

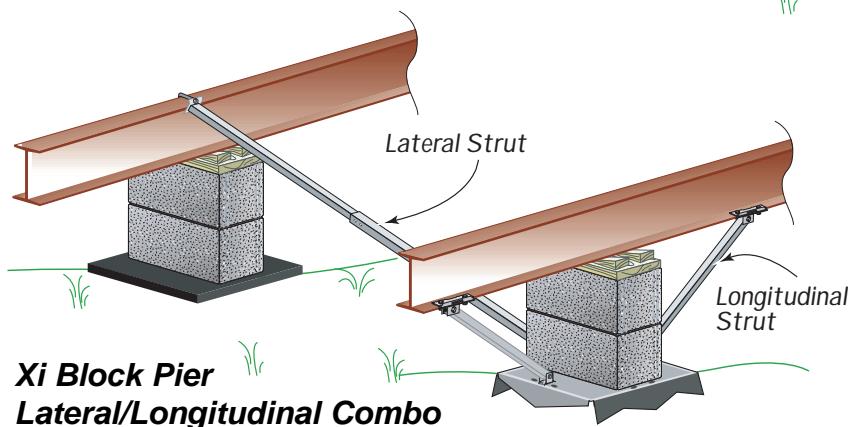
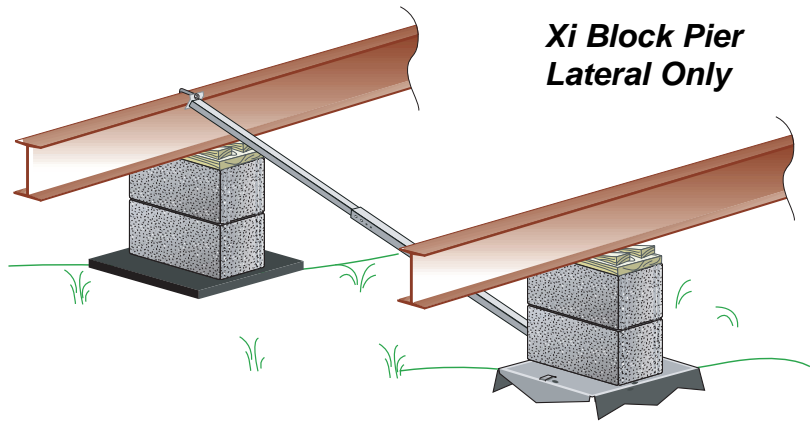
Xi-Lateral Block Pier System Installation Instructions

By Tie Down Engineering

Effective: November 12, 2002
Wind Zone II

- Easy installation
- Approved for poured concrete or ground set-ups
- LSD struts easily added for longitudinal protection

Block Pier Systems P/N's
#59319 Xi, Lateral w/5' Strut
#59320 Xi, Lateral w/6' Strut



Longitudial P/N's
#59026 - LSD Hardware Kit
#59016 - 30" Strut
#59012 - 39" Strut
#59013 - 44" Strut
#59014 - 53" Strut
#59015 - 65" Strut

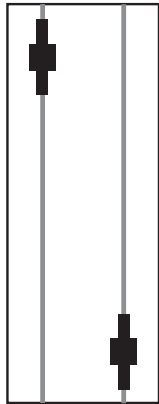
REQUIREMENTS

- Installation can be made in any type of soil, 4B or better
- Center line or shear wall anchors, that may be required by specific manufacturers, are to be sized according to soil torque conditions. Follow all manufacturers instructions for anchor type and placement.
- Maximum height is a 96" projection. Higher walls may be used, when the design loads are adjusted accordingly.
- Maximum roof eave is 16"
- Main rail spacing must be 99.5" or less
- Maximum pier height of the Xi-system is 48"
- Instructions are not for use on "Exposure D" homes within 1500 feet of the coastline
- Installation instructions are based on 4200# per pad longitudinal load and 6000# per pad lateral load with one diagonal tie/stabilizer. A vertical and diagonal tie must be located within 2' of each end.
- Additional vertical anchor ties that are unique to a home's design may be required by the home manufacturer. These locations include shear walls, marriage line ridge beam support posts, and rim plates.

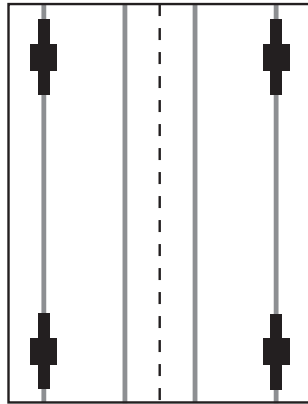
Longitudinal Stabilization

When using longitudinal stabilization only, sidewall perimeter anchors with diagonal ties and stabilizer plates per manufacturers set up manual must be used on the home. Vertical ties are also required on homes supplied with vertical tie connection points.

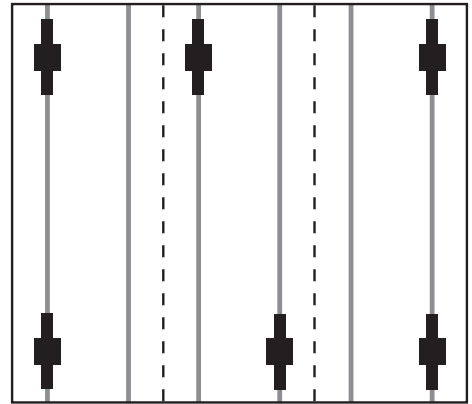
Typical Placement



Single Section
Up to 16' Nominal



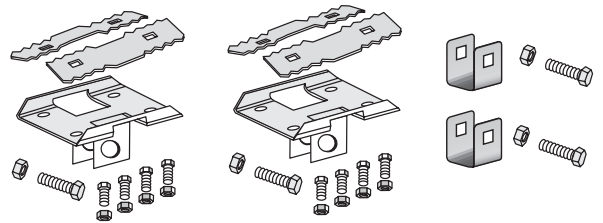
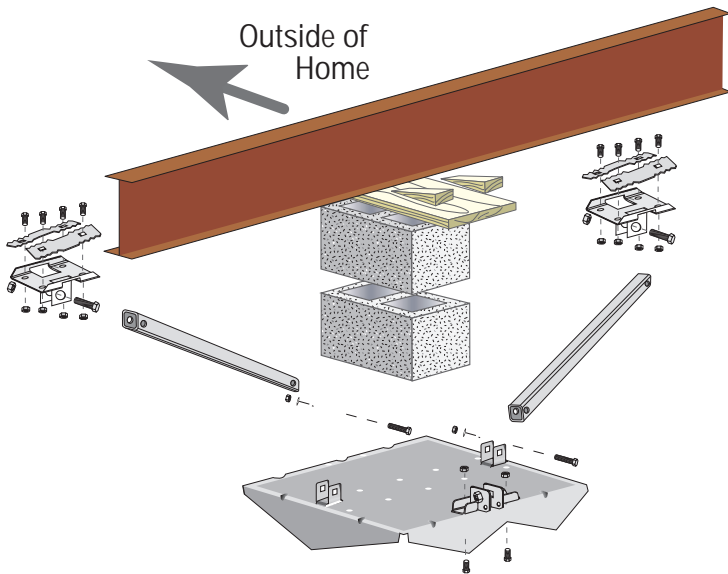
Double Section
Up to 32' Nominal



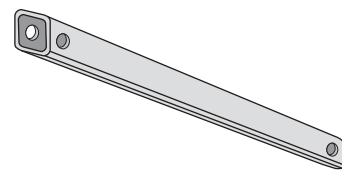
Triple Section
or Double w/tag up to 48' Nominal

When the Xi/LSD-System is used only as longitudinal stabilization, systems must be as evenly spaced as possible, no more than 16' from the end of the home. Maximum roof slope for single units & double/triple sections is 5/12, for the above number of systems.

Longitudinal LSD Installation to Xi Pad

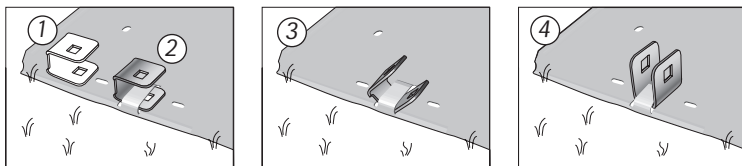


LSD Hardware Kit
P/N 59026



Struts for Longitudinal Systems

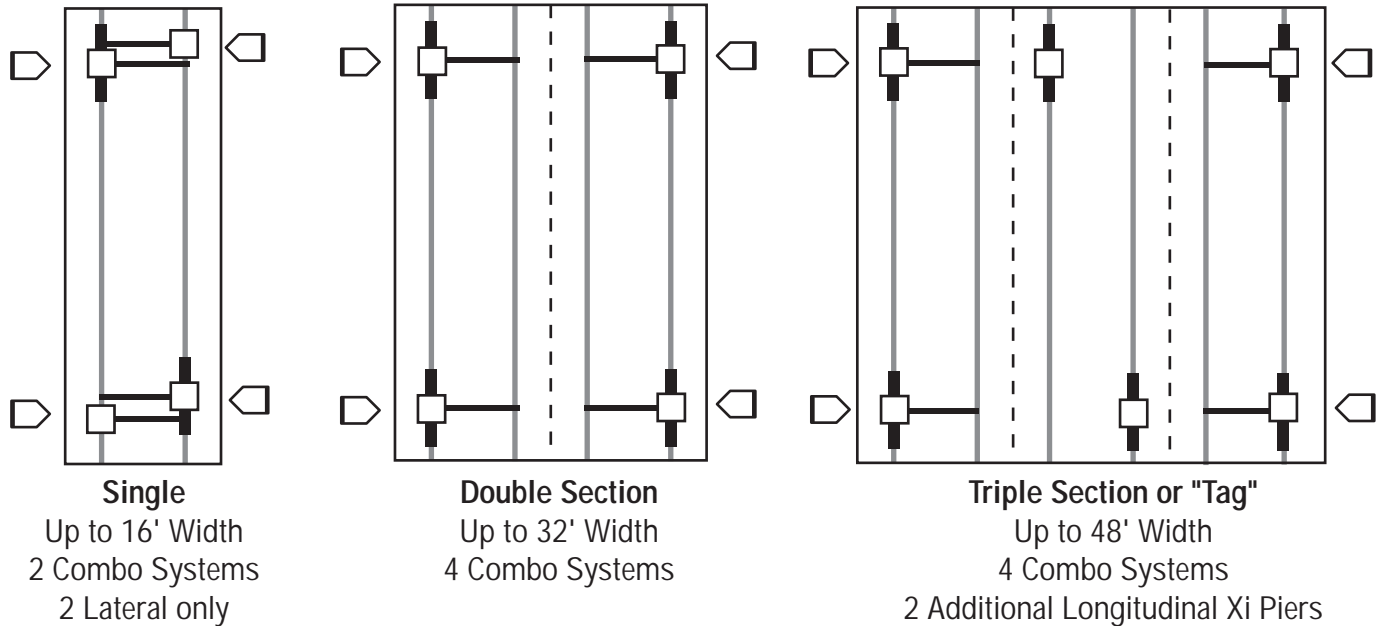
Part No.	Strut Length	Pier Height
59016	30"	up to 2 Blocks or 18"
59012	39"	up to 3 Blocks or 24"
59013	44"	up to 4 Blocks or 32"
59014	53"	up to 5 Blocks or 40"
59015	65"	up to 6 Blocks or 48"



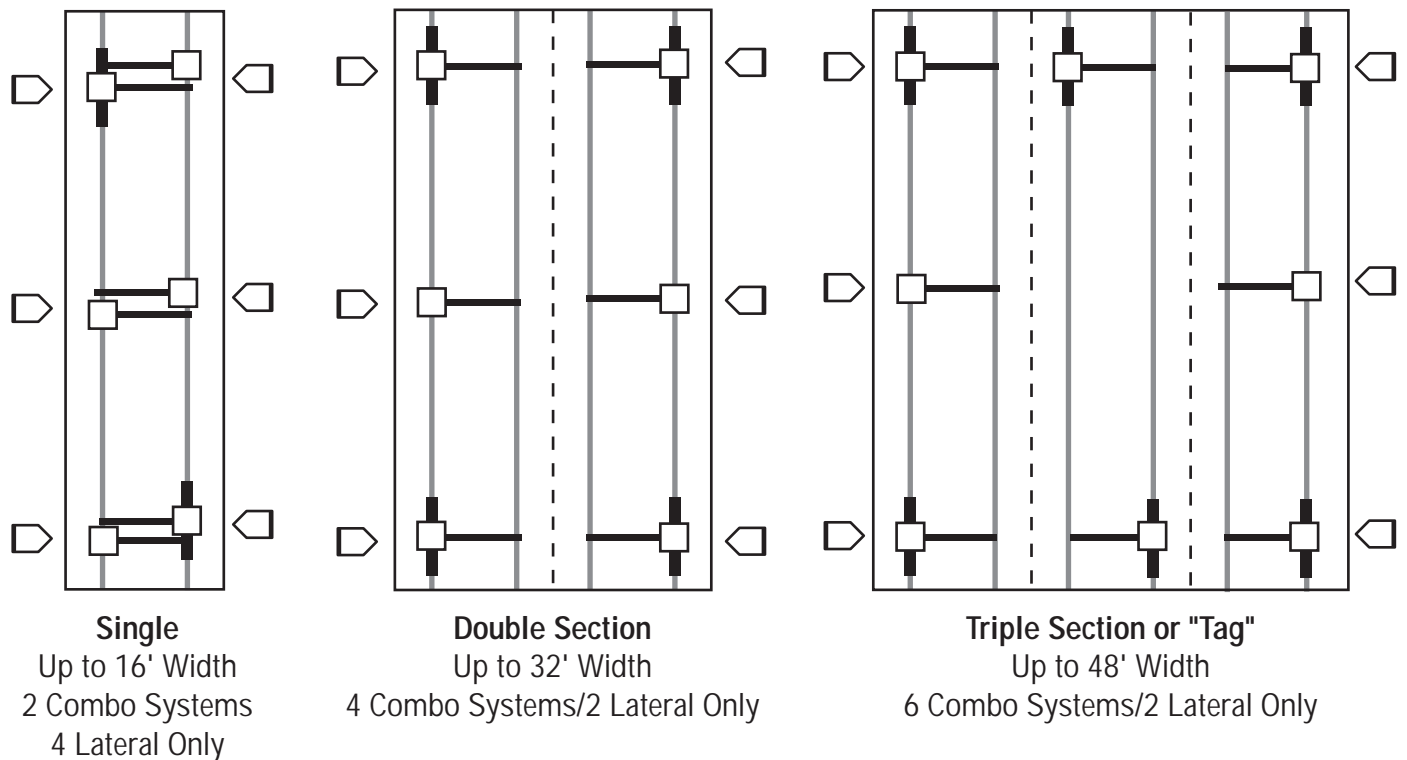
Longitudinal and Lateral Stabilization



Homes Up To 70' with 20° max roof pitch / Up To 40' with max 5/12 roof pitch



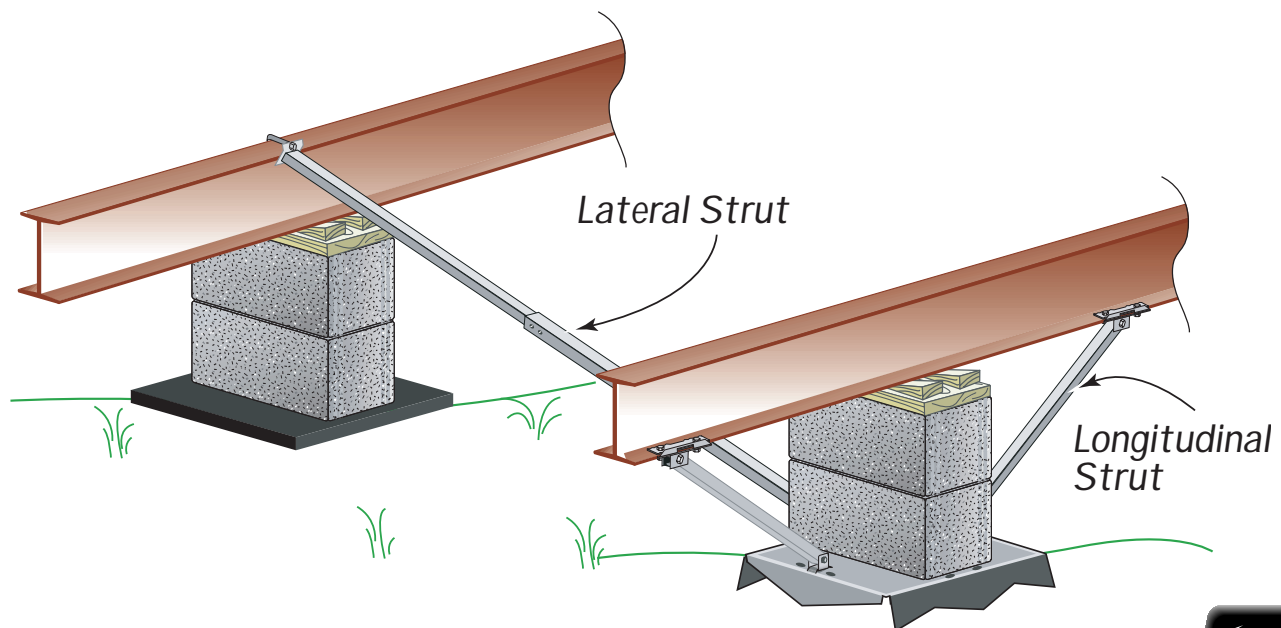
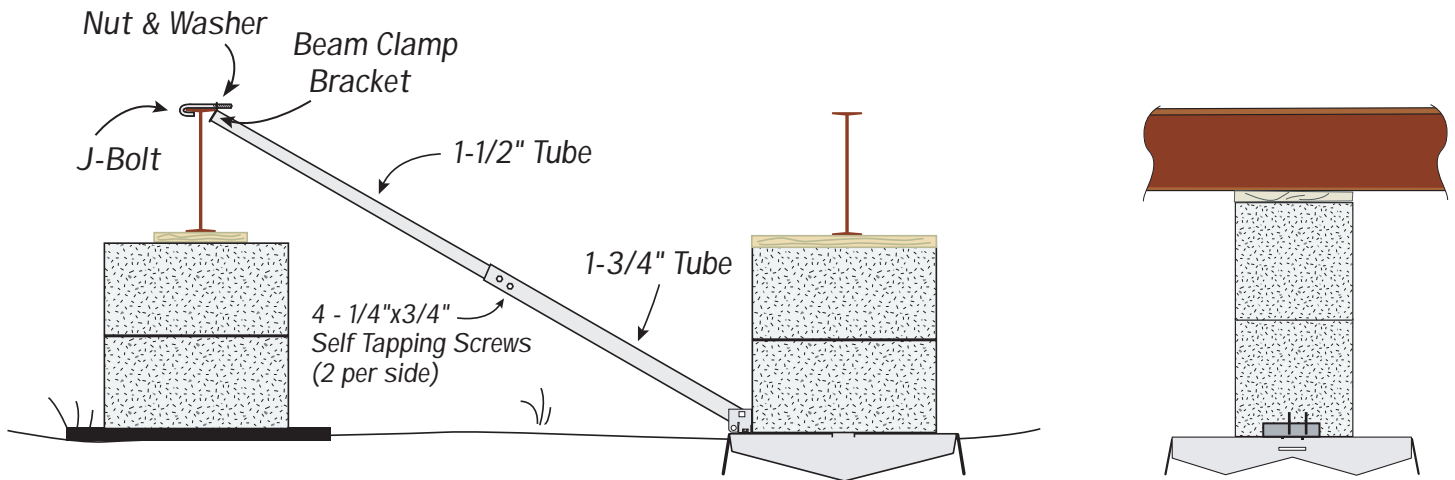
Homes Over 71', up to 80' with 20° max roof pitch / 41' up to 60' with max 5/12 roof pitch



Note: Homes over 60' long (box) with 5/12 roof pitch home require two additional lateral systems.

Installation of Lateral System on Ground

1. Identify the number of systems to be used on the home using the chart provided.
2. Identify the location where the lateral systems will be installed.
3. Clear all organic matter and debris from the pad site.
4. Place pad centered under beam with the lateral strut bracket towards the inside of the home.
5. Press or drive pan into ground until level and flush with prepared surface.
6. Build pier with concrete blocks according to State, Local or Home Manufacturers guidelines.
7. Assemble lateral strut by sliding smaller (1-1/2") tube into the larger (1-3/4") tube. Holes should be on the sides of the larger tube and the "flag" up on the smaller tube.
8. Attach the end of the larger tube to the bracket mounted on the inside of the pad, using the grade 5, 1/2" x 2-1/2" bolt/nut provided.
9. Attach the flag end of the smaller tube to the opposite I-beam using the "J" bolt over the top of the I-beam with the nut & washer provided. (*bleow*)
10. Install a minimum of four (1/4"x3/4") self-tapping screws into the holes provided in the lateral strut so that the two tubes are connected together. (*See below*)

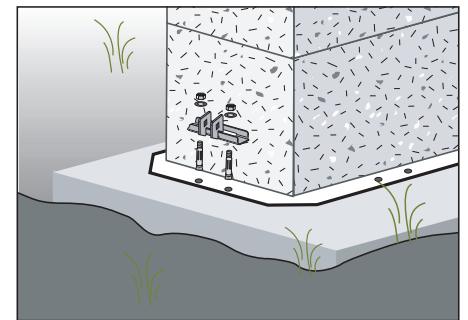
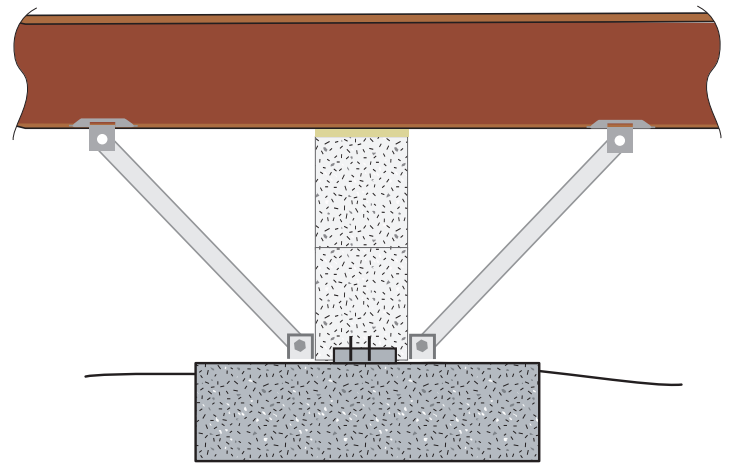


Installation on Concrete Pads, Runners or Slabs

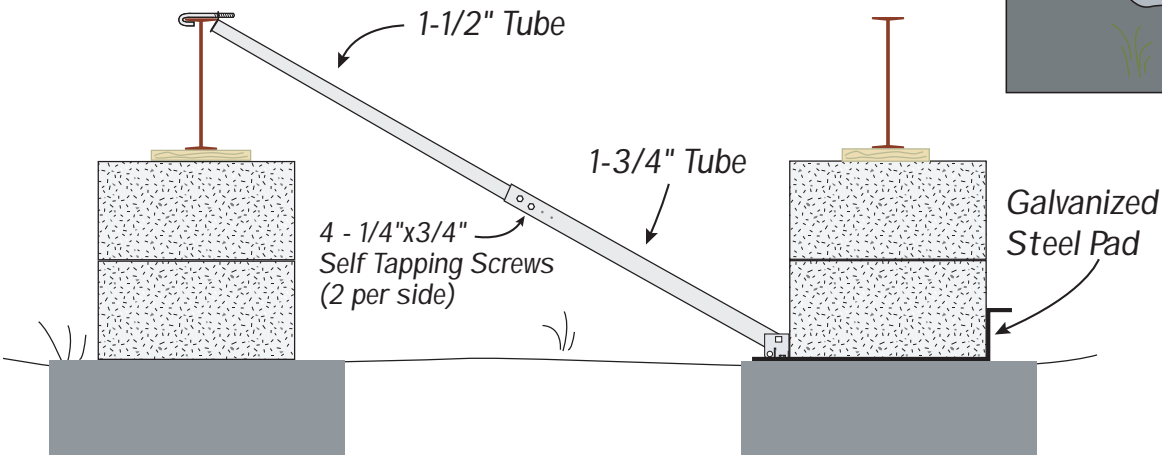
The Xi system for poured concrete applies to concrete footers, runners, ribbons, and slabs. Minimum size of concrete per Xi pier in Florida is 18"x18"x8" or 20" diameter x 8" deep or a slab 3-1/2" deep. Concrete must be sufficiently cured and set to accommodate an anchor bolt to its' full load resistance.

1. Determine location of pier sets where the Xi systems will be located.
2. Place Xi/Vector concrete pan where pier will be located. Turned up edge will face to the outside of the home.
3. Build pier with concrete blocks centered on top of the pad according to state, local or manufacturers guide lines.
4. Drill two 3/8" x 3" deep holes in concrete using holes in galvanized pan as a guide.
5. Place tie bracket on inside of pier, facing toward the opposite beam, with the "flush" side of the tie bracket towards the block pier.
6. Put a washer and nut on each of the 3/8" x 3-1/2" wedge anchors. The nut should be screwed on enough to have one or two threads showing on the top of the bolt.
7. Line up the hole in the inside tie bracket with the drilled holes in the pad & concrete and insert the wedge anchors. Using a hammer, tap the wedge bolts into the holes, through the bracket & pad, leaving the washer/nut flush with the bottom of the bracket. Using a 9/16" socket wrench, tighten the wedge/anchor bolt, securing the tie bracket to the concrete.
8. Follow steps 7 - 10 in ground instructions

Concrete LSD



Block Pier Concrete Systems P/N's
 #59046 Xi, Concrete Single Block
 #59047 Xi, Concrete Double Block
 #59315 Lateral 5' Strut w/hardware
 #59318 Lateral 6' Strut w/hardware



TIE DOWN ENGINEERING • 5901 Wheaton Drive • Atlanta GA, 30336
www.tiedown.com • (404) 344-0000 • FAX (404) 349-0401



LSD/Longitudinal Installation

1. Place and build pier as above
2. Use LSD hardware kit #59023
3. Drill 3/8" x 3" Hole into concrete through holes in pan on each longitudinal side of block pier
4. Place tie brackets on each side of pier, with the "flush" side of the tie bracket towards the block pier.
5. Put a washer and nut on each of the 3/8" x 3-1/2" wedge anchors. The nut should be screwed on enough to have one or two threads showing on the top of the bolt.
6. Line up the hole in the inside tie bracket with the drilled holes in the pad & concrete and insert the wedge anchors. Using a hammer, tap the wedge bolts into the holes, through the bracket & pad, leaving the washer/nut flush with the bottom of the bracket. Using a 9/16" socket wrench, tighten the wedge/anchor bolt, securing the tie bracket to the concrete.
7. Attach frame brackets to I-beam on each side of pier.
8. Attach strut to the tie bracket at base and I-beam brackets with bolts provided. Struts must be at 45° or less, tighten all bolts/nuts.

LSD/Longitudinal Lateral Strut Combo

