CITY OF WHITE SALMON
RESIDENTIAL PLAN REVIEW

PERMIT B 2005- 61

FILE

OWNER	Steve Delaer	**CONTRACTOR**	self
ADDRESS	PO Box 671 Bingen, Wa	**LICENSE#**	DELAER*954NW
TELEPHONE	503-310-0319	**TELEPHONE**	same
SITE ADDRESS	Gaddis Place	**Engineer**	Charles Warren
SF: MAIN FLOOR	1535	**LWR FLR/BSMNT**	875
2ND FLOOR		**GARAGE**	545
DECK	184	**OTHER**	
VALUATION	$216,555		

ROOF LIVE LD	52 #PSF	**GLAZING**	11%
FLOOR LIVE LD	40/30 #PSF	**SOIL TYPE**	1800
DECK LIVE LD	52 #PSF	**FROST DEPTH**	18"
WIND LOAD	<110 mph Exposure	**SEISMIC ZONE**	D-1
	3 sec. Gust	**CONST TYPE**	V-B
		OCCUPANCY	R-3

ENGINEERED DESIGN Y ☑ N ☐   lower level only

FOOTING SIZE: See engn.   **FOUNDATION:** See engn.   **ANCHORBOLTS:**
CONT. REBAR   **CONT. REBAR**   **PAGE**
VERT. REBAR   **VERT. REBAR**   ☑ 4'OC ☐ 6'OC ☐OTHER
                                    Washers req. 1/4"X3"X3"

ABP: Y ☐ N ☑   **PORTAL FRAME:** Y ☐ N ☑   **WALL SHEATHING:**   Continuous sheathed
LOCATION   **LOCATION**   **SIZE**   7/16" OSB
HOLDDOWNS   **HOLDDOWNS**   **NAILING**   8d   6"&12"
                               See corner detail

ROOF SHEATHING: **FLOORS:**   **SPECIAL HOLD DOWNS:**
SIZE   1/2" ply   **SHEATHING**   3/4"OSB   **PAGE**
NAILING   8d @ 6"&12"   **NAILING**   10d @ 6"&12"   **LOCATION**
                                                          TYPE

CORRECTIONS/COMMENTS:

1- Main floor level detail to be provided prior to start of framing, main floor conventional wood frame 2"X6" OC studs

2- all structural headers to be minimum 4"X10" #2 doug fir(except garage provide size)

3- See continuous sheathed corner detail. 4- Verify Temp. glass locations. 5- Whole house ventilation system required

6- Maintain garage/ house fire seperation

No modifications to this structure or any component shall be commenced without the approval of the Building Official.

PLANS REVIEWED BY Dean A. Nygaard   **DATE** 9/18/2005

ADDRESS, PERMIT AND INSPECTION CARD MUST BE VISIBLE

Approved plans, plan review and engineering are required ON SITE at time of inspections.

CITY OF WHITE SALMON
RESIDENTIAL PLAN REVIEW

Inspections: All requests must be received by 8:00am the day of the inspection.   24 hour request line   509-493-1133

Foundation:
- ☑ Site/Setbacks
- ☑ Footings
- ☑ Stemwalls
- ☐ Monopour
- ☑ Slab insulation
- ☐ Appliance Protection/Slab
- Seismic anchors

Post & Beam:
- ☑ Post & Beam/Underfloor
- Epoxy anchorage
- ☑ Roof Sheathing
- ☐ Seismic Strapping
- ☑ Wall Sheathing
- Rough Electrical   Labor & Ind.
- X Rough Plumbing
- ☑ Rough Mechanical/Gas Piping

Framing:
- ☑ Framing

Insulation:
- ☑ Insulation/Windows

Drywall:
- ☑ Drywall
- ☑ Firewall

- Fire Department Approval (Applicant must notify Fire Dept.)
- Final Electrical -   Labor & Ind.
- X Final Plumbing -
- ☑ Final Mechanical

Final:
- ☑ Final Structural

Please Note: Repeated failure to make required corrections may result in additional fees incurred for re-inspection.

FINAL INSPECTION IS REQUIRED PRIOR TO OCCUPANCY (No personal belongings, furniture, etc.)

Any changes to approved plans or site plan shall be submitted in writing. Approval must be signed on both sets of plans. Changes to Site Plan must be presented to Planning Dept. (See Land Use Conditions of Approval Letter.)

Expirations. Every permit issued shall become invalid unless the work authorized by such permit is commenced within 180 days after its issuance, or if the work authorized by such permit is suspended or abandoned for a period of 180 days after the time the work is commenced. The Building Official is authorized to grant, in writing, one or more extensions of time, for periods not more than 180 days each. The extension shall be requested in writing and justifiable cause demonstrated.
Inspection Requests. It shall be the duty of the person doing the work authorized by the permit to notify the Building Official that such work is ready for inspection. It shall be the duty of the person requesting any inspections required by this code to provide access to and means for inspection of such work.
Approval Required. Work shall not be done beyond the point indicated in each successive inspection without first obtaining the approval of the Building Official. The Building Official upon notification shall make the requested inspections and shall either indicate the portion of the construction that is satisfactory as completed, or shall notify the permit holder or an agent of the permit holder wherein the same fails to comply with this code. Any portions that do not comply shall be corrected and such portions shall not be covered or concealed until authorized by the Building Official.

The issuance of a permit shall not prevent the correction of errors in plans, specifications or the construction.

Print Name _____

Signature _____   Date _____

IWP 6682 B1

2004.2 Allowable Stress Design

OR   International Wood Products

1 BEAM 1.75 X 11.875 GL2250Fb-1.8E

DESIGN CRITERIA :

LIVE   LOAD   =   40   PSF
DEAD   LOAD   =   15   PSF
TOTAL LOAD   =   55   PSF

FLR LEFT SPAN CARR. : 1.00 FT
FLR RIGHT SPAN CARR. : 0.00 FT

DEFLECTION CRITERIA :
LIVE LOAD DEFL.:   L / 480
TOTAL LOAD DEFL.: L / 360

CODE COMPLIANCES :
                REPORT #
ICBO   ER-5004
CCMC   11518-R
N.Y. CITY   MEA 97-94-E
WISCONSIN   200124-W
L.A. City   RR 25167
NER   622
HUD   MR 1214D

LOAD TABLE

NOTE: LOADS SHOWN ARE FOR INPUT LOAD CASE (1). OTHER LOAD CASES
FOR PATTERN LIVE LOADING ARE CHECKED AS REQUIRED.
(DIMENSIONS MEASURED FROM LEFT END OF SPAN OR CANTILEVER.)

DISTRIBUTION	SOURCE	TYPE	TOP/SIDE	LOAD	FROM FT-IN-SX	TO FT-IN-SX	LOAD	LDF
UNIFORM	WALL	DEAD	TOP	90 PLF	00-00-00	05-00-00		0.90
UNIFORM	FLOOR	LIVE	TOP	20 PLF	00-00-00	05-00-00		1.00
UNIFORM	FLOOR	DEAD	TOP	8 PLF	00-00-00	05-00-00		0.90
UNIFORM	BEAM	WEIGHT	TOP	6 PLF	00-00-00	05-00-00		0.90

WARNING NOTES:

THIS COMPONENT DESIGN IS SPECIFICALLY FOR L-P ENGINEERED WOOD PRODUCTS.
USE OF THIS DESIGN FOR ANYTHING OTHER THAN GANG-LAM LVL OR LPI JOISTS IS
STRICTLY PROHIBITED. ANY MODIFICATION OF THIS DOCUMENT REQUIRES REVIEW
BY A DESIGN PROFESSIONAL.

MINIMUM BEARING SIZES ARE SUFFICIENT TO PREVENT CRUSHING OF THE GANG-LAM
LVL BEAM AS DESIGNED. IT IS THE RESPONSIBILITY OF THE PROJECT ENGINEER,
ARCHITECT OR DESIGNER TO VERIFY THAT THE SUPPORT STRUCTURE FOR THIS BEAM
IS CAPABLE OF SUPPORTING THE REACTIONS.

ANCHOR GANG-LAM LVL FLOOR BEAM SECURELY TO BEARINGS OR HANGERS.

NOTE:

1. THIS COMPONENT IS DESIGNED TO SUPPORT ONLY
THE VERTICAL LOADS SHOWN VERIFICATION OF
LOADING, DEFLECTION LIMITATIONS, FRAMING
METHODS, WIND AND SEISMIC BRACING, AND OTHER
LATERAL BRACING THAT IS ALWAYS REQUIRED IS
THE RESPONSIBILITY OF THE PROJECT ENGINEER
OR ARCHITECT.
2. PROVIDE RESTRAINT AT SUPPORTS TO ENSURE
LATERAL STABILITY.
3. DO NOT CUT, NOTCH OR DRILL GANG-LAM.
4. SHIM ALL BEARINGS FOR FULL CONTACT.
5. VERIFY DIMENSIONS BEFORE CUTTING
GANG-LAM TO SIZE.
6. THIS GANG-LAM IS TO BE USED AS A
FLOOR BEAM ONLY.
7. PROVIDE COMPRESSION EDGE BRACING AT
EACH END OF COMPONENT.

11.875

1.750

CROSS SECTION

5- 0- 0

*** THIS DRAWING IS NOT TO SCALE ***

SUPPORT REACTIONS (LBS):
CASE   B E A R I N G   N U M B E R
         1   2
1   309   309
2   259   259

MIN BEARING SIZES (IN-SX)
         4- 8   4- 8

MAXIMUM DEFLECTIONS
              CALCULATED   ALLOWABLE
LIVE   LOAD   0.00"   0.12"
*DEAD LOAD   0.00"
TOTAL LOAD   0.00"   0.15"

Handling & Erection

Temporary and permanent bracing for holding component
plumb and for resisting lateral forces shall be designed and
installed by others. No loads are to be applied to the
component until after all the framing and fastening are
completed. At no time shall loads greater than design loads
be applied to the component.

Design Criteria

The design and material specified are in substantial
conformity with the latest revisions of NDS and AITC. *
conformity with the latest revisions of NDS and AITC. *
Dead load deflection includes adjustment factor for creep.
Total load deflection is instantaneous.

Miscellaneous Information

The use of this component shall be specified by the designer of the
complete structure. Obtain all the necessary code compliance approval and
instructions from the designers of the complete structure before using this
component. If the design criteria listed above does not meet local building
code requirements, do not use this design. When this drawing is signed
and sealed, the structural design is approved as shown in this drawing
based on data provided by the customer. Gang-Lam LVL and CTR, LPI
joists are made without camber and will deflect under load. Wood in direct
contact with concrete must be protected as required by code. Continuous
lateral support is assumed (wall, floor beam, etc.). LP does not provide
on-site inspection. This drawing must have an Architect's or Engineer's seal
affixed to be considered an Engineering document.

Gang-Lam LVL and CTR, LPI Joist Specifications

• Supports and connections for Gang-Lam LVL and CTR, LPI Joists to be
specific applications.
• Common nails driven parallel to glue lines shall be spaced a minimum of 4" for 10d
and 3" for 8d.
• Do not cut, notch, drill or alter Gang-Lam LVL and CTR, LPI Joists except as shown
in published material from LP any use of Gang-Lam LVL and CTR, LPI Joists contrary
to the limits set forth herein,negates any express warranty of the product and LP
disclaims all implied warranties including the implied warranties of merchantability
and fitness for a particular use.
• A COPY OF THIS DRAWING IS TO BE GIVEN TO THE INSTALLING CONTRACTOR.

LP is a registered trademark of Louisiana-Pacific Corporation.

07/21/05   ICBO

DWG   # _____

SHEET # _____

File: J:\IWP6682woods.spx

IWP 6682 J1

2004.2 Accurate Frame Design

OR   International Wood Products

1 LPI 20W DEPTH 11.875"
WEB: 0.375"
FLANGE 1.60 X 2.50

MSI: 0.62
VSI: 0.58

DESIGN CRITERIA :

LIVE LOAD	=	40 PSF
DEAD LOAD	=	15 PSF
TOTAL LOAD	=	55 PSF

SPACING = 16.00 IN. C/C

DEFLECTION CRITERIA :
LIVE LOAD DEFL: L / 480
TOTAL LOAD DEFL: L / 240

LOAD SHARING: ? %

CODE COMPLIANCES :
	REPORT #
ICC-ES	ESR-1305
WISCONSIN	200405-W
CCMC	12724-R

DEFLECTION ASSUMES COMPOSITE
ACTION WITH GLUED AND
NAILED 23/32" APA RATED
SHEATHING (48/24 SPAN RATING)

LOAD TABLE

NOTE: LOADS SHOWN ARE FOR INPUT LOAD CASE (1). OTHER LOAD CASES
FOR PATTERN LIVE LOADING ARE CHECKED AS REQUIRED.
(DIMENSIONS MEASURED FROM LEFT END OF SPAN OR CANTILEVER.)

DISTRIBUTION	SOURCE	TYPE	TOP/SIDE	LOAD	FROM FT-IN-SX	TO FT-IN-SX	LOAD LDF
UNIFORM	FLOOR	LIVE	TOP	53 PLF	00-00-00	31-06-04	1.00
UNIFORM	FLOOR	DEAD	TOP	20 PLF	00-00-00	31-06-04	0.90

WARNING NOTES:

THIS COMPONENT DESIGN IS SPECIFICALLY FOR L-P ENGINEERED WOOD PRODUCTS.
USE OF THIS DESIGN FOR ANYTHING OTHER THAN GANG-LAM LVL OR LPI JOISTS IS
STRICTLY PROHIBITED. ANY MODIFICATION OF THIS DOCUMENT REQUIRES REVIEW
BY A DESIGN PROFESSIONAL.

MINIMUM BEARING SIZES ARE SUFFICIENT TO PREVENT CRUSHING OF THE LPI
JOIST AS DESIGNED. IT IS THE RESPONSIBILITY OF THE PROJECT ENGINEER,
ARCHITECT OR DESIGNER TO VERIFY THAT THE SUPPORT STRUCTURE FOR THIS BEAM
IS CAPABLE OF SUPPORTING THE REACTIONS.

ANCHOR LPI JOIST SECURELY TO BEARINGS OR HANGERS.

NOTE:
1. THIS COMPONENT IS DESIGNED TO SUPPORT ONLY
   THE VERTICAL LOADS SHOWN VERIFICATION OF
   LOADING, DEFLECTION LIMITATIONS, FRAMING
   METHODS, WIND AND SEISMIC BRACING, AND OTHER
   LATERAL BRACING THAT IS ALWAYS REQUIRED IS
   THE RESPONSIBILITY OF THE PROJECT ENGINEER
   OR ARCHITECT.
2. PROVIDE RESTRAINT AT SUPPORTS TO ENSURE
   LATERAL STABILITY.
3. DO NOT CUT, NOTCH OR DRILL LPI FLANGES.
4. SHIM ALL BEARINGS FOR FULL CONTACT.
5. VERIFY DIMENSIONS BEFORE CUTTING LPI TO SIZE.
6. THIS LPI IS TO BE USED AS A FLOOR JOIST ONLY.
7. PROVIDE COMPRESSION EDGE BRACING AT
   27" O.C. OR LESS.

11.875

2.500

CROSS SECTION

*** THIS DRAWING IS NOT TO SCALE ***

17- 5- 4   14- 1- 0

31- 6- 4

SUPPORT REACTIONS (LBS):

CASE	B E A R I N G N U M B E R		
	1	2	3
1	504	1458	349
2	138	398	95
3	538	1007	16
4	104	849	429

MIN BEARING SIZES (IN-SX)
4- 8   7- 8   4- 8

MAXIMUM DEFLECTIONS
	CALCULATED	ALLOWABLE
LIVE LOAD	0.21"	0.43"
*DEAD LOAD	0.09"	
TOTAL LOAD	0.27"	0.86"

File: C:\Wood-E Design 2004.2\woode.spx

CHARLES WARREN ENGINEERING

September 9, 2005

Steve Delaere
PO Box 671
Bingen, WA 98605

Cel (503) 310-0319

Re: Residence Retaining Walls for Gaddis Place

Steve;

Attached are design and calculation sheets for the residence retaining walls. The retaining walls for the house utilize the AMVIC Building System form blocks while the driveway retaining wall will be a conventional 8" thick wood formed wall.
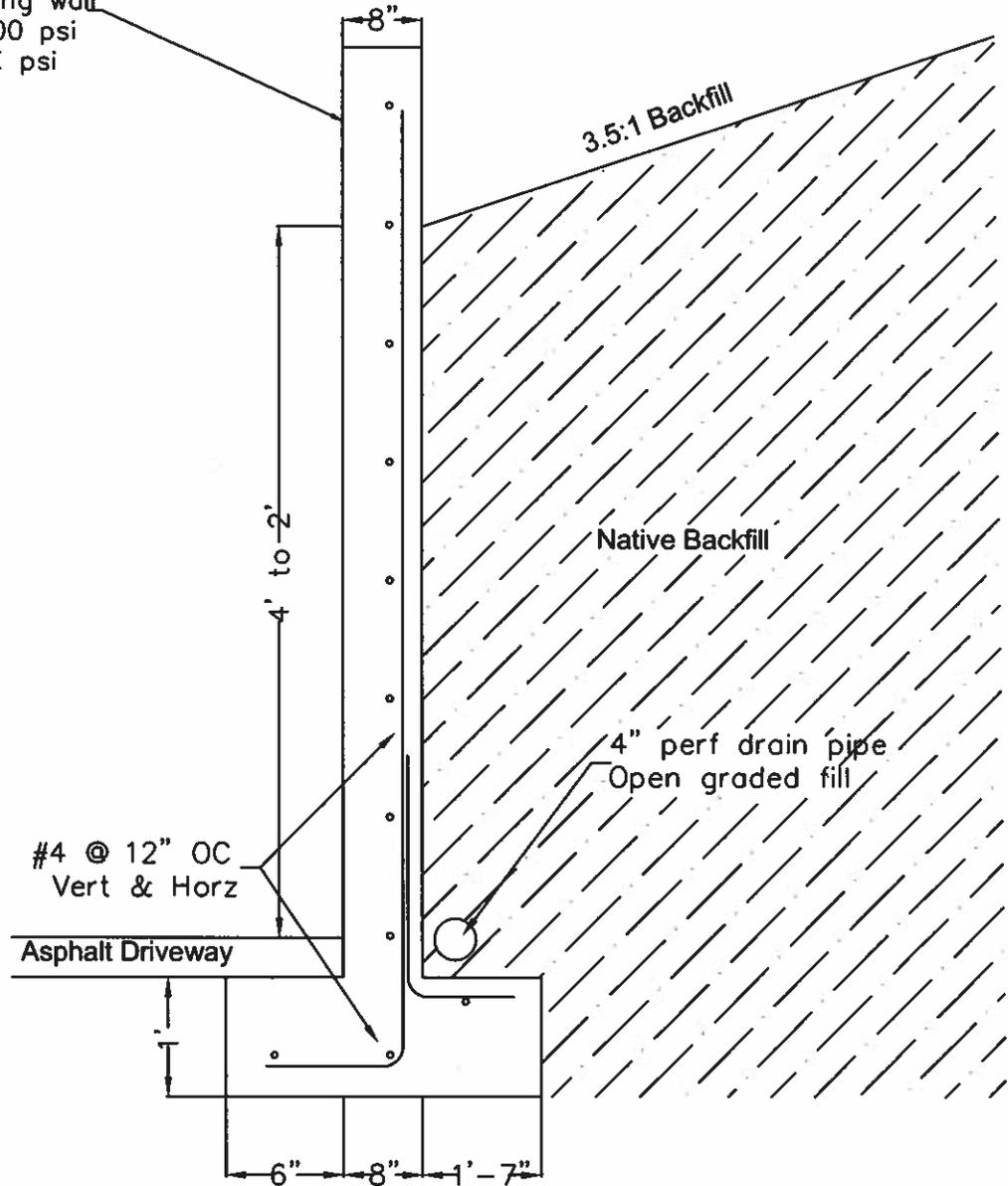
If there are any questions please call.

Sincerely;

EXPIRES: 8 25 07
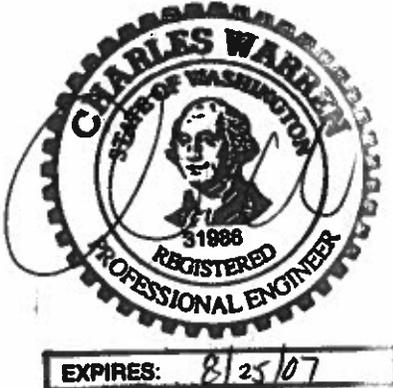
Charlie Warren, P.E.

Attach: Drawing & Calculation Sheets

Proposed 4' to 6' retaining wall
F'c Concrete = 3,000 psi
Fy Steel = 60K psi

8"

3.5:1 Backfill

Native Backfill

4" perf drain pipe
Open graded fill

4' to 2'

#4 @ 12" OC
Vert & Horz

Asphalt Driveway

1'

6"   8"   1'-7"

DELAERE DRIVEWAY
RETAINING WALL DETAIL

GADDIS PLACE, WHITE SALMON

NO SCALE

Wall Load

8"

Proposed 4' to 7'-3" retaining wall
Use AMVIC BUILDING SYSTEM
F'c Concrete = 3,000 psi
Fy Steel = 60K psi

Crawl Space

Select Backfill

7'-3"
to
4' as shown

#4 @ 16" OC Horz
& #4 @ 12" OC Vert
overlap vetical rebar
min 24" into stem wall
from footing.

4" Concrete Slab

7'-3" Wall
4' Wall
1'-3"
6"
8"
1'-7"
10"
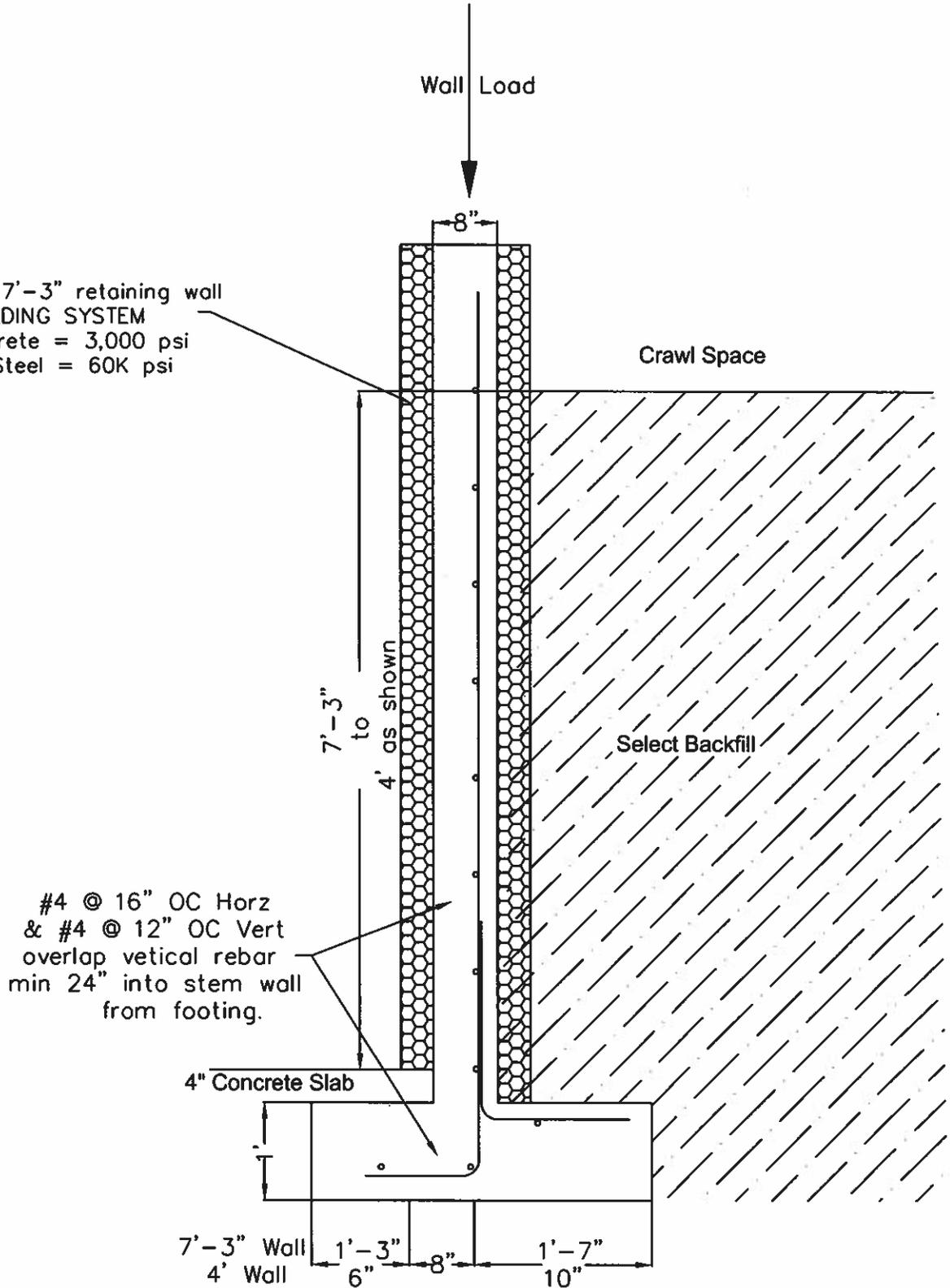
DELAERE BASEMENT
RETAINING WALL DETAIL

GADDIS PLACE, WHITE SALMON

NO SCALE

56'

4' TO 2'
FOUNDATION
RETAINING WALL

22'-3"

GARAGE

7'-3" TO 4'
BASEMENT RETAINING WALL

50'

BASEMENT

N

4' TO 2'
DRIVEWAY
RETAINING WALL
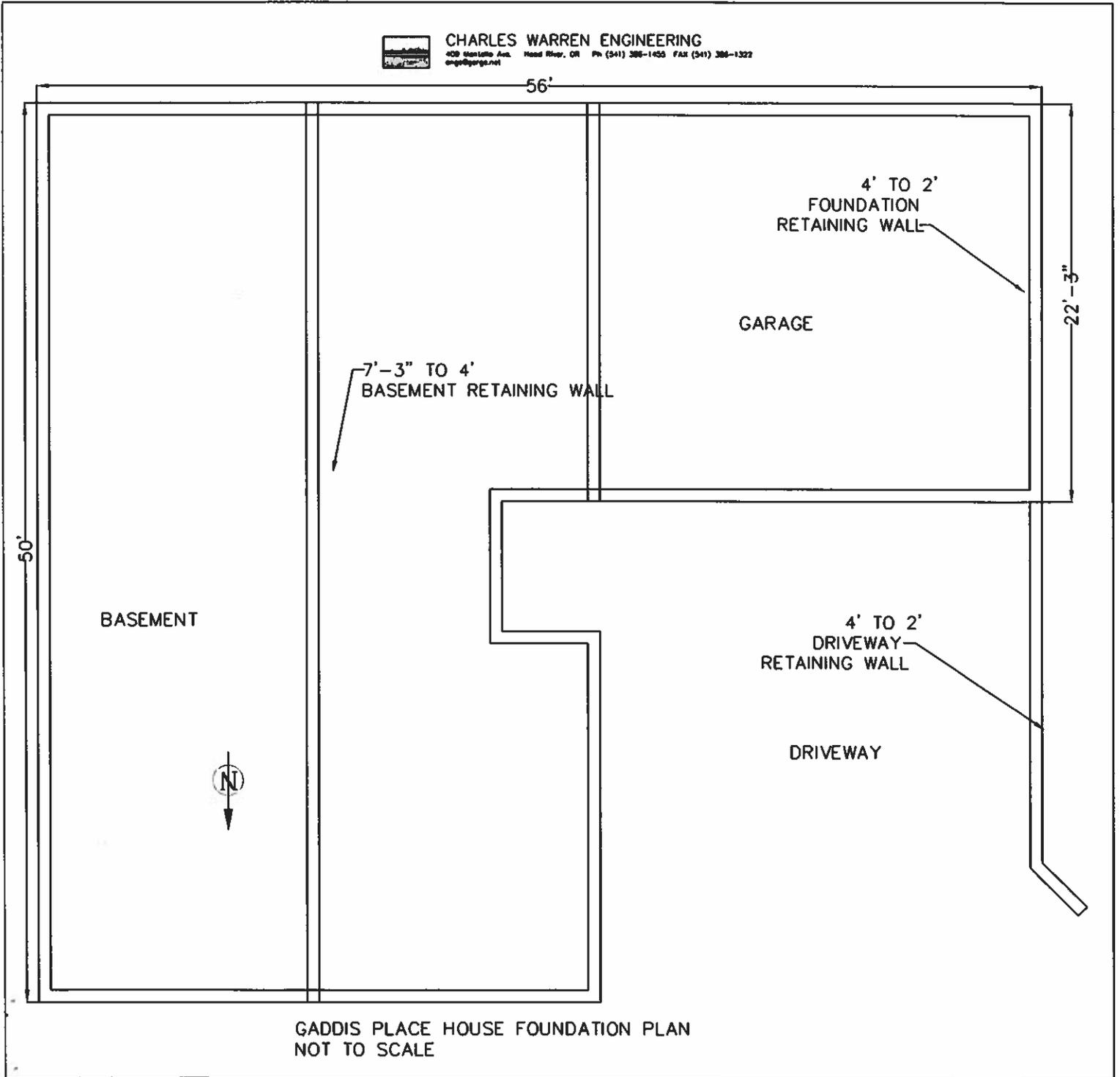
DRIVEWAY

GADDIS PLACE HOUSE FOUNDATION PLAN
NOT TO SCALE

CHARLES WARREN ENGINEERING
409 Montello Ave.
Hood River, OR 97031
(541) 386-1455

Title : Delaere Gaddis Place   Page: ____
Job # : 29.05   Dsgnr: CW   Date: SEP 8,2005
Description....
4' Driveway retaining wall

This Wall in File: c:\rp6\projects\delaere gaddis place.rp5

RetainPro Version 6.0
Build Date : 10-SEP-2001, (c) 1989-2001

Cantilevered Retaining Wall Design

Criteria

Retained Height	=	4.00 ft
Wall height above soil	=	0.50 ft
Slope Behind Wall	=	3.50 : 1
Height of Soil over Toe	=	4.00 in
Soil Density	=	120.00 pcf
Wind on Stem	=	0.0 psf

Soil Data

Allow Soil Bearing	=	2,000.0 psf
Equivalent Fluid Pressure Method		
Heel Active Pressure	=	30.0 psf/ft
Toe Active Pressure	=	30.0 psf/ft
Passive Pressure	=	250.0 psf/ft
Water height over heel	=	1.0 ft
Footing||Soil Friction	=	0.400
Soil height to ignore for passive pressure	=	12.00 in

Footing Dimensions & Strengths

Toe Width	=	0.50 ft
Heel Width	=	2.25
Total Footing Width	=	2.75
Footing Thickness	=	12.00 in
Key Width	=	0.00 in
Key Depth	=	0.00 in
Key Distance from Toe	=	0.00 ft
f'c = 3,000 psi Fy =		60,000 psi
Footing Concrete Density =		150.00 pcf
Min. As %	=	0.0018
Cover @ Top = 2.00 in @ Btm.= 3.00 in		
Axial Load Eccentricity	=	0.0 in

Axial Load Applied to Stem

Axial Dead Load	=	50.0 lbs
Axial Live Load	=	10.0 lbs

Design Summary

Total Bearing Load	=	1,745 lbs
...resultant ecc.	=	4.68 in
Soil Pressure @ Toe	=	1,174 psf OK
Soil Pressure @ Heel	=	95 psf OK
Allowable	=	2,000 psf
Soil Pressure Less Than Allowable		
ACI Factored @ Toe	=	1,646 psf
ACI Factored @ Heel	=	133 psf
Footing Shear @ Toe	=	0.0 psi OK
Footing Shear @ Heel	=	4.9 psi OK
Allowable	=	93.1 psi

Wall Stability Ratios

Overturning	=	2.99 OK
Sliding	=	1.54 OK

Sliding Calcs (Vertical Component NOT Used)

Lateral Sliding Force	=	512.9 lbs
less 100% Passive Force	-	97.2 lbs
less 100% Friction Force	-	694.2 lbs
Added Force Req'd	=	0.0 lbs OK
....for 1.5 : 1 Stability	=	0.0 lbs OK

Footing Design Results

		Toe	Heel
Factored Pressure	=	1,646	133 psf
Mu' : Upward	=	194	0 ft-#
Mu' : Downward	=	33	0 ft-#
Mu: Design	=	161	557 ft-#
Actual 1-Way Shear	=	0.00	4.88 psi
Allow 1-Way Shear	=	93.11	93.11 psi
Toe Reinforcing	=	# 4 @ 12.00 in	
Heel Reinforcing	=	# 4 @ 12.00 in	
Key Reinforcing	=	None Spec'd	

Stem Construction

Top Stem

Stem OK

Design height	ft =	0.00
Wall Material Above "Ht"	=	Concrete
Thickness	=	8.00
Rebar Size	=	# 4
Rebar Spacing	=	12.00
Rebar Placed at	=	Edge

Design Data

fb/FB + fa/Fa	=	0.102
Total Force @ Section	lbs =	444.9
Moment....Actual	ft-# =	556.9
Moment.....Allowable	=	5,448.0
Shear.....Actual	psi =	5.9
Shear....Allowable	psi =	93.1
Lap Splice if Above	in =	28.48
Lap Splice if Below	in =	7.67
Wall Weight	=	100.0
Rebar Depth 'd'	in =	6.25

Masonry Data

f'm	psi =	
Fs	psi =	
Solid Grouting	=	
Special Inspection	=	
Modular Ratio 'n'	=	
Short Term Factor	=	
Equiv. Solid Thick.	=	
Masonry Block Type = Medium Weight		

Concrete Data

f'c	psi =	3,000.0
Fy	psi =	60,000.0

Other Acceptable Sizes & Spacings
Toe: Not req'd, Mu < S * Fr
Heel: Not req'd, Mu < S * Fr
Key: No key defined

CHARLES WARREN ENGINEERING
409 Montello Ave.
Hood River, OR 97031
(541) 386-1455

Title : Delaere Gaddis Place   Page: _____
Job # : 29.05   Dsgnr: CW   Date: SEP 8,2005
Description....
4' Driveway retaining wall

This Wall In File: c:\rp6\projects\delaere gaddis place.rp5

RetainPro Version 6.0
Build Date : 10-SEP-2001, (c) 1989-2001

Cantilevered Retaining Wall Design

Summary of Overturning & Resisting Forces & Moments

Item		.....OVERTURNING.....					.....RESISTING.....		
		Force lbs	Distance ft	Moment ft-#			Force lbs	Distance ft	Moment ft-#
Heel Active Pressure	=	539.5	1.62	872.9	Soil Over Heel	=	760.0	1.96	1,488.3
Toe Active Pressure	=	-26.7	0.44	-11.9	Sloped Soil Over Heel	=	43.0	2.22	95.5
Surcharge Over Toe	=				Surcharge Over Heel	=			
Adjacent Footing Load	=				Adjacent Footing Load	=			
Added Lateral Load	=				Axial Dead Load on Stem	=	50.0	0.83	41.7
Load @ Stem Above Soil	=				Soil Over Toe	=	20.0	0.25	5.0
					Surcharge Over Toe	=			
					Stem Weight(s)	=	450.0	0.83	375.0
Total	=	512.9	O.T.M. =	861.0	Earth @ Stem Transitions	=			
					Footing Weight	=	412.5	1.38	567.2
Resisting/Overturning Ratio			=	2.99	Key Weight	=			
Vertical Loads used for Soil Pressure =		1,745.5 lbs			Vert. Component	=			
					Total =		1,735.5 lbs	R.M.=	2,572.7

Vertical component of active pressure NOT used for soil pressure

CHARLES WARREN ENGINEERING
409 Montello Ave.
Hood River, OR 97031
(541) 386-1455

Title : Delaere Gaddis Place   Page: _____
Job # : 29.05   Dsgnr: CW   Date: SEP 8,2005
Description....

7'-3" HOUSE BASEMENT RETAINING WALL

This Wall in File: c:\rp6\projects\delaere gaddis place.rp5

RetainPro Version 6.0
Build Date : 10-SEP-2001, (c) 1989-2001

Cantilevered Retaining Wall Design

Criteria

Retained Height	=	7.33 ft
Wall height above soil	=	1.50 ft
Slope Behind Wall	=	0.00 : 1
Height of Soil over Toe	=	4.00 in
Soil Density	=	120.00 pcf
Wind on Stem	=	0.0 psf

Soil Data

Allow Soil Bearing	=	2,000.0 psf
Equivalent Fluid Pressure Method		
Heel Active Pressure	=	30.0 psf/ft
Toe Active Pressure	=	30.0 psf/ft
Passive Pressure	=	250.0 psf/ft
Water height over heel	=	1.0 ft
Footing||Soil Friction	=	0.400
Soil height to ignore for passive pressure	=	12.00 in

Footing Dimensions & Strengths

Toe Width	=	1.25 ft
Heel Width	=	2.25
Total Footing Width	=	3.50
Footing Thickness	=	12.00 in
Key Width	=	0.00 in
Key Depth	=	0.00 in
Key Distance from Toe	=	0.00 ft

f'c = 3,000 psi   Fy = 60,000 psi
Footing Concrete Density = 150.00 pcf
Min. As % = 0.0018
Cover @ Top = 2.00 in   @ Btm.= 3.00 in

Axial Load Eccentricity = 0.0 in

Axial Load Applied to Stem

Axial Dead Load	=	200.0 lbs
Axial Live Load	=	100.0 lbs

Design Summary

Total Bearing Load	=	3,151 lbs
...resultant ecc.	=	7.08 in
Soil Pressure @ Toe	=	1,811 psf OK
Soil Pressure @ Heel	=	0 psf OK
Allowable	=	2,000 psf
Soil Pressure Less Than Allowable		
ACI Factored @ Toe	=	2,553 psf
ACI Factored @ Heel	=	0 psf
Footing Shear @ Toe	=	11.1 psi OK
Footing Shear @ Heel	=	12.2 psi OK
Allowable	=	93.1 psi
Wall Stability Ratios		
Overturning	=	2.19 OK
Sliding	=	1.19 Ratio < 1.5!
Sliding Calcs Slab Resists All Sliding !		
Lateral Sliding Force	=	1,107.8 lbs

Stem Construction

Top Stem

		Stem OK
Design height	ft =	0.00
Wall Material Above "Ht"	=	Concrete
Thickness	=	8.00
Rebar Size	=	# 4
Rebar Spacing	=	12.00
Rebar Placed at	=	Edge
Design Data		
fb/FB + fa/Fa	=	0.617
Total Force @ Section	lbs =	1,407.0
Moment....Actual	ft-# =	3,360.5
Moment.....Allowable	=	5,448.0
Shear.....Actual	psi =	18.8
Shear.....Allowable	psi =	93.1
Lap Splice if Above	in =	28.48
Lap Splice if Below	in =	7.67
Wall Weight	=	100.0
Rebar Depth 'd'	in =	6.25
Masonry Data		
f'm	psi =	
Fs	psi =	
Solid Grouting	=	
Special Inspection	=	
Modular Ratio 'n'	=	
Short Term Factor	=	
Equiv. Solid Thick.	=	
Masonry Block Type = Medium Weight		
Concrete Data		
f'c	psi =	3,000.0
Fy	psi =	60,000.0

Other Acceptable Sizes & Spacings
Toe: Not req'd, Mu < S * Fr
Heel: Not req'd, Mu < S * Fr
Key: No key defined

Footing Design Results

		Toe	Heel
Factored Pressure	=	2,553	0 psf
Mu' : Upward	=	1,755	467 ft-#
Mu' : Downward	=	208	1,807 ft-#
Mu: Design	=	1,548	1,340 ft-#
Actual 1-Way Shear	=	11.09	12.16 psi
Allow 1-Way Shear	=	93.11	93.11 psi
Toe Reinforcing	=	# 4 @ 12.00 in	
Heel Reinforcing	=	# 4 @ 12.00 in	
Key Reinforcing	=	None Spec'd	

CHARLES WARREN ENGINEERING
409 Montello Ave.
Hood River, OR 97031
(541) 386-1455

Title : Delaere Gaddis Place   Page: _____
Job # : 29.05   Dsgnr: CW   Date: SEP 8,2005
Description....

7'-3" HOUSE BASEMENT RETAINING WALL

This Wall in File: c:\rp6\projects\delaere gaddis place.rp5

RetainPro Version 6.0
Build Date : 10-SEP-2001, (c) 1989-2001

Cantilevered Retaining Wall Design

Summary of Overturning & Resisting Forces & Moments

Item		.....OVERTURNING.....					.....RESISTING.....		
		Force lbs	Distance ft	Moment ft-#			Force lbs	Distance ft	Moment ft-#
Heel Active Pressure	=	1,134.4	2.60	2,952.4	Soil Over Heel	=	1,392.7	2.71	3,771.9
Toe Active Pressure	=	-26.7	0.44	-11.9	Sloped Soil Over Heel	=			
Surcharge Over Toe	=				Surcharge Over Heel	=			
Adjacent Footing Load	=				Adjacent Footing Load	=			
Added Lateral Load	=				Axial Dead Load on Stem	=	200.0	1.58	316.7
Load @ Stem Above Soil	=				Soil Over Toe	=	50.0	0.63	31.3
					Surcharge Over Toe	=			
					Stem Weight(s)	=	883.0	1.58	1,398.1
Total	=	1,107.8	O.T.M. =	2,940.6	Earth @ Stem Transitions	=			
					Footing Weight	=	525.0	1.75	918.8
Resisting/Overturning Ratio			=	**2.19**	Key Weight	=			
Vertical Loads used for Soil Pressure =			3,150.7	lbs	Vert. Component	=			
					Total =		**3,050.7** lbs	**R.M.=**	**6,436.6**

Vertical component of active pressure NOT used for soil pressure

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409 Montello Ave.
Hood River, OR 97031
(541) 386-1455

Title : Delaere Gaddis Place   Page: ____
Job # : 29.05   Dsgnr: CW   Date: SEP 8,2005
Description....

4' HOUSE BASEMENT RETAINING WALL

This Wall in File: c:\rp6\projects\delaere gaddis place.rp5

RetainPro Version 6.0
Build Date : 10-SEP-2001, (c) 1989-2001

Cantilevered Retaining Wall Design

Criteria

Retained Height	=	4.33 ft
Wall height above soil	=	1.50 ft
Slope Behind Wall	=	0.00 : 1
Height of Soil over Toe	=	4.00 in
Soil Density	=	120.00 pcf
Wind on Stem	=	0.0 psf

Soil Data

Allow Soil Bearing	=	2,000.0 psf
Equivalent Fluid Pressure Method		
Heel Active Pressure	=	30.0 psf/ft
Toe Active Pressure	=	30.0 psf/ft
Passive Pressure	=	250.0 psf/ft
Water height over heel	=	1.0 ft
Footing||Soil Friction	=	0.400
Soil height to ignore for passive pressure	=	12.00 in

Footing Dimensions & Strengths

Toe Width	=	0.50 ft
Heel Width	=	1.50
Total Footing Width	=	2.00
Footing Thickness	=	12.00 in
Key Width	=	0.00 in
Key Depth	=	0.00 in
Key Distance from Toe	=	0.00 ft

f'c = 3,000 psi   Fy = 60,000 psi
Footing Concrete Density = 150.00 pcf
Min. As % = 0.0018
Cover @ Top = 2.00 in   @ Btm.= 3.00 in
Axial Load Eccentricity = 0.0 in

Axial Load Applied to Stem

Axial Dead Load	=	200.0 lbs
Axial Live Load	=	100.0 lbs

Design Summary

Total Bearing Load	=	1,636 lbs
...resultant ecc.	=	5.26 in
Soil Pressure @ Toe	=	1,942 psf OK
Soil Pressure @ Heel	=	0 psf OK
Allowable	=	2,000 psf
Soil Pressure Less Than Allowable		
ACI Factored @ Toe	=	2,755 psf
ACI Factored @ Heel	=	0 psf
Footing Shear @ Toe	=	0.0 psi OK
Footing Shear @ Heel	=	4.9 psi OK
Allowable	=	93.1 psi
Wall Stability Ratios		
Overturning	=	2.03 OK
Sliding	=	1.44 Ratio < 1.5!
Sliding Calcs Slab Resists All Sliding !		
Lateral Sliding Force	=	493.1 lbs

Stem Construction

Top Stem

		Stem OK
Design height	ft =	0.00
Wall Material Above "Ht"	=	Concrete
Thickness	=	8.00
Rebar Size	=	# 4
Rebar Spacing	=	12.00
Rebar Placed at	=	Edge
Design Data		
fb/FB + fa/Fa	=	0.129
Total Force @ Section	lbs =	515.0
Moment....Actual	ft-# =	703.0
Moment.....Allowable	=	5,448.0
Shear.....Actual	psi =	6.9
Shear.....Allowable	psi =	93.1
Lap Splice if Above	in =	28.48
Lap Splice if Below	in =	7.67
Wall Weight	=	100.0
Rebar Depth 'd'	in =	6.25
Masonry Data		
f'm	psi =	
Fs	psi =	
Solid Grouting	=	
Special Inspection	=	
Modular Ratio 'n'	=	
Short Term Factor	=	
Equiv. Solid Thick.	=	
Masonry Block Type = Medium Weight		
Concrete Data		
f'c	psi =	3,000.0
Fy	psi =	60,000.0

Other Acceptable Sizes & Spacings
Toe: Not req'd, Mu < S * Fr
Heel: Not req'd, Mu < S * Fr
Key: No key defined

Footing Design Results

		Toe	Heel
Factored Pressure	=	2,755	0 psf
Mu' : Upward	=	310	38 ft-#
Mu' : Downward	=	33	326 ft-#
Mu: Design	=	277	288 ft-#
Actual 1-Way Shear	=	0.00	4.93 psi
Allow 1-Way Shear	=	93.11	93.11 psi
Toe Reinforcing	=	# 4 @ 12.00 in	
Heel Reinforcing	=	# 4 @ 12.00 in	
Key Reinforcing	=	None Spec'd	

CHARLES WARREN ENGINEERING
409 Montello Ave.
Hood River, OR 97031
(541) 386-1455

Title   : Delaere Gaddis Place   Page: _____
Job # : 29.05   Dsgnr: CW   Date: SEP 8,2005
Description....
4' HOUSE BASEMENT RETAINING WALL

This Wall in File: c:\rp6\projects\delaere gaddis place.rp5

RetainPro Version 6.0
Build Date : 10-SEP-2001, (c) 1989-2001

Cantilevered Retaining Wall Design

Summary of Overturning & Resisting Forces & Moments

Item		.....OVERTURNING.....					.....RESISTING.....		
		Force lbs	Distance ft	Moment ft-#			Force lbs	Distance ft	Moment ft-#
Heel Active Pressure	=	519.7	1.58	819.5	Soil Over Heel	=	433.0	1.58	685.6
Toe Active Pressure	=	-26.7	0.44	-11.9	Sloped Soil Over Heel	=			
Surcharge Over Toe	=				Surcharge Over Heel	=			
Adjacent Footing Load	=				Adjacent Footing Load	=			
Added Lateral Load	=				Axial Dead Load on Stem	=	200.0	0.83	166.7
Load @ Stem Above Soil	=				Soil Over Toe	=	20.0	0.25	5.0
					Surcharge Over Toe	=			
					Stem Weight(s)	=	583.0	0.83	485.8
Total	=	493.1	O.T.M. =	807.6	Earth @ Stem Transitions	=			
					Footing Weight	=	300.0	1.00	300.0
Resisting/Overturning Ratio		=	2.03		Key Weight	=			
Vertical Loads used for Soil Pressure =			1,636.0	lbs	Vert. Component	=			
					Total =		1,536.0 lbs	R.M.=	1,643.1

Vertical component of active pressure NOT used for soil pressure

TRUSS SYSTEMS

BATCHJOB: TL4525
Date: 8/4/2005
TRUSS SYSTEMS
S25 E. SOUTH HILL RD
SUNNYSIDE, WA 98944
1-888-836-2055
Sales Rep: GARY
Delivery date:
Truck ID:
Loaded by: Inspected by:

Permit required:

Reaction # TL4525
TUM-A-LUM HR

Job: STEVE DALARRE
WHITE SALMON

503-310-0319
Loading: 55 7 10 24.00"O.C.

ITEM	QTY	TRUSS ID	SPAN		B1	B2	B3	B4	B5
1	1	AGB	31' 5" 0	React					
				Uplft					
				Horiz					
2	1	AGB1	31' 5" 0	React	2538	2262			
				Uplft	-587	-489			
				Horiz	76	76			
3	9	AT1	31' 5" 0	React	2538	2538			
				Uplft	-587	-587			
				Horiz	64	-64			
4	4	AT2	31' 5" 0	React	2115	2984			
				Uplft	-489	-742			
				Horiz	-83	-83			
5	10	AT3	31' 5" 0	React	2538	2262			
				Uplft	-587	-489			
				Horiz	75	75			
6	1	BGB	22' 3" 0	React					
				Uplft					
				Horiz					
7	12	BT1	22' 3" 0	React	1878	1878			
				Uplft	-477	-477			
				Horiz	64	64			
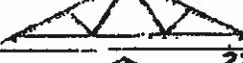
TRUSS SYSTEMS

BATCHJOB:TL4525
Date: 6/4/2005
TRUSS SYSTEMS
525 E. SOUTH HILL RD
SUNNYSIDE, WA 98944
1-888-836-2055
Sales Rep:GARY
Designer:LS
Delivery date:

Invoice# TL4525
TUM-A-LUM HR

page 1 of 1

GARY

3-c

Job:STEVE DALARRE
WHITE SALMON

503-310-0319
Loading:55 7 10 24.00"O.C.

ITEM	QTY	TRUSS ID	SPAN	PITCH	OVERHANGS	
1	1	AGB	31' 5" 0	6.00/0.00	18.00/	18.00
2	1	AGB1	31' 5" 0	6.00/0.00	18.00/	0.00
3	9	AT1	31' 5" 0	6.00/0.00	18.00/	18.00
4	4	AT2	31' 5" 0	6.00/0.00	18.00/	18.00
5	10	AT3	31' 5" 0	6.00/0.00	18.00/	0.00
6	1	BGB	22' 3" 0	6.00/0.00	18.00/	18.00
7	12	BT1	22' 3" 0	6.00/0.00	18.00/	18.00

Terms:
Past Due:

3986.00

MN/N.AX

THXS LEON
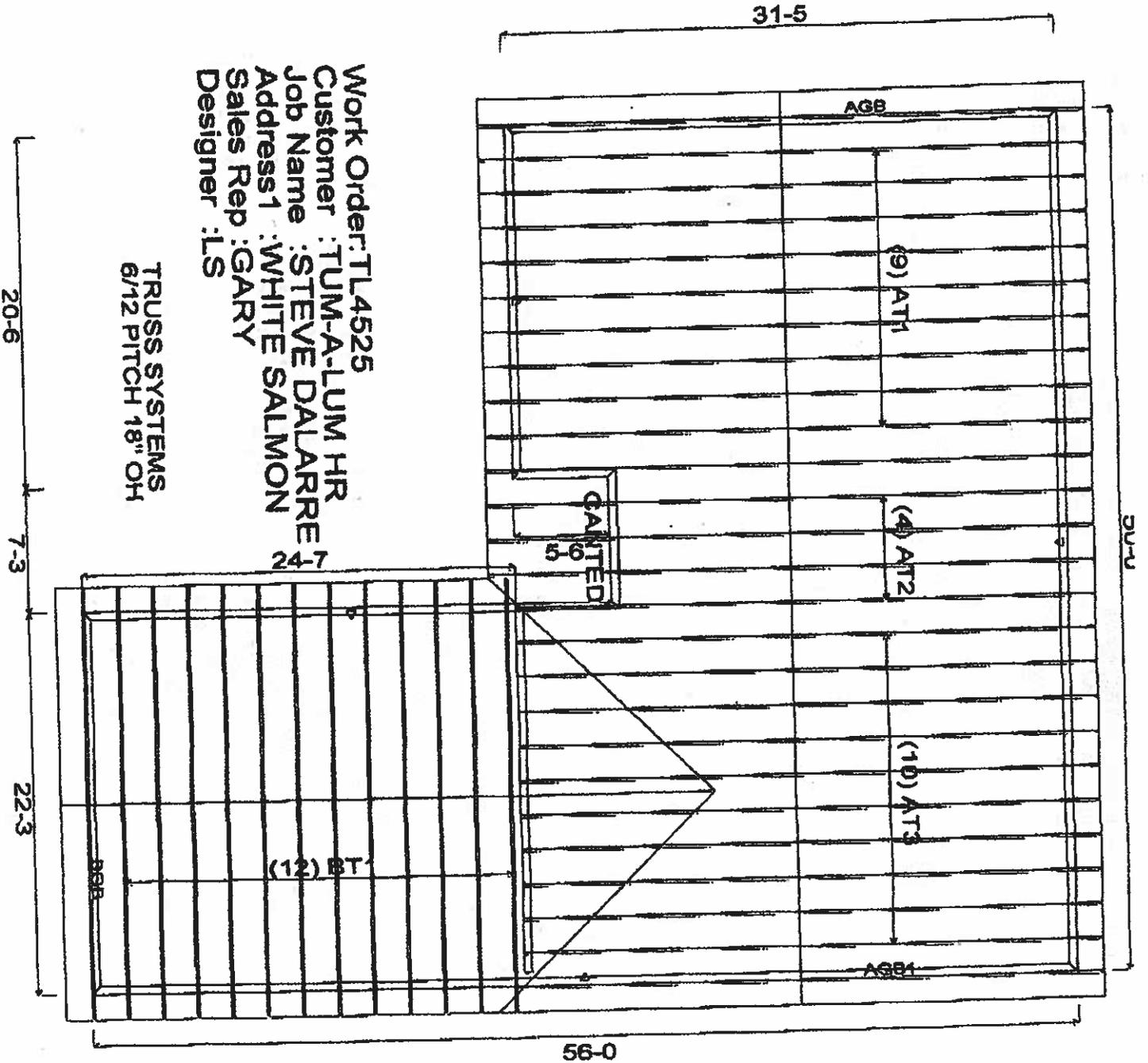
Work Order:TL4525
Customer   :TUM-A-LUM HR
Job Name   :STEVE DALARRE
Address1   :WHITE SALMON
Sales Rep :GARY
Designer   :LS

TRUSS SYSTEMS
6/12 PITCH 18" OH

31-5

AGB

(9) AT1

CANTED

5-6

(4) AT2

(10) AT3

AGB1

20-6

7-3

24-7

22-3

(12) BT1

BGB

56-0

R602.10.3 Braced wall panel construction methods. The construction of braced wall panels shall be in accordance with one of the following methods:

1. Nominal 1-inch-by-4-inch (25.4 mm by 102 mm) continuous diagonal braces let in to the top and bottom plates and the intervening studs or approved metal strap devices installed in accordance with the manufacturer's specifications. The let-in bracing shall be placed at an angle not more than 60 degrees (1.06 rad) or less than 45 degrees (0.79 rad) from the horizontal.

2. Wood boards of $^5/_8$ inch (15.9 mm) net minimum thickness applied diagonally on studs spaced a maximum of 24 inches (610 mm). Diagonal boards shall be attached to studs in accordance with Table R602.3(1).

3. Wood structural panel sheathing with a thickness not less than $^5/_{16}$ inch (7.9 mm) for 16-inch (406 mm) stud spacing and not less than $^3/_8$ inch (9.5 mm) for 24-inch (610 mm) stud spacing. Wood structural panels shall be installed in accordance with Table R602.3(3).

4. One-half-inch (12.7 mm) or $^{25}/_{32}$-inch (19.8 mm) thick structural fiberboard sheathing applied vertically or horizontally on studs spaced a maximum of 16 inches (406 mm) on center. Structural fiberboard sheathing shall be installed in accordance with Table R602.3(1).

5. Gypsum board with minimum $^1/_2$-inch (12.7 mm) thickness placed on studs spaced a maximum of 24 inches (610 mm) on center and fastened at 7 inches (178 mm) on center with the size nails specified in Table R602.3(1) for sheathing and Table R702.3.5 for interior gypsum board.

6. Particleboard wall sheathing panels installed in accordance with Table R602.3(4)

7. Portland cement plaster on studs spaced a maximum of 16 inches (406 mm) on center and installed in accordance with Section R703.6.

8. Hardboard panel siding when installed in accordance with Table R703.4.

Exception: Alternate braced wall panels constructed in accordance with Section R602.10.6 shall be permitted to replace any of the above methods of braced wall panels.

R602.10.4 Length of braced panels. For Methods 2, 3, 4, 6, 7 and 8 above, each braced wall panel shall be at least 48 inches (1219 mm) in length, covering a minimum of three stud spaces where studs are spaced 16 inches (406 mm) on center and covering a minimum of two stud spaces where studs are spaced 24 inches (610 mm) on center. For Method 5 above, each braced wall panel shall be at least 96 inches (2438 mm) in length where applied to one face of a braced wall panel and at least 48 inches (1219 mm) where applied to both faces.

Exceptions:

1. Lengths of braced wall panels for continuous wood structural panel sheathing shall be in accordance with Section R602.10.5.

2. Lengths of alternate braced wall panels shall be in accordance with Section R602.10.6.

R602.10.5 Continuous structural panel sheathing. When continuous wood structural panel sheathing is provided in accordance with Method 3 of R602.10.3 on all sheathable areas of all exterior walls, and interior braced wall lines, where required, including areas above and below openings, braced wall panel lengths shall be in accordance with Table R602.10.5. Wood structural panel sheathing shall be installed at corners in accordance with Figure R602.10.5. The bracing amounts in Table R602.10.1 for Method 3 shall be permitted to be multiplied by a factor of 0.9 for walls with a maximum opening height that does not exceed 85 percent of the wall height or a factor of 0.8 for walls with a maximum opening height that does not exceed 67 percent of the wall height.

R602.10.6 Alternate braced wall panels. Alternate braced wall lines constructed in accordance with one of the following provisions shall be permitted to replace each 4 feet (1219 mm) of braced wall panel as required by Section R602.10.4:

1. In one-story buildings, each panel shall have a length of not less than 2 feet, 8 inches (813 mm) and a height of not more than 10 feet (3048 mm). Each panel shall be sheathed on one face with $^3/_8$-inch-minimum-thickness (9.5 mm) wood structural panel sheathing nailed with 8d common or galvanized box nails in accordance with Table R602.3(1) and blocked at all wood structural panel sheathing edges. Two anchor bolts installed in accordance with Figure R403.1(1) shall be provided in each panel. Anchor bolts shall be placed at panel quarter points. Each panel end stud shall have a tie-down device fastened to the foundation, capable of providing an uplift capacity of at least 1,800 pounds (816.5 kg). The tie-down device shall be installed in accordance with the manufacturer's recommendations. The panels shall be supported directly on a foundation or on floor framing supported directly on a foundation which is continuous across the entire length of the braced wall line. This foundation shall be reinforced with not less than one No. 4 bar top and bottom. When the continuous foundation is required to have a depth greater than 12 inches (305 mm), a minimum 12-inch-by-12-inch (305 mm by 305 mm) continuous footing or turned down slab edge is permitted at door openings in the braced wall line. This continuous footing or turned down slab edge shall be reinforced with not less than one No. 4 bar top and bottom. This reinforcement shall be lapped 15 inches (381 mm) with the reinforcement required in the continuous foundation located directly under the braced wall line.

2. In the first story of two-story buildings, each braced wall panel shall be in accordance with Item 1 above, except that the wood structural panel sheathing shall be provided on both faces, sheathing edge nailing spacing shall not exceed four inches on center, at least three anchor bolts shall be placed at one-fifth points, and tie-down device uplift capacity shall not be less than 3,000 pounds (1360.8 kg).

TABLE R602.10.1
WALL BRACING

SEISMIC DESIGN CATEGORY OR WIND SPEED	CONDITION	TYPE OF BRACE[b,c]	AMOUNT OF BRACING[a,d,e]
Categories A and B ($S_s \leq 0.35g$ and $S_{ds} \leq 0.33g$) or 100 mph and less	One story Top of two or three story	Methods 1, 2, 3, 4, 5, 6, 7 or 8	Located at each end and at least every 25 feet on center but not less than 16% of braced wall line.
	First story of two story Second story of three story	Methods 1, 2, 3, 4, 5, 6, 7 or 8	Located at each end and at least every 25 feet on center but not less than 16% of braced wall line for Method 3 and 25% of braced wall line for Methods 2, 4, 5, 6, 7 or 8.
	First story of three story	Methods 2, 3, 4, 5, 6, 7 or 8	Minimum 48-inch-wide panels located at each end and at least every 25 feet on center but not less than 25% of braced wall line for method 3 and 35% of braced wall line for Methods 2, 4, 5, 6, 7 or 8.
Category C ($S_s \leq 0.6g$ and $S_{ds} \leq 0.53g$) or less than 110 mph	One story Top of two or three story	Methods 1, 2, 3, 4, 5, 6, 7 or 8	Located at each end and at least every 25 feet on center but not less than 16% of braced wall line for Method 3 and 25% of braced wall line for Methods 2, 4, 5, 6, 7 or 8.
	First story of two story Second story of three story	Methods 2, 3, 4, 5, 6, 7 or 8	Located at each end and at least every 25 feet on center but not less than 30% of braced wall line for Method 3 and 45% of braced wall line for Methods 2, 4, 5, 6, 7 or 8.
	First story of three story	Methods 2, 3, 4, 5, 6, 7 or 8	Located at each end and at least every 25 feet on center but not less than 45% of braced wall line for Method 3 and 60% of braced wall line for Methods 2, 4, 5, 6, 7 or 8.
Category D₁ ($S_s \leq 1.25g$ and $S_{ds} \leq 0.83g$) or less than 110 mph	One story Top of two or three story	Methods 2, 3, 4, 5, 6, 7 or 8	Located at each end and at least every 25 feet on center but not less than 20% of braced wall line for Method 3 and 30% of braced wall line for Methods 2, 4, 5, 6, 7 or 8.
	First story of two story Second story of three story	Methods 2, 3, 4, 5, 6, 7 or 8	Located at each end and not more than 25 feet on center but not less than 45% of braced wall line for Method 3 and 60% of braced wall line for Methods 2, 4, 5, 6, 7 or 8.
	First story of three story	Methods 2, 3, 4, 5, 6, 7 or 8	Located at each end and not more than 25 feet on center but not less than 60% of braced wall line for Method 3 and 85% of braced wall line for Method 2, 4, 5, 6, 7 or 8.
Category D₂ or less than 110 mph	One story Top of two story	Methods 2, 3, 4, 5, 6, 7 or 8	Located at each end and at least every 25 feet on center but not less than 25% of braced wall line for Method 3 and 40% of braced wall line for Methods 2, 4, 5, 6, 7 or 8.
	First story of two story	Methods 2, 3, 4, 5, 6, 7 or 8	Located at each end and not more than 25 feet on center but not less than 55% of braced wall line for Method 3 and 75% of braced wall line for Methods 2, 4, 5, 6, 7 or 8.
	Cripple walls	Method 3	Located at each end and not more than 25 feet on center but not less than 75% of braced wall line.

For SI: 1 inch = 25.4 mm, 1 foot = 304.8 mm, 1 pound per square foot = 0.0479 kN/m², 1 mile per hour = 1.609 km/h.
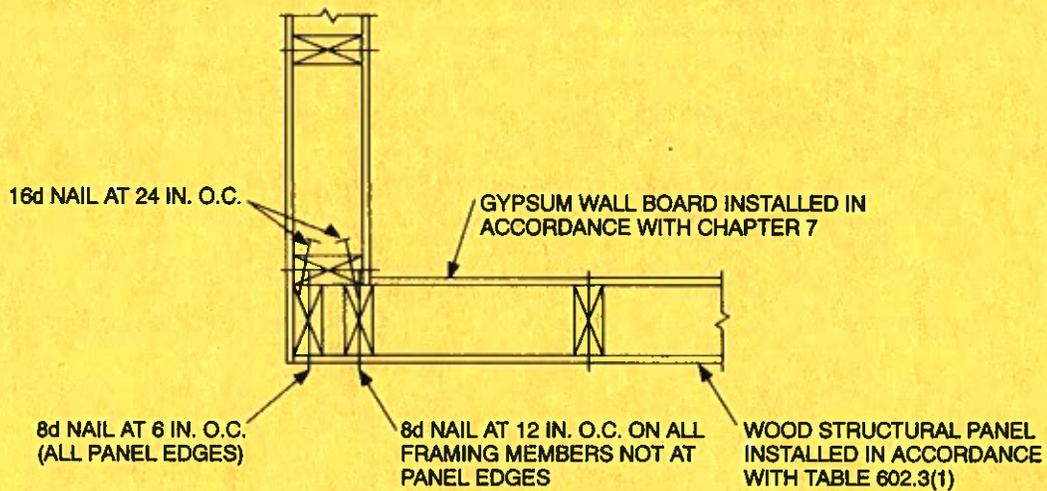
a. Wall bracing amounts are based on a soil site class "D." Interpolation of bracing amounts between the S_{ds} values associated with the Seismic Design Categories shall be permitted when a site specific S_{ds} value is determined in accordance with Section 1615 of the *International Building Code*.

b. Foundation cripple-wall panels shall be braced in accordance with Section R602.10.2.

c. Methods of bracing shall be as described in Section R602.10.3. The alternate braced wall panels described in Section R602.10.6 shall also be permitted.

d. The bracing amounts for Seismic Design Categories are based on a 15 psf wall dead load. For walls with a dead load of 8 psf or less, the bracing amounts shall be permitted to be multiplied by 0.85 provided that the adjusted bracing amount is not less than that required for the site's wind speed. The minimum length of braced panel shall not be less than required by Section R602.10.3.

e. When the dead load of the roof/ceiling exceeds 15 psf, the bracing amounts shall be increased in accordance with Section R301.2.2.4. Bracing required for a site's wind speed shall not be adjusted.

TABLE R602.10.5
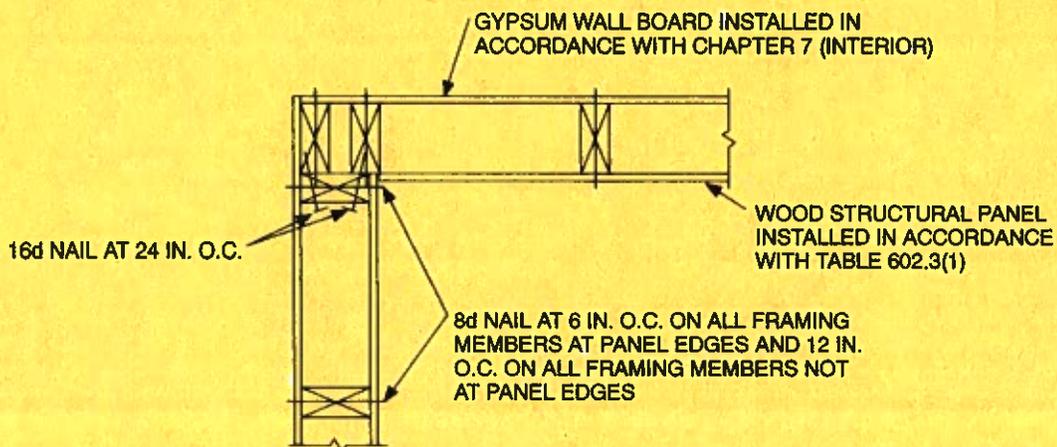**LENGTH REQUIREMENTS FOR BRACED WALL PANELS IN A CONTINUOUSLY SHEATHED WALL[a,b]**

LENGTH OF BRACED WALL PANEL (Inches)			MAXIMUM OPENING HEIGHT NEXT TO THE BRACED WALL PANEL (% of wall height)
8-foot wall	9-foot wall	10-foot wall	
48	54	60	100%
32	36	40	85%
24	27	30	65%

For SI: 1 inch = 25.4 mm, 1 foot = 305 mm, 1 pound per square foot = 0.0479 kN/m^2.

a. Linear interpolation shall be permitted.

b. Full-height sheathed wall segments to either side of garage openings that support light frame roofs with roof covering dead loads of 3 psf or less shall be permitted to have a 4:1 aspect ratio.

16d NAIL AT 24 IN. O.C.

GYPSUM WALL BOARD INSTALLED IN ACCORDANCE WITH CHAPTER 7

8d NAIL AT 6 IN. O.C. (ALL PANEL EDGES)

8d NAIL AT 12 IN. O.C. ON ALL FRAMING MEMBERS NOT AT PANEL EDGES

WOOD STRUCTURAL PANEL INSTALLED IN ACCORDANCE WITH TABLE 602.3(1)

(a) OUTSIDE CORNER DETAIL

GYPSUM WALL BOARD INSTALLED IN ACCORDANCE WITH CHAPTER 7 (INTERIOR)

WOOD STRUCTURAL PANEL INSTALLED IN ACCORDANCE WITH TABLE 602.3(1)

16d NAIL AT 24 IN. O.C.

8d NAIL AT 6 IN. O.C. ON ALL FRAMING MEMBERS AT PANEL EDGES AND 12 IN. O.C. ON ALL FRAMING MEMBERS NOT AT PANEL EDGES

(b) INSIDE CORNER DETAIL.

For SI: 1 inch = 25.4 mm.

FIGURE R602.10.5
EXTERIOR CORNER FRAMING