

BAILEY PonyWall HEAVY

PARTIAL WALL FRAMING CONNECTION TO FLOOR

The Bailey PonyWall is intended to support out-of-plane loading of cantilevered partial wall systems that are unsupported at the top track. This high-performance, reliable, and durable solution for knee wall-to-foundation connections transfers loads through the stud member onto the welded 1/2" base plate which is then anchored to the floor system.

PRODUCT DIMENSIONS

PW24 = 23-3/4" tall with 3-3/8" wide x 8" long plate

PW36 = 35-3/4" tall with 3-3/8" wide x 8" long plate

PW48 = 47-3/4" tall with 3-3/8" wide x 8" long plate

MATERIAL SPECIFICATIONS

Plate Material: CSA: G40.21 44W/300W 1/2" thick hot rolled steel

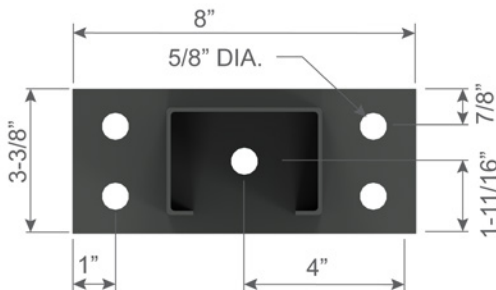
Stud Material: Structural Grade 50 (362S250-97), 50ksi (340 MPa) 12ga (97mil), 0.1017" Design thickness, 0.0966" Min. thickness

Packaging: Individually

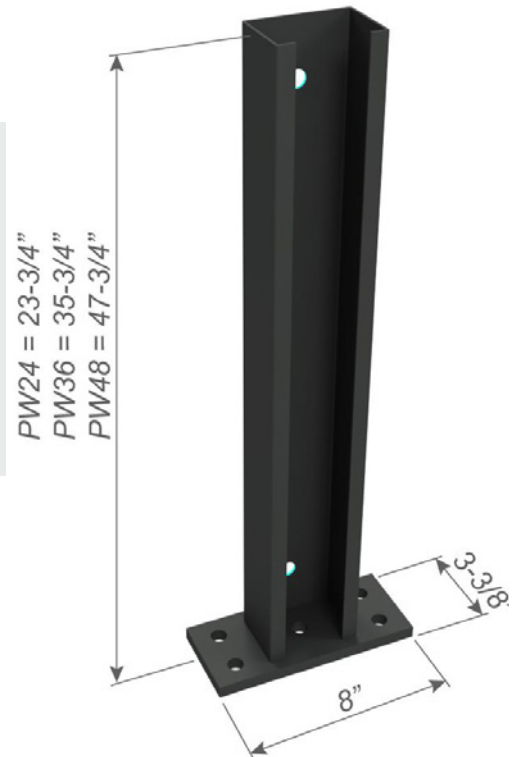
ASTM: A36, A653/A653M, A1003/A1003M

INSTALLATION

Install the PonyWall inside the track or directly to the floor structure. Anchor to the floor as designed by EOR. Attach the studs to both flanges of the PonyWall. A minimum of 3-1/2" stud member can be used.



* Bailey PonyWall are distributed by Bailey Metal Products in Canada under permission granted by Clark Dietrich Building Systems.



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MAXIMUM SPECIFIED VALUES

BAILEY PonyWall HEAVY

GENERAL:

BAILEY PonyWall Heavy Member - 362S250-97

Material Thickness: 97 mil (0.1017 in.) design thickness

Material Strength: Structural Grade 50, 50 ksi minimum yield stress

ASTM: A653/A653M, A1003/A1003M

BAILEY PonyWall Heavy Base-Plate

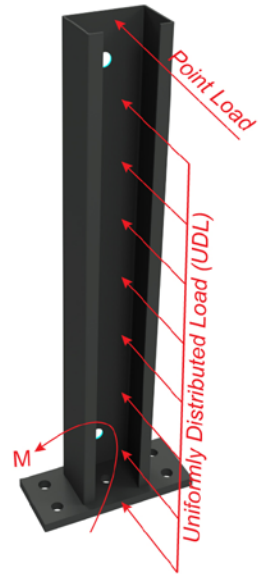
Material Thickness: 1/2" minimum thickness

Material Strength: Structural Grade 44, 44 ksi minimum yield stress

CSA: G40.21 44W/300W

Design Standard - CSA S136-2016 (LSD)

North American specification for the design of cold-formed steel structural members.



BAILEY PonyWall Heavy Maximum Specified Moment and Loads

Member	PonyWall Height, in. (ft)	Anchors to Structure	Moment (lbs-ft)	Maximum Specified Loads	
				Point Load @ Cantilever End (lbs)	Uniform Distributed Load (lbs/ft)
PW24	24 (2)	Designed by Others	1,526	763	763
PW36	36 (3)			509	339
PW48	48 (4)			382	191

Notes:

1. BAILEY PonyWall Heavy is intended to support out-of-plane loading of cantilevered partial wall systems that are unsupported at the top track.
2. Out-of-plane loads are transferred to the floor system through the base-plate, which is welded to the BAILEY PonyWall Heavy member.
3. BAILEY PonyWall Heavy may be used in place of standard framing members, or in conjunction with them to frame the wall.
4. For serviceability/deflection calculations of the BAILEY PonyWall Heavy, an effective moment of inertia = 0.774 in⁴ was used.
5. Maximum specified point load @ cantilever end and maximum specified uniformly distributed load were both calculated using the maximum specified moment.
6. Base connection between the BAILEY PonyWall Heavy and support structure is designed by others.
7. It is the responsibility of the designer to properly detail the connections on the contract drawings.

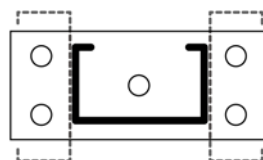
BAILEY PonyWall Heavy Maximum Specified Moment w/Anchors

Member	Anchors to Structure	No. of Anchors to Structure	Moment (lbs-ft)
BAILEY PonyWall	1/2" ϕ Hilti Kwik Bolt-3	1	297
	(3-5/8" Nominal Embedment, 2900 psi Uncracked Concrete)	4	767

Notes:

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3. BAILEY PonyWall Heavy may be used in place of standard framing members, or in conjunction with them to frame the wall.
4. For serviceability/deflection calculations of the BAILEY PonyWall Heavy, an effective moment of inertia = 0.774 in⁴ was used.
5. Maximum specified moments w/anchors are based on using 1/2" ϕ Hilti Kwik Bolt-3 anchor resistances to concrete.
6. Other anchors may be used to achieve the full BAILEY PonyWall Heavy resistance, but must be designed separately.
7. Listed values have not been increased for wind, seismic, or other factors.
8. Hilti is a registered trademark of Hilti Aktiengesellschaft Corporation.
9. It is the designer's responsibility to check for minimum concrete edge distance and minimum concrete thickness when using anchors.
10. It is the responsibility of the designer to properly detail connections on the contract drawings.
11. See Figure-1 for base-plate anchor details.

Figure 1 - PonyWall Base-Plate Anchor Details



Uniformly distributed loads are based on framing members placed on each side of the Pony Wall



(1) Anchor to structure



(4) Anchors to structure

CONCENTRATED LOAD AT FREE END

GENERAL:

PonyWall Heavy Member - 362S250-97

Material Thickness: 97 mil (0.1017 in.) design thickness

Material Strength: Structural Grade 50, 50 ksi minimum yield stress

ASTM: A653/A653M, A1003/A1003M

PonyWall Heavy Base-Plate

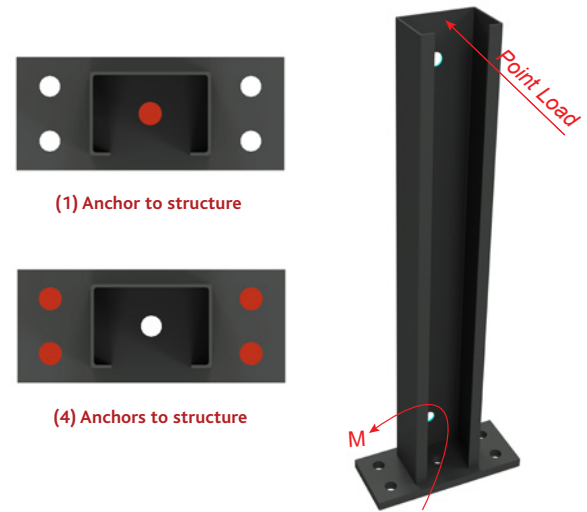
Material Thickness: 1/2" minimum thickness

Material Strength: Structural Grade 44, 44 ksi minimum yield stress

CSA: G40.21 44W/300W

Design Standard - CSA S136-2016 (LSD)

North American specification for the design of cold-formed steel structural members.



BAILEY PonyWall Heavy Maximum Specified Point Loads

Member	PonyWall Height, in. (ft)	Point Load @ Cantilever End (lbs)					Moment Due to Point Load (lbs-ft)				
		L/720	L/360	L/240	L/180	P _{max}	L/720	L/360	L/240	L/180	M _{max}
PW24	24 (2)	166	332	497	663	763	332	663	995	1,326	1,526
PW36	36 (3)	73	146	220	293	509	220	439	659	878	1,526
PW48	48 (4)	41	82	123	164	382	164	328	492	656	1,526

Notes:

- BAILEY PonyWall Heavy is intended to support out-of-plane loading of cantilevered partial wall systems that are unsupported at the top track.
- Out-of-plane loads are transferred to the floor system through base-plate, which is welded to the BAILEY PonyWall Heavy member.
- BAILEY PonyWall Heavy may be used in place of standard framing members, or in conjunction with them to frame the wall.
- For serviceability/deflection calculations of the BAILEY PonyWall Heavy, an effective moment of inertia = 0.774 in⁴ was used.
- When both point and uniform loads are applied, the combined loads shall be limited to the maximum specified moment.
- Base connection between the BAILEY PonyWall Heavy and support structure is designed by others.
- It is the responsibility of the designer to properly detail the connections on the contract drawings.

BAILEY PonyWall Heavy Maximum Specified Point Loads w/Anchors

Member	PonyWall Height, in. (ft)	Anchors to Structure	No. of Anchors	Point Load @ Cantilever End (lbs)					Moment Due to Point Load (lbs-ft)				
				L/720	L/360	L/240	L/180	P _{max}	L/720	L/360	L/240	L/180	M _{max}
PW24	24 (2)	1/2" ϕ Hilti Kwik Bolt-3 (3-5/8" Nominal Embedment, 2900 psi Uncracked Concrete)	1	149	149	149	149	149	297	297	297	297	297
			4	166	332	383	383	383	332	663	767	767	767
PW36	36 (3)		1	73	99	99	99	99	220	297	297	297	297
			4	73	146	220	256	256	220	439	659	767	767
PW48	48 (4)		1	41	74	74	74	74	164	297	297	297	297
			4	41	82	123	164	192	164	328	492	656	767

Notes:

- BAILEY PonyWall Heavy is intended to support out-of-plane loading of cantilevered partial wall systems that are unsupported at the top track.
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- For serviceability/deflection calculations of the BAILEY PonyWall Heavy, an effective moment of inertia = 0.774 in⁴ was used.
- Maximum specified point loads w/anchors are based on using 1/2" ϕ Hilti Kwik Bolt-3 anchor resistances to concrete.
- Other anchors may be used to achieve the full BAILEY PonyWall Heavy resistance, but must be designed separately.
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- See Figure-1 for base-plate anchor details.

UNIFORMLY DISTRIBUTED LOAD (UDL)

GENERAL:

PonyWall Heavy Member - 362S250-97

Material Thickness: 97 mil (0.1017 in.) design thickness

Material Strength: Structural Grade 50, 50 ksi minimum yield stress

ASTM: A653/A653M, A1003/A1003M

PonyWall Heavy Base-Plate

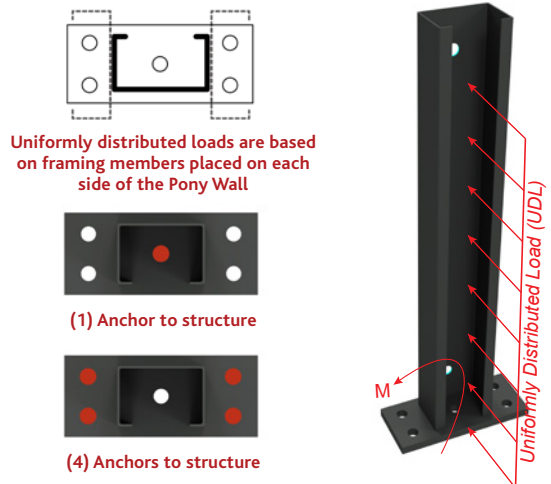
Material Thickness: 1/2" minimum thickness

Material Strength: Structural Grade 44, 44 ksi minimum yield stress

CSA: G40.21 44W/300W

Design Standard - CSA S136-2016 (LSD)

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BAILEY PonyWall Heavy Maximum Specified UDL Loads

Member	PonyWall Height, in. (ft)	Uniformly Distributed Load (lbs-ft)					Moment Due to UDL Load (lbs-ft)				
		L/720	L/360	L/240	L/180	W _{max}	L/720	L/360	L/240	L/180	M _{max}
PW24	24 (2)	223	447	670	763	763	447	894	1,526	1,526	1,526
PW36	36 (3)	66	131	197	262	339	295	590	884	1,179	1,526
PW48	48 (4)	27	55	82	110	191	220	440	660	880	1,526

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BAILEY PonyWall Heavy Maximum Specified UDL Loads w/Anchors

Member	PonyWall Height, in. (ft)	Anchors to Structure	No. of Anchors	Uniformly Distributed Load (lbs-ft)					Moment Due to UDL Load (lbs-ft)				
				L/720	L/360	L/240	L/180	W _{max}	L/720	L/360	L/240	L/180	M _{max}
PW24	24 (2)	1/2" ϕ Hilti Kwik Bolt-3 (3-5/8" Nominal Embedment, 2900 psi Uncracked Concrete)	1	149	149	149	149	149	297	297	297	297	297
			4	223	383	383	383	383	447	767	767	767	767
PW36	36 (3)		1	65	66	66	66	66	295	297	297	297	297
			4	65	131	170	170	170	295	589	767	767	767
PW48	48 (4)		1	27	37	37	37	37	220	297	297	297	297
			4	27	55	82	96	96	220	440	660	767	767

Notes:

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