



RUVIN BROS. ARTISANS & TRADES

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FAX COVER SHEET

TO: SCOTT MILLER FROM: NATHAN

COMPANY: VILLAGE OF FOX POINT DATE: 4-27-04

FAX: 351-8909 TIME: 12:30 PM

Pages sent 3 including cover sheet.

*If you do not receive all pages, please contact us as soon as possible.
Thank you.*

NOTE:

SCOTT -
ENCLOSED IS THE ENGINEERING CALCULATIONS
YOU REQUESTED. PLEASE CALL ME AT (688-3708)
TO CONFIRM THAT THE FRAMING IS OKAY AND
I CAN PROCEED ASAP WITH INSULATING.

THANK YOU!

- NATHAN

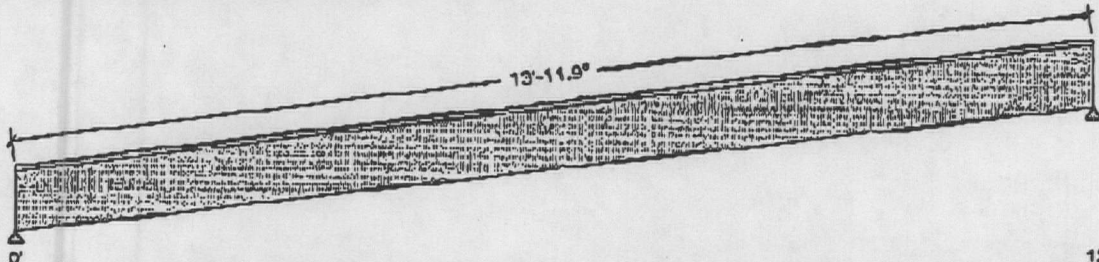
1061 E. THORN LANE FOX POINT, WI	COMPANY Apr 27, 2004 10:12:30	PROJECT 1061@domlane.wvb
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Design Check Calculation Sheet
Sizer 2002

LOADS: (lbs, psf, or plf)

Load	Type	Distribution	Magnitude		Location (ft)		Pattern Load?
			Start	End	Start	End	
Load1	Dead	Full UDL	20.0				No
Load2	Snow	Full UDL	40.0				No

MAXIMUM REACTIONS (lbs) and BEARING LENGTHS (in) :



Dead	160	160
Live	260	250
Total	420	410
Bearing Length	1.0	1.0

Lumber-soft, S-P-F, No.1/No.2, 2x10"

Spaced at 16" c/c; Slope: 26.7 deg; Total length: 13'-11.0"; Self Weight of 2.9 plf automatically included in loads;
 End notches: bottom (depth = 0 length, a = 0 in); Lateral support: top= full, bottom= at supports; Repetitive factor: applied where permitted (refer to online help); Load combinations: ICC-IBC;

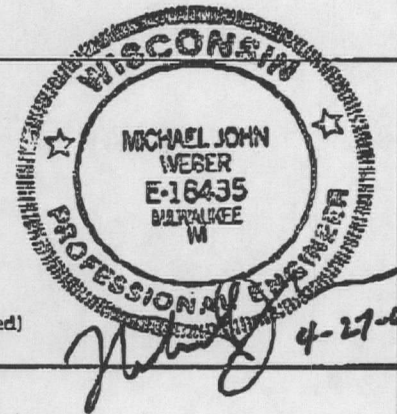
SECTION vs. DESIGN CODE NDS-1997: (stress=psi, and in)

Criterion	Analysis Value	Design Value	Analysis/Design
Shear	$F_v / \phi_d = 25$	$F_v' = 80$	$F_v / F_v' = 0.44$
Bending (+)	$F_b = 718$	$F_b' = 1273$	$F_b / F_b' = 0.56$
Live Defl'n	$0.39 = L/1044$	$0.70 = L/240$	0.28
Total Defl'n	$0.32 = L/1291$	$0.93 = L/180$	0.42

ADDITIONAL DATA:

FACTORS:	F	CD	CM	Ct	CL	CP	CV	Cfu	Cr	LC#
$F_b' =$	875	1.15	2.00	1.00	1.000	1.10	1.000	1.00	1.15	2
$F_v' =$	70	1.15	2.00	1.00						2
$F_{cp}' =$	429		1.00	1.00						-
$E' =$	1.4 million		1.00	2.00						3

Bending (+): LC# 2 = D+S, M = 1280 lbs-ft
 Shear : notched end did not control
 shear : LC# 2 = D+S, V = 366, V_{ed} = 329 lbs
 Deflection: LC# 2 = D+S EI= 138.50e06 lb-in²
 Total Deflection = 1.50 (Dead Load Deflection) + Live Load Deflection.
 (D=dead L=live S=snow W=wind I=impact C=construction CId=concentrated)
 (All LC's are listed in the Analysis output)



DESIGN NOTES:

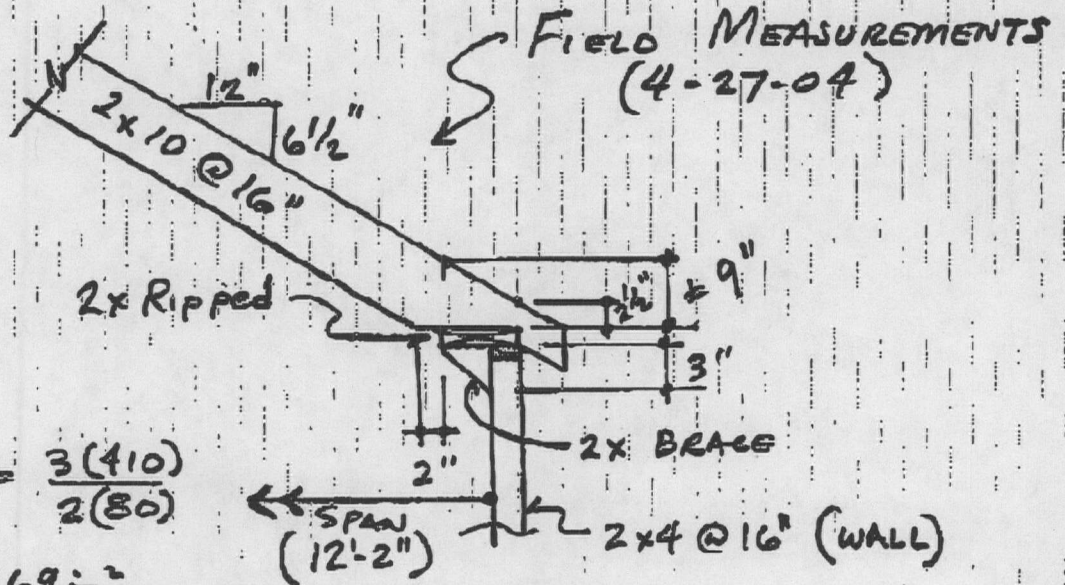
1. Please verify that the default deflection limits are appropriate for your application.
2. Sawn lumber bending members shall be laterally supported according to the provisions of NDS Clause 4.4.1.
3. SLOPED BEAMS: level bearing is required for all sloped beams.



AMBROSE ENGINEERING, INC.

Job: 1061 E. THORN LANE Page: _____

Job #: _____ Date: 4-27-04 By: MJW Checked: _____



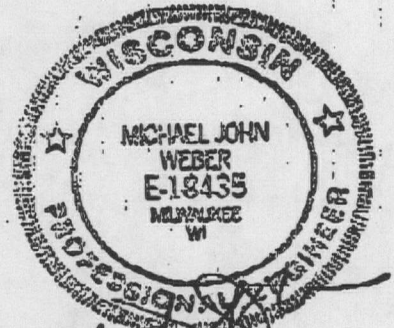
$$F_v = \frac{3V}{2A}$$

$$A_r = \frac{3V}{2F_v} = \frac{3(410)}{2(80)}$$

$$A_r = 7.69 \text{ in}^2$$

$$d_r = 7.69 / 1.5 = 5.125 \text{ in} < 9 \text{ in O.K.}$$

RAFTERS O.K. AS MODIFIED @ BRG. WALL



Handwritten signature and date: 4-27-04