

TYPICAL SPECIFICATION

ECP Steel Pier™ Wall Mounted Systems

PPB-350-WM

PPB-400-WM

PPB-400-WMHD

Section 1- General

1.01 Typical Installation Scope

Furnish labor, equipment, tools and material to install ECP Wall Mounted Steel Pier Systems as described in this specification in a workmanlike manner and to design criteria.

1. Prepare site for safe working conditions.
2. Thoroughly investigate the site for any and all underground utilities before excavating.
3. Excavate as required for installation of the product.
4. Prepare stem wall, core drill the footing.
5. Install ECP Steel Pier™ wall mounted bracket over the drilled hole in the footing if applicable.
6. Mount the drive stand on to the pier bracket and securely anchor it to the structure.
7. Install the drive cylinder and connect hydraulics.
8. Hydraulically drive the steel pier sections to the required installation force.
9. Install lift assemblies, hydraulic lift cylinders and connect hydraulics.
10. Transfer the load to the piers, lift the structure to designed specifications and mechanically secure to maintain elevation.
11. Remove equipment from work area.
12. Backfill and clean work areas.

1.02 Delivery, Storage and Handling

All foundation repair products, tools and equipment shall be handled and transported with care to prevent any damage or deformation. Hydraulic components shall be protected from the weather and kept clean of any dust, dirt, mud or debris.

Section 2 - Product Material

2.01 Pier Sections

2.011 Model 350-WM Pier Pipe

Each pier section shall be manufactured from steel tubing having a nominal outside diameter of 3-1/2" outside diameter and a wall thickness of 0.165". The pier sections shall be fabricated from mill rolled, induction heat treated steel with a minimum yield strength of 55,000 psi. Each pier section shall be approximately 42" long and shall have a mill-installed coating of zinc-iron alloy, pure zinc galvanizing, a layer of zinc chromate compounds and a clear organic polymer coating. The materials conform to ASTM A500.

2.0111 Lead Section – PPB-350-S

The lead section shall have a friction reduction collar welded to the bottom end of the pier pipe. The collar shall be fabricated from steel tubing having a nominal 4" outside diameter by 0.220" wall with a length of 1". The purpose of the collar is to reduce skin friction on the pier sections that follow; therefore the first section of pier pipe must have this collar attached.

2.0112 Extension Section - PPB-350-EPS

The extension section shall have a coupling installed on one end of the pier pipe. This coupling shall be fabricated from steel tubing having a nominal 3-1/8" outside diameter by 0.180" wall thickness with a length of 5-7/8". Three inches of the coupling shall be inserted into the pier section and secured by two 1/2" button welds.

2.0113 External Pier Sleeve – PPB-350-SB

The external pier sleeve shall be manufactured from steel tubing having a nominal outside diameter of 4" outside diameter and a wall thickness of 0.220". The external pier sleeve sections shall be fabricated from mill rolled, induction heat treated steel with a minimum yield strength of 55,000 psi. Each external pier sleeve section shall be approximately 42" long and have mill finish. Welded to the external pier sleeve shall be a 3/4" x 3/4" x 3/4" piece of steel that forms a stop.

2.0114 Inertia Sleeve – PPB-350-IP (Optional)

The inertia sleeve is a pipe assembly that fits inside the pier pipe during installation to increase the moment of inertia of the pier pipe and strengthens the joints between pier sections. The inertia sleeve shall be installed to the pier pipe through areas of weak soil, areas of unsupported length of pier pipe or where additional pier wall strength is required. The inertia sleeve shall be fabricated from steel tube having a 3-1/8" outside diameter by 0.180" wall and 35-1/4" long. The coupling shall be fabricated from 2-5/8" diameter by 0.188" wall steel tubing that is 12 inches long. Three inches of the coupling shall be inserted into the inertia sleeve section and secured by two 1/2" button welds.

2.012 Model 400-WM & Model 400-WMHD Pier Pipe

Each pier section shall be manufactured from steel tubing having a nominal outside diameter of 4" outside diameter and a wall thickness of 0.220". The pier sections shall be fabricated from mill rolled, induction heat treated steel with a minimum yield strength of 55,000 psi. Each pier section shall be approximately 42" long and have mill finish. The materials conform to ASTM A500.

2.0121 Lead Section – PPB-400-S

The lead section shall have a friction reduction collar welded to the bottom end of the pier pipe. The collar shall be fabricated from steel tubing having a nominal 4.5" outside diameter by 0.237" wall with a length of 1". The purpose of the collar is to reduce skin friction on the pier sections that follow; therefore the first section of pier pipe must have this collar attached.

2.0122 Extension Section – PPB-400-EPS

The extension section shall have a coupling installed on one end of the pier pipe. This coupling shall be fabricated from steel tubing having a suitable outside diameter to fit to the inside of the pier pipe with a length of 5-7/8". Three inches of the coupling shall be inserted into the pier section and secured by two 1/2" button welds.

2.02 Pier Bracket

The pier bracket shall be designed to connect the structure to the pier and to transfer the load of the structure to the pier pipe. The pier bracket shall be a welded assembly new, clean steel with a thickness of 1/2" and 5/8" that conforms to ASTM A-36, and structural square tubing with a thickness of 3/16" that conforms to ASTM A-500. The following weldments and components are attached to the pier bracket. A 9-7/8" long piece of 1-1/2" square tube with a wall thickness of 3/16" shall be welded vertically to the outer side of each side piece. Six mounting studs shall be welded to the outer front edges of the sidepieces. These studs shall be fabricated from 2-1/4" long pieces of 1/2"-13 all-thread bar. Each stud shall be supplied with a 1/2"-13 hex nut. Supplied with the bracket shall be three faceplates that are used to secure the pier pipe in proper alignment and position within the pier bracket. The face plates shall be 2" by 7-1/4" and contain two 9/16" slots to secure the face plates to the pier bracket.

2.021 PPB-350-WM & PPB-400-WM Pier Bracket – PPB-350-WMBO

The wall mounted pier bracket shall have a 244 square inch vertical bearing surface that contacts the vertical face of the stem wall. This 5/8" thick vertical mounting plate shall have six 1-1/8" diameter holes that will accept 1" diameter concrete anchor bolts. The vertical bearing plate shall be welded to side pieces, which measure 4" wide, by 16" long.

2.022 Model 400-WMHD Pier Bracket – PPB-400-WMHDBO

The wall mounted pier bracket shall have a 320 square inch vertical bearing surface that contacts the vertical face of the stem wall. This 5/8" thick vertical mounting plate shall have six 1-1/8" diameter holes that will accept 1" diameter concrete anchor bolts. The vertical bearing plate shall be welded to side pieces, which measure 4" wide, by 20" long.

2.03 Pier Cap

The pier cap is a welded assembly that connects the pier pipe to the pier bracket and transfers the structural load to the pier pipe. The pier cap shall be fabricated from 1-1/2" by 4" by 9" long steel conforming to ASTM A-36. Attached to the center of this plate shall be a piece of tubing of appropriate diameter to fit over the pier pipe and is 1" long. This ring is used to maintain pier pipe alignment. The pier cap shall have two 1" diameter holes for attaching the pier cap to the pier bracket.

2.04 Holding/Lift Rods and Hex Nuts

Supplied with the pier bracket shall be two 7/8" – 9 all thread bars that measure 17-3/4" long and four 7/8" – 9 diameter heavy hex nuts conforming to ASTM A-193 Grade B7. The bracket rods and nuts shall be used to attach the pier cap to the pier bracket. These items provide for a maximum lift of the pier system of 4". Larger lifts may be accomplished by using longer bracket rods.

2.05 Lift Assembly - PPB-350-LA

The lift assembly shall consist of a lift head; two lift legs and two heavy hex nuts. The lift assembly is used to recover lost elevation and to allow for transfer of the structural load from the pier pipe to the pier bracket assembly. The lift legs are used as extensions to the bracket lift rods and allow attachment of the lift head above the pier cap. A hydraulic ram shall be installed between the lift head and pier cap during structural load transfer and recovery of lost elevations

2.051 Lift Head

The lift head shall be fabricated from 1-1/2" by 4" by 9" long steel conforming to ASTM A-36. The lift head shall have two 1" diameter holes to accept the holding/lift rods.

2.052 Lift Leg & Hex Nut

Supplied with the lift head shall be two lift leg assemblies constructed from 7/8" – 9 all thread rod that measure nominally 9" long conforming to ASTM A-193 Grade B7. One end of the all thread bar shall be threaded into a 2-1/2" long thread bar coupler to a depth of 1" and welded in place. Also supplied with each lift leg shall be a 7/8" – 9, heavy hex nut. Total length of the lift leg shall be 10-1/2".

2.06 Anchor Bolts

The anchor bolts shall be secured with a hybrid adhesive mortar in conjunction with a high strength threaded steel rod. Anchor system shall conform to ICC-ES 5193 and NSF/ANSI Standard 61. The threaded rod shall be 1" diameter by 12" long, having allowable shear strength of 16,690 pounds conforming to ASTM A193 B7. The rod shall be supplied with a nut and washer. The hybrid adhesive shall consist of a methacrylate resin, hardener, cement and water. The adhesive shall be furnished in containers which keep the components separate. The adhesive shall be introduced to the hole through a static mixing nozzle as supplied by the manufacturer. (Hilti HAS Super #68662 and HY-150 adhesive #371957, or equal.)

Section 3 – Tools and Equipment

3.01 Drive Stand – PPB-350-DS

The proprietary drive stand is a welded assembly designed to maintain vertical alignment of the pier bracket, drive cylinder and pier pipe during pier installation. The drive stand shall be a welded assembly of 1/2", 5/8" and 1" thick cold rolled flat bar stock conforming to ASTM A-36 and 3/8" and 1/2" thick hot rolled steel conforming to ASTM A-29. Supplied with the drive stand shall be two face plates and four hex nuts. The upper face plate retains the drive cylinder and has two 9/16" mounting holes. The lower face plate retains the pier pipe and has two 9/16" slots for attachment to the drive stand. Two tapered drive stand pins are required to attach the drive stand to the pier bracket. These pins shall be formed from 15/16" diameter steel bar and shall be 15-1/2" long.

3.02 Drive Cylinder Assembly – PPB-350-DC

The drive cylinder assembly shall be a double acting with a special cylinder head designed to fit the proprietary drive stand, a rod aligner and a pier drive adapter on the end of the piston rod designed to install the 4" diameter by 0.220 wall thickness pier pipe. The drive cylinder shall have a 3-1/4" diameter bore and 2" diameter cylinder rod. The stroke shall be 24". Working pressure may vary from 3,000 to 10,000 depending upon the cylinder manufacturer. **The operator must identify which cylinder he is using and verify the working pressure of the cylinder prior to using the hydraulics.**

3.03 Hydraulic Pumps

3.031 Pier Installation Pump – HYD-5204

A gasoline or electrically operated hydraulic pump is required to install the pier pipe. The pump shall be capable of providing 10,000 psi of hydraulic pressure and a dual flow rate of 480 in³/min up to 2,000 psi and a rate of 100 in³/min above 2,000 psi. The pump shall have a 4-way, 3 position valve for double acting cylinder service. (Enerpac PGM-5204R or equal)

3.032 Hand Pump – HYD-801

One or more hand pumps may be required to transfer structural load and to recover lost elevation. The hand pump(s) are connected to hydraulic lifting rams via a manifold arrangement. This provides uniform force to several pier placements at the same time. The hand pump assembly shall provide two stages of displacement at pressures up to 10,000 psi. Below 400 psi the displacement shall be 2.4 in³ per stroke and above 400 psi, 0.15 in³. (Enerpac P801 or equal)

3.04 Single Acting Hydraulic Cylinder – HYD-254

A single acting hydraulic cylinder shall be positioned at each placement during the load transfer phase of the restoration. The hydraulic cylinder shall be rated at 10,000 psi of hydraulic pressure and heavy duty return spring. The minimum cylinder bore shall be 5.16 in² and a stroke of 4". (Enerpac RC-254 or equal)

3.05 Pressure Gauges

3.051 Drive Cylinder Pressure Gauge – HYD-4088

A pressure gauge shall be provided to monitor the installation force placed upon the pier pipe. The gauge shall be capable of measuring 0 – 10,000 psi with a minimum gauge face of 4" and minor graduations of 100 psi. (Enerpac G4088L or equal)

3.052 Hand Pump Pressure Gauge – HYD-3525

A pressure gauge shall be provided to monitor the lifting force applied to the structure during restoration. The pressure gauge shall be capable of measuring 0 – 10,000 psi with a minimum gauge face of 2-1/2" and minor graduations of 200 psi. (Enerpac G2535L or equal)

Section 4 – Steel Pier Installation



Warning!

Utilities:	Thoroughly investigate the job site for the possible existence and location of all underground utilities before proceeding. Avoid any contact with ALL underground utilities!
Excavations:	Collapsing soil can be dangerous. Follow OSHA requirements at all times. Do not enter any excavation if there are any questions about the stability of the soil.
Pier Placement:	Excessive distance between pier placements can damage the concrete foundation from structural overload. Verify that the foundation has sufficient structural integrity to carry the load between placements.
Pier Placement:	Thoroughly investigate the exterior of the structure adjacent to the proposed placement especially directly above the drive stand and drive cylinder. Movements of tools and equipment during pier installation may damage electrical boxes, faucets, windowsills, sliding doors and other architectural elements.
Drive Cylinder:	Verify the working pressure of the hydraulic drive cylinder prior to using the hydraulics. Do not exceed the hydraulic drive cylinder manufacturer's working pressure during pier installation. When operating near the maximum cylinder pressure, cylinder rod extensions should be restricted to no more than 15 inches to prevent damage to the drive cylinder actuator rod.
Hydraulic Equipment:	Inspect all hydraulic equipment prior to using. Do not use any leaking or damaged components such as cracked, crimped or cut hoses, leaking fittings, etc.
Heavy Lifting:	Many pieces of equipment used to install steel foundation underpinning are very heavy. Use proper lifting techniques, back supports, and help from others when lifting heavy objects.
Safety Devices:	When driving pier pipe all face plates must be fastened in place on the drive stand and pier bracket to enhance the integrity of the system and to secure the pier pipe.
Safety Devices:	All persons in and around the work area must use personal safety protection.



Warning!

FAILURE TO HEED THESE WARNINGS OR TO FOLLOW SAFE WORK HABITS MAY RESULT IN SERIOUS INJURY OR DEATH!

4.01 Excavating to Expose Footing or Grade Beam

An excavation shall be prepared adjacent to the foundation to expose the stem wall and the top of the footing, if any. The excavated work area must be wide enough for safe working conditions, typically 3 to 4 feet wide by 3 to 4 feet away from the structure is usually adequate, taper or shore deep excavations per OSHA guidelines. Move excavated soil away from the work area by at least two feet and store in such a manner that the soil will not erode or cause damage to the owner's property.

4.02 Footing or Grade Beam Preparation

If the structure has a spread footing foundation, it shall be drilled with a core drill having a diameter not less than 4-1/2" to provide access for the pier pipe through the footing element at the proposed pile placement location. The centerline of the access hole shall be 2-3/4" from the face of the stem wall. The face of the stem wall shall be prepared smooth and vertical in the area where the pier bracket will be mounted. The bracket should not be mounted more than 12" above the upper surface of the spread footing. In situations where the pier will be heavily loaded and must be mounted higher than 12" above the footing, the engineer of record should be notified. The extra length of unsupported pier pipe could reduce the allowable capacity of the system and the engineer can provide this information and make any spacing adjustments to account for capacity changes.

4.03 Pier Bracket Installation

Where a spread footing exists, place a wooden spacer between the top of the spread footing and the bottom of the wall mount bracket and locate the centerline of the bracket directly over the centerline of the hole through the footing. Carefully mark the locations for the anchors on the concrete wall and put the wall mount bracket aside.

If there is no spread footing present, use the mounting plate of the wall mount bracket to make a template with the holes located and the centerline of the pier indicated. Place the template on the wall at the designated location approximately one to two feet from the bottom of the excavation or bottom of the wall. Use a spirit level along the pier centerline indicated on the template to align the template plumb. Mark the location of the anchors.

Drill and install the anchor bolts. The 1" diameter by 12" long threaded HAS super rod shall have an allowable shear strength of 16,690 pounds and conform to ASTM A193 B7 when installed as described. The adhesive anchor bolts shall be installed exactly as specified by the manufacturer. The capacity rating for this product is based upon installing the anchors to a minimum depth of 8-1/4" into a concrete wall having a thickness of 10-1/2 inches or more and a minimum compressive strength of 3,000 psi. Anchor holes shall be drilled 1-1/16" diameter by 8-1/4" minimum depth.

After drilling the holes in the concrete to accept the anchors, clean the holes with a wire brush then insert an air nozzle to the bottom of the holes and blow out any remaining dust. Insert the adhesive mixing nozzle into each hole, and starting at the bottom of the hole, fill the holes 1/2 to 2/3 full. Apply the adhesive only when the temperature is between 23⁰ F and 104⁰ F. Insert the HAS Super Rod into the hole, twisting the rod while installing to the full depth of the hole. Do not disturb the anchor between gel time and cure time, which is typically 50 minutes at 68⁰ F. The manufacturer estimates that one cartridge of adhesive will anchor 6 bolts. (Hilti HAS Super #68662 and HY-150 adhesive #371957, or equal.)

Once the adhesive has cured, install the wall mount bracket and tighten each bolt to 175 to 200 ft-lb. Lower the drive stand into the excavated area then slide the drive stand horizontally over the two pieces of 1-1/2" square tubing on the pier bracket. The 15/16" diameter tapered drive stand pins shall be installed through the holes in the drive stand that are directly above and aligned with the two 1-1/2" square tubes, and into the lower drive stand holes.

Slide the lower end of the drive cylinder into slots at the top of the drive stand. Secure the drive cylinder to the drive stand by placing the upper face plate with two holes over the two studs at the top of the drive stand. Connect all of the hydraulics between the drive cylinder and the hydraulic pump.

Place a lead pier section into the drive stand with the friction reduction collar facing downward. Secure the face plate with pier guides over the studs and nuts on the drive stand and the face plates over each pair of studs on pier bracket. Activate the drive cylinder to apply a seating load on the drive stand assembly. When the drive stand has raised enough to remove all of the slack from fabrication tolerances, drill and install 1/2" x 7" long concrete anchors, flat washers and hex nuts as required to secure the drive stand in position.

4.04 Driving Pier Pipe

IMPORTANT: The installation base plate must be removed from the bottom of the excavation and the control sleeve must be in place over the pier pipe before proceeding.

Drive the lead pier section into the soil using the hydraulic drive cylinder to nearly the full extension of the cylinder rod. Retract the cylinder rod; install the coupling shoulder of a drive tool into the top of the installed pier section. Drive the pier downward into the soil again to the length of the hydraulic drive cylinder stroke. Repeat this operation with an additional drive tool as required to fully install the pier pipe. Retract the cylinder rod; remove the drive tools, guides and face plates. Document the force used to drive each section of pier pipe. Install the coupled end of an extension pier section into the top of the driven pier section. Replace the guides and face plates.

CAUTION: Safe operation dictates that the drive cylinder working pressure shall not be exceeded and all faceplates are securely in place during pier installation. When operating near the maximum cylinder pressure, cylinder rod extensions should be restricted to no more than 15 inches to prevent damage to the drive cylinder actuator rod.

The pier installation process shall continue adding extension pier sections until the design load or a suitable bearing stratum is reached. Hold the final driving load on the pier to check for pier creep.

4.05 Installing Inertia Sleeve (Optional on PPB-350-WM)

NOTE: The inertia sleeve must be installed concurrent with the pier sections. The installer must have general knowledge of depth to suitable load bearing for the pier to be able to calculate the point to commence sleeve installation to be able to protect the pipe in the area of weak soils.

The inertia sleeve increases the moment of inertia of the pier and strengthens the segment couplings in the area of weak soils or in areas of unsupported pier pipe. The inertia sleeve shall be installed into the pier section prior to inserting the next pier extension. The coupling end of the inertia pier section shall be inserted into the pier pipe. It shall drop by gravity into the pier pipe coupling at the bottom end of the extension section. This process shall be continued through the entire length where additional pier bending strength is required such as areas of exposed pier pipe or areas where the Standard Penetration Test (SPT) blow count "N" is less than 5 blows per foot.

4.06 Field Proof Loading

Load test the pier to the required proof load above the design or working load, or until lift of the structure is encountered. We do not recommend proof loading the system to a load greater than 1.5 times the anticipated service load. The maximum proof load allowable for the PPB-350-WM is 64,500 pounds, the PPB-400-WM is 80,000 pounds, and the PPB-400-WMHD is 86,000 pounds. Proof loads above the capacity of the drive cylinder may be tested by removing the drive cylinder, installing steel block bridging in the stand to accommodate a 25 to 50 ton short single acting ram between the pier pipe and the steel block. Connect the ram to a hand pump and gauge assembly. Activate the ram to apply the required proof load to the system. Document the results. Remove hydraulic drive cylinder and drive stand from the pier bracket.

4.07 Cutting Final Pier Section to Length

After verifying the pier capacity, it may be necessary to cut the final pier section. The pier pipe shall be cut very carefully to insure that the cut is perpendicular to the axis of the pipe. The pier bracket is shipped with bracket lift rods sized for lifts up to 4". For larger lifts, longer bracket lift rods are required. For most projects with lifts less than 4", the length of the final pier section must be cut to allow it to protrude above the top of the pier bracket approximately 4". The length to cut the pier section will vary depending upon the required lift.

4.08 Load Transfer

Transfer the structural load to the piers uniformly and evenly by activating many hydraulic rams simultaneously. A pier cap, lift assembly and bracket lift rods shall be installed with nuts on each bracket. A 25-ton ram shall then be placed between each pier cap and lift assembly. Each ram shall be connected through a cut-off valve to one or more manifolds, gauge, and hydraulic hand pump systems. As the hand pump is actuated, force is applied to the pier caps. As the load is transferred from the foundation to the piers, the interior and exterior of the structure must be carefully monitored to insure that the restoration occurs to plan and the structure is stabilized or lifted to the design elevation. As each placement reaches the desired load and/or elevation, the cut-off valve for the ram at the pier is closed and the pressure recorded for that placement. The hex nuts at the top of the bracket rods and above the pier caps shall be advanced to the surface of the pier cap and secured.

Remove the lift assemblies, hydraulic rams and lifting hydraulics from each pier placement. Clean all hydraulics, replace dust caps on the hydraulic couplings and store the equipment in a clean, dry environment.

4.09 Backfill and Cleanup

Remove all scrap and other construction debris from the site. Remove all tools and equipment, clean them and store them.

The excavations shall now be backfilled using the soil that was removed and stored nearby. The backfill shall be placed into the holes in small lifts of 6" to 8" and then properly tamped to achieve maximum density. After the backfilling operation is complete, the soil at the perimeter must have a positive slope away from the perimeter of the foundation.

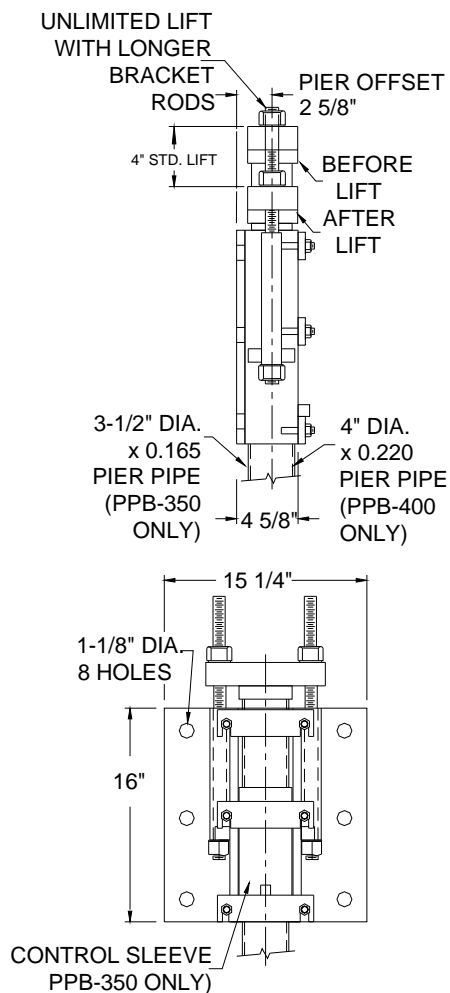
Dispose of all construction debris in a safe and legal manner.

END OF SPECIFICATION

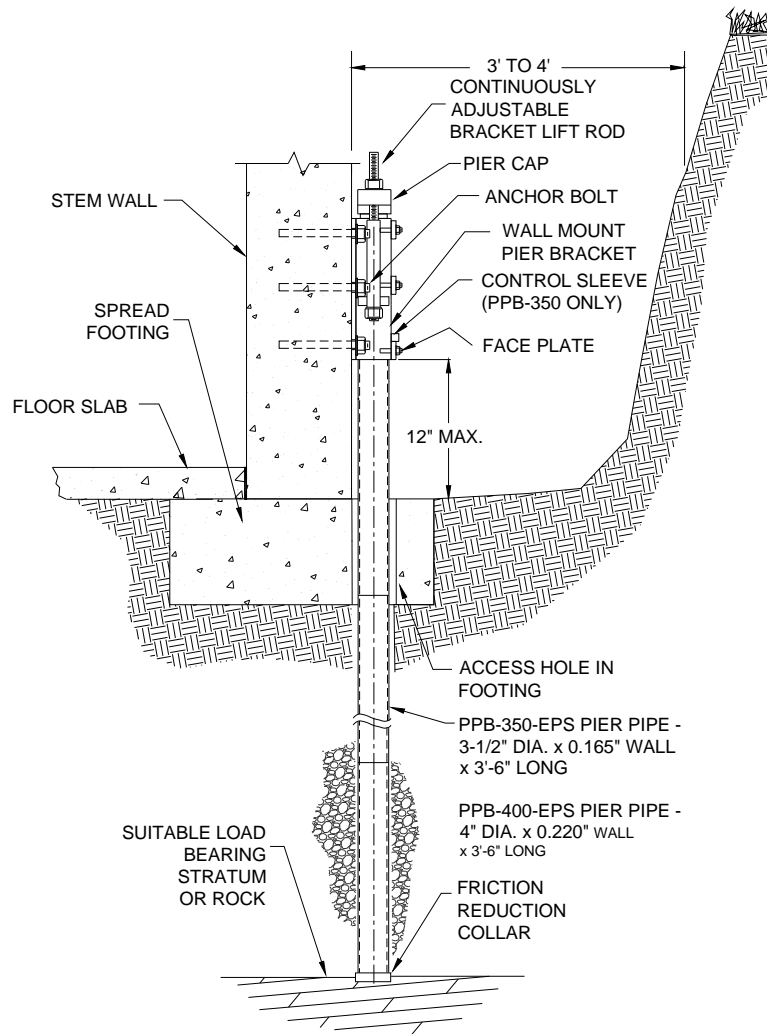
Earth Contact Products, LLC reserves the right to change design features, specifications and products without notice, consistent with our efforts toward continuous product improvement. Please check with Earth Contact Products at 972 480-0007 or 913 393-0007 to verify that you are using the most recent specifications.

ECP Steel Pier™ PPB-350-WM & PPB-400-WM Wall Mounted Pier System

- PPB-400-WM Ultimate Capacity – 107,000 lb.
- PPB-400-WM Max. Proof Test – 80,000 lb.
- PPB-350-WM Ultimate Capacity – 86,000 lb.
- PPB-350-WM Max. Proof Test – 64,500 lb.
- 244 Square Inches Bearing Surface
- Installs From Outside or Inside Structure
- Standard Lift – 4"
- Fully Adjustable Unlimited Lift
- Friction Reduction Collar On Lead Pier Section
- 3-1/2" or 4" Diameter High Strength Pier Pipe
- Installs With Portable Equipment
- Installs With Little or No Vibration
- Installs To Rock or Verified Load Bearing Stratum
- 100% of Piers Proof Tested At Installation
- Manufacturer's Warranty



**PPB-350-WM & PPB-400-WM
Wall Mounted Bracket Details**



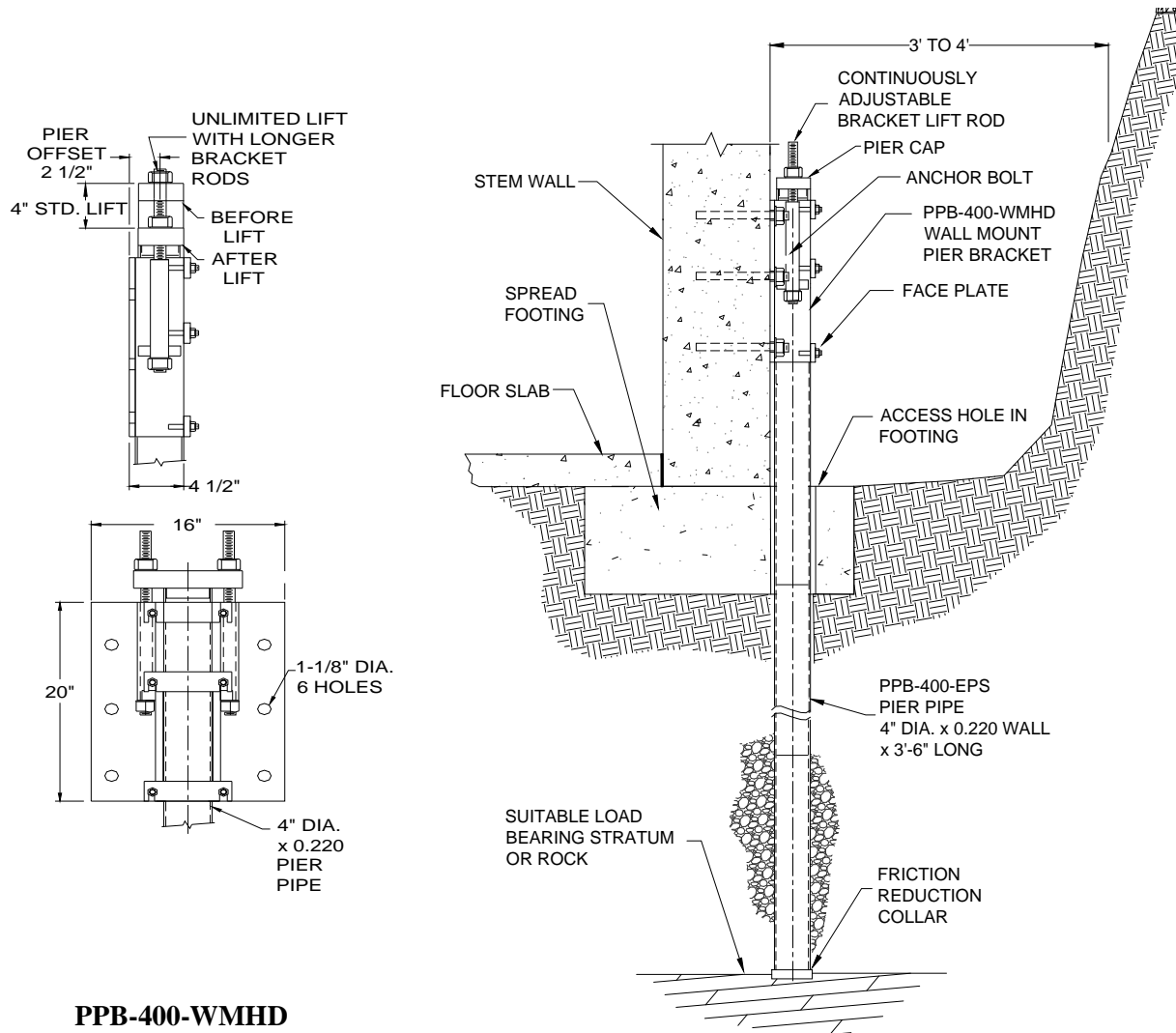
**Model 350-WM & Model 400-WM
Wall Mounted Bracket Application Drawing**



The capacity of the wall mounted foundation support system is limited by the strength of the bracket to foundation connection and the anchor bolt capacity. It is also a function of the capacity of pier pipe and soil surrounding the pipe, capacity of the load bearing stratum, foundation bracket, and foundation strength. Actual capacities could be lower than the capacity of the anchor bolt or bracket.

ECP Steel Pier™ PPB-400-WMHD Wall Mounted Pier System

- PPB-400-WMHD Ultimate Capacity: 115,000 lb
- PPB-400-WM-HD Maximum Proof: 74,000 lb.
- 320 Square Inches Bearing Surface
- Installs From Outside or Inside Structure
- Standard Lift – 4”
- Fully Adjustable Unlimited Lift Capability
- Friction Reduction Collar On Lead Section
- 4” Diameter High Strength Tubular Pier
- Installs With Portable Equipment
- Installs With Little or No Vibration
- Installs To Rock or Verified Load Bearing Stratum
- 100% of Piers Proof Tested At Installation Manufacturer’s Warranty



PPB-400-WMHD
Wall Mounted Bracket Details

PPB-400-WM HD
Wall Mounted Heavy Duty Bracket Application Drawing



The capacity of the wall mounted foundation support system is limited by the strength of the bracket to foundation connection and the anchor bolt capacity. It is also a function of the capacity of pier pipe and soil surrounding the pipe, capacity of the load bearing stratum, foundation bracket, and foundation strength. Actual capacities could be lower than the capacity of the anchor bolt or bracket.