

Plan Name Klamath Date 2/5/2018

Location

Lone Oak Estates

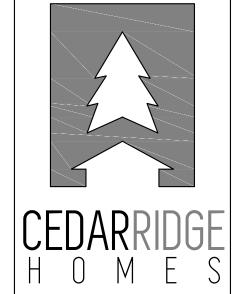
Lot 40

Battle Ground, WA

Total Sq Ft = 1,647

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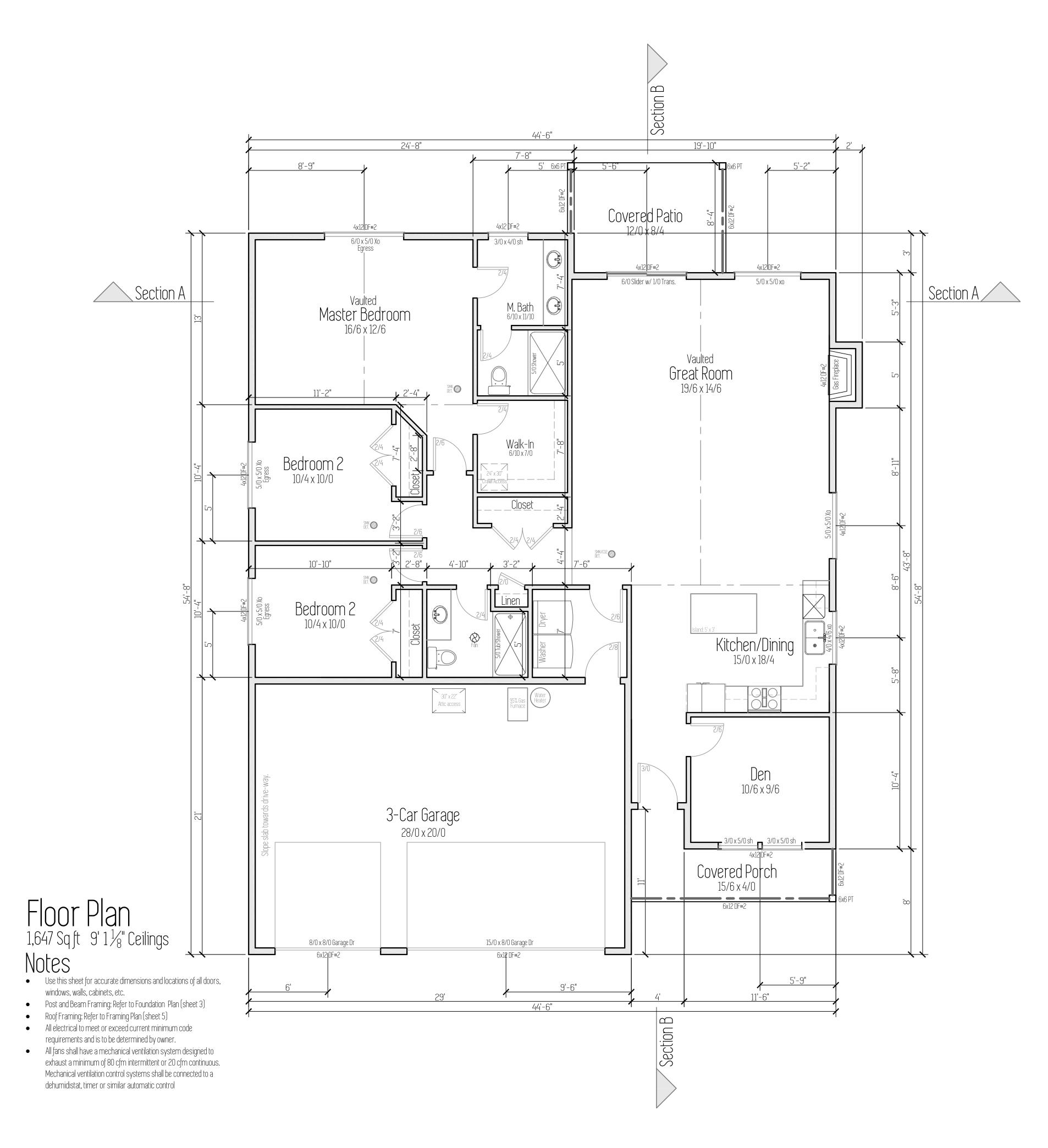


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Designed by :

TYSON GREY tyson@cedarridgehomes.us



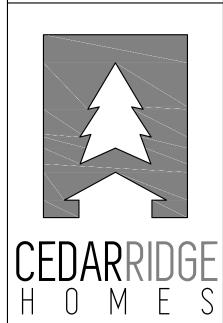
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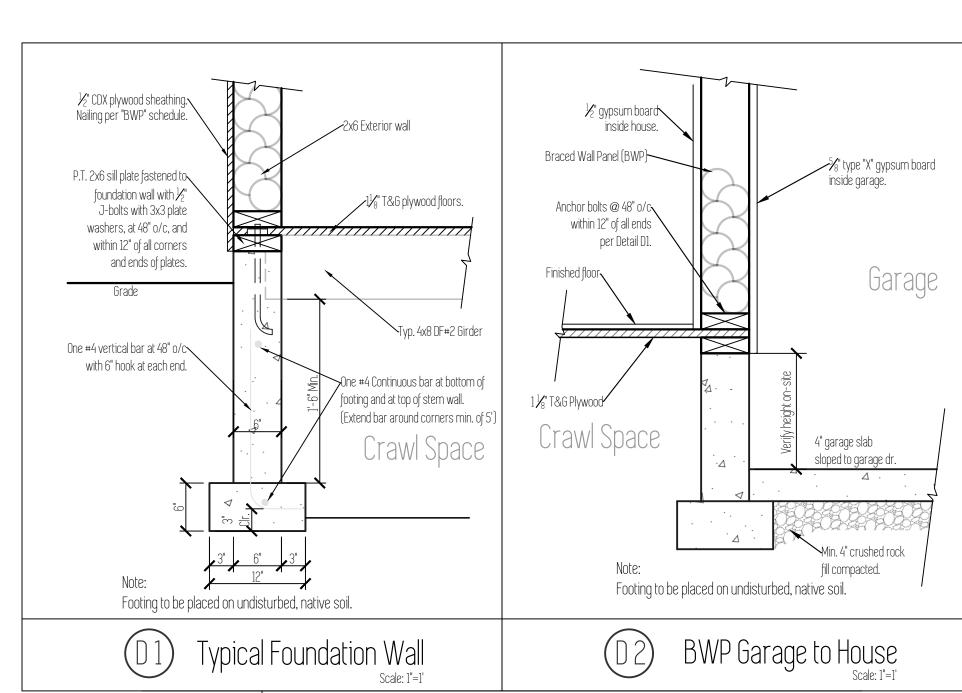


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Foundation Notes

- Concrete: Minimum 28 day concrete strength = 2500 psi.
 Grade beams, piers and spread footings shall be poured onto undisturbed, native soil which is free from any material that will adversely affect the soil bearing pressure.
- Footings are to be on undisturbed soil with an assumed 1500 PSF
 All slabs to be supported with a min. of 4" of compacted crushed
- Beam pockets in concrete walls to have a min. $\frac{1}{2}$ air space on sides, and min. 3" of bearing for all beams and girders.
- Typical pier pad to be 18" dia. x 8" concrete footing with 4x4 DF#2

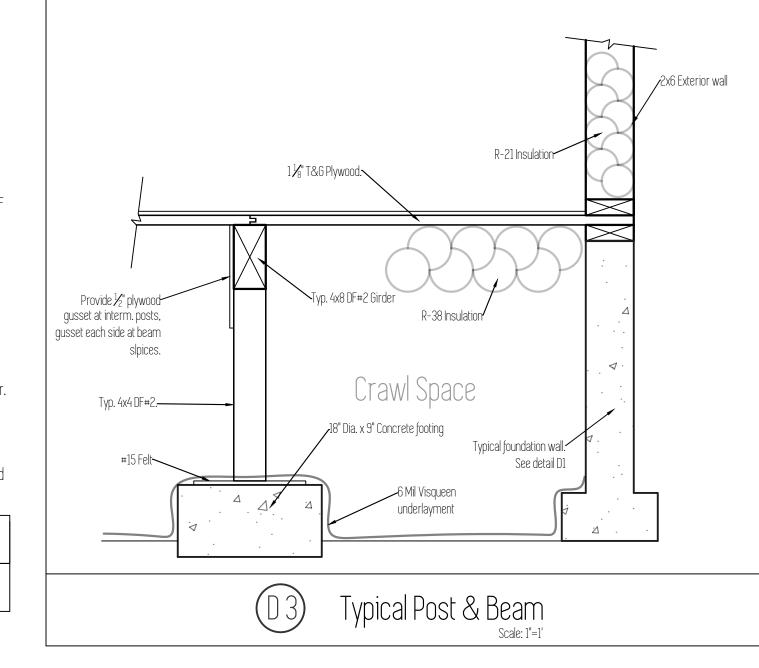
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- Typical crawl space beam to be 4x8 DF#2. Single gusset plate to be used on both sides of attachment to post.
- Cover entire crawl space with 6 mil black visqueen vapor barrier.
 Excavate a min. of 18" below bottom of all beams.
- Install 15" x 7" closable FND vents in FND walls. Min 1 sq ft vented
- area for every 150 sq ft of crawl space.
 ✓ Anchor bolts install at 48" o/c, and within 12" of all corners and

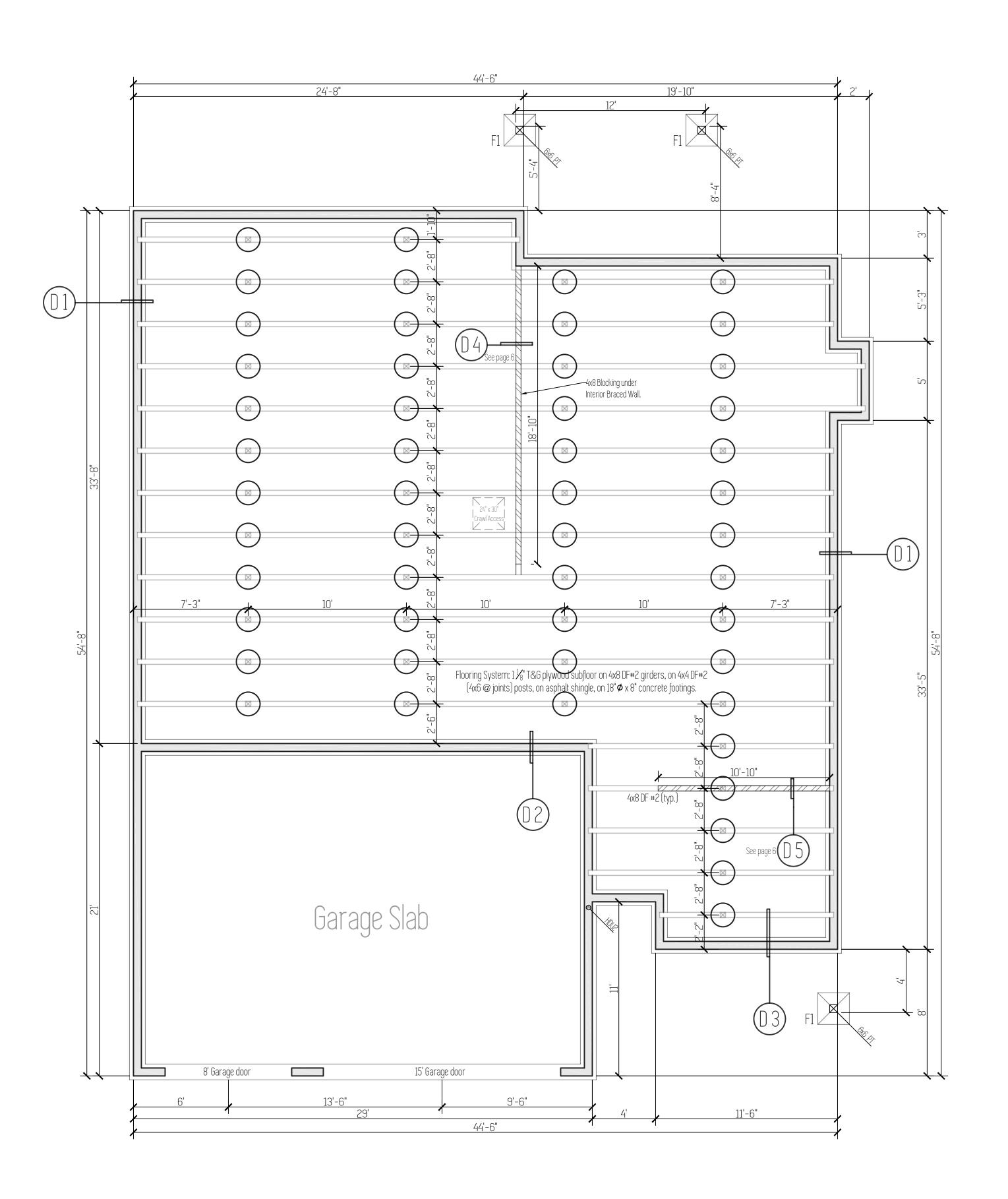
• $\frac{1}{2}$ Anchor bolts install at 48° o/c, and within 12° of all corners arends of plates.

Footing Schedule

F1 24" x 24" x 8" Concrete footing with (2) #4 bars each way.

Interior Braced Wall (above)





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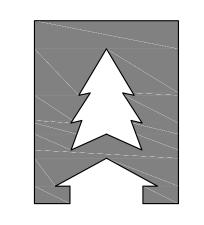
2/5/2018 Location

Lone Oak Estates Lot 40

Battle Ground, WA

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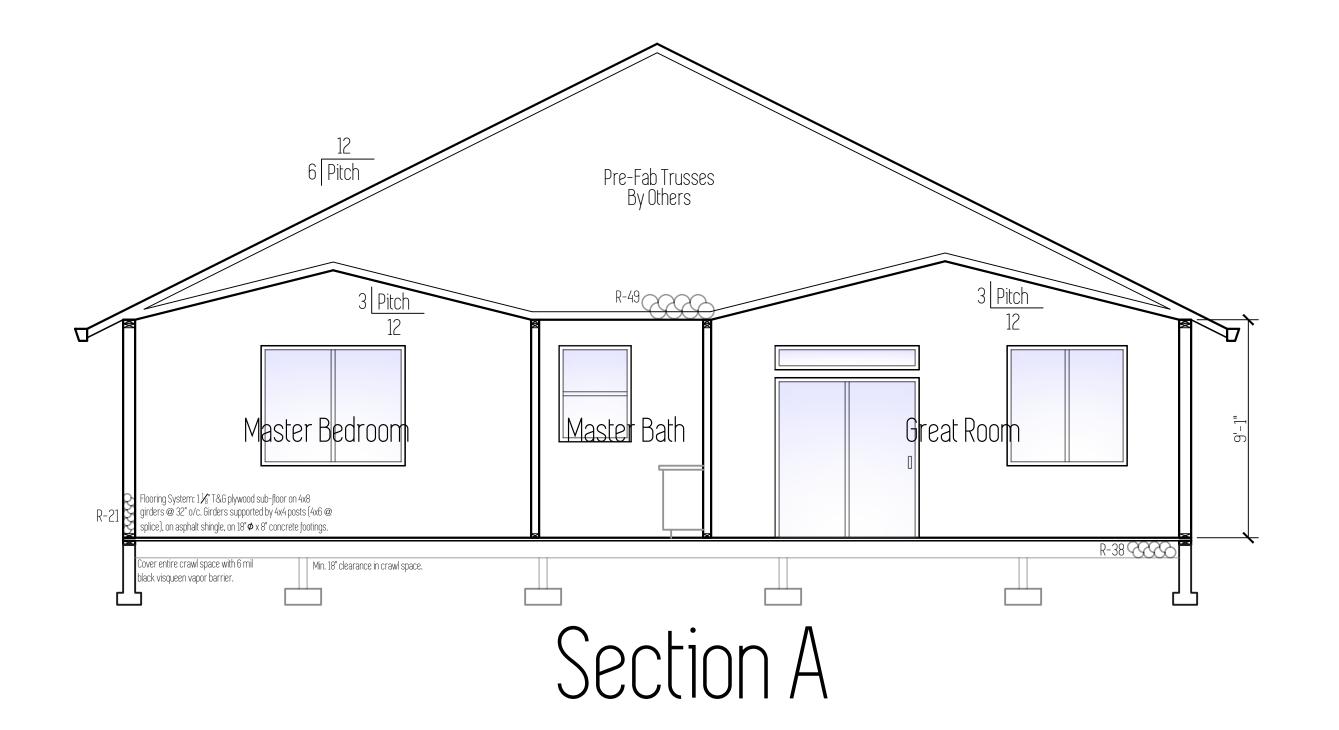
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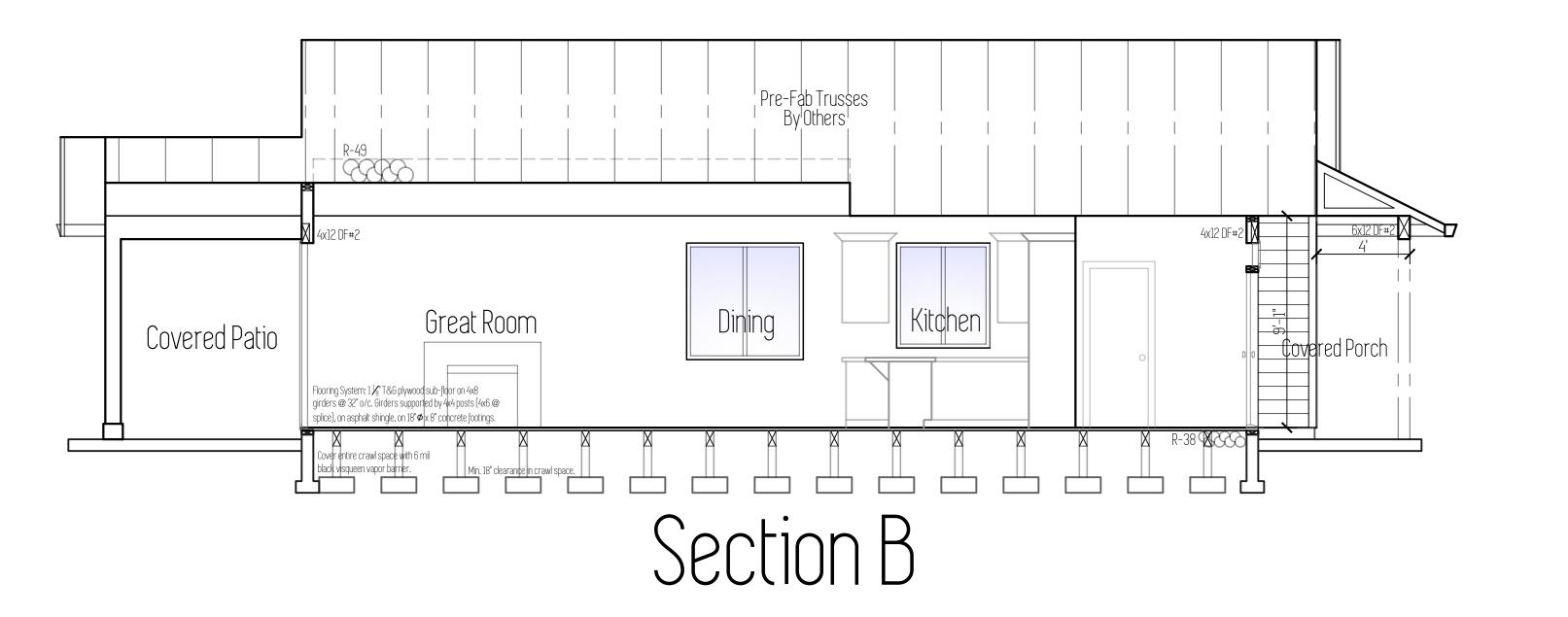
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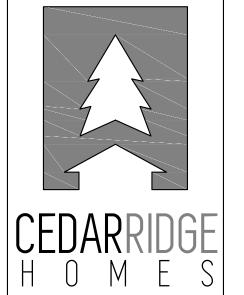
Location
Lone Oak Estates
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Lot 40 Battle Ground, WA

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Sections

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Design Standards

Code: 2015 IRC

Wind Speed: 135 mph

Wind Exposure: B

Snow Load: 25 PSF

Seismic Design Category: D-1

Soil Bearing Pressure: 1500 PSF
Soil Passive Bearing Pressure: 200 PSF

R602.10.6.4 Method CS-PF: Continuously sheathed portal frame.

Continuously sheathed portal frame braced wall panels shall be constructed in accordance with Figure R602.10.6.4, and Table R602.10.6.4. The number of continuously sheathed portal frame panels in a single braced wall line shall not exceed four.

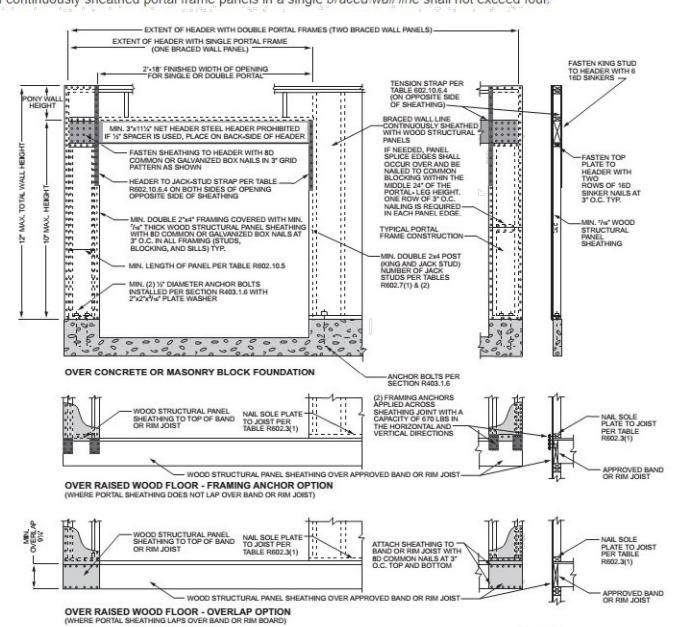


TABLE R602.10.6.4 TENSION STRAP CAPACITY FOR RESISTING WIND PRESSURES PERPENDICULAR TO METHODS PFH, PFG AND CS-PF BRACED

WALL PANELS

FRONT ELEVATION

MINIMUM WALL STUD FRAMING NOMINAL SIZE AND GRADE	0 0 0	MAXIMUM TOTAL WALL HEIGHT (feet)	MAXIMUM OPENING WIDTH (feet)	TENSION STRAP CAPACITY REQUIRED (pounds) ^{a, t}						
	MAXIMUM PONY WALL HEIGHT (feet)									
				110	115	130	110	115	130	
				E	Exposure B		Exposure C			
العامل العام	0	10 ¹ °	18	. 1,000	1,000	1,000	1,000	1,000	1,050	
			9	1,000	1,000	1,000	1,000	1,000	1,750	
	100	10	16	1,000	1,025	2,050	2,075	2,500	3,950	
	5	,	18.	1,000	1,275	2,375	2,400	2,850	DR	
			9	1,000	1,000	1,475	1,500	0 0 1701 00 , "C 0"	3,125	
	E	2	10	16	1,775:	2,175	3,525	3,550	4,125	DR
2 × 4 No. 2 Grade			18	2,075	2,500	3,950	3,975	DR	DR	
			. 9	1,150	1,500	2,650	2,675	3,175	DR	
	2	∘12 ፡ ે	∘16° ·	2,875	3,375	DR	DR	DR	DR	
			18	3,425	3,975	DR -	DR.	DR	DR	
	= 000	125 9° 12, 12, 12, 12, 12, 12, 12, 12, 12, 12,	9.,	2,275	2,750	DR	DR	DR	DR	
	4 °		3,225	3,775	DR	DR.	DR	DR		
2 x 6 Stud Grade			9	1,000	1,000	1,700	1,700	2,025	3,050	
	2	2	.12 <u>.</u> °	16	1,825	2,150	3,225	3,225	3,675	DR
				18	2,200	2,550	3,725	3,750	DR	DR
			, 9	1,450	1,750	2,700	2,725	3,125	DR DR DR 3,050 DR 3,050 DR	
		4 °	∘ 12 ₁;	.16°⋯	2,050	2,400	DR	DR	DR	DR
				18	3,350	3,800	DR .	DR.	DR	*DR

For SI: 1 inch = 25.4 mm, 1 mile per hour = 0.447 m/s.

Bracing Method		Minimum Thickness Details		Connection Criteria			
		ITIICKI IESS		Fasteners	Spacing		
	CS-WSP Continuously Sheathed Wood Structural Panel	~ ~	See APA Wall Bracing Calculations for individual wall details.	Exterior sheathing per Table R602.3(3)	6" Edges, 12" Field		
	GB Gypsum Board Double-Sided	1/"	See APA Wall Bracing Calculations for individual wall details.	Nails of screws per Table R702.3.5 for interior locations.	For all braced wall panel locations: 7" edges, 7" field.		
	CS-PF Continuously Sheathed Portal Frame	7/16	See APA Wall Bracing Calculations, as well as details below.	See Section R602.10.6.4	See Section R602.10.6.4		

TABLE R702.3.5 MINIMUM THICKNESS AND APPLICATION OF GYPSUM BOARD AND GYPSUM PANEL PRODUCTS

THICKNESS OF GYPSUM BOARD OR GYPSUM PANEL	APPLICATION	ORIENTATION OF GYPSUM BOARD OR GYPSUM PANEL PRODUCTS TO	MAXIMUM SPACING OF FRAMING MEMBERS	MAXIMUM SPACING OF FASTENERS (inches)		SIZE OF NAILS FOR APPLICATION. TO WOOD FRAMINGS			
PRODUCTS (inches)		FRAMING	(inches o.c.)	Nailsa	Screws ^b				
		8	Application w	ithout adh	nesive	e 15 0.000 0.000			
3/8,	Ceilingd	Perpendicular	, 1,6	7	1,12	13 gage, 11/4" long, 19/64" head, 0.098" diameter, 11/4" long, annular-ringed; or 4d cooler nail.			
78,.	Wall	«Either direction:	16	²8,	£16	0.080" diameter, 13/8" long, 7/32" head.			
	Ceiling	Either direction:	16	.7,	_f 12	13 gage, 13/8" long, 19/64" head, 0.098" diameter, 11/4" long, annular-ringed, 5d cooler hail,			
. 1/ ₂ .	Ceilingd	Perpendicular	24/	7	1,12	0.086" diameter, 1 ⁵ / ₈ " long, ¹⁵ / ₆₄ " head; or			
	Wall	Either direction	24	·8	197	gypsum board nail, 0.086" diameter, 1 ⁵ / ₈ " long, 9/ ₃₂ "			
	Wall	Éither direction	16	8	16	head.			
5.66 =	Ceiling	Either direction	16	7	1 12,	13 gage, 1 ⁵ / ₈ " long, 1 ⁹ / ₆ ," head; 0.098" diameter, 1 ³ / ₈ " long, annular ringed; 6d cooler nail, 0.092" diameter, 1 ⁷ / ₈ " long, 1/ ₄ " head; or gypsum			
	Ceiling	Perpendicular	24	7.	12	board nail; 0:0915" diameter 17/8" long 19/64".			
	Type X at garage celling beneath habitable rooms	Perpendicular	24	`6 °	6 , 0	1 ⁷ / ₈ " long 6d coated nails or equivalent drywall screws. Screws shall comply with Section R702.3.5.1			
	L.Waji	Either direction	24		12.	13 gage, 15/6" long, 19/ ₆₄ " head, 0.098" diameter, 13/ ₈ " long, annular ringed, 6d cooler nail			
	_L Wall	Either direction.	16	.8	16	0:092" diameter, 17/ ₈ " long, 11/ ₄ " head; or gypsur board nail, 0.0915" diameter, 17/ ₈ " long, ¹⁹ / ₆₄ " head.			

a. For application without adhesive, a pair of nails spaced not less than 2 inches apart or more than 2½ inches apart-shall be permitted to be used with the pair of nails spaced 12 inches on center.

B. Screws shall be in accordance with Section R702.3.6. Screws for attaching gypsum board or gypsum panel products to structural insulated panels shall penetrate the wood structural panel facing not less than 7½ inch.

c. Where cold-formed steel framing is used with a clinching design to receive nails by two edges of metal, the nails shall be not less than ½ inch longer than the gypsum board or gypsum panel product flickness and shall have inged shanks. Where the cold-formed steel framing has a nailing groove formed to receive the nails, the nails shall have barbed shanks or be 5d, 13½ gage, 1½ inches long; 1½ inches long; 1½ inches long; 1½ inches long; 1½ inches long 1½ inches lon

iming, and from 1/2 inch to 5/6 inch for 24-inch on center framing or 1/2-inch sag-resistant gypsum **R702.3.5.1 Screw fastening.**

Screws for attaching gypsum board and gypsum panel products to wood framing shall be Type W or Type S in accordance with ASTM C 1002 and shall penetrate the wood not less than \$1/8\$ inch (15.9 mm). Gypsum board and gypsum panel products shall be attached to cold-formed steel framing with minimum No. 6 screws. Screws, for attaching gypsum board and gypsum panel products to cold-formed steel framing less than 0.033 inch (1 mm) thick shall be Type S in accordance with ASTM C 1002 or bugle head style in accordance with ASTM C 1513 and shall penetrate the steel not less than \$1/8\$ inch (9.5 mm). Screws for attaching gypsum board and gypsum panel products to cold-formed steel framing 0.033 inch to 0.112 inch (1 mm to 3 mm) thick shall be in accordance with ASTM C 954 or bugle head style in accordance with ASTM C 1513. Screws for attaching gypsum board and gypsum panel products to structural insulated panels shall penetrate the wood structural panel facing not less than \$1/8\$ inch (11.1 mm).

TABLE R602.3(3) REQUIREMENTS FOR WOOD STRUCTURAL PANEL WALL SHEATHING USED TO RESIST WIND PRESSURES 5, 5, 5

MINIMÛM NAIL		MINIMUM WOOD	MINIMUM NOMINAL PANEL	MAXIMUM WALL	PANEL	ULTIMATE DESIGN WIND SPEED V _{uit} (mph)			
Sjže	Penetration (inches)	PANEL SPAN RATING	THICKNESS (inches)	(inches)	Edges (inches o.c.)	Field (inches o.c.)	Wind ex	cposure c	ategory
6d Common (2.0" × 0.113")	h 1.5	24/0	3/8	□ <mark>1</mark> 6	6°	12 .5	140°	115	110°
8d Common	n 1.75	⁷ / ₁₆	□ 16 .	6	12	170_	140	135	
(2,5" × 0,131")		24/16 :	′16	24	∘6	12	140	115	110

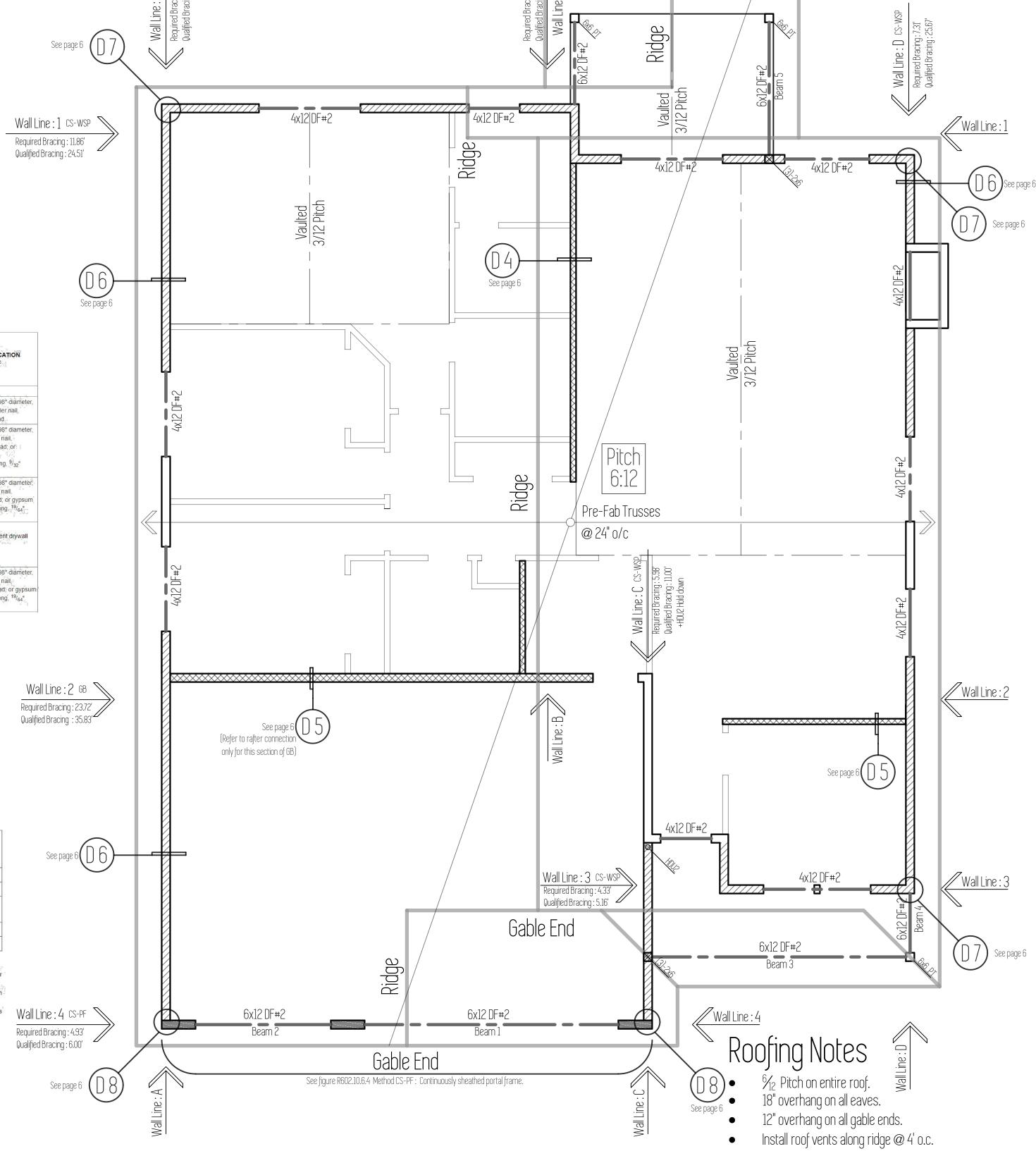
For SI::1 inch = 25,4 mm, 1 mile per hour = 0.447 m/s.

SECTION

a. Panel strength axis parallel or perpendicular to supports. Three-ply plywood sheathing with stude spaced more than 16 inches on center shall be applied with panel strength axis perpendicular to supports.

b. Table is based on wind pressures acting toward and away from building surfaces in accordance with Section R301.2, Lateral bracing requirements shall be in accordance with Section R602.10.

c.: Wood structural panels with span ratings of Wall-16 or Wall-24 shall be permitted as an alternate to panels with a 24/16 span rating. Wall-16 and Plywood siding 16 o.c. shall be used with studs spaced not more than 16 inches on center.



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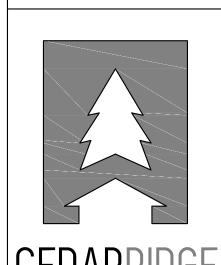
Lone Oak Estates Lot 40

Battle Ground, WA

Total Sq Ft = 1

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Designed by :

TYSON GREY tyson@cedarridgehomes.us

a. DR = Design Required.
b. Straps shall be installed in accordance with manufacturer's recommendations.

General Notes

- All work is to comply with the 2015 International Residential Code (IRC).
- The contractor is responsible to check the plans omissions prior to the start of construction.
- Structural specifications and drawings for this work have been prepared in accordance with generally accepted engineering practices to meet minimum requirements of the 2015 IRC.
- Any written dimensions have precedence over scaled dimensions.

Foundation Notes

- Footings are to be placed on undisturbed, native soil with an assumed 1500 PSF.
- All slabs to be supported with a minimum of 4" compacted, crushed rock fill.
- Beam pockets in concrete walls to a minimum $\frac{1}{2}$ " air space on sides, and minimum 3" of bearing for all beams and girders.
- Cover entire crawl space with 6 mil black visqueen vapor barrier.
- Excavate minimum of 18" below bottom of all beams.
- Install 15"x 7" closable foundation vents in foundation walls. Minimum of 1 SqFt vented area for every 150 SqFt of crawl space.
- Foundation stem walls shall be provided with a minimum of one #4 bar within 12" of the top of the wall, and one #4 bar a minimum of 3" clearance from the bottom of the footing.
 A grounding electrode system shall be installed in foundations: One #4 horizontal bar not
- less than 3" from bottom of footing and not less than 20' long, one #4 vertical bar stubbed up at least 12" above the floor plate with a minimum 12" splice to the horizontal bar.

 Foundation anchor bolts shall be not less than ½" diameter bolts embedded at least 7" into
- Foundation anchor bolts shall be not less than $\frac{1}{2}$ " diameter bolts embedded at least 7" into concrete, or masonry, spaced 48" o/c, with at least two bolts per plate and within 12" of ends and corners.
- Foundations wall shall extend at least 6" above grade.

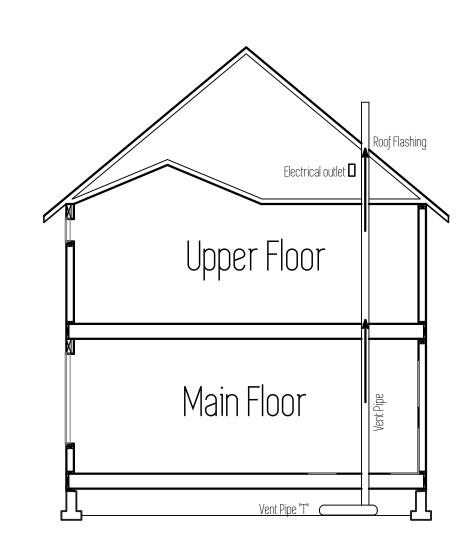
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- Drains shall be provided around all foundations enclosing habitable or usable space below grade.
- Waterproofing is required on the outside surface of below-grade foundation walls enclosing interior space.
- An 18"x 24" (minimum) access opening is required to all under-floor spaces.

Radon Passive System

F103.5.3 Vent Pipe

A plumbing tee or other approved connection shall be inserted horizontally beneath the sheeting and connected to a 3- or 4-inch-dia. fitting with a vertical vent pipe installed through the sheeting. The vent pipe shall be extended up through the building floors, terminate at least 12" above roof in a location at least 10' away from any window or other opening into the conditioned spaces of the building that is less than 2' below the exhaust point, and 10' from any window or other opening adjoining or adjacent buildings.

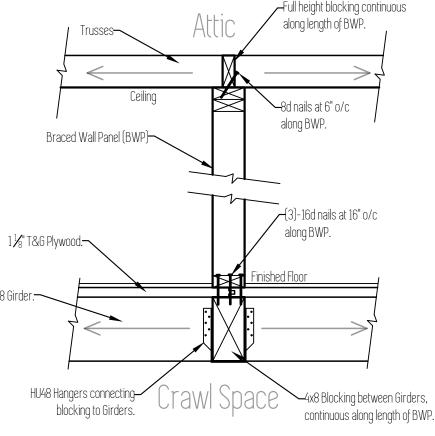
*Install electrical outlet in attic at vent pipe for future fan.



Framing Notes

- All stud spacing to be 16" o/c.
- Exterior wall : 2x6 DF#2.
- Interior wall: 2x4 DF#2.
- Walls shall be capped with a double top plate to provide overlapping at corners and intersections with bearing partitions.
- Anchor bolts embedded in foundation wall and fastened to sill plate 48" o/c.
- Sheathing: Wall sheathing to be ¹⁵/₃₂" APA rated CDX or OSB. All panel edges shall be backed by wall stud. Nail panels with 8d nails at 6" o/c along edges and 12" o/c in field. (Same applies for roof sheathing.)
- Fireblocking shall be installed in concealed spaces of wood construction; in walls at ceiling
 and floor levels, and not more than 10' horizontally; and intersections between vertical and
 horizontal spaces such as dropped ceilings and soffits; between stair stringers at top and
 bottom of stair runs.
- Fireblocking shall consist of 2" nominal lumber, ½" gypsum board, mineral wool or glass fiber insulation securely retained, or other approved material.
- Draftstopping shall be in concealed floor-ceiling construction parallel to the framing members so that the area does not exceed 1,000 SqFt.
- Fasteners and connectors in contact with P.T. wood shall be hot dipped galvanized steel or equivalent.
- Notches in sawn lumber joists, rafters, and beams shall not exceed $\frac{1}{6}$ of the member's depth, not longer than $\frac{1}{3}$ of the member's depth, and not located in the middle $\frac{1}{3}$ of the member's span.
- Notches at ends shall not exceed ¼ of the member's depth.
- Tension side of members greater than 4" nominal thickness shall not be notched except at the ends.
- Hole diameters shall not exceed $\frac{1}{3}$ of the member's depth, and not be closer than 2" to the top or bottom, or to any other hole or notch.
- Cuts, notches or holes are not permitted in engineered wood products, except where permitted by the product manufacturer or where designed by a registered design professional.
- Top plates of bearing walls notched or drilled more than 50% of their width shall have a
- minimum 16 gauge, 1½" wide galvanized strap installed at the opening.

 Straps shall extend 6" minimum past the opening with (8)-10d nails on each side.
- Engineered truss drawings shall be submitted for review and approval prior to erection.
- Trusses shall be braced per manufacturer.
 Tie-downs shall be installed to provide a continuous load path from trusses to foundation.



D4) Figure R602.10.8(1)

Braced Wall Panel connection when perpendicular to floor/ceiling framing. Scale: 1"=1"

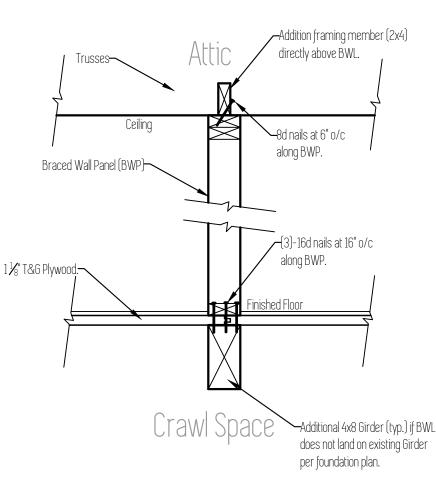


Figure R602.10.8(2)

Braced Wall Panel connection when parallel to floor/ceiling framing. Scale: 1"=1"

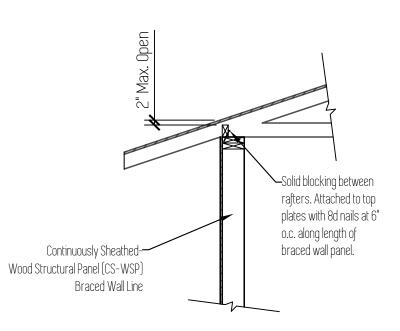
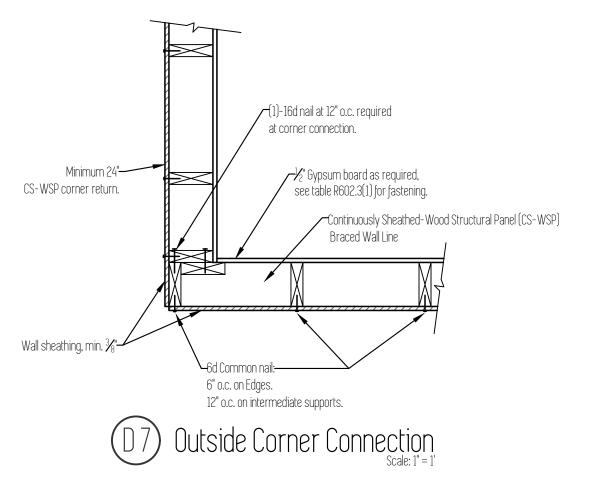
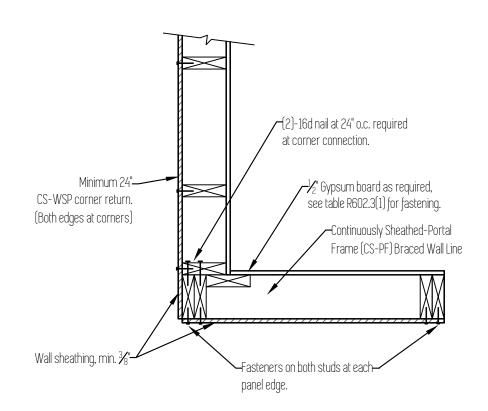
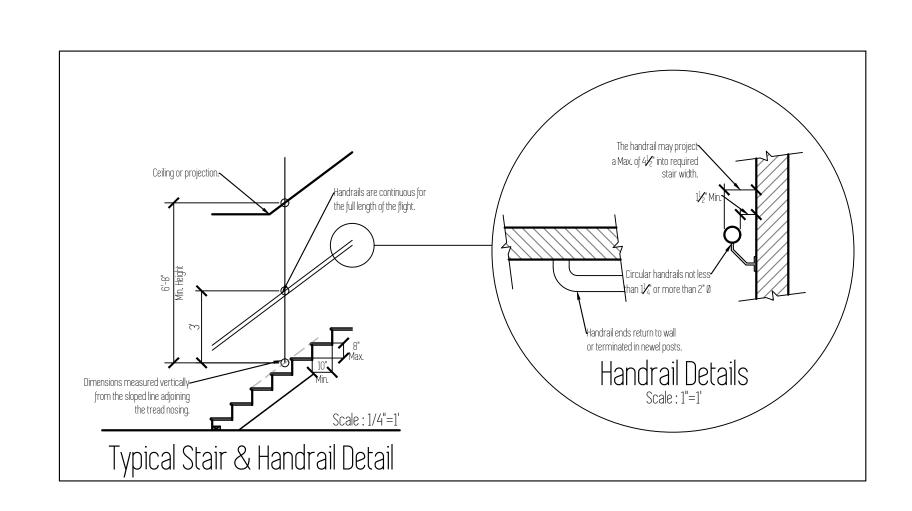


Figure R602.10.8.2(1)
Braced Wall Panel connection to perpendicular rafters. Scale: ½"=1'





(D8) Garage Corner Connection



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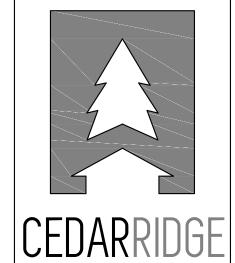
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