Job : 66924-200
Plan : 1
Client : HAI HOI RESIDENCE
Engineer: HN
Date : 05/14/2012(IBC9.6)
CBC 2010(Cat. D)
Flexible Diaphragm

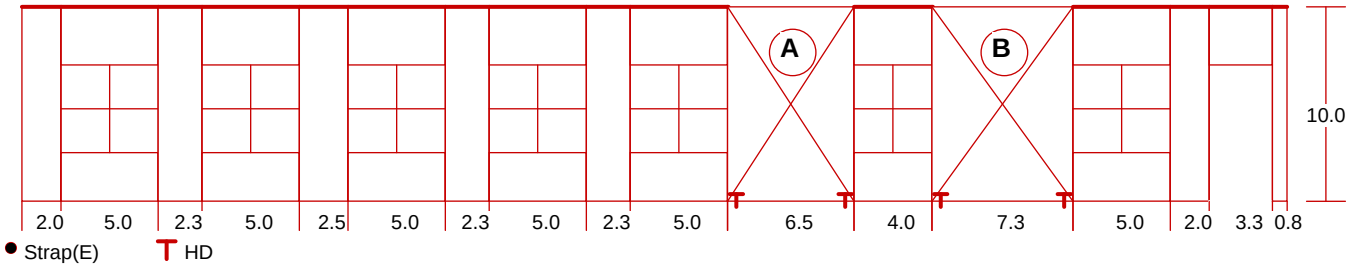
Wind: 1904 Seismic: 2441

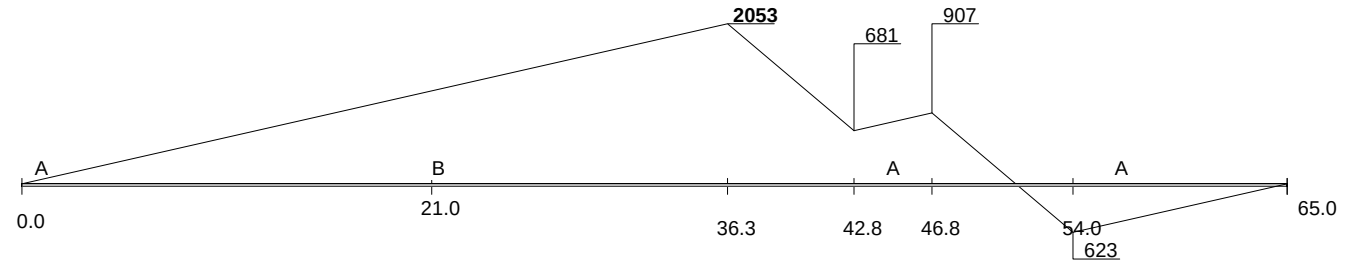
wind *115.4*
seismic *147.9*

1Y_ROOF
33.0

1 @Left of Elevation 1ST Floor 2-Pour Exterior Wall(Y Dir.)

Wind 1904(Uplift on Roof=6.4 PSF)
Seismic 3681=(2441+ 391)*1.30





Drag Force Analysis

A: Simpson ST22 (1192 LB)
B: Simpson ST6224(2134 LB)

ALT (10) # 16d sinker per top plate splice
ALT (16) # 16d sinker per top plate splice

See Detail Information on Next Page

Job : 66924-200
Plan : 1
Client : HAI HOI RESIDENCE
Engineer: HN
Date : 05/14/2012(IBC9.6)
CBC 2010(Cat. D)
Flexible Diaphragm

1

Total Wall Length = 65.00(FT) Total Panel Length = 13.75(FT) P.T./User Design
Shear Diaphragm = 3681/ 65.00 = 57(PLF) **ρ = 1.30**
Use (9 A35) or (7 LS50) Along Line of Shear Panel or for Framing Clips Spacing See S.W. Schedule
Design Wall Shear(S) = 3681/13.75= 268(PLF)(Flexible) Max. Drag = 2053(LB)

Use TYPE 2

Max. Panel Deflection: △M = (4.0/1.0) x △s x 1.4 = 1.013" <= 0.02 x 120.0 = 2.400"

Dead Loads:
*Wall 150.0= 15 * 10.0'*
*Roof_P 80.0 = 16 *10.0/2 FROM 0.0' TO 65.0'*

			UPLIFT(T)	DOWN(C)	
OVERTURN ANALYSIS					
Panel	(A)	*Left Side*	*: T= 2461(LB)*	*C= 2856(LB)*	*HDU8/4x4(I) w/DBL BLK'G ****
		Right Side	*: T= 2461(LB)*	*C= 2856(LB)*	*HDU8/4x4(I) w/DBL BLK'G ****

Use HDU8/4x4(I) on both ends
w/(2)5/8" x 12" Anchor Bolt (@ 48" O.C. Max.)

Panel	(B)	*Left Side*	*: T= 2408(LB)*	*C= 2842(LB)*	*HDU8/4x4(I) w/DBL BLK'G ****
		Right Side	*: T= 2408(LB)*	*C= 2842(LB)*	*HDU8/4x4(I) w/DBL BLK'G ****

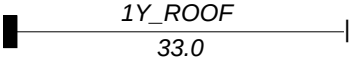
Use HDU8/4x4(I) on both ends
w/(2)5/8" x 12" Anchor Bolt (@ 48" O.C. Max.)

(I) Holdown inside of panel
*** User prefered

Job : 66924-200
Plan : 1
Client : HAI HOI RESIDENCE
Engineer: HN
Date : 05/14/2012(IBC9.6)
CBC 2010(Cat. D)
Flexible Diaphragm

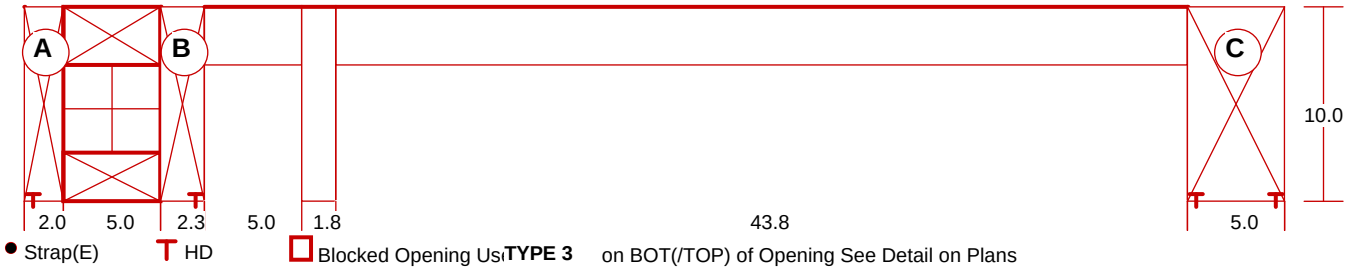
Wind: 1904 Seismic: 2441

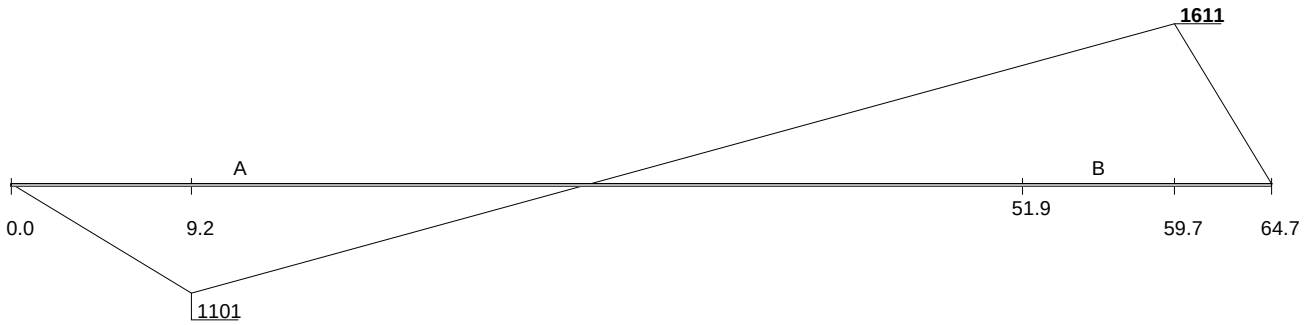
wind *115.4*
seismic *147.9*



2 @Right of Elevation 1ST Floor 2-Pour Exterior Wall(Y Dir.)

Wind 1904(Uplift on Roof=6.4 PSF)
Seismic 3477=(2441+ 234)*1.30





Drag Force Analysis

A: Simpson ST22 (1192 LB)
B: Simpson ST6224(2134 LB)

ALT (10) # 16d sinker per top plate splice
ALT (16) # 16d sinker per top plate splice

See Detail Information on Next Page

Job : 66924-200
Plan : 1
Client : HAI HOI RESIDENCE
Engineer: HN
Date : 05/14/2012(IBC9.6)
CBC 2010(Cat. D)
Flexible Diaphragm

2

Total Wall Length = 64.75(FT) Total Panel Length = 9.25(FT) P.T./User Design
Shear Diaphragm = 3477/ 64.75 = 54(PLF) **ρ = 1.30**
Use (9 A35) or (6 LS50) Along Line of Shear Panel or for Framing Clips Spacing See S.W. Schedule
Design Wall Shear(S)=389(PLF)(on Opening A & B) Max. Drag= 1611(LB)

Use TYPE 3

Max. Panel Deflection: △M = (4.0/1.0) x △s x 1.4 = 1.507" <= 0.02 x 120.0 = 2.400"

Dead Loads:
*Wall 150.0= 15 * 10.0'*
*Roof_P 0.0 = 16 * 0.0/2 FROM 0.0' TO 65.0'*

OVERTURN ANALYSIS UPLIFT(T) DOWN(C)

Panel (A) Left Side : T= 1545(LB) C= 1783(LB) — *HDU8/4x4(I) w/DBL BLK'G ****
Right Side : T= 0(LB) C= 0(LB) — *No Sign. Uplift()*

Use HDU8/4x4(I) @ L.
w/(2)5/8" x 12" Anchor Bolt (@ 24" O.C. Max.)

Blocked! Force @ Edge of Opening is 820(LB)

Panel (B) Left Side : T= 0(LB) C= 0(LB) — *No Sign. Uplift()*
Right Side : T= 1541(LB) C= 1783(LB) — *HDU8/4x4(I) w/DBL BLK'G ****

Use HDU8/4x4(I) @ R.
w/(2)5/8" x 12" Anchor Bolt (@ 24" O.C. Max.)

Panel (C) Left Side : T= 4005(LB) C= 4176(LB) — *HDU8/4x4(I) w/DBL BLK'G ****
Right Side : T= 4005(LB) C= 4176(LB) — *HDU8/4x4(I) w/DBL BLK'G ****

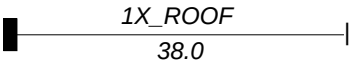
Use HDU8/4x4(I) on both ends
w/(2)5/8" x 12" Anchor Bolt (@ 32" O.C. Max.)

(I) Holdown inside of panel
*** User prefered

Job : 66924-200
Plan : 1
Client : HAI HOI RESIDENCE
Engineer: HN
Date : 05/14/2012(IBC9.6)
CBC 2010(Cat. D)
Flexible Diaphragm

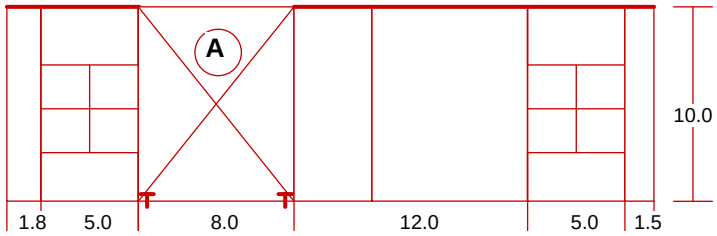
Wind: 2731 Seismic: 1694

wind *143.7*
seismic *89.2*

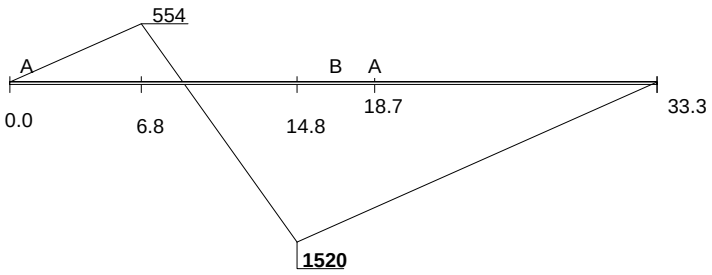


3 @Rear of Elevation 1ST Floor 2-Pour Exterior Wall(X Dir.)

Wind 2731(Uplift on Roof=6.6 PSF)
Seismic 1931= 1694+ 237



● Strap(E) T HD



Drag Force Analysis

A: Simpson ST22 (1192 LB) *ALT (10) # 16d sinker per top plate splice*
B: Simpson ST6224(2134 LB) *ALT (16) # 16d sinker per top plate splice*
Total Wall Length = 33.25(FT) Total Panel Length = 8.00(FT) P.T./User Design
Shear Diaphragm = 2731/ 33.25 = 82(PLF) **ρ = 1.00**
Use (7 A35) or (5 LS50) Along Line of Shear Panel or for Framing Clips Spacing See S.W. Schedule
Design Wall Shear(W) = 2731/ 8.00= 341(PLF)(Flexible) Max. Drag = 1520(LB)

Use TYPE 2

Max. Panel Deflection: △M = (4.0/1.0) x △s x 1.4 = 1.017" <= 0.02 x 120.0 = 2.400"

Dead Loads:
Wall *150.0= 15 * 10.0'*
Roof_P *80.0 = 16 *10.0/2 FROM 0.0' TO 33.3'*

OVERTURN ANALYSIS *UPLIFT(T)* *DOWN(C)*
Panel (A) *Left Side* *: T= 3210(LB) C= 3733(LB)* *HDU8/4x4(I) w/DBL BLK'G ****
Right Side *: T= 3128(LB) C= 3733(LB)* *HDU8/4x4(I) w/DBL BLK'G ****

Use HDU8/4x4(I) on both ends
w/(2)5/8" x 12" Anchor Bolt (@ 48" O.C. Max.)

(I) Holdown inside of panel
*** User prefered

Job : 66924-200
Plan : 1
Client : HAI HOI RESIDENCE
Engineer: HN
Date : 05/14/2012(IBC9.6)
CBC 2010(Cat. D)
Flexible Diaphragm

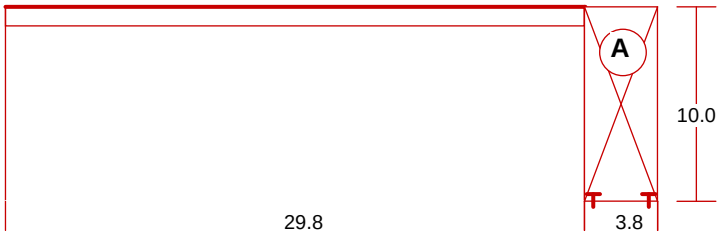
Wind: 1366 Seismic: 847

wind *143.7*
seismic *89.2*

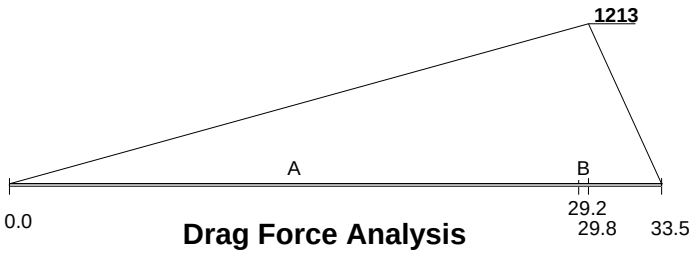
1X_ROOF
19.0

4 @Front of Dining Room 1ST Floor 2-Pour Exterior Wall(X Dir.)

Wind 1366(Uplift on Roof=6.6 PSF)
Seismic 903= 847+ 55



● Strap(E) T HD



Drag Force Analysis

A: Simpson ST22 (1192 LB) *ALT (10) # 16d sinker per top plate splice*
B: Simpson ST6224(2134 LB) *ALT (16) # 16d sinker per top plate splice*
Total Wall Length = 33.50(FT) Total Panel Length = 3.75(FT) P.T./User Design
Shear Diaphragm = 1366/ 33.50 = 41(PLF) **ρ = 1.00**
Use (4 A35) or (3 LS50) Along Line of Shear Panel or for Framing Clips Spacing See S.W. Schedule
Design Wall Shear(W) = 1366/ 3.75= 364(PLF)(Flexible ,SW V_allow(Seismic) Ajusted for H/W Ratio) Max. Drag = 1213(LB)

Use TYPE 2

Max. Panel Deflection: △M = (4.0/1.0) x △s x 1.4 = 1.457" <= 0.02 x 120.0 = 2.400"

Dead Loads:
Wall *150.0= 15 * 10.0'*
Roof_P *80.0 = 16 *10.0/2 FROM 0.0' TO 0.0'*

OVERTURN ANALYSIS *UPLIFT(T)* *DOWN(C)*
Panel (A) *Left Side* *: T= 3780(LB) C= 3949(LB)* *HDU8/4x4(I) w/DBL BLK'G ****
Right Side *: T= 3780(LB) C= 3949(LB)* *HDU8/4x4(I) w/DBL BLK'G ****

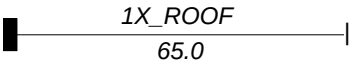
Use HDU8/4x4(I) on both ends
w/(2)5/8" x 12" Anchor Bolt (@ 40" O.C. Max.)

(I) Holdown inside of panel
*** User prefered

Job : 66924-200
Plan : 1
Client : HAI HOI RESIDENCE
Engineer: HN
Date : 05/14/2012(IBC9.6)
CBC 2010(Cat. D)
Flexible Diaphragm

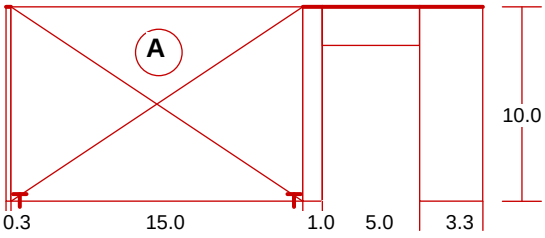
Wind: 4672 Seismic: 2898

wind *143.7*
seismic *89.2*

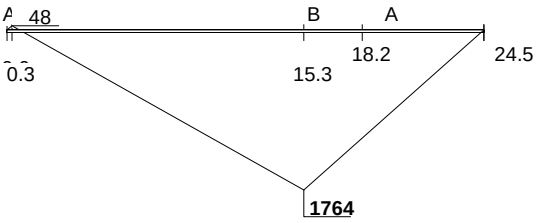


5 @Rear of Kitchen 1ST Floor 2-Pour Mixed Wall(X Dir.)

Wind 4672(Uplift on Roof=6.6 PSF)
Seismic 3067= 2898+ 169



○ Strap(I) ● Strap(E) T HD



Drag Force Analysis

A: Simpson ST22 (1192 LB) *ALT (10) # 16d sinker per top plate splice*
B: Simpson ST6224(2134 LB) *ALT (16) # 16d sinker per top plate splice*
Total Wall Length = 24.50(FT) Total Panel Length = 15.00(FT) P.T./User Design
Shear Diaphragm = 4672/ 24.50 = 191(PLF) **ρ = 1.00**
Use (11 A35) or (8 LS50) Along Line of Shear Panel or for Framing Clips Spacing See S.W. Schedule
Design Wall Shear(W) = 4672/15.00= 311(PLF)(Flexible) Max. Drag = 1764(LB)

Use TYPE 2

Max. Panel Deflection: △M = (4.0/1.0) x △s x 1.4 = 0.741" <= 0.02 x 120.0 = 2.400"

Dead Loads:
Wall *100.0= 10 * 10.0'*

OVERTURN ANALYSIS		*UPLIFT(T)*	*DOWN(C)*	
Panel (A)	*Left Side*	*: T= 2772(LB)*	*C= 3222(LB)*	*HDU8/4x4(I) w/DBL BLK'G ****
	Right Side	*: T= 2772(LB)*	*C= 3222(LB)*	*HDU8/4x4(I) w/DBL BLK'G ****

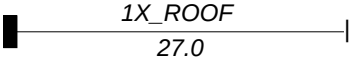
Use HDU8/4x4(I) on both ends
w/(4)5/8" x 12" Anchor Bolt (@ 56" O.C. Max.)

(I) Holdown inside of panel
*** User prefered

Job : 66924-200
Plan : 1
Client : HAI HOI RESIDENCE
Engineer: HN
Date : 05/14/2012(IBC9.6)
CBC 2010(Cat. D)
Flexible Diaphragm

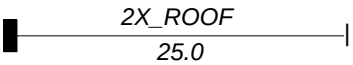
Wind: 1940 Seismic: 1204

wind 143.7
seismic 89.2



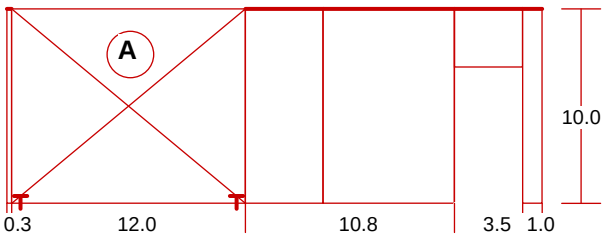
Wind: 1547 Seismic: 1437

wind 123.7
seismic 114.9

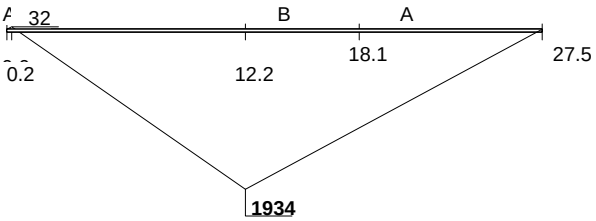


6 @Rear of Garage 1ST Floor 2-Pour Exterior Wall(X Dir.)

Wind 3487(Uplift on Roof=6.6 PSF)
Seismic 2847= 2641+ 206



● Strap(E) T HD



Drag Force Analysis

A: Simpson ST22 (1192 LB) *ALT (10) # 16d sinker per top plate splice*
B: Simpson ST6224(2134 LB) *ALT (16) # 16d sinker per top plate splice*
Total Wall Length = 27.50(FT) Total Panel Length = 12.00(FT) P.T./User Design
Shear Diaphragm = 3487/ 27.50 = 127(PLF) **ρ = 1.00**
Use (9 A35) or (6 LS50) Along Line of Shear Panel or for Framing Clips Spacing See S.W. Schedule
Design Wall Shear(W) = 3487/12.00= 291(PLF)(Flexible) Max. Drag = 1934(LB)

Use TYPE 2

Max. Panel Deflection: △M = (4.0/1.0) x △s x 1.4 = 0.897" <= 0.02 x 120.0 = 2.400"

Dead Loads:
*Wall 150.0= 15 * 10.0'*

OVERTURN ANALYSIS		*UPLIFT(T)*	*DOWN(C)*	
Panel	(A) *Left Side*	*: T= 2438(LB)*	*C= 2978(LB)*	*HDU8/4x4(I) w/DBL BLK'G ****
	Right Side	*: T= 2438(LB)*	*C= 2978(LB)*	*HDU8/4x4(I) w/DBL BLK'G ****

Use HDU8/4x4(I) on both ends
w/(3)5/8" x 12" Anchor Bolt (@ 56" O.C. Max.)

(I) Holdown inside of panel
*** User prefered