### **GENERAL CONDITIONS:**

**1.** These drawings are the exclusive property of the architect and may only be reproduced with the written permission of the architect.

2. The contractor shall be responsible for providing all work and materials in accordance with the International Residential Code (IRC) as well as all applicable national, state, county and city codes (building, fire, health, energy, ventilation, plumbing, mechanical, electrical, etc.)

3. The contractor shall be governed by all conditions as indicated in the construction documents and specifications

**4.** If the contractor is aware of any discrepancy between the work as shown and requirements of codes and governing agencies, they shall notify the architect and await further instruction. 5. The contractor shall verify all dimensions, datum, levels, and the site conditions prior to commencing the work. The contractor shall report any discrepancies and/or omissions to the architect prior to commencing the work.

**6.** All work shall be accomplished by gualified trade people in the specific field with required certification where applicable.

7. All work shall be performed to the established trade standards using the most suitable construction methods in such trade. Aforementioned construction to include the use of applicable standard components, connectors, supports, trim, backing, blocking and/or other appurtenances.

8. Set work to required levels and lines, with members plumb, true to line, cut, and fitted. Fit work to other construction; scribe and cope as needed for accurate fit. Locate furring, nailers, blocking, grounds, and similar supports to comply with requirements for attaching other construction.

9. These drawings indicate general and typical details of construction. Where conditions are not specifically indicated but are of a similar character to the details shown, similar details of construction shall be used. Repetitive features not noted on the drawings shall be completely provided as if drawn in full.

10. Do not scale drawings. All dimensions are from face of rough framing or face of concrete unless noted otherwise. Check details for location of items not dimensioned on the plans.

**11.** All rough opening measurements shall be verified by the contractor.

**12.** The contractor shall coordinate the

securing of required permits and approvals with the owner.

**13.** The contractor shall schedule on-site inspections per the building official

14. Electrical, plumbing and mechanical systems are to be bidder designed. The contractor will be responsible to produce drawings for the architect and owner to review and approve, prior to the start of installation, and to obtain all necessary permits in connection with the work.

**15.** No deviations from or changes to the structural system shall be made without approval from the architect and engineer.

**16.** All changes in plans and field modifications shall be approved by the building official.

**17.** Shop drawings are required for, but not limited to, trusses, structural steel connections and fabrications. The contractor shall prepare and submit shop drawings to the architect for review and approval, and then submit to the building official. All shop drawing dimensions shall be checked and verified in the field by the contractor.

**18.** It shall be the responsibility of the contractor to locate all existing utilities whether shown herein or not and to protect them from damage. The contractor shall bear all expense of repairs or replacement of utilities or other property damaged by operations in conjunction with the execution of the work.

**19.** The contractor shall provide temporary facilities as required by code.

20. The contractor shall provide all shoring, barricading and bracing necessary to ensure the structural stability of the project, and the health and safety of the public and all who enter the property during construction.

21. The contractor shall keep areas under construction secure and clear of dirt and debris.

**22.** The contractor shall schedule work, as much as possible, to avoid inconveniences of existing neighborhood property owners.

**23.** The contractor shall provide all accessories required for a completely watertight installation including but not necessarily limited to: flashing, counter flashing, sealant, and caulking at all roof and floor penetrations, interlocking weather stripping at all doors and windows, water stops and other concrete inserts at below grade cold joints

24.See construction notes & details for additional concrete, steel, & rough carpentry requirements.



Drip line radius

Species:

25'-0"

EXST.

7401.0'

LOWEST

GRADE

100'





### **PROPERTY INFO:**

### PROPERTY ADDRESS: 8059 W. MERCER WAY

PARCEL NUMBER: **QUARTER - SECTION-**TOWNSHIP - RANGE: LEGAL DESCRIPTION:

MERCER ISLAND, WA 98040 335850-0175

### NE - 36 - 24 - 4

HILLMANS C D SEA SHORE LAKE FRONT BEG AT A INCH IRON PIPE MARKING MOST NLY COR TR 587 TH S 46-57-01 E 201.11 FT TO A 5/8 INCH IRON PIN & TPOB TH S 33-16-28 W ALG BDRY AGREEMENT LN AS DESC AF #7211280627 122.86 FT TH N 62-07-06 W 125.67 FT TH N 49-23-31 W 5.8 FT TH N 40-36-29 E 81.68 FT TH S 49-23-31 E 21.8 FT TH N 40-36-29 E 33.95 FT TAP ON CRV RAD 75 FT RADIAL AT SD PT BEARING S 82-41-29 W TH TH NLY ALG SD CRV 21.85 FT TAP OF TAN TH N 24-00-00 W 67.82 FT TAP WHC BEARS N 46-57-01 W FR TPOB TH S 46-57-01 E 170.43 FT TO TPOB AKA TR A MERCER ISLAND SH PL REC NO 7605030465 LESS CO RD

### **CODE INFORMATION:**

R-15

### JURISDICTION: ZONING: NO. DWELLINGS: **CRITICAL AREAS:** SHORELINE JURIS.

### EROSION, LANDSLIDE, SEIZMIC AREA SUBJECT PROPERTY'S CLOSEST PROPERTY LINE IS APPROXIMATELY 230'-0" FROM SHORELINE

MERCER ISLAND

**1 SINGLE FAMILY** 

AVERAGE GRADE TO HIGHEST ROOF PEAK: 30 FT TALLEST FACADE: 30 FT.

FRONT YARD: 20 FT. (FRONTING W. MERCER WAY) REAR YARD: 25 FT. SIDE YARD: 5 FT. MIN. & 15 FT. TOTAL SIDE YARD CALCULATIONS LARGEST CIRCLE DIA. (EXCLUDE ESMTS): 73'-6" 12'-6" SETBACK TOTAL: 73'-6" X 17% = MIN. SETBACK ON ONE SIDE: 12'-6" X 33% = 4'-1" MI CODE 19.02.020 C. 1. (a): 15'-0" MIN. SETBACK TOTAL: 5'-0" MIN. SIDE YARD SETBACK:

16,623 SF 15,027 SF (SUBJECT LOT'S DRIVEWAY ACCESS INCLUDING A 10 FT. BACKOUT RESULTS IN EXCLUDED EASEMENT AREA OF 1,596 SF)

HIGHEST GRADE ON SITE: +150.0-FT LOWEST GRADE ON SITE: +101.0 FT. ON CITY IGS ONLINE DISTANCE BETWEEN HIGHEST & LOWEST: 148 FT LOT SLOPE: 33%

MAX. LOT COVERAGE:

	EXISTING COVERAGE		
$\widehat{\mathbf{A}}$	HOME ROOF:	2,131	SF
B)	SHARED DRIVE:	805	SF
$\widetilde{C}$	DRIVEWAY:	1,334	SF
0	TOTAL EXST.:		
_	NEW COVERAGE		
D	SECOND FLOOR ADDITION:	0	SF
E	FIRST FLOOR REMODEL:	<u>0</u>	SF
	TOTAL NEW:		
	TOTAL LOT COVERAGE:		
	MAX. HARDSCAPE COVERAG	GE:	
$\widehat{}$	EXISTING COVERAGE	400	05
<b>H</b> )	GRAVEL:	188	SF

### G STONE WALK: ) CMU RETAINING WALLS: ) ROCK R'TNG. WALLS: TOTAL EXISTING: UNDER SEPARATE PERMIT **REPLACED DECK:** 398 SF ) NEW DECK: NEW CMU R'TNG. WALL: TOTAL UNDER SEPARATE PERMIT: TOTAL HARDSCAPE COVERAGE: GROSS FLOOR AREA: MAX. GROSS FLOOR AREA: (LOT AREA X 40%)

EXISTING	
BASEMENT:	1,3
MAIN FLOOR:	1,7
UPPER FLOOR:	7
TOTAL EXISTING:	
EXISTING REMODELED	
MAIN FLOOR:	
NEW ADDITION	
UPPER FLOOR ADDITION:	
TOTAL GROSS FLOOR AREA	:

20 FT. SHARED DRIVEWAY ACCESS EASEMENT

4.508 SF 30%

31 SF 305 SF 34 SF 4,270 SF 28.4% 0 SF

> 4,270 SF 28.4% 1,352 SF 9%

88 SF 244 SF 36 SF <u>60 SF</u>

528 SF

171 SF 40 SF 609 SF 1,137 SF 7.6%

6,649 SF 40%

306 SF 762 SF 744 SF

3,812 SF

58 SF

<u>610 SF</u> 4,480 SF 27%

### **PROJECT TEAM**

### **OWNER:**

**BILL & JANET FELDMANN** 8059 W. MERCER WAY MERCER ISLAND, WA 98040 P: 425-301-0482 E: jenniferbrenes@comcast.net

### **ARCHITECT:**

LIVING SHELTER ARCHITECTS PLLC 472 FRONT ST. NORTH ISSAQUAH, WA 98027 PRINCIPAL: TERRY PHELAN CONTACT: TROY HOWE P: 425-427-8643 E: troy.howe@livingshelter.com

### **STRUCTURAL ENGINEER:**

**BUKER ENGINEERING, LLC** 4303 STONE WAY NORTH SEATTLE, WA 98103 PRINCIPAL: DANIEL BUKER CONTACT: CRAIG DONNISON P: 206-258-6333 E: craig@bukerengineering.com

### **PROJ. SUMMARY:**

THIS IS A SINGLE-FAMILY RESIDENTIAL SECOND FLOOR ADDITION TO AN EXISTING HOME. THE ADDITION IS LOCATED OVER A PORTION OF THE HOME'S MAIN FLOOR AND THE GARAGE. THERE IS NO NEW FOOTPRINT ADDED. THE ADDITION CONSISTS OF A GUEST SUITE, A GUEST BATHROOM, A LAUNDRY ROOM AND A NEW STAIR.

### **DRAWING INDEX**

COVER: MERCER ISLAND COVER SHEET SURVEY:

S1 SURVEY

ARCHITECTURAL

- SITE PLAN & PROJECT DATA A0.1
- A1.1 BASEMENT FLOOR PLAN
- A1.2 MAIN FLOOR PLAN A1.3 UPPER FLOOR PLAN
- A1.4 ROOF PLAN
- A2.1 ELEVATIONS
- A2.2 ELEVATIONS & ABE CALCS
- A3.1 BUILDING SECTIONS

### STRUCTURAL:

- S1.1 STRUCTURAL NOTES S2.0 FOUNDATION & FRAMING PLAN S2.1 MAIN FLOOR FRAMING PLAN S2.2 LOW ROOF/2ND FLR. FRMG. PLAN S2.3 ROOF FRAMING PLAN S3.1 CONCRETE DETAILS S4.1 FLOOR FRAMING DETAILS S4.2 FLOOR FRAMING DETAILS
- S5.1 ROOF FRAMING DETAILS
- **VICINITY MAP & PROJECT ADDRESS:** 8059 W. MERCER WAY
- MERCER ISLAND, WA 98040





### LIVING SHELTER **ARCHITECTS** PLLC

472 FRONT ST. N ISSAQUAH, WA 98027 (425) 427-8643

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### 19-012

project name

### FELDMANN RESIDENCE

project address 8059 W Mercer Way. Mercer Island, WA, 98040

### owner

file

**Bill and Janet Feldmann** 509.969.3528 wcfeldmann@gmail.com

project manager **TROY HOWE** LIVING SHELTER ARCH. 425.427.8643 troy.howe@livingshelter.com

### structural engineer **CRAIG DONNISON** BUKER ENGINEERING. LLC 206-258-6333 craig@bukerengineering.com



revisions



20 MAY, 2020

sheet title

date

**SITE PLAN & PROJ DATA** 

sheet number













(see sheet A0.0 & A0.1 for additional notes)

### **MATERIALS:**

**A** 

**B**)

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1. Use low toxic/low volatile organic compound (VOC) materials where possible throughout project, especially on interior surfaces.

A.Examples include: paints & finishes, water based products, solvent-free sealers, grouts, mortars, calks, and adhesives.

2. Limit pressure treated (P.T.) components: no wood treated with chromated copper arsenate (CCA) or ammoniacal copper arsenate (ACA) may be used on this job. Wood treated with

alkaline/copper/quaternary (ACQ) is acceptable.

3. Provide F.S.C. (Forest Stewardship Council) Certified lumber to greatest extent possible. (Available at Ecohaus and Dunn Lumber in Seattle.)

4. Steel shall be certified min. 80% recycled content.

5. Provide fly ash in concrete mix. 6. Use plywood and composites of exterior grade or formaldehyde-free (for interior use). 7. Use polyethylene piping for plumbing (i.e. PEX)

8. Avoid PVC throughout project to the greatest extent possible.

9. Use 75% minimum Energy Star light fixtures.

### **METHODS:**

Submit jobsite recycling plan prior to start of construction.

A. Achieve a minimum recycling rate of 70% of waste by weight.

B. Follow recycling plan once posted on jobsite.

2. All sub/contractors to comply with recycling plan & waste reduction efforts. Example of materials to recycle: cardboard, metal scrap, wood scrap, broken pallets, packaging, concrete rubble, rock, brick, land clearing/ yard waste, soil, other construction materials and surplus as appropriate.

3. Allow proper ventilation and curing time for strong construction compounds. 4. Sub/contractor to notify owner prior to use of compounds/materials with

strong odors. 5. Seal at doors, windows, plumbing

& electrical penetrations against moisture and air leaks, refer to flashing details.



### LIVING SHELTER ARCHITECTS PLLC

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structural engineer CRAIG DONNISON BUKER ENGINEERING, LLC 206-258-6333 craig@bukerengineering.com



revisions



18 MAY, 2020

sheet title

date

BASEMENT PLAN

sheet number







(see sheet A0.0 & A0.1 for additional notes)

### **MATERIALS**:

1. Use low toxic/low volatile organic compound (VOC) materials where possible throughout project, especially on interior surfaces.

A.Examples include: paints & finishes, water based products, solvent-free sealers, grouts, mortars, calks, and adhesives.

2. Limit pressure treated (P.T.) components: no wood treated with chromated copper arsenate (CCA) or ammoniacal copper arsenate (ACA) may be used on this job. Wood treated with

alkaline/copper/quaternary (ACQ) is acceptable.

3. Provide F.S.C. (Forest Stewardship Council) Certified lumber to greatest extent possible. (Available at Ecohaus and Dunn Lumber in Seattle.)

4. Steel shall be certified min. 80% recycled content.

5. Provide fly ash in concrete mix.

6. Use plywood and composites of exterior grade or formaldehyde-free (for interior use). 7. Use polyethylene piping for plumbing (i.e. PEX)

8. Avoid PVC throughout project to the greatest extent possible. 9. Use 75% minimum Energy Star light

fixtures.

### **METHODS:**

- 1. Submit jobsite recycling plan prior to start of construction.
- A. Achieve a minimum recycling rate of 70% of waste by weight. B. Follow recycling plan once
- posted on jobsite. 2. All sub/contractors to comply with

recycling plan & waste reduction efforts. Example of materials to recycle: cardboard, metal scrap, wood scrap, broken pallets, packaging, concrete rubble, rock, brick, land clearing/ yard waste, soil, other construction materials and surplus as appropriate.

3. Allow proper ventilation and curing time for strong construction compounds. 4. Sub/contractor to notify owner prior

to use of compounds/materials with strong odors.

5. Seal at doors, windows, plumbing & electrical penetrations against moisture and air leaks, refer to flashing details.



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revisions



18 MAY, 2020

date

sheet title MAIN FLOOR PLAN

sheet number





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NOTES:

1. ALL NEW EXTERIOR WALLS 2X4 @ 16" OC UNLESS

OTHERWISE NOTED

2. ALL NEW INTERIOR WALLS 2X4 @ 16" OC UNLESS

OTHERWISE NOTED

4. CREDIT 5a - SHOWERHEAD RATED AT 1.75 GPM MAX.

& LAVATORY FAUCETS RATED 1.0 GPM MAX.

WINDOW SCHEDULE							
MARK	QTY.	WIDTH	HEIGHT	TYPE	U-VALUE	AREA	NOTES
$\langle A \rangle$	4	2'-4"	4'-4"	SINGLE HUNG	0.30	40.4 SF	
$\langle B \rangle$	3	1'-10"	1'-9"	FIXED	0.30	9.6 SF	
Ċ	1	2'-10"	4'-10"	SINGLE HUNG	0.30	13.7 SF	SAFETY GLAZING
$\langle D \rangle$	1	2'-10"	2'- 4"	FIXED	0.30	6.6 SF	
Æ>	2	1'-4"	3'-4"	SINGLE HUNG	0.30	9.3 SF	
(F)	1	1'-10"	3'-4"	SINGLE HUNG	0.30	6.1 SF	
NOTES TOTAL 85.7 SF							
<ol> <li>See elevations for operation, grids and location of egress and safety glass.</li> <li>See plan notes and building sections for head heights.</li> <li>Wall thicknesses vary, field verify prior to ordering.</li> </ol>							

DOOR					
MARK	QTY.	WIDTH	HEIGHT		
( 1 )	4	2'-6"	6'-8"		
2	1	2'-4"	6'-8"		
3	3	2'-6"	6'-8"		
(4)	3	2'-6"	6'-8"		
NOTES					
<ol> <li>See plans for operation</li> <li>See plan notes and building sec</li> </ol>					

![](_page_4_Picture_10.jpeg)

### **PLAN NOTES:**

(see sheet A0.1 for additional notes)

### **MATERIALS**:

1. Use low toxic/low volatile organic compound (VOC) materials where possible throughout project, especially on interior surfaces.

A.Examples include: paints & finishes, water based products, solvent-free sealers, grouts, mortars, calks, and adhesives.

2. Limit pressure treated (P.T.) components: no wood treated with chromated copper arsenate (CCA) or ammoniacal copper arsenate (ACA) may be used on this job. Wood treated with alkaline/copper/quaternary (ACQ) is acceptable.

3. Provide F.S.C. (Forest Stewardship Council) Certified lumber to greatest extent possible. (Available at Ecohaus and Dunn Lumber in Seattle.)

4. Steel shall be certified min. 80% recycled content. 5. Provide fly ash in concrete mix.

6. Use plywood and composites of exterior grade or formaldehyde-free (for interior use).

7. Use polyethylene piping for plumbing (i.e. PEX) 8. Avoid PVC throughout project to the greatest extent possible.

9. Use 75% minimum Energy Star light fixtures.

### **METHODS:**

1. Submit jobsite recycling plan prior to start of construction.

A. Achieve a minimum recycling rate of 70% of waste by weight.

B. Follow recycling plan once posted on jobsite. 2. All sub/contractors to comply with recycling plan & waste reduction efforts. Example of materials to recycle: cardboard, metal scrap, wood scrap, broken pallets, packaging, concrete rubble, rock, brick, land clearing/ yard waste, soil, other construction materials and surplus as appropriate.

3. Allow proper ventilation and curing time for strong construction compounds.

4. Sub/contractor to notify owner prior to use of compounds/materials with strong odors.

5. Seal at doors, windows, plumbing & electrical penetrations against moisture and air leaks, refer to flashing details.

### FELDMANN RESIDENCE WSEC Component Approach

U-values for assemblies obtained from REScheck, all walls/floors 16" o.c. & all ceilings 24" o.c.

	<b>R-Value</b>	U-Factor	Area	UA
Э	R-21	0.057	556	31.692
		0.3	85.7	25.71
	R-49	0.026	510	13.26
	R-38	0.027	195	5.265
	R-30	0.033	486	16.038
<b>y</b> Lin e	D 10	0.052	102	E 050
ling	R-19	0.052	103	5.350
Grade	R-13	0.082	79	6.478
				103.799
	R-Value	U-Factor	Area	UA
e	R-15	0.077	479	36.883
2	P_21	0.057	77	1 380

e	R-21	0.057	11	4.389
		0.3	85.7	25.71
	R-49	0.02	510	10.2
	R-30	0.034	157	5.338
air	R-38	0.027	38	1.026
	R-49	0.026	486	12.636
g				
e exst. vaulted ceiling)	R-49	0.026	103	2.678
es				
e (furr exst. 2x4 wall)	R-21	0.057	79	4.503
				103.363

### WSEC COMPONENT CALCS

![](_page_4_Picture_34.jpeg)

### LIVING SHELTER ARCHITECTS PLLC

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19-012

project name

file

### FELDMANN RESIDENCE

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project manager TROY HOWE LIVING SHELTER ARCH. 425.427.8643 troy.howe@livingshelter.com

structural engineer CRAIG DONNISON BUKER ENGINEERING, LLC 206-258-6333 craig@bukerengineering.com

![](_page_4_Picture_46.jpeg)

revisions
5/18/20 PRMT SUB
date 18 MAY, 2020
sheet title
UPPER
FLOOR

sheet number

A1.3

![](_page_5_Figure_0.jpeg)

![](_page_5_Picture_4.jpeg)

![](_page_5_Figure_5.jpeg)

(see sheet A0.0 & A0.1 for additional notes)

### **MATERIALS:**

1. Use low toxic/low volatile organic compound (VOC) materials where possible throughout project, especially on interior surfaces.

A.Examples include: paints & finishes, water based products, solvent-free sealers, grouts, mortars, calks, and adhesives.

2. Limit pressure treated (P.T.) components: no wood treated with chromated copper arsenate (CCA) or ammoniacal copper arsenate (ACA) may be used on this job. Wood treated with

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3. Provide F.S.C. (Forest Stewardship Council) Certified lumber to greatest extent possible. (Available at Ecohaus and Dunn Lumber in Seattle.)

4. Steel shall be certified min. 80% recycled content.

5. Provide fly ash in concrete mix. 6. Use plywood and composites of exterior grade or formaldehyde-free (for interior use). 7. Use polyethylene piping for plumbing (i.e. PEX)

8. Avoid PVC throughout project to the greatest extent possible.

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### **METHODS:**

1. Submit jobsite recycling plan prior to start of construction.

A. Achieve a minimum recycling rate of 70% of waste by weight. B. Follow recycling plan once

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3. Allow proper ventilation and curing time for strong construction compounds. 4. Sub/contractor to notify owner prior to use of compounds/materials with strong odors.

5. Seal at doors, windows, plumbing & electrical penetrations against moisture and air leaks, refer to flashing details.

![](_page_5_Picture_25.jpeg)

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structural engineer CRAIG DONNISON BUKER ENGINEERING, LLC 206-258-6333 craig@bukerengineering.com

![](_page_5_Picture_37.jpeg)

revisions

![](_page_5_Picture_39.jpeg)

sheet title ROOF PLAN

sheet number

![](_page_5_Picture_43.jpeg)

![](_page_5_Figure_44.jpeg)

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![](_page_6_Figure_0.jpeg)

![](_page_6_Picture_1.jpeg)

0' 1' 2' 4' 8'

16'

### **EXT. ELEVATION NOTES:**

(see sheet A1 for additional notes)

1. Verify shear wall nailing & holdowns per plan & schedule prior to installing siding. 2. The building envelope shall be sealed, caulked, gasketed, & weather-stripped to limit air leakage. Provide infiltration control @ window & door frames, and penetrations & openings at walls, floors, and roofs. 3. Provide galvanized or anodized sheet metal flashing & counter flashing @ all roof penetrations, chimneys, & skylights per IRC Sec. R703.8.

4. Provide roof covering per IRC Sec. R905. -install per mfr's. specs. 5. Provide ext. wall covering per IRC Sec.

R703. -install per mfr's. specs.

6. Provide continuous gutters & down spouts

@ all eaves, typ. 7. Site shall be graded & hard surfaces

sloped, so as to drain surface water away from building. 8. See sheet Ax for window & door

schedules. 9. SG= safety glass, EG= egress

![](_page_6_Picture_12.jpeg)

### LIVING SHELTER ARCHITECTS PLLC

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19-012

file

project name FELDMANN RESIDENCE

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project manager TROY HOWE LIVING SHELTER ARCH. 425.427.8643 troy.howe@livingshelter.com

structural engineer CRAIG DONNISON BUKER ENGINEERING, LLC 206-258-6333 craig@bukerengineering.com

![](_page_6_Figure_22.jpeg)

revisions

5/18/20 PRMT SUB date 18 MAY, 2020 sheet title **ELEVATIONS** 

sheet number

![](_page_6_Picture_26.jpeg)

![](_page_7_Figure_0.jpeg)

### **EXT. ELEVATION NOTES:**

(see sheet A1 for additional notes)

 Verify shear wall nailing & holdowns per plan & schedule prior to installing siding.
 The building envelope shall be sealed, caulked, gasketed, & weather-stripped to limit air leakage. Provide infiltration control @ window & door frames, and penetrations & openings at walls, floors, and roofs.
 Provide galvanized or anodized sheet metal flashing & counter flashing @ all roof penetrations, chimneys, & skylights per IRC Sec. R703.8.

4. Provide roof covering per IRC Sec. R905. -install per mfr's. specs.5. Provide ext. wall covering per IRC Sec.

R703. -install per mfr's. specs.

6. Provide continuous gutters & down spouts@ all eaves, typ.

7. Site shall be graded & hard surfaces sloped, so as to drain surface water away from building.8. See sheet Ax for window & door

schedules. 9. SG= safety glass, EG= egress

SPOT ELEVATION METHOD:

 ESTABLISHED HIGHEST GRADE ELEVATION BASED ON CITY'S ONLINE TOPOGRAPHY MAPPING - APPROX. +125.0'
 HOME FLOOR TO FLOOR VERTICAL MEASUREMENTS ESTABLISHED BY AS BUILT COMPANY (2D ASBUILTS)
 ARCHITECT USED HOME'S VERTICAL FLOOR MEASUREMENTS AND EXPOSED FOUNDATION TO ESTABLISH MID-POINT SPOT ELEVATIONS AROUND THE PERIMETER OF THE HOME.

NOTE: EXST. GRADE SPOT ELEVATIONS ALSO SHOWN ON THE HOME ELEVATIONS FOR CLARITY; ADDITIONAL INFORMATION PROVIDED ON METHODS

### Feldmann Average Building Elevation Calculations

Segment	Length	Midpoint elevs	Total	Ave Bldg Elev
Α	48.2	116.0	5,587.7	
В	19.7	121.4	2,387.9	
С	16.0	125.3	2,004.8	
D	4.0	125.4	501.6	
Ε	13.1	125.5	1,641.5	
$\mathbf{F}$	11.4	126.0	1,438.9	
G	5.0	127.5	637.5	
н	20.2	127.8	2,577.7	
Ι	24.1	127.8	3,077.4	
J	55.3	124.8	6,895.2	
Totals	216.8	1,247.5	26,750.4	123.4

![](_page_7_Picture_14.jpeg)

### LIVING SHELTER ARCHITECTS PLLC

472 FRONT ST. N ISSAQUAH, WA 98027 (425) 427-8643

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19-012

file

project name FELDMANN RESIDENCE

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![](_page_7_Picture_24.jpeg)

5/18/20 PRMT SUB
date 18 MAY, 2020
sheet title
ELEVATIONS

sheet number

revisions

A2.2

![](_page_8_Figure_0.jpeg)

![](_page_8_Picture_1.jpeg)

LIVING SHELTER ARCHITECTS PLLC
472 FRONT ST. N ISSAQUAH, WA 98027 (425) 427-8643
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6572 REGISTERED ARCHITECT THERESA K. PHELAN STATE OF WASHINGTON
revisions 5/18/20 PRMT SUB
date
18 MAY, 2020
BUILDING SECTIONS
sheet number
A3.1
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### Criteria

•	ALL MATERIALS, WORKMANSHIP, DESIGN, AND CO DRAWINGS, SPECIFICATIONS, AND THE 2015 INTERNA	ONSTRUCTION SHALL CONFORM TO THE ATIONAL BUILDING CODE.
2.	DESIGN LOAD CRITERIA	
	FLOOR LIVE LOAD (RESIDENTIAL)	40 PSF
	SNOW	Pf=25 PSF
	WIND	lw=1.0, GCpi=0.18, 110 MPH (ULTIMATE), EXPOSURE "C", KZT=1.00
	EARTHQUAKE	
	ANALYSIS PROCEDURE:	EQUIVALENT LATERAL FORCE PROCEDURE
	LATERAL SYSTEM:	LIGHT FRAMED SHEAR WALLS
	BASE SHEAR - WHOLE BUILDING (ALLOWABLE)	V=15.35 KIPS
	BASE SHEAR - ONLY ADDITION (ALLOWABLE)	V=4.5 KIPS
	SITE CRITERIA	SITE CLASS=D, Ss=1.469, Sds=0.979,
		S1=0.559, SD1=0.559, Cs=0.108

SEE PLANS FOR ADDITIONAL LOADING CRITERIA

3. STRUCTURAL DRAWINGS SHALL BE USED IN CONJUNCTION WITH ARCHITECTURAL DRAWINGS FOR BIDDING AND CONSTRUCTION. CONTRACTOR SHALL VERIFY DIMENSIONS AND CONDITIONS FOR COMPATIBILITY AND SHALL NOTIFY ARCHITECT OF ANY DISCREPANCIES PRIOR TO CONSTRUCTION.

SDC D, le=1.0, R=6.5

- 4. CONTRACTOR SHALL VERIFY ALL EXISTING DIMENSIONS, MEMBER SIZES, AND CONDITIONS PRIOR TO COMMENCING ANY WORK. ALL DIMENSIONS OF EXISTING CONSTRUCTION SHOWN ON THE DRAWINGS ARE INTENDED AS GUIDELINES ONLY AND MUST BE VERIFIED.
- 5. CONTRACTOR SHALL PROVIDE TEMPORARY BRACING FOR THE STRUCTURE AND STRUCTURAL COMPONENTS UNTIL ALL FINAL CONNECTIONS HAVE BEEN COMPLETED IN ACCORDANCE WITH THE PLANS.
- 6. CONTRACTOR SHALL BE RESPONSIBLE FOR ALL SAFETY PRECAUTIONS AND THE METHODS, TECHNIQUES, SEQUENCES OR PROCEDURES, REQUIRED TO PERFORM THE CONTRACTORS WORK. THE STRUCTURAL ENGINEER HAS NO OVERALL SUPERVISORY AUTHORITY OR ACTUAL AND/OR DIRECT RESPONSIBILITY FOR THE SPECIFIC WORKING CONDITIONS AT THE SITE AND/OR FOR ANY HAZARDS RESULTING FROM THE ACTIONS OF ANY TRADE CONTRACTOR. THE STRUCTURAL ENGINEER HAS NO DUTY TO INSPECT, SUPERVISE, NOTE, CORRECT, OR REPORT ANY HEALTH OR SAFETY DEFICIENCIES TO THE OWNER, CONTRACTORS, OR OTHER ENTITIES OR PERSONS AT THE PROJECT SITE.
- 7. CONTRACTOR-INITIATED CHANGES SHALL BE SUBMITTED IN WRITING TO THE ARCHITECT AND STRUCTURAL ENGINEER FOR APPROVAL PRIOR TO FABRICATION OR CONSTRUCTION. CHANGES SHOWN ON SHOP DRAWINGS ONLY WILL NOT SATISFY THIS REQUIREMENT.
- 8. DRAWINGS INDICATE GENERAL AND TYPICAL DETAILS OF CONSTRUCTION. WHERE CONDITIONS ARE NOT SPECIFICALLY INDICATED BUT ARE OF SIMILAR CHARACTER TO DETAILS SHOWN, SIMILAR DETAILS OF CONSTRUCTION SHALL BE USED, SUBJECT TO REVIEW AND APPROVAL BY THE ARCHITECT AND THE STRUCTURAL ENGINEER.

### Quality Assurance

1. SPECIAL INSPECTION SHALL BE PROVIDED IN ACCORDANCE WITH THE PROJECT SPECIFICATIONS AND SECTIONS 110 AND 1704 OF THE INTERNATIONAL BUILDING CODE BY A QUALIFIED TESTING AGENCY DESIGNATED BY THE ARCHITECT, AND RETAINED BY THE BUILDING OWNER. THE ARCHITECT, STRUCTURAL ENGINEER, AND BUILDING DEPARTMENT SHALL BE FURNISHED WITH COPIES OF ALL INSPECTION AND TEST RESULTS. SPECIAL INSPECTION IS REQUIRED OF THE FOLLOWING TYPES OF CONSTRUCTION:

EXPANSION BOLTS AND THREADED EXPANSION INSERTS	PER MANUFACTURER
EPOXY GROUTED INSTALLATIONS	PER MANUFACTURER

### Geotechnical

- 1. FOUNDATION NOTES: ALLOWABLE SOIL PRESSURE AND LATERAL EARTH PRESSURE ARE ASSUMED AND THEREFORE MUST BE VERIFIED BY A QUALIFIED SOILS ENGINEER OR APPROVED BY THE BUILDING OFFICIAL. IF SOILS ARE FOUND TO BE OTHER THAN ASSUMED, NOTIFY THE STRUCTURAL ENGINEER FOR POSSIBLE FOUNDATION REDESIGN. FOOTINGS SHALL BEAR ON FIRM, UNDISTURBED EARTH AT LEAST 18" BELOW ADJACENT
  - FINISHED GRADE. UNLESS OTHERWISE NOTED, FOOTINGS SHALL BE CENTERED BELOW COLUMNS OR WALLS ABOVE.
  - BACKFILL BEHIND ALL RETAINING WALLS WITH FREE DRAINING, GRANULAR FILL AND PROVIDE FOR SUBSURFACE DRAINAGE. ALLOWABLE SOIL PRESSURE 2000 PSF
  - LATERAL EARTH PRESSURE (RESTRAINED/UNRESTRAINED) 55 PCF/35 PCF COEFICIENT OF FRICTION (FACTOR OF SAFETY OF 1.5 INCLUDED) 0.3

### Renovation

- TO 40 PSF
- 2. EXISTING REINFORCING SHALL BE SAVED WHERE AND AS NOTED ON THE PLANS. SAW CUTTING, IF AND WHERE USED, SHALL NOT CUT EXISTING REINFORCING THAT IS TO BE SAVED. A. ALL NEW OPENINGS THROUGH EXISTING WALLS, SLABS AND BEAMS SHALL BE
- ACCOMPLISHED BY SAW CUTTING WHEREVER POSSIBLE B. CONTRACTOR SHALL VERIFY ALL EXISTING CONDITIONS AND LOCATION OF MEMBERS PRIOR TO CUTTING ANY OPENINGS.
- D. WHERE NEW REINFORCING TERMINATES AT EXISTING CONCRETE, DOWELS EPOXY GROUTED INTO EXISTING CONCRETE SHALL BE PROVIDED TO MATCH HORIZONTAL REINFORCING, UNLESS OTHERWISE NOTED ON PLANS.
- 3. CONTRACTOR SHALL CHECK FOR DRYROT AT ALL AREAS OF NEW WORK. ALL ROT SHALL BE REMOVED AND DAMAGED MEMBERS SHALL BE REPLACED OR REPAIRED AS DIRECTED BY THE STRUCTURAL ENGINEER OR ARCHITECT.

### Concrete

- 2. THE MINIMUM AMOUNTS OF CEMENT MAY BE CHANGED IF A CONCRETE PERFORMANCE MIX IS SUBMITTED TO THE STRUCTURAL ENGINEER AND THE BUILDING DEPARTMENT FOR APPROVAL TWO WEEKS PRIOR TO PLACING ANY CONCRETE. THE PERFORMANCE MIX SHALL INCLUDE THE AMOUNTS OF CEMENT, FINE AND COARSE AGGREGATE, WATER AND ADMIXTURES AS WELL AS THE WATER CEMENT RATIO, SLUMP, CONCRETE YIELD AND SUBSTANTIATING STRENGTH DATA IN ACCORDANCE WITH IBC 1905.6. THE USE OF A PERFORMANCE MIX REQUIRES BATCH PLANT INSPECTION, THE COST OF WHICH SHALL BE PAID BY THE GENERAL CONTRACTOR. REVIEW OF MIX SUBMITTALS BY THE ENGINEER OF RECORD INDICATES ONLY THAT INFORMATION PRESENTED CONFORMS GENERALLY TO THE CONTRACT DOCUMENTS. CONTRACTOR OR SUPPLIER MAINTAINS FULL RESPONSIBILITY FOR SPECIFIED PERFORMANCE.
- 3. REINFORCING STEEL SHALL CONFORM TO ASTM A615 (INCLUDING SUPPLEMENT S1), GRADE 60, fy=60,000 PSI. EXCEPTIONS: ANY BARS SPECIFICALLY SO NOTED ON THE DRAWINGS SHALL BE GRADE 40, fy=40,000 PSI. WELDED WIRE FABRIC SHALL CONFORM TO ASTM A-185. SPIRAL REINFORCEMENT SHALL BE PLAIN WIRE CONFORMING TO ASTM A615, GRADE 60, fy=60,000
- 4. CONCRETE PROTECTION (COVER) FOR REINFORCING STEEL SHALL BE AS FOLLOWS: FOOTINGS AND OTHER UNFORMED SURFACES CAST AGAINST AND PERMANENTLY EXPOSEDTO EARTH
- CAST-IN-PLACE CONCRETE: SEE ARCHITECTURAL DRAWINGS FOR EXACT LOCATIONS AND DIMENSIONS OF DOOR AND WINDOW OPENINGS IN ALL CONCRETE WALLS. SEE MECHANICAL DRAWINGS FOR SIZE AND LOCATION OF MISCELLANEOUS MECHANICAL OPENINGS THROUGH CONCRETE WALLS. SEE ARCHITECTURAL DRAWINGS FOR ALL GROOVES, NOTCHES, CHAMFERS, FEATURE STRIPS, COLOR, TEXTURE, AND OTHER FINISH DETAILS AT ALL EXPOSED CONCRETE SURFACES, BOTH CAST-IN-PLACE AND PRECAST.
- 6. NON-SHRINK GROUT SHALL BE FURNISHED BY AN APPROVED MANUFACTURER AND SHALL BE MIXED AND PLACED IN STRICT ACCORDANCE WITH THE MANUFACTURER'S PUBLISHED RECOMMENDATIONS. GROUT STRENGTH SHALL BE AT LEAST EQUAL TO THE MATERIAL ON WHICH IT IS PLACED (3000 PSI MINIMUM).

### Anchorage

- REQUIRED FOR ALL EXPANSION BOLT INSTALLATION.
- 2. EPOXY-GROUTED ITEMS (THREADED RODS OR REINFORCING BAR) SPECIFIED ON THE DRAWINGS SHALL BE INSTALLED USING "HIT RE 500-V3" AS MANUFACTURED BY HILTI CORP. OR "SET-3G" HIGH STRENGTH EPOXY AS MANUFACTURED BY THE SIMPSON STRONG-TIE COMPANY. THESE SHALL BE INSTALLED IN STRICT ACCORDANCE WITH ICC-ES REPORT NO. ESR-2322 (HILTI) OR ICC-ES REPORT NO. ESR-4057 (SIMPSON). SPECIAL INSPECTION OF INSTALLATION IS REQUIRED. RODS SHALL BE ASTM A-36 UNLESS OTHERWISE NOTED.

### General Structural Notes

### The Following Apply Unless Noted Otherwise on the Drawings

 DEMOLITION: CONTRACTOR SHALL VERIFY ALL EXISTING CONDITIONS BEFORE COMMENCING ANY DEMOLITION. SHORING SHALL BE INSTALLED TO SUPPORT EXISTING CONSTRUCTION AS REQUIRED AND IN A MANNER SUITABLE TO THE WORK SEQUENCES. DEMOLITION DEBRIS SHALL NOT BE ALLOWED TO DAMAGE OR OVERLOAD THE EXISTING STRUCTURE. LIMIT CONSTRUCTION LOADING (INCLUDING DEMOLITION DEBRIS) ON EXISTING FLOOR SYSTEMS

C. SMALL ROUND OPENINGS SHALL BE ACCOMPLISHED BY CORE DRILLING, IF POSSIBLE.

1. CONCRETE SHALL BE MIXED, PROPORTIONED, CONVEYED AND PLACED IN ACCORDANCE WITH IBC SECTION 1905, 1906 AND ACI 301, INCLUDING TESTING PROCEDURES. CONCRETE SHALL ATTAIN A 28-DAY STRENGTH OF f'c=3.000 PSI AND MIX SHALL CONTAIN NOT LESS THAN 5-1/2 SACKS OF CEMENT PER CUBIC YARD AND SHALL BE PROPORTIONED TO PRODUCE A SLUMP OF 5" OR LESS. (STRUCTURAL DESIGN OF FOUNDATION IS BASED ON A f'c=2,500 PSI, PER IBC 1705.3.2.3, SPECIAL INSPECTION IS NOT REQUIRED.)

1. EXPANSION BOLTS INTO CONCRETE AND CONCRETE MASONRY UNITS SHALL BE "KWIK BOLT TZ" AS MANUFACTURED BY THE HILTI CORP. OR STRONG-BOLT 2 ANCHORS AS MANUFACTURED BY THE SIMPSON STRONG-TIE COMPANY. THESE SHALL BE INSTALLED IN STRICT ACCORDANCE WITH ICC-ES REPORT NO. ESR-1917 (HILTI) OR ICC-ES REPORT NO. ESR-3037 (SIMPSON), INCLUDING MINIMUM EMBEDMENT REQUIREMENTS. BOLTS INTO CONCRETE MASONRY OR BRICK MASONRY UNITS SHALL BE INTO FULLY GROUTED CELLS. SUBSTITUTES PROPOSED BY CONTRACTOR SHALL BE SUBMITTED FOR REVIEW WITH ICC REPORTS INDICATING EQUIVALENT OR GREATER LOAD CAPACITIES. SPECIAL INSPECTION IS

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		$\sim$	$\sim$	$\sim$

1.	FRAMING LUMBER CONFORMANCE WI	SHALL BE K TH W.C.L.B. ST/	ILN DRIED ANDARD GR	OR MC-1 ADING RUI	9, AND _ES FOR '	GRADED WEST COA	AND ST LU	MARKED MBER NO.	IN 17.
	FURNISHTUTHLEFC			DARDS.					
	JOISTS	(2X & 3X N	/IEMBERS)	HEI	M-FIR NC	). 2			

AND BEAMS:		MINIMUM BASE VALUE, Fb=850 PSI
	(4X MEMBERS)	DOUGLAS FIR-LARCH NO. 2 MINIMUM BASE VALUE, Fb=900 PSI
BEAMS:	(INCL. 6X AND LARGER)	DOUGLAS FIR-LARCH NO. 1 MINIMUM BASE VALUE, Fb=1350 PSI
POSTS:	(4X MEMBERS)	DOUGLAS FIR-LARCH NO. 2 MINIMUM BASE VALUE, Fc=1350 PSI
	(6X AND LARGER)	DOUGLAS FIR-LARCH NO. 1 MINIMUM BASE VALUE, Fc=1000 PSI

STUDS, PLATES & MISC. FRAMING:

DOUGLAS-FIR-LARCH OR HEM-FIR NO. 2

MANUFACTURED LUMBER, PSL, LVL, AND LSL, SHALL BE MANUFACTURED UNDER A PROCESS APPROVED BY THE NATIONAL RESEARCH BOARD. EACH PIECE SHALL BEAR A STAMP OR STAMPS NOTING THE NAME AND PLANT NUMBER OF THE MANUFACTURER, THE GRADE, THE NATIONAL RESEARCH BOARD NUMBER, AND THE QUALITY CONTROL AGENCY. ALL PSL, LVL, AND LSL LUMBER SHALL BE MANUFACTURED IN ACCORDANCE WITH ICC-ES REPORT ESR-1387 USING DOUGLAS FIR VENEER GLUED WITH A WATERPROOF ADHESIVE MEETING THE REQUIREMENTS OF ASTM D2559 WITH ALL GRAIN PARALLEL WITH THE LENGTH OF THE MEMBER. THE MEMBERS SHALL HAVE THE FOLLOWING MINIMUM PROPERTIES: PSL (2.0F) Eh-2000 DCL E-2000 KCL Ev-200 DCL

PSL (2.0E)	FD=2900 PSI, E=2000 KSI, FV=290 PSI
LVL (1.9E)	Fb=2600 PSI ,E=1900 KSI, Fv=285 PSI
LSL (1.55E)	Fb=2325 PSI ,E=1550 KSI, Fv=310 PSI

DESIGN SHOWN ON PLANS IS BASED ON LUMBER MANUFACTURED BY THE WEYERHAEUSER CORPORATION. ALTERNATE MANUFACTURERS MAY BE USED SUBJECT TO REVIEW AND APPROVAL BY THE ARCHITECT AND STRUCTURAL ENGINEER, ALTERNATE JOIST HANGERS AND OTHER HARDWARE MAY BE SUBSTITUTED FOR ITEMS SHOWN PROVIDED THEY HAVE ICC APPROVAL FOR EQUAL OR GREATER LOAD CAPACITIES. ALL JOIST HANGERS AND OTHER HARDWARE SHALL BE COMPATIBLE IN SIZE WITH MEMBERS PROVIDED.

MANUFACTURED LUMBER PRODUCTS SHALL BE INSTALLED WITH A MOISTURE CONTENT OF 12% OR LESS. THE CONTRACTOR SHALL MAKE PROVISIONS DURING CONSTRUCTION TO PREVENT THE MOISTURE CONTENT OF INSTALLED BEAMS FROM EXCEEDING 12%. EXCESSIVE DEFLECTIONS MAY OCCUR IF MOISTURE CONTENT EXCEEDS THIS VALUE.

- PLYWOOD SHEATHING SHALL BE GRADE C-D, EXTERIOR GLUE OR STRUCTURAL II, EXTERIOR GLUE IN CONFORMANCE WITH DOC PS 1. ORIENTED STRAND BOARD OF EQUIVALENT THICKNESS, EXPOSURE RATING AND PANEL INDEX MAY BE USED IN LIEU OF PLYWOOD. A. ROOF SHEATHING SHALL BE 1/2" (NOMINAL) WITH SPAN RATING 32/16
- B. FLOOR SHEATHING SHALL BE 3/4" (NOMINAL) WITH SPAN RATING 48/24.
- C. WALL SHEATHING SHALL BE 1/2" (NOMINAL) WITH SPAN RATING 24/0. D. REFER TO WOOD FRAMING NOTES BELOW FOR TYPICAL NAILING REQUIREMENTS.
- TONGUE-AND-GROOVE STRUCTURAL ROOF AND FLOOR DECKING SHALL BE INSTALLED AS FOLLOWS: 2X DECKING SHALL BE TOENAILED THROUGH THE TONGUE AND FACE - NAILED WITH ONE 16d NAIL PER PIECE PER SUPPORT. 3X AND 4X DECKING SHALL BE TOENAILED WITH ONE 40d NAIL AND FACENAILED WITH ONE 60d NAIL PER SUPPORT. COURSES SHALL BE SPIKED TOGETHER WITH 8" SPIKES @ 30" O.C. (MAXIMUM) AND @ 10" (MAXIMUM) FROM THE END OF EACH PIECE. SPIKES SHALL BE INSTALLED IN PREDRILLED EDGE HOLES. ALL DECKING SHALL BE PLACED WITH A CONTROLLED RANDOM LAYOUT. EACH PLANK SHALL BEAR ON AT LEAST ONE SUPPORT. END JOINTS SHALL BE CONNECTED WITH 10 GAUGE METAL SPLINES DRIVEN INTO PRE-CUT SLOTS. TONGUE AND GROOVE JOINTS SHALL BE GLUED WITH CONSTRUCTION ADHESIVE WHERE NOTED ON PLAN.
- 5. ALL WOOD IN DIRECT CONTACT WITH CONCRETE OR MASONRY SHALL BE PRESSURE-TREATED WITH AN APPROVED PRESERVATIVE OR (2) LAYERS OF ASPHALT IMPREGNATED BUILDING PAPER SHALL BE PROVIDED BETWEEN UNTREATED WOOD AND CONCRETE OR MASONRY.
- PRESSURE TREATED WOOD SHALL BE TREATED PER AWPA STANDARD. PRESSURE TREATED WOOD FOR ABOVE GROUND USE SHALL BE TREATED TO A RETENTION OF 0.25 PCF. WOOD IN CONTINUOUS CONTACT WITH FRESH WATER OR SOIL SHALL BE TREATED TO A RETENTION OF 0.40 PCF. WOOD FOR USE IN PERMANENT FOUNDATIONS SHALL BE TREATED TO A RETENTION OF 0.60 PCF. SODIUM BORATE (SBX) TREATED WOOD SHALL NOT BE USED WHERE EXPOSED TO WEATHER. FASTENERS AND TIMBER CONNECTORS IN DIRECT CONTACT WITH ACQ-A, CBA-A, CA-B, OR SBX TREATED WOOD SHALL BE G185 OR A185 HOT DIPPED OR CONTINUOUS HOT-GALVANIZED PER ASTM A653. FASTENERS AND TIMBER CONNECTORS IN DIRECT CONTACT WITH ACZA TREATED WOOD SHALL BE TYPE 304 OR 316 STAINLESS STEEL.

8.

### Wood (Con't)

- TIMBER CONNECTORS CALLED OUT BY LETTERS AND NUMBERS SHALL BE "STRONG-TIE" BY SIMPSON COMPANY, AS SPECIFIED IN THEIR CATALOG NUMBER C-C-2019. EQUIVALENT DEVICES BY OTHER MANUFACTURERS MAY BE SUBSTITUTED, PROVIDED THEY HAVE ICC-ES APPROVAL FOR EQUAL OR GREATER LOAD CAPACITIES. PROVIDE NUMBER AND SIZE OF FASTENERS AS SPECIFIED BY MANUFACTURER. CONNECTORS SHALL BE INSTALLED IN ACCORDANCE WITH THE MANUFACTURER'S RECOMMENDATIONS.
- ALL 2X JOISTS SHALL BE CONNECTED TO FLUSH BEAMS WITH "LUS" SERIES JOIST HANGERS. ALL TJI JOISTS SHALL BE CONNECTED TO FLUSH BEAMS WITH "ITT" SERIES JOIST HANGERS. ALL DOUBLE-JOIST BEAMS SHALL BE CONNECTED TO FLUSH BEAMS WITH "MIT" SERIES JOIST HANGERS.
- WHERE CONNECTOR STRAPS CONNECT TWO MEMBERS, PLACE ONE-HALF OF THE NAILS OR BOLTS IN EACH MEMBER.
- ALL SHIMS SHALL BE SEASONED AND DRIED AND THE SAME GRADE (MINIMUM) AS MEMBERS CONNECTED. WOOD FASTENERS
- A. NAIL SIZES SPECIFIED ON DRAWINGS ARE BASED ON THE FOLLOWING SPECIFICATIONS: LENGTH SIZE

JIZL	LLINGITI	DIAMETER
8d	2-1/2"	0.131"
10d	3"	0.148"
16d BOX	3-1/2"	0.135"

- IF CONTRACTOR PROPOSES THE USE OF ALTERNATE NAILS, THEY SHALL SUBMIT NAIL SPECIFICATIONS TO THE STRUCTURAL ENGINEER (PRIOR TO CONSTRUCTION) FOR REVIEW AND APPROVAL
- NAILS PLYWOOD (APA RATED SHEATHING) FASTENERS TO FRAMING SHALL BE DRIVEN FLUSH TO FACE OF SHEATHING WITH NO COUNTERSINKING PERMITTED.
- B. ALL BOLTS IN WOOD MEMBERS SHALL CONFORM TO ASTM A307. PROVIDE WASHERS UNDER THE HEADS AND NUTS OF ALL BOLTS AND LAG BOLTS BEARING ON WOOD. INSTALLATION OF LAG BOLTS SHALL CONFORM TO THE NATIONAL DESIGN SPECIFICATION FOR WOOD CONSTRUCTION (2005 EDITION) WITH A LEAD BORE HOLE OF 60 TO 70 PERCENT OF THE SHANK DIAMETER. LEAD HOLES ARE NOT REQUIRED FOR 3/8" AND SMALLER LAG SCREWS.
- 9. WOOD FRAMING NOTES--THE FOLLOWING APPLY UNLESS OTHERWISE SHOWN ON THE PLANS:
  - A. ALL WOOD FRAMING DETAILS NOT SHOWN OTHERWISE SHALL BE CONSTRUCTED TO THE MINIMUM STANDARDS OF THE INTERNATIONAL BUILDING CODE. MINIMUM NAILING, UNLESS OTHERWISE NOTED, SHALL CONFORM TO TABLE 2304.10.1. COORDINATE THE SIZE AND LOCATION OF ALL OPENINGS WITH MECHANICAL AND ARCHITECTURAL DRAWINGS.
  - B. WALL FRAMING: REFER ARCHITECTURAL DRAWINGS FOR THE SIZE OF ALL WALLS. ALL STUDS SHALL BE SPACED AT 16" O.C. UNO. TWO STUDS MINIMUM SHALL BE PROVIDED AT THE END OF ALL WALLS AND AT EACH SIDE OF ALL OPENINGS, AND AT BEAM OR HEADER BEARING LOCATIONS. TWO 2x8 HEADERS SHALL BE PROVIDED OVER ALL OPENINGS NOT OTHERWISE NOTED. SOLID BLOCKING FOR WOOD COLUMNS SHALL BE PROVIDED THROUGH FLOORS TO SUPPORTS BELOW. PROVIDE CONTINUOUS SOLID BLOCKING AT MID-HEIGHT OF ALL STUD WALLS OVER 10'-0" IN HEIGHT.
  - ALL WALLS SHALL HAVE A SINGLE BOTTOM PLATE AND A DOUBLE TOP PLATE. END NAIL TOP PLATE TO EACH STUD WITH TWO 16d NAILS, AND TOENAIL OR END NAIL EACH STUD TO BOTTOM PLATE WITH TWO 16d NAILS. FACE NAIL DOUBLE TOP PLATE WITH 16d @ 12" O.C. AND LAP MINIMUM 4'-0" AT JOINTS AND PROVIDE EIGHT 16d NAILS @ 4" O.C. EACH SIDE JOINT.
  - ALL STUD WALLS SHALL HAVE THEIR LOWER WOOD PLATES ATTACHED TO WOOD FRAMING BELOW WITH TWO ROWS OF 16d NAILS @ 12" ON-CENTER, OR ATTACHED TO CONCRETE BELOW WITH 5/8" DIAMETER ANCHOR BOLTS @ 4'-0" ON-CENTER EMBEDDED 7" MINIMUM, UNLESS INDICATED OTHERWISE. INDIVIDUAL MEMBERS OF BUILT-UP POSTS SHALL BE NAILED TO EACH OTHER WITH TWO ROWS OF 16d @12" ON-CENTER. UNLESS OTHERWISE NOTED, GYPSUM WALLBOARD SHALL BE FASTENED TO THE INTERIOR SURFACE OF ALL STUDS AND PLATES WITH NO. 6 X 1-1/4" TYPE S OR W SCREWS @ 8" ON-CENTER. UNLESS INDICATED OTHERWISE, 1/2" (NOMINAL) APA RATED SHEATHING (SPAN RATING 24/0) SHALL BE NAILED TO ALL EXTERIOR SURFACES WITH 8d NAILS @ 6" ON-CENTER AT PANEL EDGES AND TOP AND BOTTOM PLATES (BLOCK UN-SUPPORTED EDGES) AND TO ALL INTERMEDIATE STUDS AND BLOCKING WITH 8d NAILS @ 12" ON-CENTER ALLOW 1/8" SPACING AT ALL PANEL EDGES AND PANEL ENDS.
  - C. FLOOR AND ROOF FRAMING: PROVIDE DOUBLE JOISTS UNDER ALL PARALLEL PARTITIONS THAT EXTEND OVER MORE THAN HALF THE JOIST LENGTH AND AROUND ALL OPENINGS IN FLOORS OR ROOFS UNLESS OTHERWISE NOTED. PROVIDE SOLID BLOCKING AT ALL BEARING POINTS. TOENAIL JOISTS TO SUPPORTS WITH TWO 16d NAILS. ATTACH TIMBER IOISTS TO FLUSH HEADERS OR BEAMS WITH SIMPSON METAL IOIST HANGERS IN ACCORDANCE WITH NOTES ABOVE. NAIL ALL MULTI-JOIST BEAMS TOGETHER WITH TWO ROWS 16d @ 12" ON-CENTER.
  - UNLESS OTHERWISE NOTED ON THE PLANS, PLYWOOD ROOF AND FLOOR SHEATHING SHALL BE LAID UP WITH GRAIN PERPENDICULAR TO SUPPORTS AND NAILED AT 6" ON-CENTER WITH 8d NAILS TO FRAMED PANEL EDGES, STRUTS AND OVER STUD WALLS AS SHOWN ON PLANS AND @ 12" ON-CENTER TO INTERMEDIATE SUPPORTS. PROVIDE APPROVED PLYWOOD EDGE CLIPS CENTERED BETWEEN JOISTS/TRUSSES AT UNBLOCKED ROOF SHEATHING EDGES. ALL FLOOR SHEATHING EDGES SHALL HAVE APPROVED T&G JOINTS OR SHALL BE SUPPORTED WITH SOLID BLOCKING. ALLOW 1/8" SPACING AT ALL PANEL EDGES AND ENDS OF FLOOR AND ROOF SHEATHING. TOENAIL BLOCKING TO SUPPORTS WITH 16d @ 12" ON-CENTER UNLESS OTHERWISE NOTED.

![](_page_9_Picture_74.jpeg)

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Sheet Contents

General Structural Notes

Sheet No.

![](_page_10_Figure_0.jpeg)

- 1. REFER TO GENERAL STRUCTURAL NOTES FOR ADDITIONAL REQUIREMENTS (S1.1).
- 3. ALL FOOTINGS SHALL BEAR ON FIRM, NATIVE SOIL.
- CRAWLSPACE POST AND FOOTING LOCATIONS ARE ASSUMED AND HAVE NOT BEEN FIELD-VERIFIED. EXISTING POST AND FOOTINGS ARE NOT AFFECTED BY PROPOSED SCOPE OF WORK.

LEGEND	
	(E) CONCRETE WALL ABOVE THIS LEVEL
	(N) CONCRETE FOOTING
	(E) CONCRETE FOOTING
[] [×]	STRUCTURAL WOOD WALL or POST ABOVE THIS LEVEL

![](_page_11_Figure_0.jpeg)

- 1. REFER TO GENERAL STRUCTURAL NOTES FOR ADDITIONAL REQUIREMENTS (S1.1).
- 2. REFER TO ARCHITECTURAL DRAWINGS FOR ALL DIMENSIONS UNLESS SPECIFICALLY NOTED ON STRUCTURAL PLANS.
- 3. CONTRACTOR TO VERIFY THAT ALL POSTS HAVE CONTINUOUS BEARING THROUGH TO THE FOUNDATION.

LEGEND	)
	(E) CONCRETE WALL ABOVE THIS LEVEL
	(E) CONCRETE FOOTING
	STRUCTURAL WOOD WALL or POST BELOW THIS LEVEL
	(E) STRUCTURAL WOOD WALL OR POST BELOW THIS LEVEL
لاعا الاعا الاعا	STRUCTURAL WOOD WALL or POST ABOVE THIS LEVEL

![](_page_12_Figure_0.jpeg)

- 1. REFER TO GENERAL STRUCTURAL NOTES FOR ADDITIONAL REQUIREMENTS (S1.1)
- 2. REFER TO ARCHITECTURAL DRAWINGS FOR ALL DIMENSIONS UNLESS SPECIFICALLY NOTED ON STRUCTURAL PLANS.
- 3. FLOOR FRAMING WHERE INDICATED TO BE 14" TJI 360's @ 24" O.C. (U.N.O.).
- 4. FLOOR SHEATHING SHALL BE ¾" T&G PLYWOOD SHEATHING WITH 48/24 SPAN RATING. NAIL FRAMED PANEL EDGES w/ 8d COMMON (0.131" DIA. x 2 ½") @ 6" O.C., FIELD @ 12" O.C. (REFER TO 9/S4.1)
- 5. "MSTC66/CMST" & "CS16" REFER TO HOLDOWNS PER 12/S4.2 & 8/S4.2 RESPECTIVELY.

![](_page_13_Figure_0.jpeg)

- 1. REFER TO GENERAL STRUCTURAL NOTES FOR ADDITIONAL REQUIREMENTS (S1.1)
- 2. REFER TO ARCHITECTURAL DRAWINGS FOR ALL DIMENSIONS UNLESS SPECIFICALLY NOTED ON STRUCTURAL PLANS.
- 3. ROOF FRAMING SHALL BE 2x8 RAFTERS @ 24" O.C.
- ROOF SHEATHING SHALL BE <sup>5</sup>/<sub>8</sub>" CDX PLYWOOD SHEATHING WITH 40/20 SPAN RATING. NAIL FRAMED PANEL EDGES w/ 8d COMMON (0.131" DIA. x 2 ½") @ 6" O.C., FIELD @ 12" O.C. (REFER TO 9/S4.1)
- 5. "W#" REFERS TO SHEARWALL TYPE PER 3/S4.1 & 7/S4.1. ALL OTHER NON-DESIGNATED EXTERIOR WALLS SHALL BE SHEARWALL TYPE W6. WHERE INDICATED, "(x-x)" REFERS TO MINIMUM SHEARWALL LENGTH. COORDINATE ACTUAL LENGTH WITH ARCHITECTURAL.

	LEGEND	
WISE ON PLAN SHALL BE (2) 2x8. (REFER TO		STRUCTURAL WOOD WALL or POST BELOW THIS LEVEL
		(E) STRUCTURAL WOOD WALL OR POST BELOW THIS LEVEL
IECTION OF OVERFRAMING TO PRIMARY ROOF)	~	(E) SPAN DIRECTION
CTIONS.	<b>~~~</b>	SPAN DIRECTION
	$\langle - \circ - \rangle$	EXTENT OF SPAN
		(E) ROOFLINE
		ROOFLINE

# 1 SCALE: 3/4"=1'-0"

## 5 SCALE: 3/4"=1'-0"

# • 2 SCALE: 3/4"=1'-0"

# • 6 SCALE: 3/4"=1'-0"

• 10 SCALE: 3/4"=1'-0"

### 3 SCALE: 3/4"=1'-0"

![](_page_14_Figure_13.jpeg)

### Holdown Schedule

Plan	Scrows	Anchor	A.B.③	Holdowi	n Post 🛈	Capacity
Mark		Bolt ②	Embed	IF 2x4	IF 2x6	#
HDU2-SDS2.5	(6) SDS ¼" x 2 ½"	SSTB16	12 5⁄8"	(2) 2x4	4хб	2215/3075
HDU4-SDS2.5	(10) SDS ¼" x 2 ½"	SB ⅔ x 24	18"	4x4	4x6	4565
PHD6	(24) SDS ¼" x 1½"	SB ½ x 24	24"	4x4	4хб	4225

① MINIMUM SIZE OF POST AT END OF WALL UNLESS NOTED OTHERWISE ON FRAMING PLANS.

② "SSTB" & "SB" REFER TO ANCHOR BOLTS BY SIMPSON STRONG-TIE. INSTALL PER MANUFACTURER.

3 AT (E) FOUNDATION, PROVIDE EPOXY GROUTED THREADED ROD (DIA. PER MFG). EMBED 10".

![](_page_14_Figure_20.jpeg)

![](_page_15_Figure_0.jpeg)

### SHEARWALL SCHEDILLE DOGSOD

ø A.B. @ 48" OC
ø A.B. @ 32" OC
ø A.B. @ 16" OC
ø A.B. @ 12" OC
 ç ç ;

- 2. 8d NAILS SHALL BE 0.131" x  $2\frac{1}{2}$ " (common) 16d NAILS SHALL BE 0.135" ø x  $3\frac{1}{2}$ " (box)
- WASHERS. EXTEND TO WITHIN  $\frac{1}{2}$ " OF THE PLYWOOD SHEATHING.
- USED FOR W2, STAGGER NAILS AT ADJOINING PANEL EDGES.
- 6. ALL EXTERIOR WALLS SHALL BE W6, UNLESS NOTED OTHERWISE.
- 7.  $7_{16}$ " O.S.B. MAY BE SUBSITUTED FOR  $15_{32}$ " CDX.
- 8. LTP4'S MAY BE SUBSTITUTED FOR A35'S AT CONTRACTORS OPTION.
- 10. STAGGER NAILS IN ROW W/ ½" MIN. OFFSET.
- 11. MINIMUM OFFSET BETWEEN ROWS  $\frac{1}{2}$ , AND MINIMUM RIM OR JOIST  $3\frac{1}{2}$ " WIDE.

![](_page_15_Figure_15.jpeg)

16d NAILING

2x NAILER

PLYWOOD EDGE

<u>DETAIL A</u>

<u>DETAIL B</u>

PLAN VIEW AT ABUTTING PANEL EDGES OF W3 & W2

Shearwall Schedule

SCALE: 3/4"=1'-0"

PER SCHEDULE

2x OR LSL

16d NAILING

PER SCHEDULE

EDGE NAILING

OVER EA. STUD

16d NAILING PER SCHEDULE

3

# 7

### Typical Shearwall Construction SCALE: 3/4"=1'-0"

![](_page_15_Figure_19.jpeg)

![](_page_15_Picture_20.jpeg)

- 1. PLYWOOD PANEL EDGE NAILING PER SHEARWALL SCHEDULE
- (2) BASE PLATE NAILING PER SHEARWALL SCHEDULE
- (3.) 16d @ 8" OC

1. BLOCK PANEL EDGES WITH 2x MIN. LAID FLAT AND NAIL PANELS TO INTERMEDIATE SUPPORTS WITH 8d @ 12' o.c.

3. EMBED ANCHOR BOLTS AT LEAST 7" EXPANSION BOLTS MAY BE SUBSTITUTED FOR ANCHOR BOLTS WITH 4" EMBEDMENT. ALL BOLTS SHALL HAVE 3" x 3" x 1/4" PLATE

4. 3x STUDS OR DOUBLE STUDS NAILED TOGETHER W/ BASE PLATE NAILING ARE REQUIRED AT ABUTTING PANEL EDGES OF W3 AND W2. SEE DETAIL B. WHERE 3x STUDS ARE

5. TWO STUDS MINIMUM ARE REQUIRED AT EACH END OF ALL SHEARWALLS AND ALL END STUDS SHALL RECEIVE PANEL EDGE NAILING.

9. A 2x NAILER ATTACHED W/ BASE PLATE NAILING PER DETAIL A MAY BE SUBSTITUTED FOR A35'S AT CONTRACTORS OPTION.

![](_page_15_Figure_35.jpeg)

11

4303 Stone Way N Seattle, WA 98103 206.258.6333 Φ Residenc 8059 West Mercer Way Mercer Island, WA, 98040 ann Feldm No. Date Issue 5/18/20 Permit Sheet Contents FLOOR FRAMING DETAILS Sheet No. S4.

**DUKER** ENGINEERING

# 1 SCALE: 3/4"=1'-0"

5 SCALE: 3/4"=1'-0"

• 2

2 SCALE: 3/4"=1'-0"

• 6 SCALE: 3/4"=1'-0"

9 SCALE: 3/4"=1'-0"

10 SCALE: 3/4"=1'-0"

![](_page_16_Figure_11.jpeg)

![](_page_16_Figure_12.jpeg)

![](_page_16_Figure_13.jpeg)

11 Garage Portal Frame Connections SCALE: 3/4"=1'-0"

![](_page_16_Figure_15.jpeg)

![](_page_17_Figure_0.jpeg)

![](_page_17_Figure_3.jpeg)