

4506 SW HAMILTON ST. REV01 RS02-147625

RS.02.147625 REV. 01.

**F**

NOV 20 2002  
MICROFILMED

**4**



CITY OF  
**PORTLAND, OREGON**  
OFFICE OF PLANNING AND DEVELOPMENT REVIEW  
1900 SW 4<sup>th</sup> Ave, Suite 5000  
Portland, OR 97201



**RESIDENTIAL 1 & 2 FAMILY PERMIT**

**02-147625-REV-01-RS**

**Site Address:** 4506 SW HAMILTON ST  
4506 HAMILTON ST

**Issued:** 11/6/02

| PROJECT INFORMATION                                    |          | Occ. Group | Const. Type |
|--------------------------------------------------------|----------|------------|-------------|
| Single Family Dwelling                                 | Addition | R3 U1      | V-M         |
| Project Description: REVISE STRUCTURE SUPPORTING DECK. |          |            |             |

|                       |                     |                      |
|-----------------------|---------------------|----------------------|
| <b>APPLICANT</b>      | STACEY BARTEL       | Phone (503) 223-5340 |
| <b>PROPERTY OWNER</b> | JENNIFER L. AUSLAND | F:None               |
| <b>CONTRACTOR</b>     | JAMES MCCORD        | Phone                |

| Project Details           |          | Project Details   |   |
|---------------------------|----------|-------------------|---|
| Code Edition (Year)       | 2000     | Number of Stories | 2 |
| Zoning Enforcement Agency | Portland |                   |   |

**PAID**  
NOV 06 2002  
CITY OF PORTLAND

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|  |
|  |

|                       |                                                                                                                                                                                                                                                                                                                                                   |
|-----------------------|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| <b>BEFORE YOU DIG</b> | <small>ATTENTION: Oregon law requires you to follow rules adopted by the Oregon Utility Notification Center. Those rules are set forth in OAR 852-001-0010 through OAR 852-001-0090. You may obtain copies of the rules by calling the center. (Note: the telephone number for the Oregon Utility Notification Center is 1-800-332-4344).</small> |
|-----------------------|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|

|                     |                     |
|---------------------|---------------------|
| <b>CITY CONTACT</b> | Phone:              |
| E-Mail:             | Fax: (503) 823-4172 |

|                                         |                                                   |                |
|-----------------------------------------|---------------------------------------------------|----------------|
| <b>INSPECTION REQUEST PHONE NUMBERS</b> | Building/Trade inspections - Call Before 6:00 AM: | (503) 823-7000 |
| TOD: (503) 823-6868                     |                                                   |                |
| IVR Inspection Request Number:          | 2261024                                           |                |



ENSURE WALL TO BE

2X10 @ 16" O.C. WITHY  
3/4" T&G PT  
PLYWOOD, SEE  
ENGINEER'S PAGES FOR  
CONNECTIONS,  
TYPICAL

(2) 2X6 K.P.

6X8 HDR

6X8 HDR

(2) 2X6 K.P.

1 7/8" TJI/PRO 250 @ 16"  
O.C. W/ 3/4" T&G F.Y.W.  
10d NAILS @ 6" O.C. &  
1/2" UNDERLAYMENT

CMSTC16  
HANGER

CMSTC16

5 3/8" X 19 1/2" 24F-V4 GL

6 3/4" X 19 1/2"

CMSTC16 X 4'-0" TOP OF  
BEAM TO DBL TOP PL.

(E) HEADER

ALTERNATE DECK  
FRAMING PLAN

1/4" = 1'-0"

City of Portland  
APPROVED

NOV 06 2002

PO

Permit Number

4506 SW Hamilton

ENSURE WALL TO BE



(2) 1 3/4" X 11 1/2" L.B.E  
W/ LVL MICHAEL AT  
WALL ABOVE

DOUBLE FRAMING  
UNDER FIREPLACE  
AND WALL ABOVE

SLOPE STRUCTURE FOR  
DECK SLOPE AWAY FROM  
BLDG.

3 1/2" TJI/PRO 250 20150  
AT 16" O.C. w/ IUS1.81/9.5  
HANGER AT LVL FLAG

NOTE:  
WALLS SHOWN  
BELOW FLOOR  
FRAMING

9 1/2" TJI/PRO 250  
@ 16" O.C.  
w IUS1.81/9.5  
Hanger at  
LVL beam



ENSURE WALL TO BE

Design + Architecture LLC

02-147625-2a-1-01-tmus



MILLER  
CONSULTING  
ENGINEERS

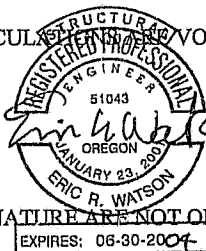
**STRUCTURAL CALCULATIONS**

REVISED DECK FRAMING FOR  
MASTER BEDROOM ADDITION  
4506 SW Hamilton, Portland, OR  
Stacey and Brian Bartel

November 5, 2002  
Project No. 020931  
2 pages

Principal Checked: KS

THESE CALCULATIONS ARE VOID IF SEAL



AND SIGNATURE ARE NOT ORIGINAL

EXPIRES: 06-30-2007

**\*\*\* LIMITATIONS \*\*\***

ENGINEER WAS RETAINED IN A LIMITED CAPACITY FOR THIS PROJECT.  
DESIGN IS BASED UPON INFORMATION PROVIDED BY THE CLIENT,  
WHO IS SOLELY RESPONSIBLE FOR ACCURACY OF SAME.  
NO RESPONSIBILITY AND / OR LIABILITY IS ASSUMED BY,  
OR IS TO BE ASSIGNED TO THE ENGINEER FOR ITEMS  
BEYOND THAT SHOWN ON THESE SHEETS.

9570 SW BARBUR, #100  
PORTLAND, OR 97219  
PHONE (503) 246-1250

FAX (503) 246-1395

9570 SW BARBUR, #100, PORTLAND, OR 97219-5412  
Phone (503) 246-1250 Fax (503) 246-1395 www.millerengrs.com

02-147625-1250-1-15

# CHECK ALTERNATE DECK FRAMING:

JOISTS:

$$\text{SPAN} = 6.5' \text{ \& } W = 16/12(55) = 73.33 \text{ plf}$$

=> USE 8 1/2" TJI / PRO 250 AT 16" o.c. (SEE P. 2)

BEAM:

$$\text{SPAN} = 16' \text{ \& } W = \frac{1}{2}(6.5)(55) + 8(0) + \frac{8}{12}(55) = 279 \text{ plf}$$

$$\rightarrow \text{w/ S.S.: } V = 2230 \text{ lbs., } M = 8930 \text{ ft. lbs., \& } I_R = 271 \text{ in}^4$$

=> TRY (2) 1 3/4" x 11 7/8" LVL JOISTS

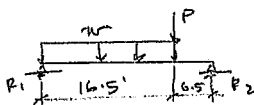
$$I = 2(244) = 488 \text{ in}^4 > 271 \text{ in}^4 \checkmark$$

$$V_{ALL} = 2(3350) = 7000 \text{ lbs.} > 2230 \text{ lbs.} \checkmark$$

$$M_{ALL} = 2(8925) = 17800 \text{ ft. lbs.} > 8930 \text{ ft. lbs.} \checkmark$$

=> USE (2) 1 3/4" x 11 7/8" LVL MICRO-LVL BEAM

## CHECK FRONT GL BEAM:



$$W = 849 \text{ plf \& } P = 2230 + \frac{1}{2}(6.5)(16.5)(40) = 3330 \text{ lbs.}$$

$$\rightarrow R_1 = 9.87 \text{ k, } R_2 = 7.38 \text{ k \& } M = 57.7 \text{ k}$$

$$\Delta = 0.73" \sim 9/379 \sim 9/380 \checkmark$$

=> BY INSP OF CHC'S DATED 10/21/02, BN IS O.K.



**MILLER**  
CONSULTING  
ENGINEERS

9570 SW Barber Blvd  
Suite One Hundred  
Portland, OR 97219-5412

(503) 246-1250  
Fax: 246-1395

Project Name MASTER BEDROOM ADDITION Project # 020931

Location 4506 SW HAMILTON, PORTLAND, OR

Client STACEY & BRIAN BARTEL

By ERW Ok'd KS Date 11/5/02 Page A1/2



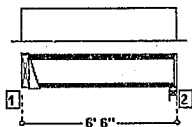
**True Joist**  
A Meyerhueser Business

TJ-Joist(TM) 6.04 Serial Number: 002020261  
User: 2 11/5/02 2:49:40 PM  
Page 1 Engine Version: 1.4.16

Deck Joists

9 1/2" TJ@Pro(TM)-250 @ 16" o/c

**THIS PRODUCT MEETS OR EXCEEDS THE SET DESIGN CONTROLS FOR THE APPLICATION AND LOADS LISTED**



Product Diagram is Conceptual.

#### LOADS:

Analysis is for a Joist Member.

Primary Load Group - Residential - Living Areas (psf): 40.0 Live at 100 % duration, 15.0 Dead

#### SUPPORTS:

|                         | Input Width | Bearing Length | Vertical Reactions (lbs)<br>Live/Dead/Uplift/Total | Ply | Depth | Nailing Depth | Detail           | Other                                  |
|-------------------------|-------------|----------------|----------------------------------------------------|-----|-------|---------------|------------------|----------------------------------------|
| 1 Timberstrand LSL Beam | 3.50"       | Hanger         | 176 / 68 / 0 / 241                                 | 1   | 9.50" | N/A           | Top Mount Hanger | None                                   |
| 2 Stud wall             | 3.50"       | 2.25"          | 171 / 64 / 0 / 235                                 | N/A | N/A   | N/A           | End, Rim         | 1 Ply 1 1/4" 0.8E TJ-Strand Rim Board® |

#### HANGERS: Simpson Strong-Tie® Connectors

| Support            | Model  | Slope | Skew | Reverse Flanges | Top Flange Offset | Top Flange Slope | Support Wood Species |
|--------------------|--------|-------|------|-----------------|-------------------|------------------|----------------------|
| 1 Top Mount Hanger | ITT9.5 | 0/12  | 0    | N/A             | No                | 0                | N/A                  |

-Nailing for Support 1: Face: 2-N10 , Top 4-N10 , Member: 2-N10

#### DESIGN CONTROLS:

|                         | Maximum | Design | Control | Control         | Location                            |
|-------------------------|---------|--------|---------|-----------------|-------------------------------------|
| Shear (lbs)             | 220     | 220    | 1120    | Passed (20%)    | L.L. end Span 1 under Floor loading |
| Vertical Reaction (lbs) | 220     | 220    | 1120    | Passed (20%)    | Bearing 2 under Floor loading       |
| Moment (Ft-Lbs)         | 330     | 330    | 3338    | Passed (10%)    | MID Span 1 under Floor loading      |
| Live Load Defl (in)     |         | 0.012  | 0.200   | Passed (L/999+) | MID Span 1 under Floor loading      |
| Total Load Defl (in)    |         | 0.017  | 0.300   | Passed (L/999+) | MID Span 1 under Floor loading      |
| TJPro                   | 65      | 30     | 1 used  |                 | Span 1                              |

-Deflection Criteria: STANDARD (LL:L/360, TL:L/240).

-Allowable moment was increased for repetitive member usage.

-Deflection analysis is based on composite action with single layer of 19/32", 5/8" Panels (20" Span Rating) GLUED & NAILED wood decking.

-Bracing(Lu): All compression edges (top and bottom) must be braced at 2' 8" o/c unless detailed otherwise. Proper attachment and positioning of lateral bracing is required to achieve member stability.

#### TJ-Pro RATING SYSTEM

-The TJ-Pro Rating System value provides additional floor performance information and is based on a GLUED & NAILED 19/32", 5/8" Panels (20" Span Rating) decking. The controlling span is supported by beams. Additional considerations for this rating include: Ceiling - None. A structural analysis of the deck has not been performed by the program. Comparison Value: 1.46

#### PROJECT INFORMATION:

Bartel Residence Remodel  
020931  
ERW

#### OPERATOR INFORMATION:

Eric Watson  
Miller Consulting Engineers  
9570 SW Barbur Blvd  
suite 100  
Portland, OR 97219  
eric@millerer.com

A2/2