PRRASF20221703

CODES.

All methods, materials and workmanship shall conform to the 2018 International Residential Code (IRC) as amended and adopted by the local building authority. Engineered design in accordance with the International Building Code is permitted for all buildings and structures, and parts thereof, included in the scope of this code (IRC R301.1.3). All reference to other codes and standards, (ACI, ASTM, etc.,), shall be for the latest or most current edition available.

Design criteria.

Uniform loads:

Snow (IRC R301.2)	Ground snow load 25 psf	
Loads	Live load	Dead load
Roof	25 psf	actual
Floor	40 psf	actual

Lateral loads:

Wind (IRC R301.2)	Basic wind speed: 97 mph (3 second gust | Ultimate) Exposure: B Importance factor: 1.0
Seismic (IRC R301.2)	Soil Site Class D Seismic Design category D2 Importance factor: 1.0

Lateral earth pressure:
Basement walls and other walls in which horizontal movement is restricted at the top shall be designed for at rest load of not more than 60 psf/ft. Retaining walls free to move and rotate at the top are permitted to be designed for active load of not more than 30 psf/ft.

Soil data.
1500 psf assumed - Contractor to field verify condition. A geotechnical report is required for review by the Engineer and Building Official whenever structures or portions thereof are to be located on fill.

Inspection - shall be performed per the Building Official's rules.

CONCRETE.

All concrete shall be hard rock concrete meeting requirements of ACI-318, "Building Code Requirements for Structural Concrete". Place concrete per ACI-315 and conform to ACI-306R-88 for winter concreting and ACI-305R-91 for hot weather concreting. Do not over-vibrate. Minimum specified compressive strength and aircontent of concrete shall be as shown below. (Ref.:IRC Table R402.2.2 for Moderate Weathering Potential.)

Type or location of concrete construction	Strength(psi)	Air content	Notes
Basement walls, foundations and other concrete not exposed to the weather	2500	None	
Basement slabs and interior slabs on grade, except garage floor slabs	2500	None	
Basement walls, foundation walls, exterior walls and other vert. conc. work exposed to the weather	3000	5-7%	
Porches, carport slabs and steps exposed to the weather, and garage floor slabs	3000	5-7%	1

Note 1: See IRC R402.2.2 and ACI 318 Chapter 4 for minimum cement content.

Reinforcing steel. Deformed bar reinforcement: ASTM A-615 Grade 60
Welded wire fabric: ASTM A-185 & ASTM A-82 fy = 65 ksi

All reinforcing shall be lap-spliced a minimum lap of 40 bar diameters except as noted specifically on the structural drawings. No more than 50% of horizontal or vertical bars shall be spliced at one location. Provide elbow bars (40 diameters) to lap horizontal steel at corners and intersections in footings and walls.

Concrete cover on reinforcing (unless shown otherwise). Bottom of footings 3"
Formed earth face & slab-on-grade 2"

WOOD.

Framing lumber shall be DF#2 or better, except that 2x framing lumber may be HF #2 unless otherwise shown on the plans. All 2" lumber shall be kiln dried (KD). Each piece of lumber shall bear a grade stamp of a recognized lumber grading or inspection bureau or agency per the NIST American Softwood Lumber Standard PS 20-99.

Provide cut or malleable iron washers or where bolt heads, nuts, and lag screws bear on wood.

Treat all wood in contact with concrete, mortar, grout, masonry, and within 8" of earth; all wood over water; and all wood in contact with earth; with one of the following processes:

Chromated Copper Arsenate (CCA-C),
DOT Sodium Borate (SBX)
Alkaline Copper Quat ACQ-C and ACQ-D (Carbonate)
Copper Azole (CBA-A and CA-B)

Where possible, pre-cut material before treatment. All field cuts and drilled holes shall be field treated in accordance with AWPA M-4.

Accessories.

Bolts shall be ASTM A-307.
Washers shall be malleable iron washers (M.I.W.) or heavy plate cut washers.
Nails shall have the minimum wire dimensions shown on Detail 5 this sheet.
Lag screws, shear plates - see national design specifications.
Anchors and connections shall be Simpson, Teco, Lumberlok or other International Code Council (ICC) approved products. All fasteners shall be installed per manufacturer's recommendations unless otherwise shown.

All hardware exposed to weather, in unheated portions of building, or in contact with treated wood as specified above shall be galvanized as follows: Fasteners shall be hot dipped per ASTM A 153 or mechanically galvanized per ASTM B 695, class 55 or greater. Hardware shall be galvanized per one of the following processes: ASTM A 653 Class 185 (Simpson Z-Max G185) or Batch/Post Hot Dipped Galvanized per ASTM A 123.

Stainless steel hardware and fasteners shall be used in connection with any preservative treatment process not specifically listed above.

Minimum nailing.

Minimum nailing shall be per IRC table R602.3 (1) - nailing schedule.

Sheathing (plywood/osb).

All grading shall conform to the following standards: NIST Voluntary Product Standard PS 2-92. Thickness and lay-up shall be as shown. All plywood shall be group I or II species. Unless otherwise shown, provide the following minimum nailing:

Panel edges 8d at 6" on center
Intermed. Support 8d at 12" on center

Gluelam Beams.

Materials, manufacture and quality control shall be per ANSI/AITC A-190.1 "Structural Glue Laminated Timber". Unless otherwise shown, camber all beams 1-1/2 times dead load deflection. Unless otherwise shown all beams shall be combination 24F-1.8E as listed in AWC-ASD table 3.1, and have exterior glue. Unless otherwise shown, industrial appearance is acceptable.

Wood Adhesive.

All wood adhesives shall be elastomeric and shall have a current ICC-ES approval. Apply all adhesives in accordance with the adhesive manufacturer's recommendations.

Pre-Engineered Trusses.

Member geometry and spacing shall be as shown on the plans. The manufacturer shall provide additional framing member as shown or as necessary to provide support for mechanical equipment, wall or other partitions, snow drift loads, etc. Trusses with spans greater than 35' shall have the heel plates designed considering the effect of eccentric loading.

Where noted precut blocking, bridging, bracing and/or filler pieces shall be furnished by the manufacturer. Where applicable, wind uplift bracing shall be provided by the manufacturer. Unless noted otherwise, the truss manufacturer shall specify and furnish connection hardware for the installation of their system.

Shop drawings shall indicate all required permanent bracing. Supporting calculations shall indicate member stresses, species/grades and applicable ICC-ES approvals. Shop drawings and calculations shall be sealed by a professional engineer registered in the State of Washington.

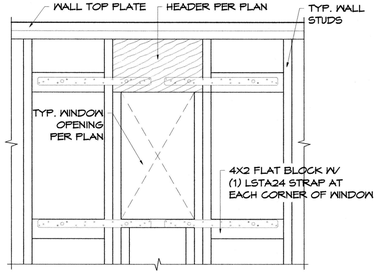
Metal plated trusses shall be manufactured a detailed in conformance with the following standards:

ANSI/TPI 1-2002 National Design Standards for Metal Plate Connected Wood Truss Construction.
ANSI/TPI 1-1995 Code of Standard Practice for the Metal Plate Connected Wood Truss Industry.
ANSI/TPI 2-1995 Standard for Testing Metal Plate Connected Wood Trusses.

When delivered, the components shall be accompanied by the fabricators certificate of conformance to the above referenced standards, and by the following user advisory notices (or notices equivalent) to:

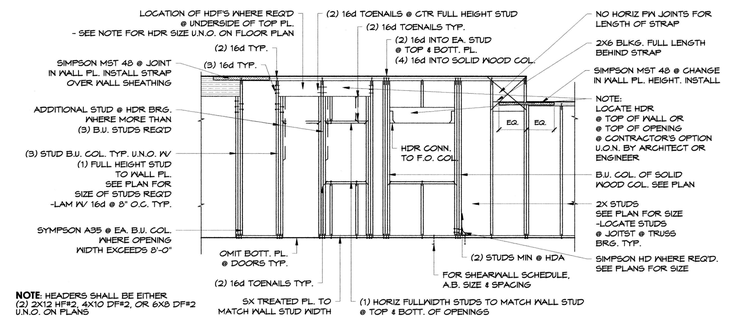
BCSI-B1 Summary Sheet - Guide for Handling, Installation and Bracing of Metal Plate Connected Wood Trusses.
BSCI-B2 Summary Sheet - Truss Installation and Temporary Bracing.
BSCI-B3 Summary Sheet - Web Member Permanent Bracing/Web Reinforcement.
BSCI-B4 Summary Sheet - Construction Loading.

ABBREVIATION	MEANING	ABBREVIATION	MEANING
@	AT	SHTHG.	SHEATHING
//	PARALLEL	SIM.	SIMILAR
B.U.	BUILT UP	TYP.	TYPICAL
BLKG.	BLOCKING	U.I.O.	UNLESS INDICATED OTHERWISE
BOTT.	BOTTOM		
BRG.	BEARING	U.N.O.	UNLESS NOTED OTHERWISE
CLR.	CLEAR		
COL.	COLUMN	VERT	VERTICAL
CONN.	CONNECTION	W/	WITH
CONT.	CONTINUE		
d	DIAMETER		
DBL	DOUBLE		
EA.	EACH		
EQ.	EQUAL		
F.O.	FACE OF		
HDR	HEADER		
HORIZ	HORIZONTAL		
MFR	MANUFACTURE OR MANUFACTURED		
O.C.	ON CENTER		
PL.	PLATE		
REQ'D	REQUIRED		
SCHED	SCHEDULE		



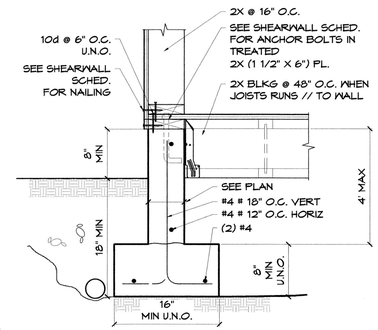
NOTE: NAIL WALL SHEATHING TO BLOCKS AS FOR SHEARWALL EDGE NAILING

2 WINDOW STRAPPING DETAIL
NTS

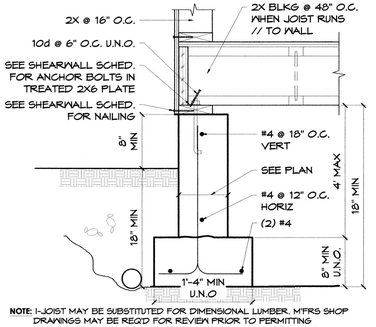


NOTE: HEADERS SHALL BE EITHER (2) 2X12 HF#2, 4X10 DF#2, OR 6X8 DF#2 U.N.O. ON PLANS

1 TYPICAL EXTERIOR & INTERIOR BEARING WALL FRAMING ELEVATION
NTS

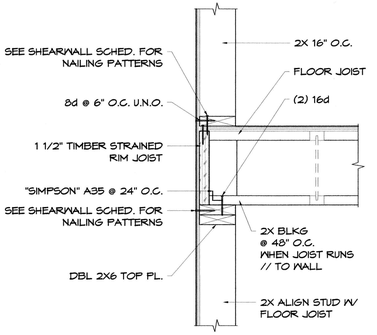


3D TYP. WALL CONSTRUCTION DETAIL
(11X17) SCALE: 1/2" = 1'-0"
(22X34) SCALE : 1" = 1'-0"



NOTE: I-JOIST MAY BE SUBSTITUTED FOR DIMENSIONAL LUMBER. MFRS SHOP DRAWINGS MAY BE REQ'D FOR REVIEW PRIOR TO PERMITTING AS SPECIFIED IN THE WOOD STRUCTURAL NOTES ON THIS SHEET.

3C TYP. WALL CONSTRUCTION DETAIL
(11X17) SCALE: 1/2" = 1'-0"
(22X34) SCALE : 1" = 1'-0"



3B TYP. WALL CONSTRUCTION DETAIL
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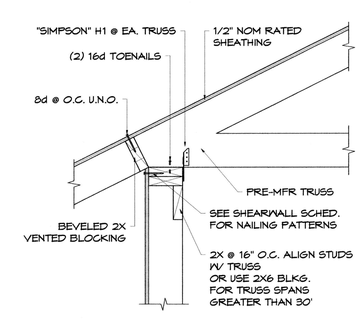
(22X34) SCALE : 1" = 1'-0"



3A TYP. WALL CONSTRUCTION DETAIL
(11X17) SCALE: 1/2" = 1'-0"
(22X34) SCALE : 1" = 1'-0"

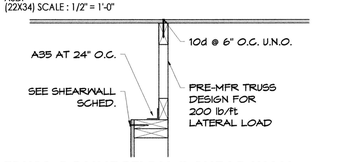
SHEARWALL NAILING SCHEDULE				
MARK (SHEAR CAPACITY)	WALL TYPE	PANEL EDGE NAILING (1) AND (2)	INTERMEDIATE NAILING (2)	BOTT. PL. ANCHOR BOLTING OR NAILING (5)
1 (200 lb/ft)	1/2" CDX PW, OSB, ONE SIDE	8d @ 6" O.C.	8d @ 12" O.C.	1/2" A.B. @ 48" O.C. OR 16d @ 1 1/2" O.C.
2 (350 lb/ft)	1/2" CDX PW, OR OSB, ONE SIDE	8d @ 3 1/2" O.C.	8d @ 12" O.C.	5/8" A.B. @ 40" O.C. OR 16d @ 4" O.C.
3 (700 lb/ft)	1/2" CDX PW, OR OSB, BOTH SIDES	8d @ 4" O.C. (4)	8d @ 12" O.C.	3/4" A.B. @ 24" O.C. OR 16d @ 2" O.C.
1/1 (200/808/ft) (PWS)	1/2" GWB, BOTH SIDE	5d COOLER NAILS @ 7" O.C.	5d COOLER NAILS @ 7" O.C.	1/2" A.B. @ 48" O.C. OR 16d @ 8" O.C.

SHEAR WALL SCHED. NOTE:

1. BLOCK ALL PANEL EDGES
2. SEE NAILS - MIN. REQUIREMENTS
3. 2X STUDS SHALL BE HF#2 OR BETTER, KIN.-DRIED
4. USED 3X STUDS AND PLATES @ PANEL EDGES @ SHEARWALL 3 ONLY
5. ANCHOR BOLTS SHALL HAVE MIN. 3" BY 3" BY 1/4" THICK PL. WASHER
6. 7/16" OBS MAY BE SUBSTITUTED FOR 1/2" CDX

NAILS - MIN. REQUIREMENTS		
NAIL DESCRIPTION	MIN. WIRE DIAMETER	MIN. PENETRATION REQ'D FOR LATERAL STRENGTH
5d COOLER	0.086"	1.12"
6 d	0.099"	1.25"
8 d	0.113"	1.25"
10 d	0.128"	1.50"
16 d	0.141"	1.75"

4 PARTITION WALL SUPPORT
ASDF
(22X34) SCALE : 1/2" = 1'-0"



5 TRUSS CONNECTION @ SHEAR WALL
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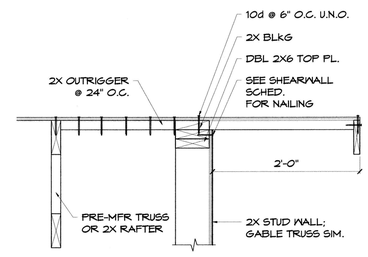
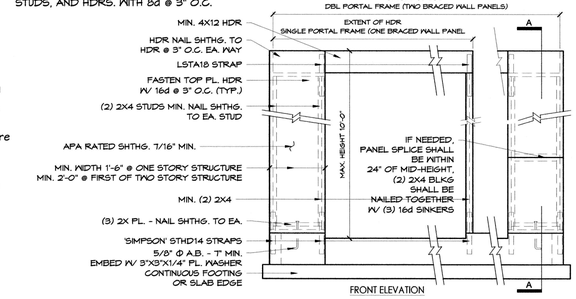


8 FLR FRAMING DETAIL
(11X17) SCALE: 1/2" = 1'-0"
(22X34) SCALE : 1" = 1'-0"

NOTE: NAIL SHTHGS TO ALL PL., STUDS, AND HDRS. WITH 8d @ 3" O.C.



7 ALTERNATE FTG DETAIL
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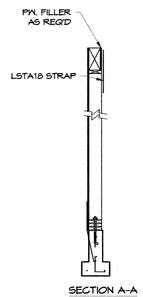
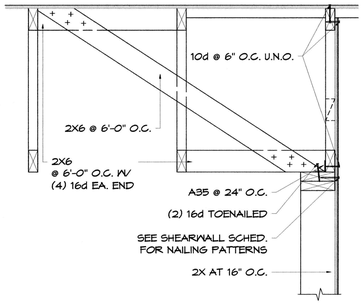


6 SHEAR WALL NAILING SCHEDULE



11 LATERAL RESTRAINT PORTAL (LRP)
NTS

10 GABLE END WALL DETAIL
(11X17) SCALE: 1/2" = 1'-0"
(22X34) SCALE : 1" = 1'-0"

9 OUTLOOKER AT GABLE
(11X17) SCALE: 1/2" = 1'-0"
(22X34) SCALE : 1" = 1'-0"

THE APPROVED CONSTRUCTION PLANS, DOCUMENTS AND ALL ENGINEERING MUST BE POSTED ON THE JOB AT ALL INSPECTIONS IN A VISIBLE AND READILY ACCESSIBLE LOCATION.

FULL SIZED LEDGIBLE COLOR PLANS ARE REQUIRED TO BE PROVIDED BY THE PERMITEE ON SITE FOR INSPECTION

Approval of submitted plans is not an approval of omissions or oversights by this office or noncompliance with any applicable regulations of local government. The contractor is responsible for making sure that the building complies with all applicable codes and regulations of the local government.

City of Puyallup
Development & Permitting Services
ISSUED PERMIT
Building | Planning
Engineering | Public Works
Fire | Traffic

City of Puyallup Building APPROVED
See permit for additional requirements.
JMontgomery
05/16/2023
10:25:07 AM

Rev.	Date	By

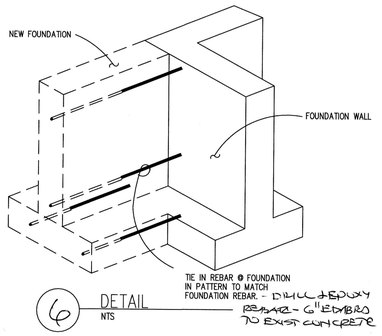
christian c. funboe p.e.
CONSULTING ENGINEER
12181 "C" STREET SOUTH • TACOMA, WA 98444 • (253) 537-8128• FAX 531-1285

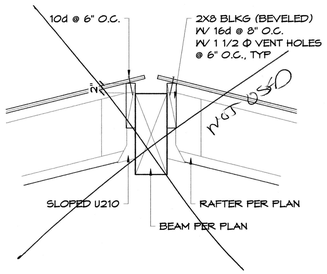
Title: HUBNER ADDITION
Owner:
Site Address: 1404 SHAW RD
JOB #: 22591

STRUCTURAL NOTES & DETAILS

Designer:	CCF
Drafter:	
Checker:	
Issue Date:	12/2/22
Revision:	
Project Ref.:	22591
Client Ref.:	
SHEET NO.	REV.
S1.1	

PRRASF20221703





5 RIDGE BEAM DETAIL
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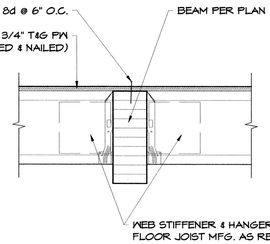

4 FLOOR FRAMING DETAIL
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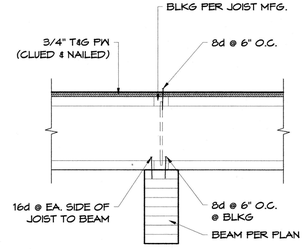

3 FLOOR FRAMING DETAIL
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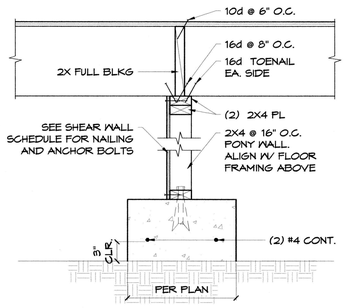

2 FLOOR FRAMING DETAIL
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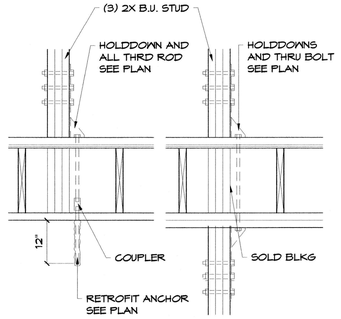
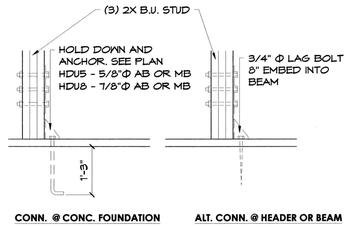


ALT. CONN. @ RETROFIT ANCHOR — **CONN. B/W FLOORS**
OMIT COUPLER AND ROD EXTENSION WHERE WALL STUD REST DIRECTLY ON CONC. FOUNDATION



CONN. @ CONC. FOUNDATION — **ALT. CONN. @ HEADER OR BEAM**

1 TYP. HOLDOWN DETAILS
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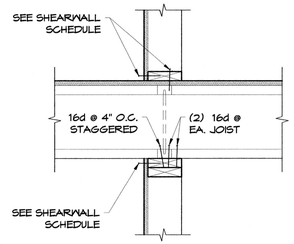
(22X34) SCALE : 1" = 1'-0"



11 FLOOR DETAIL
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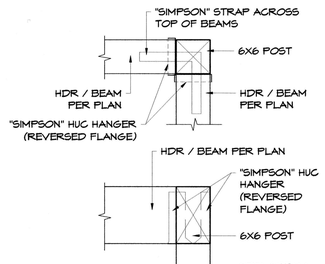

10 POST TO BEAM DETAIL
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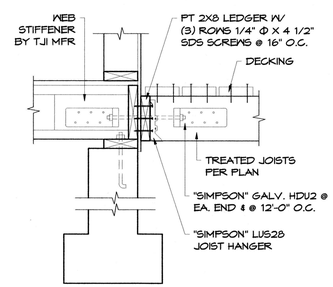
(22X34) SCALE : 1" = 1'-0"



9 DECK LEDGER DETAIL
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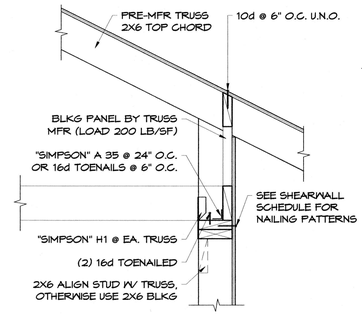

8 TRUSS BLOCKING DETAIL
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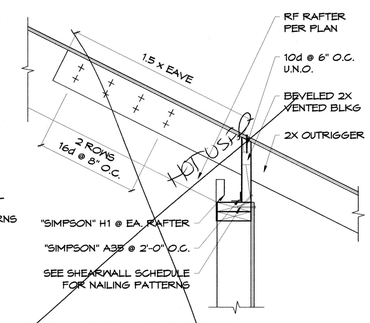

7 ROOF FRAMING DETAIL
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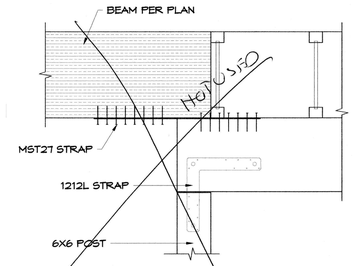

15 POST TO BEAM DETAIL
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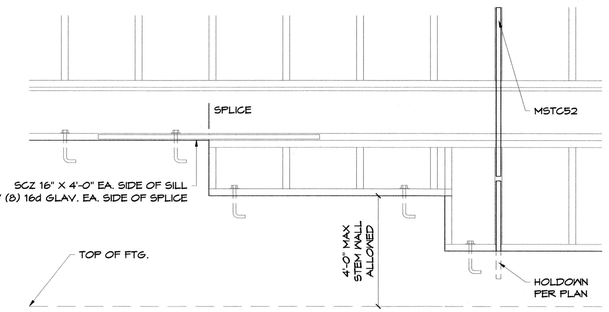

14 PONY WALL DETAIL
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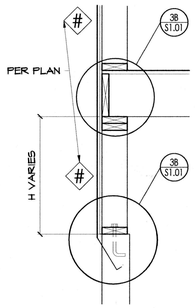
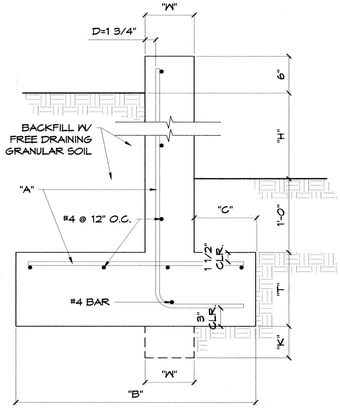
(22X34) SCALE : 1" = 1'-0"



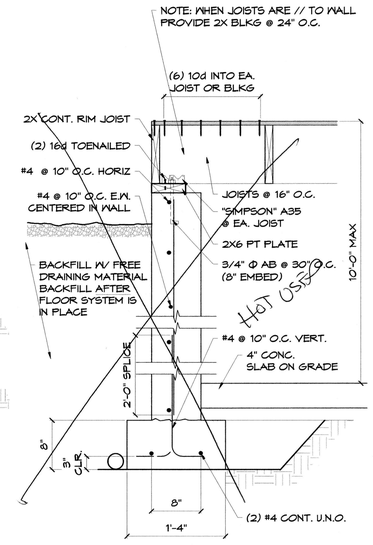
RETAINING WALL SCHEDULE							
"H"	"N"	"T"	"A"	"B"	"C"	"D"	"K"
4'-6"	8"	12"	#5 @ 15" O.C.	3'-3"	1'-0"	1 3/4"	0
6'-8"	8"	12"	#5 @ 10" O.C.	4'-0"	1'-3"	1 3/4"	0

NOTE: RETAINING WALL HOOK BARS MUST BE TIED INTO FTG. STEM PRIOR TO CONC. PLACEMENT

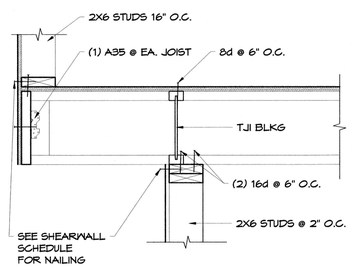
CONCRETE f'c	= 2500 psi
REBAR Fy	= 40 ksi
PASSIVE SOIL	= 250 PCF
ACTIVE SOIL	= 35 PCF
SOIL BEARING	= 1500 PSF (AVG)
SPLICE LENGTH	= 40d



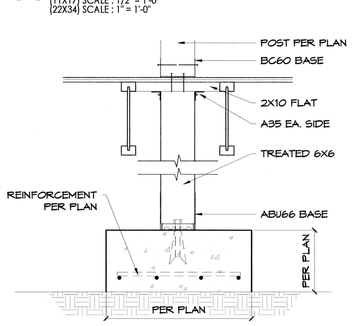
13 RETAINING WALL DETAIL
(11X17) SCALE : 1/2" = 1'-0"
(22X34) SCALE : 1" = 1'-0"



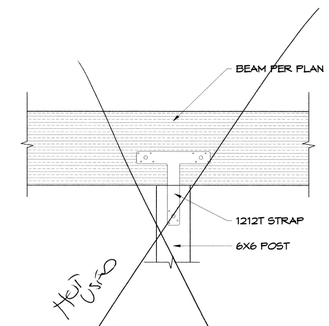
12 FOUNDATION DETAIL
(11X17) SCALE : 1/2" = 1'-0"
(22X34) SCALE : 1" = 1'-0"



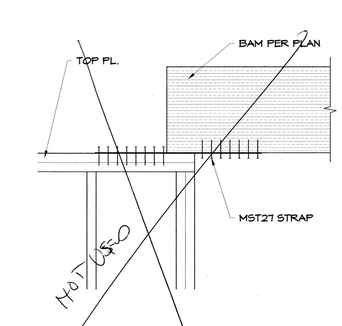
19 FLOOR FRAMING DETAIL
(11X17) SCALE : 1/2" = 1'-0"
(22X34) SCALE : 1" = 1'-0"



18 POST DETAIL
(11X17) SCALE : 1/2" = 1'-0"
(22X34) SCALE : 1" = 1'-0"



17 POST TO BEAM DETAIL
(11X17) SCALE : 1/2" = 1'-0"
(22X34) SCALE : 1" = 1'-0"



16 WALL TO BEAM DETAIL
(11X17) SCALE : 1/2" = 1'-0"
(22X34) SCALE : 1" = 1'-0"

City of Puyallup
Development & Permitting Services
ISSUED PERMIT
Building | Planning | Engineering | Public Works | Fire | Traffic

Rev.	Date	By

christian funboe p.e.
CONSULTING ENGINEER
12181 'C' STREET SOUTH • TACOMA, WA 98444 • (253) 537-8128• FAX 531-1285

Title: HILDER ADDITION
Owner:
Site Address: 1404 SHAW RD
JOB #: 22091

STRUCTURAL DETAILS

Designer:	CSF
Drafter:	
Checker:	
Issue Date:	12/2/22
Revision:	
Project Ref.:	22091
Client Ref.:	
CAD Ref.:	
SHEET NO.	REV.
S1.2	