	Fair	Yes	Fused at base

Tree Assessment

Site: , Medved Residence, 4752 - 89th Ave SE, Mercer Island, WA **Date: May 12, 2020**

Tree #	Species		DBH	Height	Crown	Dripline				Class	LOD/Critical	Vigor		Viable	Defects/Comments
	Common	Scientific	(inches)	(feet)	Ratio (%)	N	S	E	W		Root Zone	Health	Structure	Yes/No	
On Site															
22	Red alder	*Alnus rubra*	13.8	65	60	28	10	10	10	Large	15	Good	Fair	Yes	Fused at base
23	Douglas-fir	*Psuedtosuga menziesii*	13.6	76	70	10	16	18	10	Large	14	Good	Fair	Yes	
24	Douglas-fir	*Psuedtosuga menziesii*	19.6	80	70	20	10	22	10	Large	16	Good	Fair	Yes	
25	Holly	*Ilex sp.*	6.2*	25	80	10	12	8	6	Small	9	Good	Good	Yes	
26	Holly	*Ilex sp.*	9.6*	25	80	12	12	12	12	Small	12	Good	Good	Yes	
27	Holly	*Ilex sp.*	5.5*	20	80	8	8	10	0	Small	7	Good	Good	Yes	
28	Japanese maple	*Acer palmatum*	9.8*	24	70	12	8	14	16	Small	13	Good	Good	Yes	
29	Japanese maple	*Acer palmatum*	9.2	28	70	12	12	8	14	Small	12	Good	Good	Yes	
30	Douglas-fir	*Psuedtosuga menziesii*	15.8	76	40	16	16	16	16	Large	16	Good	Good	Yes	
31	Dogwood	*Cornus nuttalii*	7.7*	14	80	12	12	12	12	Small	12	Good	Good	Yes	
32	Portugal Laurel	*Prunus lusitanica*	3.1*	15	40	4	4	4	4	Small	4	Good	Fair	Yes	

* multiple diameters adjusted to single


TEMP. TREE PROTECTION, CONSTRUCTION, AND SILT FENCE SEPARATING CONSTRUCTION FROM UNDISTURBED AREAS. ALL VEGETATION IN UNDISTURBED AREAS SHALL REMAIN IN PLACE DURING CONSTRUCTION.
TO PROTECT TREES, NO CONSTRUCTION PARKING IN R.O.W.
(E) 38" CEDAR
1
(E) 35" CEDAR
2
6" OF WOOD CHIPS TO BE APPLIED UNDER THE DRIPLINES OF TREES #1 & #2 (SHADED)
TEMPORARY STOCKPILE SOIL TO BE REPLACED AFTER COMPLETION FOOTINGS & GRADE BEAMS
TEMPORARY CONSTRUCTION STAGING & EQUIP. AREA IN YARD
89TH AVE SE
(E) 14" FIR
30
(E) 9" MAPLE
29
(E) 7" DOG
31
(E) 10" MAPLE
28
32
(E) HOLLY
27
26
25
(E) 19" FIR
24
(E) 14" FIR
23
(E) 14" ALDER
22
(E) 9" ALDER
21
(E) 12" MAPLE
20
(E) 10" CEDAR
18
(E) 6" LAUREL
(E) 9" CEDAR
17
16
(E) 21" MAPLE
15
(E) 5" LAUREL
13
(E) 4" LAUREL
14
12
11
(E) 36" MAPLE
9
(E) 10" MAPLE
10
APPROX. WIDTH OF EXCAVATION
NEW GARAGE
CONC.
LINE OF (E) LOWER FLOOR FOUNDATION
LINE OF NEW FOUNDATION
2'-8"
(E) 27" CEDAR
3
(E) 27" FIR
4
5
(E) 22" FIR
FACE OF TREE TO EXCAVATION
(E) 30" CEDAR
6
(E) 34" CEDAR
7
(E) 25" CEDAR
8
(E) NEIGHBORING 6' TALL WOOD FENCE
N
SITE PLAN
SCALE: 1/8" = 1'-0"

SCALE: IF SHEET IS LESS THAN 24" x 36", IT IS A REDUCED PRINT, REDUCE SCALE ACCORDINGLY

PERMIT SET	07/27/20
PLOT DATE: 7/27/2020	FILE NAME:

STURMAN ARCHITECTS

TEL (425) 451-7003

9 103rd Avenue NE
Suite 203
Bellevue, WA 98004

5562 REGISTERED ARCHITECT
BRADLEY J. STURMAN
STATE OF WASHINGTON

www.sturmanarchitects.com

MEDVED RESIDENCE

PERMIT SET

4752 89TH AVE SE
MERCER ISLAND, WA 98040

GENERAL NOTES
SITE PLAN

REVISIONS:

DRAWN BY: KE

CHECKED BY: BJS

SHEET
A1.0
OF

GENERAL NOTES

1. CODE COMPLIANCE
   ALL WORK SHALL COMPLY WITH THE 2015 IBC, 2015 IMC, 2015 IFGC, 2015 IFC, 2015 UPC, 2015 IPMC, 2008 NEC, 2015 INTERNATIONAL ENERGY CONSERVATION CODE WITH WASHINGTON STATE AMENDMENTS, 2009 ICC A117.1, AND WITH ALL LOCAL CODES AND ORDINANCES.
2. DIMENSIONS
   A. DO NOT SCALE DRAWINGS. VERIFY ALL DIMENSIONS PRIOR TO STARTING CONSTRUCTION. NOTIFY THE ARCHITECT OF DISCREPANCIES. IF WORK IS STARTED PRIOR TO NOTIFICATION, THE GENERAL AND SUBCONTRACTOR PROCEED AT THEIR OWN RISK.
   B. UNLESS OTHERWISE NOTED, PLAN DIMENSIONS ARE TO FACE OF STUDS OR FACE OF CONCRETE WALLS. FACE OF STONE VENEER LIES 6" +\- OUTSIDE THE FACE OF FRAMING. INTERIOR PLAN DIMENSIONS ARE TO FACE OF STUDS UNLESS OTHERWISE NOTED.
   C. VERIFY ALL ROUGH-IN DIMENSIONS FOR WINDOWS, DOORS, PLUMBING, ELECTRICAL FIXTURES AND APPLIANCES PRIOR TO COMMITMENT OF WORK. NOTIFY ARCHITECT OF ANY DISCREPANCIES OF DIMENSIONAL TOLERANCES REQUIRED.
3. DOCUMENT REVIEW/VERIFICATION
   CONSULT WITH ARCHITECT REGARDING ANY SUSPECTED ERRORS, OMISSIONS, OR CHANGES ON PLANS BEFORE PROCEEDING WITH THE WORK
4. ROUGH OPENINGS/BACKING:
   VERIFY SIZE AND LOCATION, AS WELL AS PROVIDE ALL OPENINGS THROUGH FLOORS AND WALLS, FURRING, CURBS, ANCHORS, INSERTS, EQUIPMENT BASES AND ROUGH BUCKS/BACKING FOR SURFACE-MOUNTED ITEMS.
5. FURRING:
   PROVIDE FURRING AS REQUIRED TO CONCEAL MECHANICAL AND/OR ELECTRICAL EQUIPMENT IN FINISHED AREAS. FURRING NOT SHOWN ON PLANS SHALL BE APPROVED BY ARCHITECT PRIOR TO CONSTRUCTION.
6. GRADES: VERIFY ALL GRADES AND THEIR RELATIONSHIP TO THE BUILDING(S).
7. FLOOR LINES: "FLOOR LINE" REFERS TO TOP OF CONCRETE SLAB OR TOP OF WOOD SUBFLOOR.
8. REPETITIVE FEATURES: OFTEN DRAWN ONLY ONCE AND SHALL BE PROVIDED AS IF FULLY DRAWN.
9. DOORS:
   DOORS NOT DIMENSIONALLY LOCATED SHALL BE 6" FROM STUD FACE TO EDGE OF DOOR, ROUGH OPENING OR CENTERED BETWEEN WALLS AS SHOWN.
10. WOOD MEMBERS IN CONTACT WITH CONCRETE, AND/OR EXPOSED TO WEATHER:
    TO BE PRESSURE TREATED, TYPICAL. PROVIDE PRESSURE TREATED SILL PLATE IF FINISH GRADE IS WITHIN 8", TYPICAL.
11. FRAMING:
    ALL NEW INTERIOR FRAME PARTITIONS TO BE 2X4 @ 16" O.C., & ALL NEW EXTERIOR FRAME PARTITIONS TO BE 2X6 @ 16" O.C., UNLESS OTHERWISE NOTED. VERIFY W/ STRUCTURAL DRAWINGS. EXISTING EXTERIOR WALLS ARE 2X4 STUDS @ 16" O.C., AND ARE TO REMAIN.
12. VENTILATION:
    VENT ALL BATHROOM FANS, LAUNDRY FANS, RANGE HOODS AND DRYERS TO OUTSIDE ATMOSPHERE. BATHROOM/UTILITY ROOM FANS SHALL BE CAPABLE OF 5 AIR CHANGES PER HOUR AND SHALL BE VENTED DIRECTLY TO THE OUTSIDE THROUGH SMOOTH, RIGID, NON-CORROSIVE METAL, 24 GA. DUCTWORK. FLEX DUCTING IS NOT ALLOWED.
13. FLUES: FLUES TO BE LOCATED MINIMUM 2" FROM ALL COMBUSTIBLE MATERIALS.
14. DOWNSPOUTS: LOCATE NEW DOWNSPOUTS AS SHOWN ON ROOF PLAN, FLOOR PLANS & ELEVATIONS.
15. OTHER DOCUMENTATION: REFER TO STRUCTURAL, MECHANICAL, ELECTRICAL, AND/OR LANDSCAPE DRAWINGS FOR ADDITIONAL DRAWINGS, NOTES, SCHEDULES, AND SYMBOLS.
16. PROTECTION:
    PROTECT ALL EXISTING FINISHES AND SURFACES. ANY DAMAGE WILL BE REPAIRED WITHOUT ADDITIONAL COST TO OWNER.
17. PERMITS:
    SEPARATE ELECTRICAL, MECHANICAL, AND PLUMBING PERMITS ARE REQUIRED IN ADDITION TO THE BASIC BUILDING PERMIT
18. ROOFING:
    PROVIDE NEW ROOFING TO MATCH EXISTING.
19. EXHAUST DUCTS:
    PROVIDE BACKDRAFT DAMPERS AT ALL EXHAUST DUCTS. PROVIDE COMBUSTION AIR OPENINGS INTO FURNACE ROOM PER UMC 703.
20. APPLIANCES:
    CLEARANCES OF UL LISTED APPLIANCES FROM COMBUSTIBLE MATERIALS SHALL BE AS SPECIFIED IN UL LISTING.
21. WATER FLOW:
    SHOWER SHALL BE EQUIPPED WITH FLOW CONTROL DEVICE TO LIMIT WATER FLOW TO 2.5 GALLONS PER MINUTE.
22. SMOKE DETECTORS:
    SMOKE & CARBON MONOXIDE THROUGHOUT NEW CONSTRUCTION. TO BE MONITORED PER FIRE DEPARTMENT REQUIREMENTS.
23. FIREBLOCKING:
    FIREBLOCKING SHALL BE PROVIDED IN WOOD-FRAMED CONSTRUCTION PER 2015 IRC SECTION R302.11, SPECIFICALLY: 1) IN CONCEALED SPACES OF STUD WALLS AND PARTITIONS, 2) AT INTERCONNECTIONS BETWEEN CONCEALED VERTICAL AND HORIZONTAL SPACES, 3) IN CONCEALED SPACES BETWEEN STAIR STRINGERS AT T.O. & B.O. RUN, 4) AT OPENINGS AROUND VENTS, PIPES, ETC. AT CEILING AND FLOOR LEVEL.

ENERGY NOTES

CODE:	2015 W.S.E.C. & 2015 IRC, WAC 51-11R	CLIMATIC ZONE:	ZONE #4C -MARINE
SPACE HEAT TYPE:	NATURAL GAS, FORCED AIR SYSTEM	THERMAL STANDARDS FOR OPENINGS:	UNLIMITED OPTION
INSULATION VALUES:	WALLS: R-21		
PRESCRIPTIVE METHOD	FLAT ATTICS/CEILINGS: R-49		
	VAULTED CEILINGS: R-38		
	FLOORS (OVER UNHEATED SPACES): R-30		
	SLAB-ON-GRADE: R-10		

AIR INFILTRATION: MANUFACTURED DOORS/WINDOWS: CONFORM TO SECTION R402.4.3 OF THE WASHINGTON STATE ENERGY CODE

EXTERIOR JOINTS/OPENINGS: SEAL, CAULK, GASKET OR WEATHERSTRIP TO LIMIT AIR LEAKAGE AT EXTERIOR JOINTS AROUND WINDOW AND DOOR FRAMES, OPENINGS BETWEEN WALLS AND FOUNDATION, BETWEEN WALLS AND ROOF; OPENINGS AT PENETRATIONS OF UTILITY SERVICES AND ALL OTHER SUCH OPENINGS IN THE BUILDING ENVELOPE

MOISTURE CONTROL: WALLS: VAPOR RETARDER BONDED TO BATT INSULATION; INSTALL WITH STAPLES NOT MORE THAN 8 INCHES ON CENTER AND AND WITH A GAP BETWEEN AND OVER FRAMING NOT GREATER THAN 1/16 OF AN INCH; OR, VAPOR RETARDER OF ONE PERM CUP RATING (4 MIL POLYETHYLENE)

ATTICS/CEILINGS: VAPOR RETARDER OF ONE PERM CUP RATING (4 MIL POLYETHYLENE). INSTALL CONTINUOUSLY

CRAWL SPACE: 6 MIL POLYETHELENE

VENTILATION: ATTICS WITH LOOSE FILL: N.A. BAFFLE VENT OPENINGS TO DEFLECT AIR ABOVE INSULATION SURFACE ENCLOSED JOIST OR RAFTER SPACES: PROVIDE MINIMUM OF ONE INCH CLEAR VENTED AIR SPACE ABOVE INSULATION. TAPER OR COMPRESS INSULATION AT PERIMETER TO INSURE PROPER VENTILATION, MAINTAINING MINIMUM OF R-38.

HEATING & COOLING: AIR SOURCE HEAT PUMP W/ MIN HSPF OF 9.0

TEMP. CONTROL: FOR HEATING AND COOLING, THERMOSTAT SHALL BE CAPABLE OF BEING SET FROM 55-85 DEGREES FARENHEIT AND OF OPERATING THE HEATING/COOLING SYSTEM IN SEQUENCE. THERMOSTAT TO BE AUTOMATIC DAY/NIGHT SETBACK TYPE.

DUCT INSULATION: THERMALLY INSULATE ALL PLENUMS, DUCTS AND ENCLOSURES IN ACCORDANCE WITH SECTION R403.3.1 OF THE WASHINGTON STATE ENERGY CODE.

a. ALL HEATING DUCTS IN UNCONDITIONED SPACES SHALL BE INSULATED WITH A MIN. OF R-8. ALL SEAM JOINTS SHALL BE TAPED, SEALED AND FASTENED WITH THE MINIMUM OF FASTENERS PER WSEC.

b. DUCTS WITHIN A CONCRETE SLAB OR IN THE GROUND SHALL BE INSULATED TO R-10, WITH INSULATION DESIGNED TO BE USED BELOW GRADE.

LIGHTING: RECESSED LIGHTING FIXTURES INSTALLED IN BUILDING ENVELOPE SHALL COMPLY WITH WSEC PROVISIONS AND SHALL BE IC LISTED.

PIPE INSULATION: ALL HOT WATER PIPES, AND NON-RECIRCULATING COLD WATER PIPES LOCATED IN UNCONDITIONED SPACE, SHALL BE INSULATED TO R-3 MIN. PLUMBING OR MECHANICAL CANNOT DISPLACE THE REQUIRED INSULATION.

WHOLE HOUSE VENTILATION: WHOLE HOUSE VENTILATION SYSTEM:

a. WHOLE HOUSE VENTILATION SHALL BE PROVIDED BY EXHAUST FAN PROVIDING 320 CFM RUNNING INTERMITTENTLY PER 2015 IRC TABLES M1507.3.3 (1&2). FAN SHALL BE LESS THAN .35 WATT PER CFM AND CONNECTED TO A 24 HOUR CLOCK TIMER AND HAVE A SONE RATING OF LESS THAN 1.0. VENTILATION SHALL BE ABLE TO OPERATE INDEPENDENTLY OF HEATING SYSTEM.
b. SYSTEM SHALL HAVE A 5"Ø SMOOTH FRESH AIR DUCT W/ LOUVER & SCREEN CONNECTED TO THE RETURN AIR STREAM 4' UPSTREAM OF THE AIR HANDLER AND INSULATED W/ R-4 MIN IN HEATED AREAS.
c. SHALL HAVE A FILTER WITH A MERV OF AT LEAST 6 INSTALLED IN AN EASILY ACCESSIBLE LOCATION.
d. FRESH AIR VENT SHALL BE LOCATED AWAY FROM SOURCES OF ODORS OR FUMES, MIN 10' FROM PLUMBING OR APPLIANCE VENTS, AWAY FROM ROOMS W/ FUEL BURNING APPLIANCES, AND OUT OF ATTICS, CRAWL SPACES, AND GARAGES.
e. AIRFLOW FOR WHOLE HOUSE EXHAUST FAN SHALL BE PROVIDED BY UNDERCUTTING INTERIOR DOORS 1/2" ABOVE FINISHED FLOOR, TYP.

PLUMBING FIXTURES: ALL PLUMBING FIXTURES SHALL CONFORM TO RCW 19.27.170

ALL TOILETS 1.6 GPM MAX	URINALS 1.0 GPF MAX
SHOWERHEADS <1.75 GPM	FAUCETS <1.75 GPM
LAVATORIES < 1.0 GPM	

PROJECT DATA

PROJECT ADDRESS:	4752 89TH AVE SE MERCER ISLAND
PROPERTY TAX ID NUMBER:	019110-1168
SCOPE OF WORK:	ADDITION OF NEW GARAGE, REMODEL OF (E) GARAGE AND LOWER FLOOR, ADDITION TO MAIN FLOOR, AND REMODEL OF (E) MAIN FLOOR BEDROOMS
ZONING:	R-9.6
CONSTRUCTION TYPE:	TYPE V B
SEISMIC ZONE:	3
NUMBER OF STORIES:	2 STORIES
FIRE PROTECTION:	NONE
BUILDING HEIGHT	MAX. 30 FT ABOVE AVERAGE BUILDING ELEV.
GROSS FLOOR AREA	8,000 SF OR 40 % LOT AREA, WHICHEVER IS LESS
LOT AREA:	11,475 SF
LOT WIDTH	85 FT
SETBACKS:	FRONT LOT LINE = 20 FT REAR LOT LINE = 25 FT SIDE LOT LINES = LOTS >90' WIDTH: SUM OF 17% LOT WIDTH, BOTH ≥5 FT

PROJECT TEAM

OWNER:
4752 89TH AVE SE
MERCER ISLAND, WA 98040
PHONE: -

ARCHITECT:
STURMAN ARCHITECTS, INC.
9 - 103RD AVE NE SUITE 203
BELLEVUE, WA 98004
PHONE: 425.451.7003
CONTACT: BRAD STURMAN

STRUCTURAL:
BURT ENGINEERING, PLLC
18530 MERIDIAN AVE NORTH
SHORELINE, WA 98133
PHONE: 206.779.6856
CONTACT: CORNELL BURT

CONTRACTOR:
ON THE LEVEL LLC
10921 115TH CT. NE C207
KIRKLAND, WA 98033
PHONE: 206.999.9307
CONTACT: TED MARSHALL

LEGAL DESCRIPTION

ALLVIEW HEIGHTS ADD TGW POR VAC ALLEY ADJ
PLAT BLOCK:15
PLAT LOT: 10

SHEET INDEX

2015 WSEC CREDITS

THIS PROJECT IS ADDING GREATER THAN 500 SQUARE FEET OF HEATED FLOOR AREA BUT LESS THAN 1500 SF, SO IT WILL BE CONSIDERED A SMALL DWELLING UNIT REQUIRING 1.5 CREDITS..

CREDITS	OPTION	DESCRIPTION
1.0	3D	HIGH EFFICENCY HVAC EQUIPMENT
.5	5A	EFFICIENT WATER HEATING
TOTAL CREDITS 1.5		

CUT/FILL

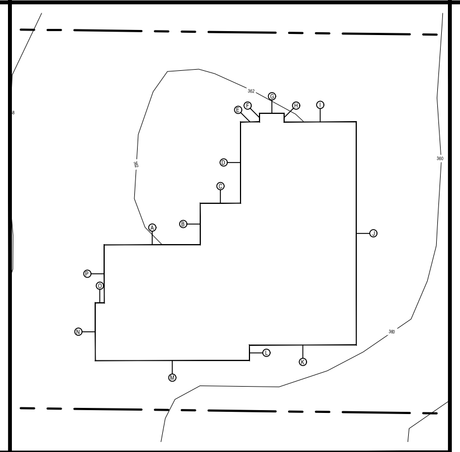
CUT = 0 C.Y.

FILL = 0 C.Y.

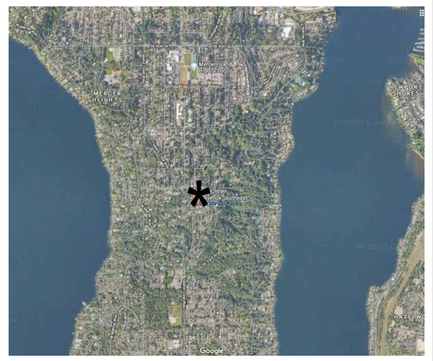
TREE PROTECTION

A TREE PROTECTION INSPECTION IS REQUIRED BEFORE START OF WORK

ABE KEY PLAN NO SCALE



VICINITY MAP



ABE

AVERAGE BUILDING ELEVATION

	Wall Length	Elevation Pt.	Wall Length X Elev. Pt.
A	21.54	362.0	7797.48
B	9.33	362.5	3382.125
C	9.083	362.5	3292.5875
D	18.25	363.0	6624.75
E	4.27	362.5	1547.875
F	1.92	362.5	696
G	5.5	362.0	1991
H	1.92	362.0	695.04
I	16.23	361.5	5867.145
J	50.083	360.0	18029.88
K	24	360.0	8640
L	3.5	360.0	1260
M	34.58	359.5	12431.51
N	13	359.0	4667
O	2	359.0	718
P	13	359.0	4667
	228.206	**5777.0**	**82307.3925**
82307.39 25	**360.67**	Average Building Elevation	
228.206			

LOT COVERAGE (IMPERVIOUS AREA)

	GROSS LOT S.F.	MAIN STRUCT. & ROOF S.F.	DRIVES/ PARKING	TOTAL LOT COVERAGE	% LOT COVERAGE
EXISTING IMPERVIOUS AREA	11,475 SF	2100 SF	1147.4 SF	3247.4 SF	28.3 %
PROPOSED IMPERVIOUS AREA		3290.8 SF	619 SF	3909.8 SF	34 %
NET GAIN/LOSS IMPERVIOUS AREA		+1190.8 SF	-528.4 SF	+662.4 SF	+5.7 %
% ALLOWED IMPERVIOUS AREA				4590 SF ALLOWABLE	40 %

	CONC. STEPS	CONC. STAIRS	REAR DECK	FRONT DECK	TOTAL HARDSCAPE	% IMPERVIOUS
EXISTING IMPERVIOUS AREA	0 SF	52 SF	270.8 SF	95 SF	417.8 SF	3.6 %
PROPOSED IMPERVIOUS AREA	80 SF	105.3 SF	270.8 SF	73 SF	529.1 SF	4.6 %
NET GAIN/LOSS IMPERVIOUS AREA	+80 SF	+53.3 SF	+0 SF	-22 SF	+111.3 SF	1.0 %
% ALLOWED IMPERVIOUS AREA					1032.75 SF ALLOWABLE	9 %

HIGHEST EL: 363.0' -
LOWEST EL: 358.5'
ELEVATION DIFFERENCE= 4.5'

4.5' DIVIDED BY 160.46' (HORIZ. DIST. BTWN. HIGHEST & LOWEST ELEV.) = .028

LOT SLOPE IS 2.8%,
WHICH IS LESS THAN 15% SO LOT COVERAGE ALLOWED IS 40%.

ADDITIONAL 9% OF LOT SIZE WILL DETERMINE ALLOWABLE HARDSCAPE SURFACE

BUILDING AREA

	MAIN FLOOR	UPPER FLOOR	HEATED SUB-TOTAL	ATTACHED GARAGE	UNHEATED STORAGE		GRAND TOTAL
EXISTING HOUSE:	892 SF	1384 SF	2276 SF	417.7 SF	0 SF		2693.7 SF
PROPOSED CHANGES:	+ 544.7 SF	+ 286 SF	+ 830.7 SF	+ 282.3 SF	+ 84.7 SF		+ 1197.7 SF
PROPOSED HOUSE:	1436.7 SF	1670 SF	3106.7 SF	700 SF	84.7 SF		3891.4 SF

UNHEATED DECKS
573 SF
+/- 0 SF
573 SF

GROSS FLOOR AREA

MAX GFA FOR R-9.6 IS EITHER 8,000 SQUARE FEET OR 40% OF THE LOT AREA, WHICHEVER IS LESS

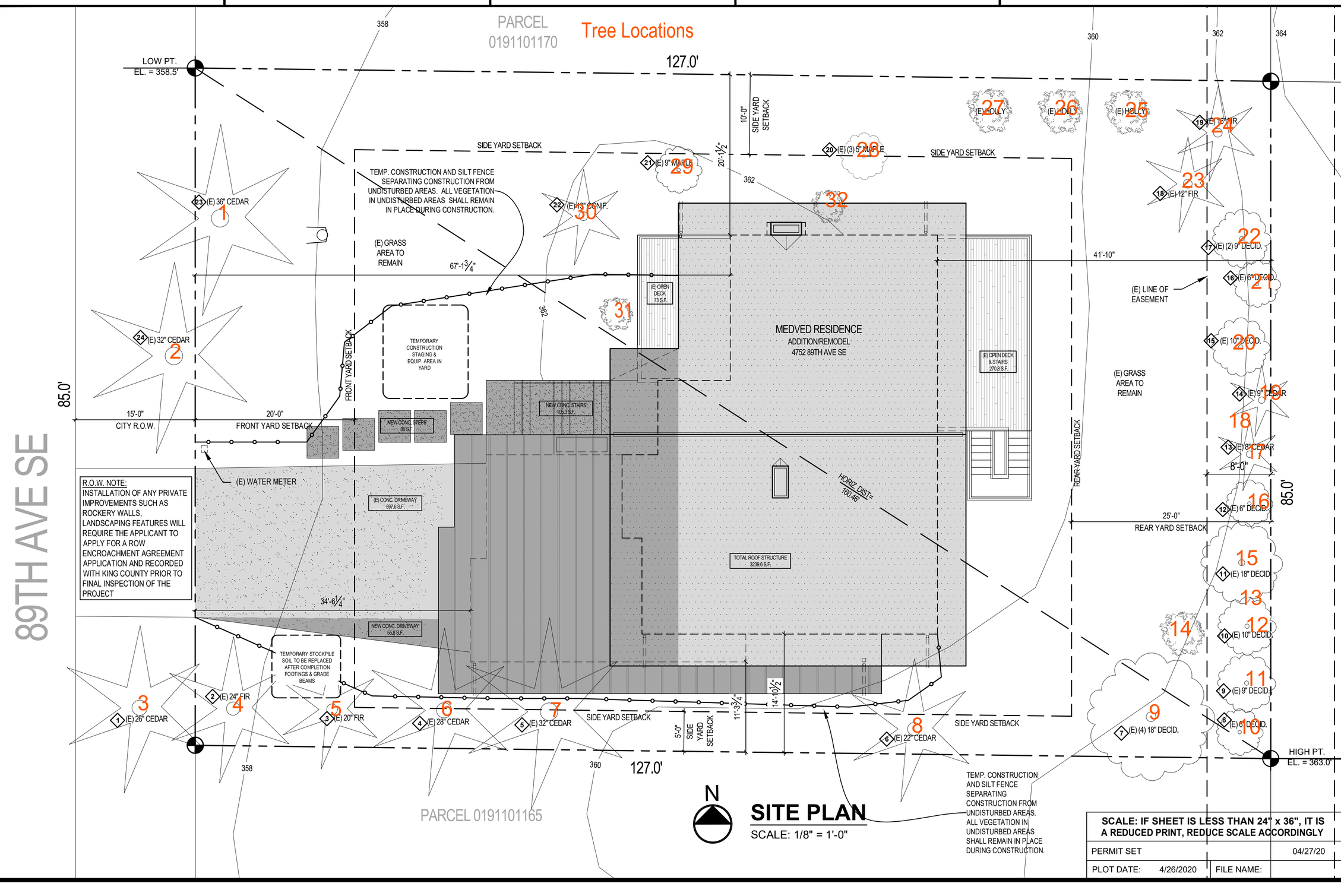
40% OF 11,475 SF = 4,590 SF, SO THIS IS THE MAX ALLOWABLE GFA.

3891.4 SF OF GROSS FLOOR AREA
IS LESS THAN MAXIMUM 4,590 SF

DUTY OF COOPERATION

RELEASE AND ACCEPTANCE OF THESE DOCUMENTS INDICATES COOPERATION AMONG THE OWNER, CONTRACTOR, AND STURMAN ARCHITECTS. ANY ERRORS, OMISSIONS, OR DISCREPANCIES DISCOVERED IN THE USE OF THESE DOCUMENTS SHALL BE REPORTED IMMEDIATELY TO STURMAN ARCHITECTS. FAILURE TO DO SO WILL RELIEVE STURMAN ARCHITECTS FROM ANY RESPONSIBILITY FOR THE CONSEQUENCES.

ANY DEVIATION FROM THESE DOCUMENTS WITHOUT THE CONSENT OF STURMAN ARCHITECTS IS UNAUTHORIZED. FAILURE TO OBSERVE THESE PROCEDURES SHALL RELIEVE STURMAN ARCHITECTS OF RESPONSIBILITY FOR ALL CONSEQUENCES ARISING FROM SUCH ACTIONS.



SITE PLAN
SCALE: 1/8" = 1'-0"

SCALE: IF SHEET IS LESS THAN 24" x 36", IT IS A REDUCED PRINT, REDUCE SCALE ACCORDINGLY

PERMIT SET 04/27/20
PLOT DATE: 4/26/2020 FILE NAME:

STURMAN ARCHITECTS
TEL (425) 451-7003
9 103rd Avenue NE
Suite 203
Bellevue, WA 98004

5562 REGISTERED ARCHITECT
BRADLEY J. STURMAN
STATE OF WASHINGTON

MEDVED RESIDENCE
PERMIT SET
4752 89TH AVE SE
MERCER ISLAND, WA 98040

GENERAL NOTES
SITE PLAN

REVISIONS:

DRAWN BY: KE
CHECKED BY: BJS

SHEET **A1.0**
OF

CITY OF MERCER ISLAND

COMMUNITY PLANNING & DEVELOPMENT
9611 SE 36TH STREET | MERCER ISLAND, WA 98040
PHONE: 206.275.7605 | www.mercergov.org

TREE INVENTORY & REPLACEMENT SUBMITTAL INFORMATION

EXCEPTIONAL TREES

Exceptional Trees- means a tree or group of trees that because of its unique historical, ecological or aesthetic value constitutes an important community resource. A tree that is rare or exceptional by virtue of its size, species, condition, cultural/historical importance, age, and/or contribution as part of a tree grove. Trees with a diameter of more than 36 inches, or with a diameter that is equal to or greater than the diameter listed in the Exceptional Tree Table shown in MICC 19.16 under Tree, Exceptional.

List the total number of trees for each category and the tree identification numbers from the arborist report.

Number of trees 36" or greater: 3
List tree numbers: 1,2,9

Number of trees 24" or greater (including 36" or greater): 8
List tree numbers: 1,2,3,4,6,7,8,9

Number of trees from Exceptional Tree Table (MICC 19.16): 5
List tree numbers: 1,2,6,7,9

LARGE REGULATED TREES

Large Regulated Trees- means any tree with a diameter of 10 inches or more, and any tree that meets the definition of an Exceptional Tree.

Number of Large Regulated Trees on site: 5 (A)
List tree numbers: 1,2,6,7,9

Number of Large Regulated Trees on site proposed for removal: (B)
List tree numbers: 6,7

Percentage of trees to be retained ((A-B)/Ax100) note: must be at least 30%: 60 %

RIGHT OF WAY TREES

Right of Way Trees- means a tree that is located in the street right of way adjacent to the project property.

Number of Large Regulated Trees in right of way: 0
List tree numbers:

Number of Large Regulated Trees in right of way proposed for removal: 0

List tree numbers: _____

Reason for removal: _____

TREE REPLACEMENT

Tree replacement- removed trees must be replaced based on the ratio in the table below. Replacement trees shall be conifers at least six feet tall and or deciduous at least one and one-half inches in diameter at base.

Diameter of Removed Tree (measured 4.5' above ground)	Tree replacement Ratio	Number of Trees Proposed for Removal	Number of Tree Required for Replacement Based on Size/Type
Less than 10"	1		
10" up to 24"	2		
Greater than 24" up to 36"	3	2	6
Greater than 36" and any Exceptional Tree	6		
		TOTAL TREE REPLACEMENTS	6

CITY OF MERCER ISLAND

COMMUNITY PLANNING & DEVELOPMENT
9611 SE 36TH STREET | MERCER ISLAND, WA 98040
PHONE: 206.275.7605 | www.mercergov.org
Inspection Requests: Online: www.mybuildingpermit.com VM: 206.275.7730

TREE SUBMITTAL CHECKLIST

If a box is checked, please provide the information in your next submittal

SUBMITTAL ITEMS

1. The Mercer Island Tree Inventory Form

☑ Provide the City's Mercer Island Tree Inventory Form

2. Arborist report/tree inventory

☑ Provide an Arborist report, prepared by a qualified Arborist. Include the following information in the arborist report.

☑ 1. Description of how the arborist meets the threshold requirements for Qualified Arborist.

☑ 2. A complete description of each tree's diameter, species, critical root zone, limits of allowable disturbance, health, condition, and viability.

☑ 3. A description of the method(s) used to determine the limits of allowable disturbance (i.e., critical root zone, root plate diameter, or a case-by-case basis description for individual trees).

☑ 4. Any special instructions specifically outlining any work proposed within the limits of disturbance protection areas (i.e. hand-digging, air space, tunneling, root pruning, any grade changes, clearing, monitoring, and aftercare).

☑ 5. For trees not viable for retention, a description of the reason(s) for removal based on poor health, high risk of failure due to structure, defects, unavoidable isolation, windfirmness, unsuitability species, etc. If there is no reasonable alternative action (pruning, cabling, etc.) possible, replacement recommendations must be given.

☑ 6. Describe the impact of necessary tree removal on the remaining trees, including those in a grove or on adjacent properties.

☑ 7. Describe timing and installation of tree protection measures. Such measures must include fencing and be in accordance with the tree protection standards as outlined in MICC 19.10.

☑ 8. The suggested location and species of replacement trees to be used when required. The report shall include planting and maintenance specifications to ensure long term survival.

☑ 9. **A Tree Inventory** containing the following:

- ☑ a. A numbering system of all existing large trees on the property (with corresponding tags on trees). The inventory shall also include large trees on adjacent property with driplines or critical root zones extending into the property.
- ☑ b. Tree size (diameter). Where a tree splits into several trunks close to ground level, the dbh (Diameter at Brest Height) for the tree is the square root of the sum of the dbh for each individual stem squared (example with 3 stems: dbh = square root [(stem1)2 +(stem2)2 +(stem3)2]).
- ☑ c. Proposed tree status (retained or proposed for removal).
- ☑ d. Tree type or species.
- ☑ e. Identify all Exceptional trees and differentiate between those less than 24 inches and those greater than or equal to 24 inches in diameter.
- ☑ f. Brief general health or condition rating of each tree (i.e. poor, fair, good, etc.).

3. Site/tree retention plan

Indicate the following on all civil/utility and grading sheets. If there are no civil sheets indicate on the architectural site plan

☑ 1. Location of all proposed improvements (building footprint, access, utilities, buffers, required landscape areas).
☑ 2. Surveyed location of all large trees and Exceptional trees on the property
☑ 3. Show the critical root zone of Large trees on adjacent properties if driplines extend over the subject property line.
☑ 4. Trees labeled corresponding to the tree inventory numbering system on the Mercer Island Tree Inventory Form.
☑ 5. Identify Exceptional trees using different symbols for trees less than 24 inches and trees greater than or equal to 24 inches.
☑ 6. Location of tree protection measures.
☑ 7. Limits of excavation near potential saved trees (e.g. excavation limits for building foundation).
☑ 8. Indicate clearing limits/limits of disturbance (LOD) around all trees potentially impacted by site disturbances - grading, demolition, construction activities (including approximate LOD of off-site trees with overhanging driplines), etc.
☑ 9. Proposed tree status (trees to be removed or retained) noted by an 'X' for removal.

4. Replanting plan

☑ Provide the Replanting plan showing proposed locations of any required replacement trees.

PEER REVIEW AND CONFLICT OF INTEREST

A peer review of the tree permit application by a qualified arborist may be required to verify the adequacy of the information and analysis. **The applicant shall bear the cost of the peer review.**

The City Arborist may require the applicant retain a replacement qualified arborist or may require a peer review where the City Arborist believes a conflict of interest may exist.

For example, if an otherwise qualified arborist is employed by a tree removal company and prepares the arborist report for a development proposal, a replacement qualified arborist or peer review may be required.

ARBORIST QUALIFICATION

For tree reviews associated with a development proposal, a qualified arborist must have

- A minimum of three (3) years' experience working directly with the protection of trees during construction
- Have experience with the likelihood of tree survival after construction
- Be able to prescribe appropriate measures for the preservation of trees during land development
- ISA Tree Risk Assessment Qualification

☑ Your qualified arborists must have at least one (1) of the following credentials:

- ISA Certified Arborist;
- ISA Certified Arborist Municipal Specialist;
- ISA Board Certified Master Arborist;
- American Society of Consulting Arborists (ASCA) registered Consulting Arborist;
- Society of American Foresters (SAF) Certified Forester for Forest Management Plans;

ADDITIONAL INFORMATION

Additional Information. The City Arborist or Code Official may require additional documentation, plans, or information as needed to ensure compliance with applicable City regulations.
