

**Pei Evaluation Service®** is an accredited ISO Standard 17065 Product Certifier, accredited by the IAS. This **Product Evaluation Report** represents a product that **Pei ES** has Evaluated. This product has a Product Evaluation Service Agreement & Follow-up Inspection Service Agreement. This **Product Evaluation Report** in no way implies warranty for this product or relieves **Grip-Tite Manufacturing Co., LLC** of their liabilities for this product. This **PER** is an official document if it is within one year of the Initial or Re-Approval date.

**Initial Approval**  
April, 2020

**Re-Approved**

See all **PEI ES** reports at: [www.p-e-i.com](http://www.p-e-i.com)

**Report Owner**

**Grip-Tite Manufacturing Co., LLC.**  
115 W. Jefferson Street  
Winterset, IA 50273

**Approved Manufacturing Location**

**Grip-Tite Manufacturing Co., LLC.**  
115 W. Jefferson Street  
Winterset, IA 50273

**Product**

**Grip-Tite® Wall Anchor System**

**Evaluation Report Information**

[www.griptite.com/products/wall-anchor-system](http://www.griptite.com/products/wall-anchor-system)  
**Grip-Tite Mfg.** contact: **Steve Lage** - (515) 462-1313

**General Details**

The following described wall anchor system has been evaluated for axial tension load capacity only. The **Grip-Tite® Wall Anchor System** is intended for exterior use as a tie-back device to stabilize foundation walls affected by leaning, tilting, bowing or cracking. The **Grip-Tite® Wall Anchor System** inserts a steel rod through the wall into the outside earth. A soil anchor is then attached to the steel rod through a vertical hole in the ground. An interior wall plate then secures the rod to the inside foundation wall. The **Grip-Tite® Wall Anchor System** has a maximum allowable tensile strength of 8,220 lbs. Evaluation of the soil, building foundation wall and applied loads are outside the scope of this **PER** and should be provided by an on-site design professional.

**Product Description**

The **Grip-Tite® Wall Anchor System** consists of an interior wall plate, exterior soil anchor, a connecting steel rod and hardware for stabilization of the foundation walls.

**Component Description**

**Interior Wall Plate** - The interior wall plate is part of an assembly that is 18.25" x .130-136" tk. plate made from ASTM A572 Grade 50 steel minimum yield strength of 50ksi. The wall plate is hot dipped galvanized in accordance with ASTM A123M. See Figure 4.

**Flat Plate Washer** - The flat plate washer is part of the interior wall assembly that is 4" x 4" x 1/4" thick manufactured from ASTM A 36 Steel. The flat plate washer is hot dipped galvanized in accordance with ASTM F2329.

**Exterior Soil Anchor** - The exterior soil anchor is part of an assembly made from two (2) pieces of 11" wide x 16.5" to 26.3" x .130" minimum thick plate made from ASTM A572 Grade 50 steel minimum yield strength of 50ksi and is hot dipped galvanized in accordance with ASTM A123M. See Figure 5.

**Threaded Rod** - The fully threaded rod is 3/4"-10 UNC cold rolled round bar. The threaded rod is manufactured per SAE J403 Grade 1018, with a minimum ultimate tensile strength of 63ksi and minimum elongation 53ksi and galvanized to meet ASTM A153.

**Beveled Washers and Nut**- 1.75" Beveled washer manufactured per ASTM F436 with a galvanized coating per ASTM F2329. A 3/4" galvanized square nut conforming to ASTM A563 Grade A.

**Threaded Coupler** - The 3/4-10 UNC threaded coupler is 1" o.d. x 3" long and manufactured from ASTM A513-5 Grade 1020 steel with a minimum yield strength of 68ksi and minimum tensile strength of 86ksi. Fully threaded though with 3/4"-10 UNC threads.

**Code Compliance**

<b>Grip-Tite® Wall Anchor System</b>		
<b>2012 International Building Code</b>	<b>2015 International Building Code</b>	<b>2018 International Building Code</b>
Section 1604.4, 1605.3, 1705.1.1, 1705.6, 1803	Section 1604.4, 1605.3, 1705.1.1, 1705.6, 1803	Section 1604.4, 1605.3, 1705.1.1, 1705.6, 1803

**Compliance with the following Standard**

**AISC-360-16**- Specification for Structural Steel Buildings

**Design Considerations**

A structural evaluation **shall** be submitted at the request of the building official on a job specific basis with consideration to the existing foundation wall, soil conditions and overall system integrity.

**General Product Use and Limitations**

1. The **Grip-Tite® Wall Anchor System** shall be installed by trained installers certified by Grip-Tite Manufacturing.
2. A site survey is necessary of the area where the anchors will be placed to locate any possible interferences such as utilities, plumbing, electric or phone lines.
3. The **Grip-Tite® Wall Anchor System** can be used to anchor concrete, masonry, steel or timber wall foundations.
4. Engineering Design and/or calculations shall be prepared by a Licensed Architect or Engineer.
5. The **Grip-Tite® Wall Anchor System** shall follow the published installation instructions in accordance with this **PER** report and shall be made easily available on the job site at the time of installation.
6. The **Grip-Tite® Wall Anchor System** is evaluated for Axial Tension Load Capacity only.
7. Per the International Building Code Section 1803.2, a Geotechnical Investigation shall be conducted to evaluate the adequacy, strength and stability of the load bearing soils to determine location, depth, and spacing for the anchors. This requirement may be waived by the Building Official when satisfactory data from an adjacent area is available.
8. The foundation wall condition and allowable bearing capacity is outside the scope of this evaluation report and shall be evaluated by a Licensed Engineer per site.
9. **Grip-Tite® Wall Anchor System** installation instructions state the wall anchor shall be flush against the wall. The exterior anchor shall bear uniformly on the soil with the system loads acting concentrically along the axis of the threaded rod.
10. Special inspection may be required by the Building Official as stated in the IBC Section 1705.
11. The soil that has been removed for the Anchor hole installation shall be replaced and compacted to complete the installation of the **Grip-Tite® Wall Anchor System**.

**Items Requiring Verification**

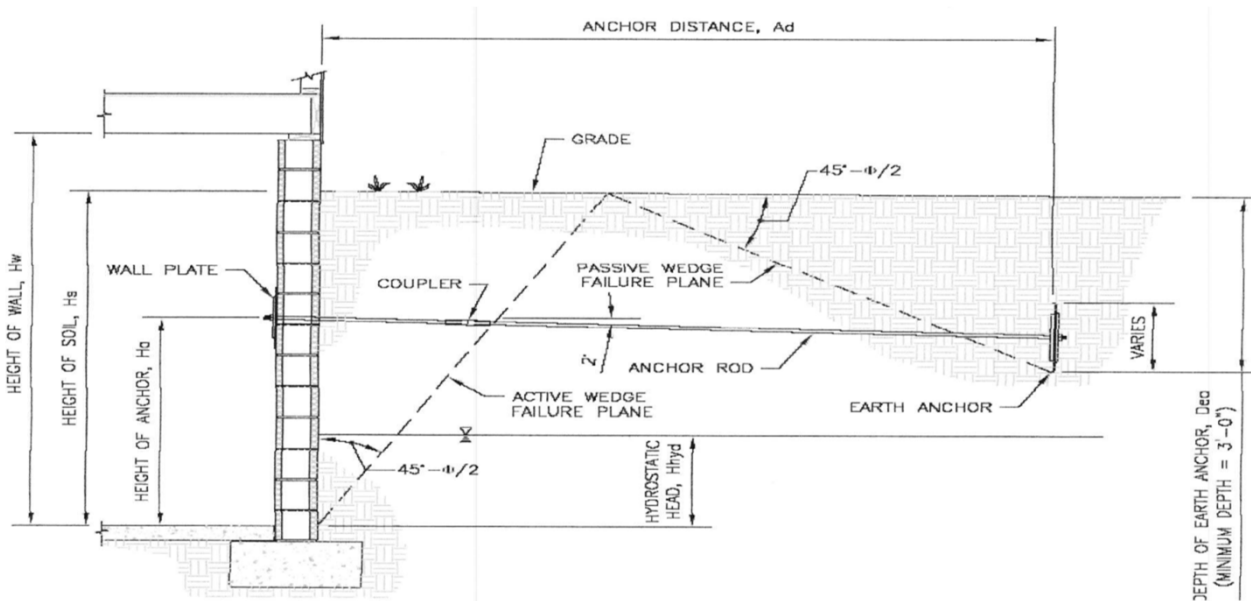
The following items are related to the use of **Grip-Tite® Anchor Wall System**, but not within the scope of this evaluation specification. However these items are related to the determination of code compliance.

1. Design, calculations, and details for the building system verifying compliance with this report.
2. The installers qualifications.
3. Soil Stability and bearing strength.

**Wall Height and Soil Variability References**

<b>15° Wall Chart</b>	<b>26° Wall Chart</b>	<b>36° Wall Chart</b>
15° Angle, 7' Wall	26° Angle, 7' Wall	36° Angle, 7' Wall
15° Angle, 8' Wall	26° Angle, 8' Wall	36° Angle, 8' Wall
15° Angle, 9' Wall	26° Angle, 9' Wall	36° Angle, 9' Wall
15° Angle, 10' Wall	26° Angle, 10' Wall	36° Angle, 10' Wall

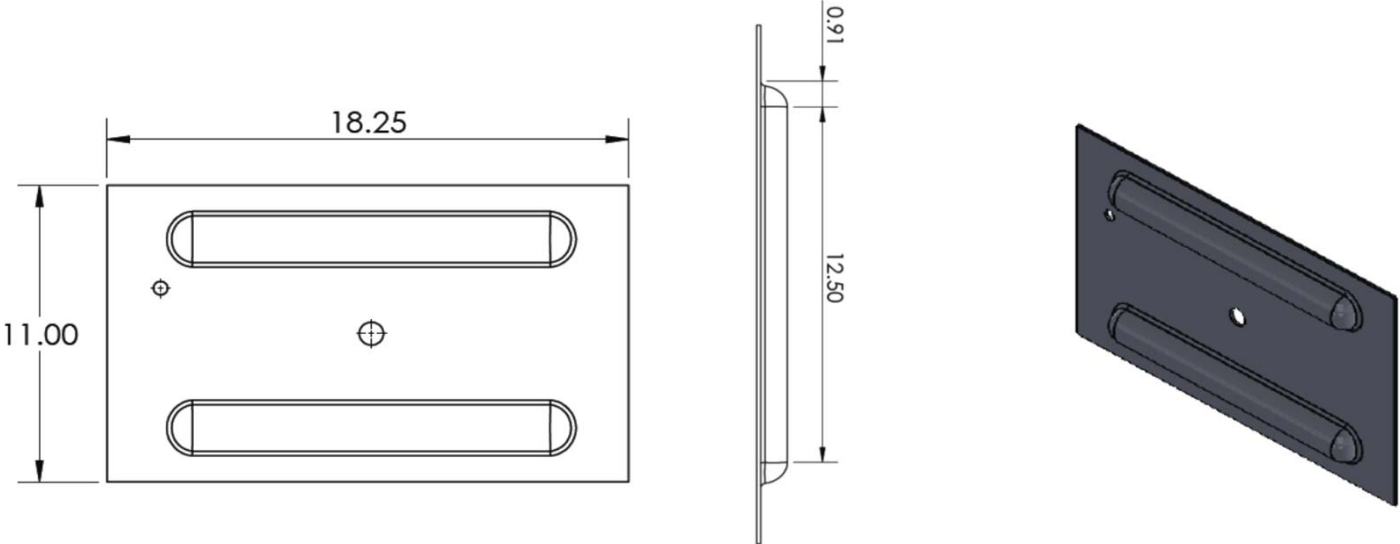
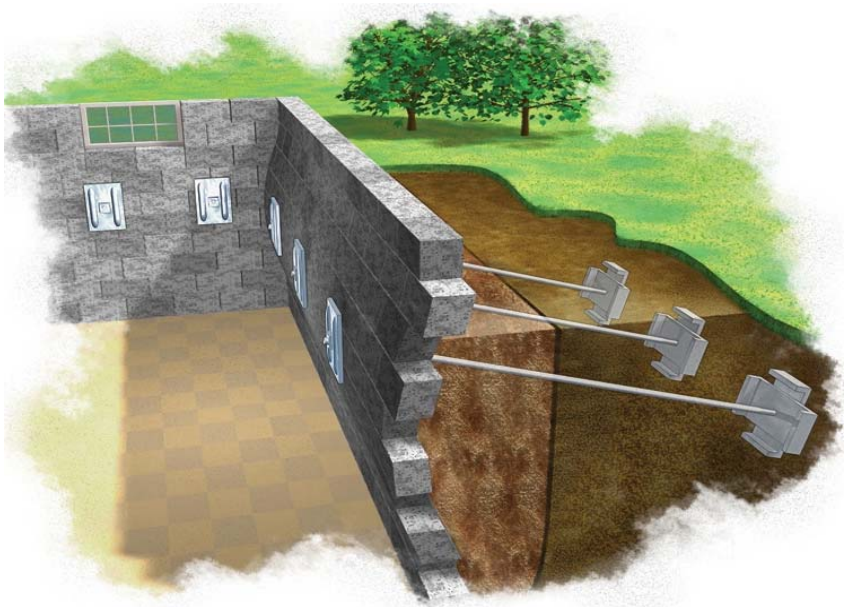
\* This information is based on measuring the wall height and using with the soil test report.



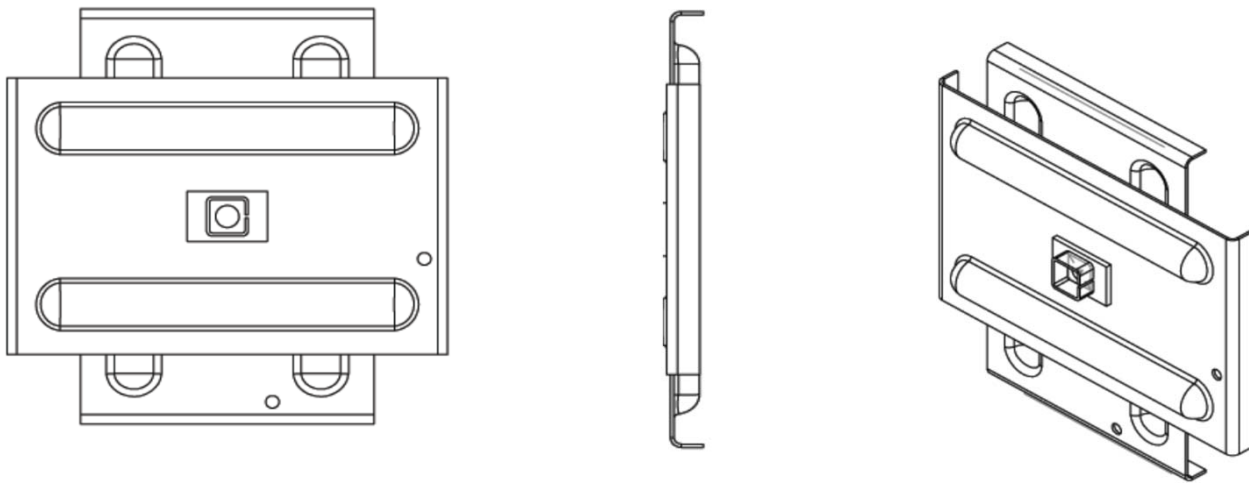
**Figure 1 - Typical Wall Anchor Assembly**



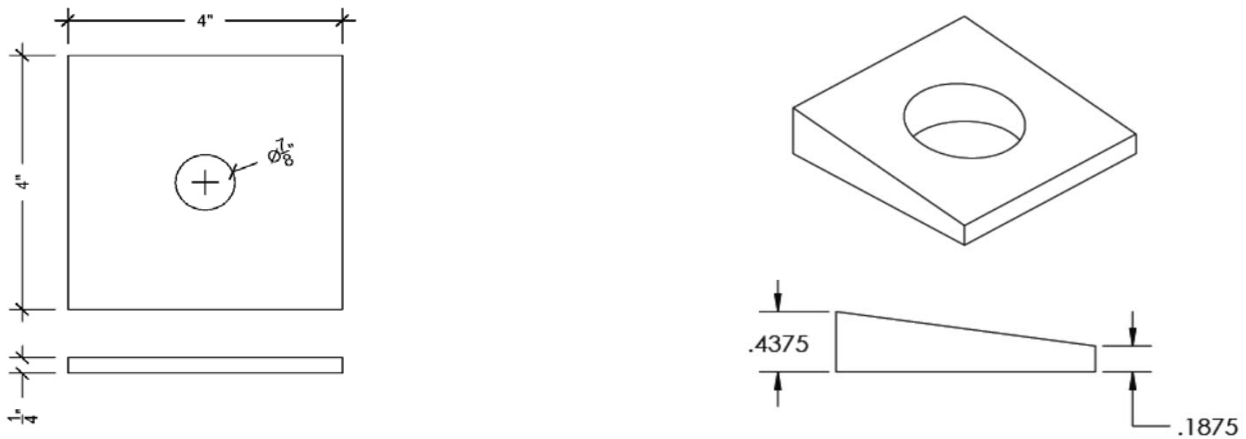
**Figure 2 -Grip-Tite® Wall Anchor System Assembly**



**Figure 4 - Interior Wall Plate**



**Figure 5 - Exterior Soil Anchor**



**Figure 6 - Flat Plate Washer and Beveled Washer**

**Product Labeling**

All **Grip-Tite® Wall Anchor System** components manufactured by Grip-Tite covered by this **PER** must have a label attached with at least the following information:

1. Manufacturer Name
2. This **PER** Number & *Pei ES* Logo

**Acceptable Evaluation Marks**



**Product Documentation**

- A Product Evaluation Service Agreement between *Pei Evaluation Service®* and **Grip-Tite Manufacturing Co., LLC.**
- A Follow-up Inspection Service Agreement between *Progressive Engineering Inc.* and **Grip-Tite Manufacturing Co., LLC.**
- A **Grip-Tite Manufacturing Co., LLC** - Quality Systems Manual - Dated: 1/10/2020
- A **Grip-Tite Manufacturing Co., LLC** - Anchor System Components Drawings
- A PEI Test Report - Dated 3/9/2020