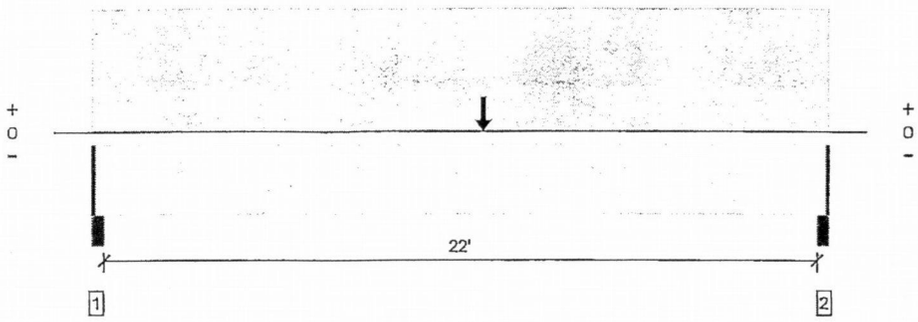
iLevel Forte software

MEMBER REPORT *BAILEY RES, #8*

1 piece(s) 3 1/8" x 18" 24F-V4 DF Glulam

PASSED REV 11

Overall Length: 22' 7"



All Dimensions Are Horizontal; Drawing Is Conceptual

Design Results	Actual @ Location	Allowed	Result	LDF	Load: Combination (Pattern)
Member Reaction (lbs)	4626 @ 22' 5"	4570	Passed (101%)	--	1.0 D + 1.0 S (All Spans)
Shear (lbs)	4130 @ 20' 9 1/2"	11428	Passed (36%)	1.15	1.0 D + 1.0 S (All Spans)
Pos Moment (Ft-lbs)	32060 @ 11' 10 3/4"	38813	Passed (83%)	1.15	1.0 D + 1.0 S (All Spans)
Live Load Defl. (in)	0.580 @ 11' 4 1/2"	0.742	Passed (L/460)	--	1.0 D + 1.0 S (All Spans)
Total Load Defl. (in)	0.956 @ 11' 4 1/2"	1.112	Passed (L/279)	--	1.0 D + 1.0 S (All Spans)

System : Roof
Member Type : Flush Beam
Building Use : Residential
Building Code : IBC
Design Methodology : ASD
Member Pitch: 0/12

- Deflection criteria: LL (L/360) and TL (L/240).
- Bracing (Lu): All compression edges (top and bottom) must be braced at 8' 8 3/16" o/c unless detailed otherwise. Proper attachment and positioning of lateral bracing is required to achieve member stability.
- Critical positive moment adjusted by a volume factor of 1.00 that was calculated using length L = 22' 3".
- The effects of positive or negative camber have not been accounted for when calculating deflection.
- The specified glulam is assumed to have its strong laminations at the bottom of the beam. Install with proper side up as indicated by the manufacturer.
- Applicable calculations are based on NDS 2005 methodology.

STEEL OPT
$S_R = 14.3$
$I_R = 97.27$
TS 10x6x 1/4

Supports	Bearing Length			Loads to Supports (lbs)			Accessories
	Total	Available	Required	Dead	Snow	Total	
1 - Column - SPF	3.50"	2.25"	2.20"	1781	2713	4494	1 1/4" Rim Board
2 - Column - SPF	3.50"	2.25"	2.28"	1841	2814	4655	1 1/4" Rim Board

- Rim Board is assumed to carry all loads applied directly above it, bypassing the member being designed.

Loads	Location	Tributary Width	Dead (0.90)	Snow (1.15)	Comments
1 - Uniform(PLF)	0 to 22' 7"	N/A	105.0	175.0	Snow
2 - Point(lb)	12'	N/A	945	1575	

iLEVEL Notes

iLevel warrants that the sizing of its products will be in accordance with iLevel product design criteria and published design values. iLevel expressly disclaims any other warranties related to the software. Refer to current iLevel literature for installation details. (www.iLevel.com) Accessories (Rim Board, Blocking Panels and Squash Blocks) are not designed by this software. Use of this software is not intended to circumvent the need for a design professional as determined by the authority having jurisdiction. The designer of record, builder or framer is responsible to assure that this calculation is compatible with the overall project. iLevel products manufactured at Weyerhaeuser facilities are third-party certified to sustainable forestry standards.

The product application, input design loads, dimensions and support information have been provided by Forte Software Operator

SUSTAINABLE FORESTRY INITIATIVE

TRY EX 4x16 w/ STL SIDE PL

4x16 #1 $A = 53.38$ $S = 135.7$ $I = 1034$

PL 3/8 x 14 $\Rightarrow I_{EQ} = \frac{29000}{1700}(.375) = 6.4''$ $\rightarrow A_{EQ} = 89.6$ $S_{EQ} = 209.1$ $I_{EQ} = 1463$

$f_b = \frac{32060}{(135.7+209.1)} = 1116$ psi $F'_b = 1000(1.15) = 1150$ psi ok.

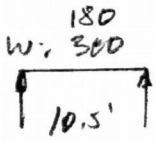
$\Delta_{LL} = .217 + .142 = .359''$ ok

Forte Software Operator	Job Notes
ADAM ROLIN AG ROLIN CONSULTING (203) 663-9960 AGROLIN@AOL.COM	

5/3/2012 9:59:59 AM
iLevel Forte v3.0, Design Engine: V5.4.3.2

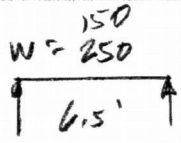
AG Rolin Consulting — STRUCTURAL DESIGN & ENGINEERING	Project: BAILEY FES	By: AGR	Sheet No. 2
	Location:	Date: 2 MAY	
	Client: JLD	Revised: 12 JUN	Job No. B1203
		Date:	

(5) RIDGE BM



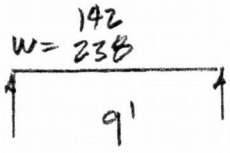
USE: 4 x 12 #2

(6) HDR @ DESK



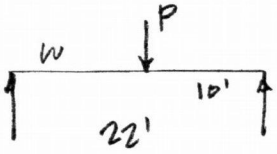
USE: 4 x 8 #2

(7) HDR @ UTIL



USE: 4 x 10 #2

(8) EX FF BM 4x16

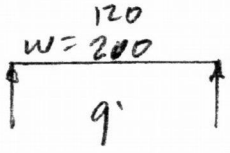


W = 105
175

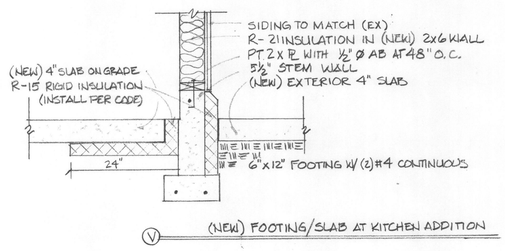
P = 945#
1575#

USE: ~~EX 4 x 16~~ TS 10 x 6 x 1/4
W/ PL 3/8 x 14 W/ SDS 1/4 x 2 1/2 @ 9" o/c
T&B

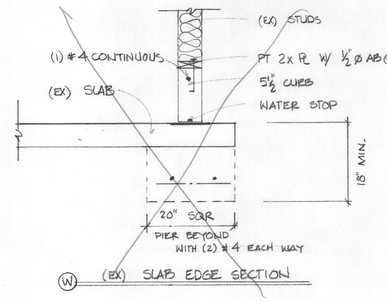
(9) NEW HDR @ NOOK



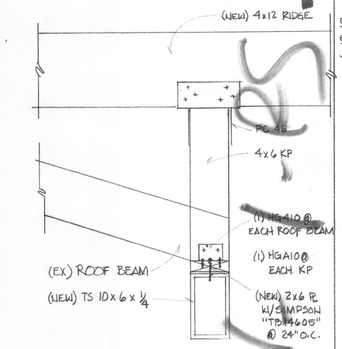
USE: 4 x 10 #2



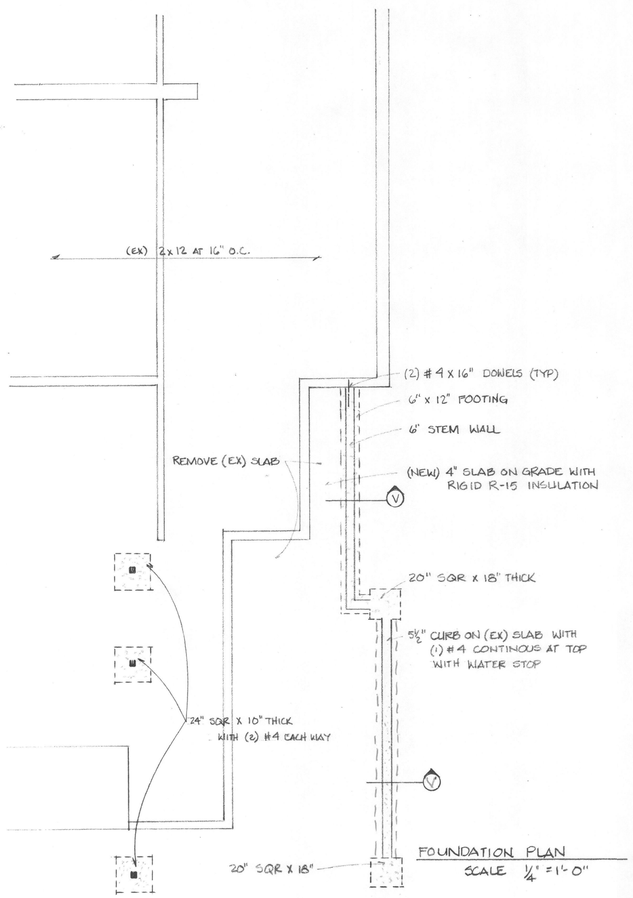
(V) (NEW) FOOTING/SLAB AT KITCHEN ADDITION



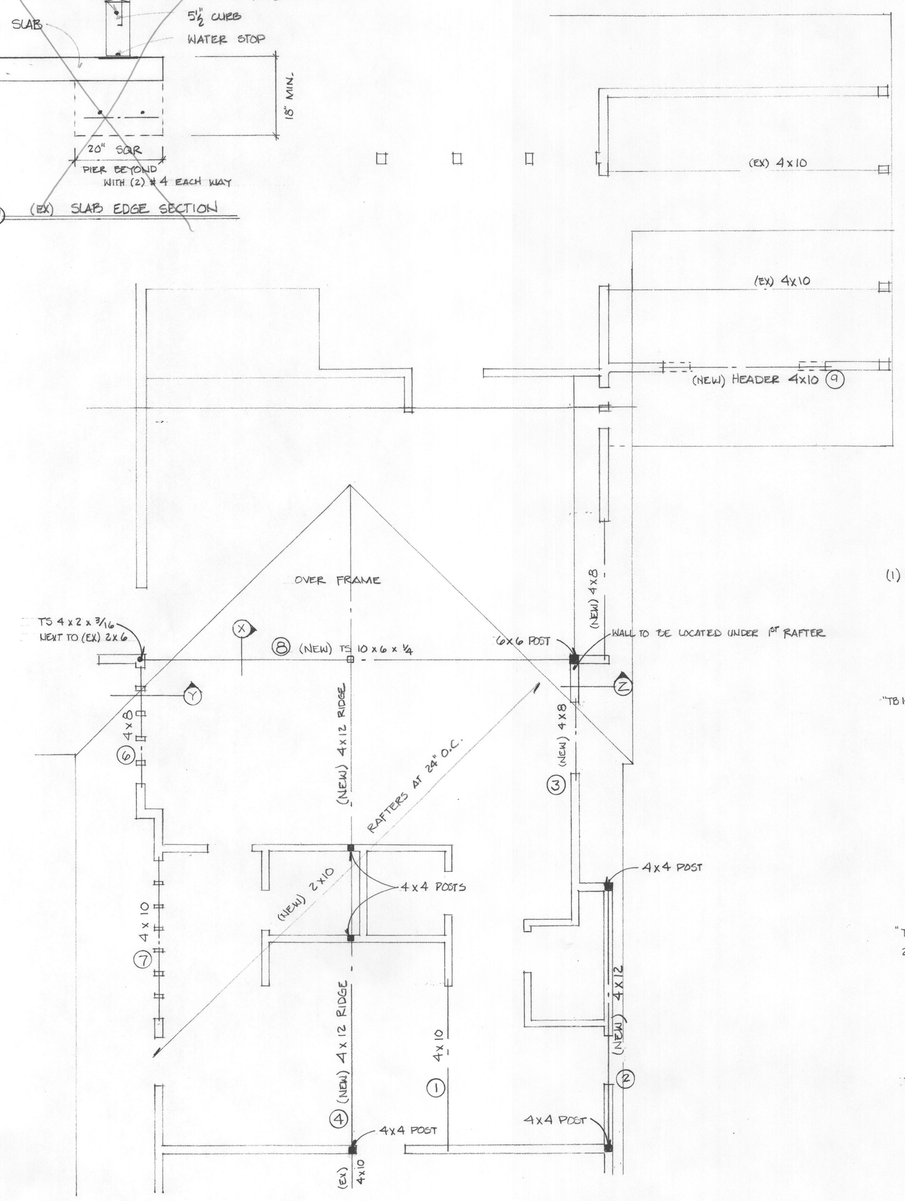
(W) (EX) SLAB EDGE SECTION



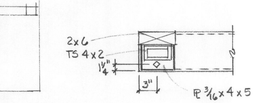
(X) ALTERNATE HEADER AT KITCHEN

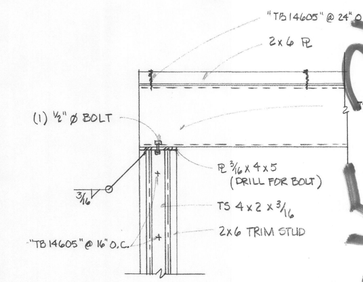


FOUNDATION PLAN
SCALE ¼" = 1'-0"



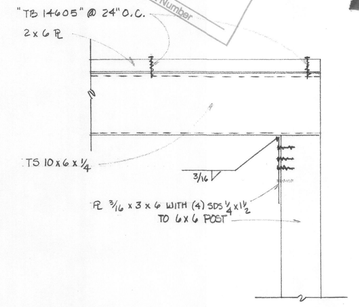
ROOF FRAMING
SCALE ¼" = 1'-0"





(Y) TS BEAM TO COMPOSITE POST

City of Portland
REVIEWED FOR CODE COMPLIANCE
JUN 19 2012
Permit Number



(Z) TS BEAM TO 6x POST

12-145349-RS

DATE: 6.18.12

DIANA AND KEITH BAILEY • 01408 SW MILITARY RD • PORTLAND • 97219 • DESIGNED BY • JUDITH LIDSTROM'S DESIGNS • 503.534.1980

3/5

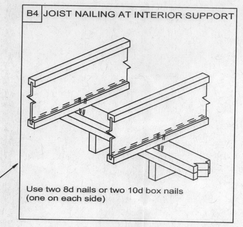
SEE INSTALLATION GUIDE FOR APPLICABLE DETAILS

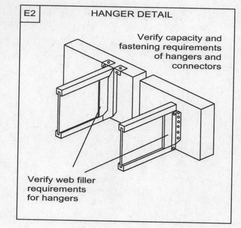
DESIGN LOADS

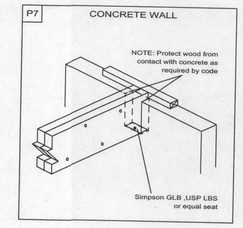
FLOOR:	ROOF:
LIVE LOAD: — 40 PSF	LIVE LOAD: — 25 PSF
DEAD LOAD: — 15 PSF	DEAD LOAD: — 15 PSF

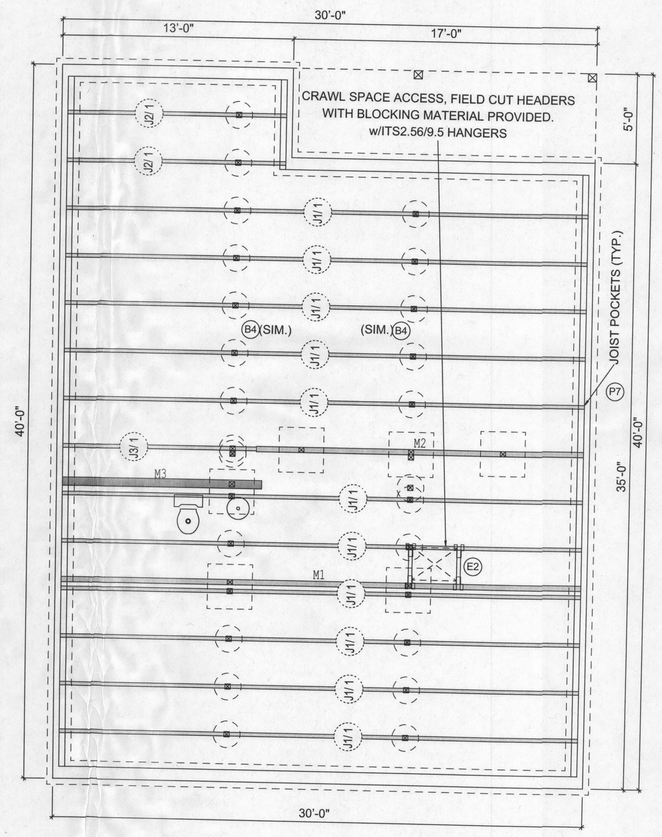
CAREFULLY READ THE LOUISIANA PACIFIC INSTALLATION GUIDE PRIOR TO PRODUCT PLACEMENT

USE THIS NAILING APPLICATION INTO THE POST BELOW EACH JOIST. POST AND PIER BEARING CONDITION APPROVED WITH THIS DESIGN.









MAIN FLOOR PLACEMENT PLAN

FLOOR I-JOIST TO BE 9-1/2" LPI 20+ @ 32" O.C. U.N.O.

NOTE: THE PLAN IS VALID FOR ENGINEERED WOOD PRODUCTS ONLY AS PROVIDED BY HBP

Joist Schedule			
Label	Qty	Description	Length
J1	11	9-1/2" LPI 20Plus	30'-0"
J2	2	9-1/2" LPI 20Plus	13'-0"
J3	1	9-1/2" LPI 20Plus	11'-0"

Blocking Schedule			
Label	Qty	Description	Length
BLK		9-1/2" LPI 18	4'-0"

Beam Schedule			
Label	Qty	Description	Length
M1	1	3-1/2x9-1/2 DF_24F-V4	30'-0"
M2	1	3-1/2x9-1/2 DF_24F-V4	19'-0"
M3	1	5-1/2x9-1/2 DF_31F-V	12'-0"

Connectors					
Label	Qty	Description	TF Fstnr	Face Fstnr	Joist Fstnr
H1	2	ITS2.56/9.5	4-10d	2-10d	2-teardrop
H2	2	ITS2.56/9.5	4-10d x 1.5"	2-10d x 1.5"	2-teardrop

City of Portland
REVIEWED FOR CODE COMPLIANCE
JUL 31 2013
Permit Number

LP BUILDING PRODUCTS

HUTTIG™ BUILDING PRODUCTS
8100 SW HUNZIKER RD. TIGARD, OR 97223
Phone: (503) 620-1411 Fax: (503) 968-6048

PROJECT:
KLOH - FOUR SQUARE - 30' w/FAM
7135 N. JORDAN AVE.

CUSTOMER:
MILWAUKIE LUMBER CO.
MILWAUKIE, OR - (FRANK HEMER)

DATE OF DESIGN 03/11/13

DATE OF REVISION 07/30/13

DESIGNER APH

HUTTIG DESIGN NUMBER 302039

PAGE 1 OF 2

ORIGINAL PLAN DATE 02/01/13

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

This drawing may not be copied without prior written permission