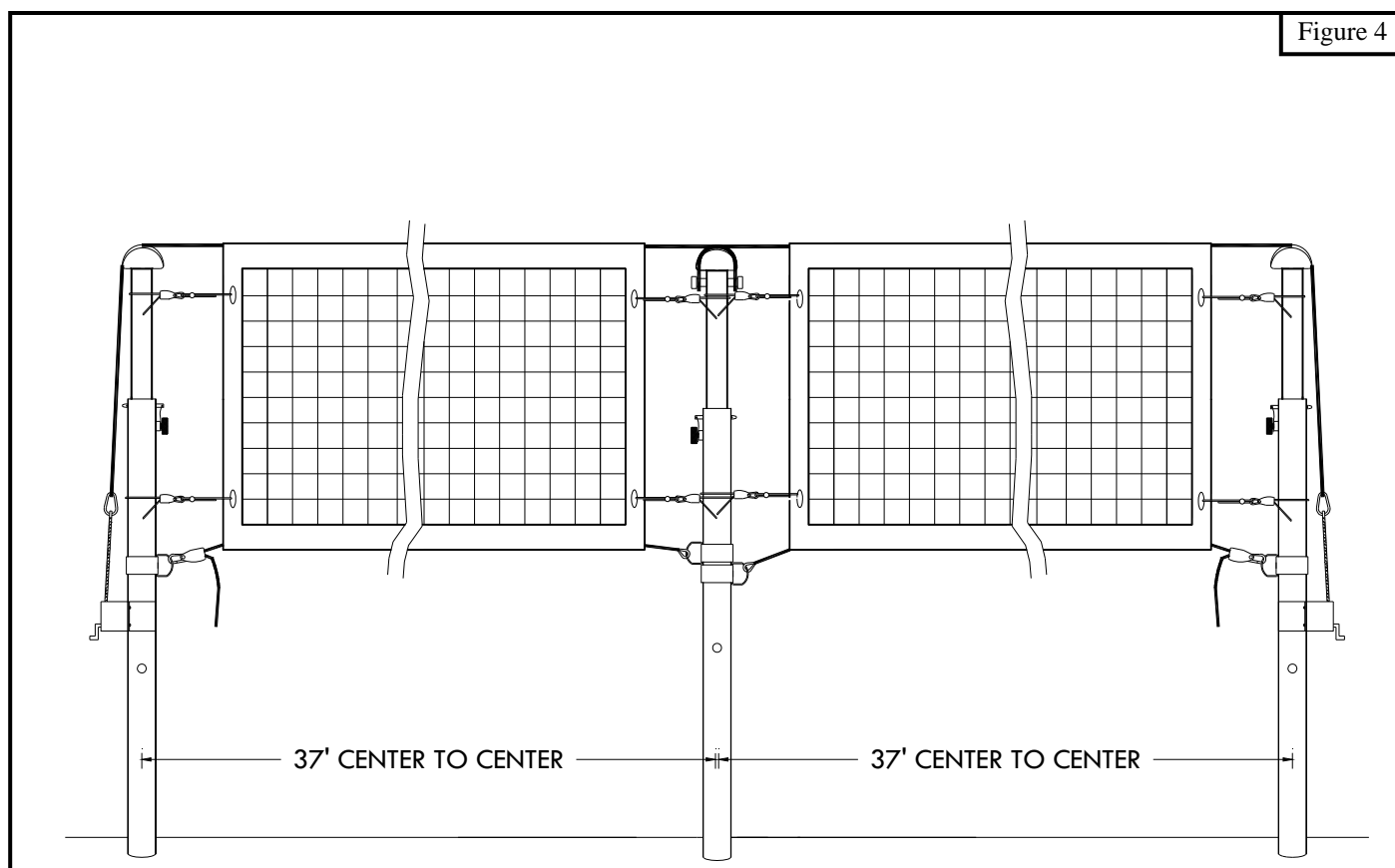


Height Adjustment for a Side by Side Court System

Both Nets the Same Height

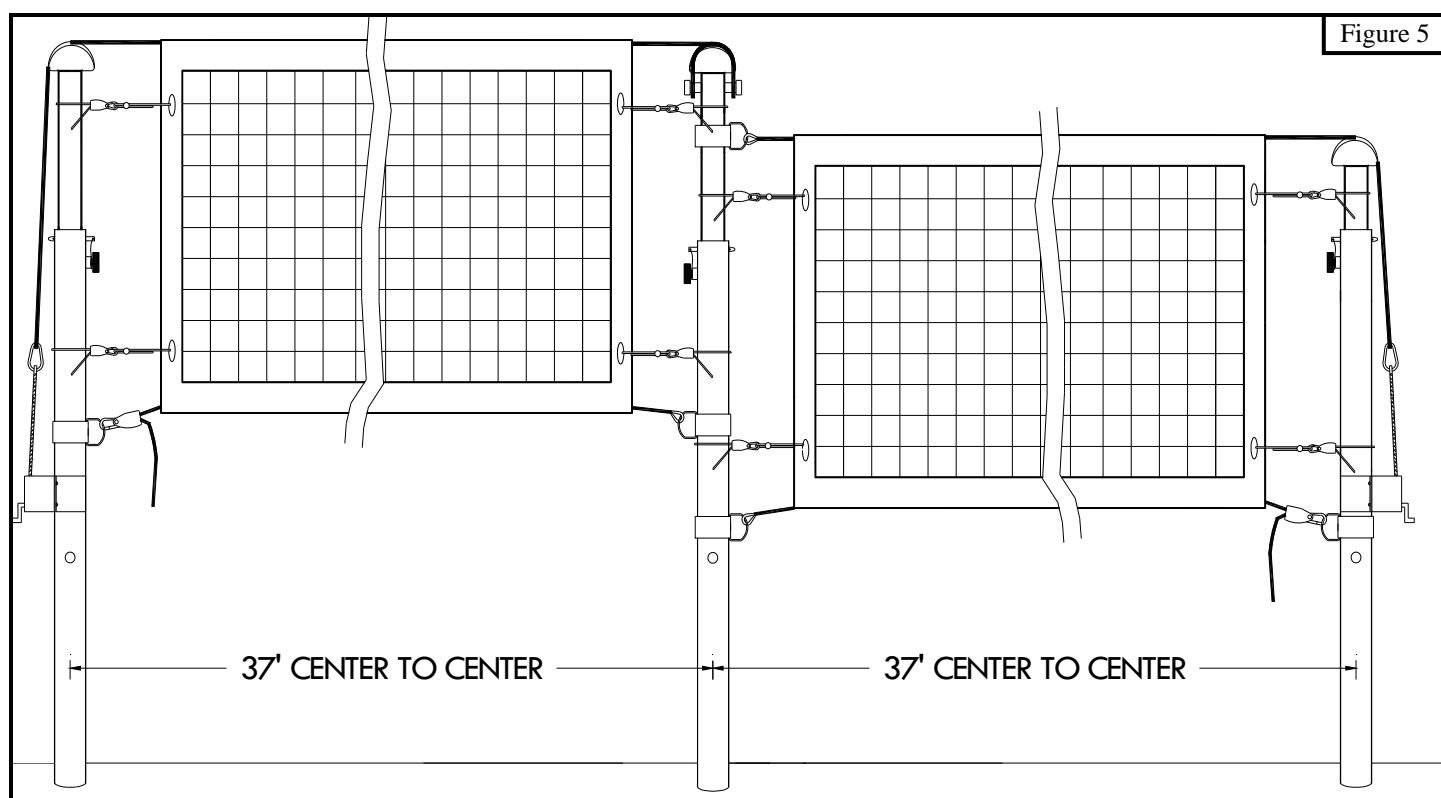
1. Remove tension from both nets with the *Winches* (H).
2. Adjust all three poles by loosening the *Knurled Knobs* (M), removing the *Positive Lock Pins* (Q) and then adjusting the inner poles to the desired height and then retightening the *Knurled Knobs* (M) and replace the pins if adjusted to one of the official heights. See Figures 1 & 4.
3. Tighten both nets using the *Winches* (H), retighten bottom ropes and reinstall and tighten *Rope Ratchet* (N) See Figures 2 & 4.



Height Adjustment for a Side by Side Court System *cont.*

Nets at Different Heights

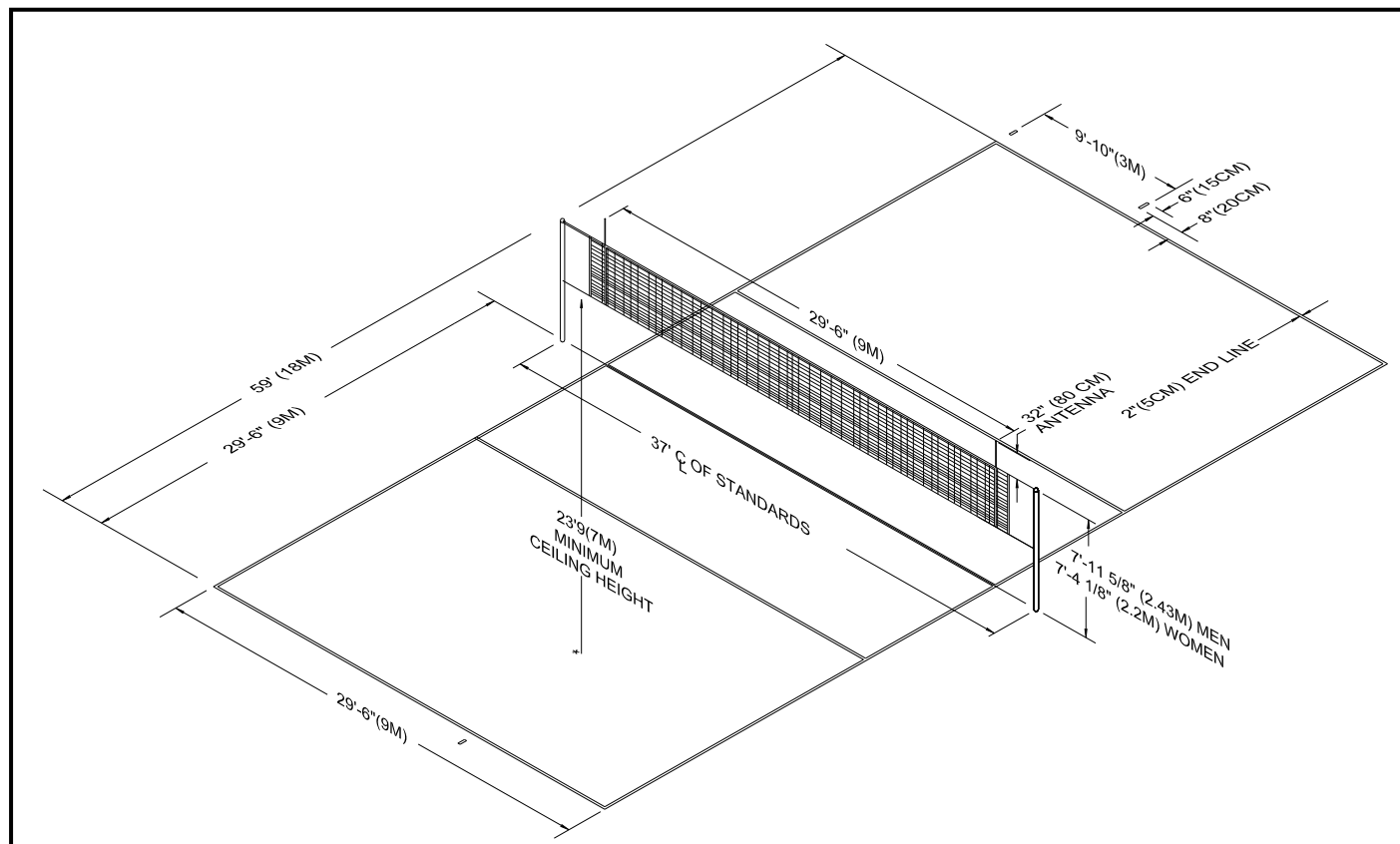
1. Remove tension from both nets with the *Winches (H)*.
2. Attach one of the *Nylon Net Collars (J)* provided in the hardware kits to the center standard towards the top. See Figure 5.
3. Loosen the *Knurled Knobs (M)* and remove the *Positive Lock Pins (Q)* of all three poles, adjust the net that will be at the greater height, then retighten those two poles. See Figure 1.
4. Adjust the *Nylon Net Collar (J)* on the center pole to the desired height for the second court and tighten.
5. Adjust the lower net court winch pole and tighten the *Winch (H)*. See Figure 5.
6. Reattach and tension both bottom ropes.
7. Attach all *Rope Ratchets (N)* per previous instructions.
8. On multiple side by side court systems, the *Winch (H)* on the court adder poles should be placed above the collars so web strap will not interfere with bottom rope attachment.



Custom Floor Socket Sleeves & Deep Socket Adapters

1. If you have purchased the Bison VB10/20 3" Standards (A), for use in existing sockets that are not 3" diameter call Bison Customer Service department at 1-800-247-7668 for custom floor socket sleeves available at no additional cost.
2. You will need to provide the inside diameter of the floor socket and the depth of the socket from the playing surface to the bottom.
3. If the Adapter Sleeves fit loosely in the floor sockets they can be shimmed with thin metal strips or layers of duct tape can be wrapped around the outside of the sleeve at the top and the bottom until sleeve is snug inside the existing floor sockets.
4. If your pre-existing floor sockets are more than 12" deep from the finished floor to the bottom of the socket, call the Bison customer service department at 1-800-247-7668 for information on the VB10/20 Deep Socket Adapter Kits available at no additional cost.

Court Diagram



— Instruction Manual —

TWISTLOCK™ SAND VOLLEYBALL SOCKETS

Customer Service
(800) 247-7668

SVB23/SVB27

PARTS LIST					
Item	Qty	Description	Item	Qty	Description
A	1	Sand Volleyball Socket (3" or 4")	B	1	Twistlock Base Plate
C	4	"J" Bolts	D	12	5/8" Hex Nuts
E	8	5/8" Flat Washers	F	4	5/8" Lock Washer
G	1	Template	H	4	36" Rebar

- ♦ Inspect all contents prior to installation. Report any missing parts to dealer immediately.
- ♦ Read all instructions before proceeding.

NOTICE:

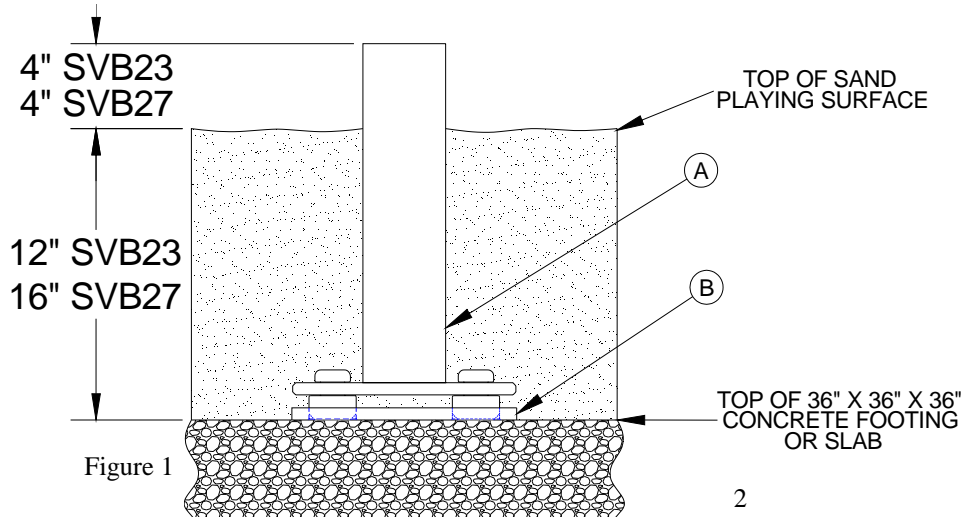
Twist lock™ sand volleyball sockets are designed to be installed in one of 3 ways. Other possible custom uses are also possible. See Figure 1 for general understanding of Sand Volleyball Socket installation.

- Option A:** Install indoors or outdoors where sand is placed directly over compacted soil. Twist lock sockets are installed in a concrete footing poured into the compacted soil.
- Option B:** Install indoors or outdoors where sand is installed on top of a concrete floor. Twist lock sockets are anchored to the existing concrete floor with concrete anchors.
- Option C:** Install on a beach or other area where sand depth does not allow Option A above. Twist lock is installed into a permanent concrete 36" x 36" x 36" base that is formed and poured on site.

Installation Option A

- A1. Locate the position of the two upright posts. It is recommended that posts (sockets) be 37' center to center.
- A2. With sand removed to expose the compacted soil, dig holes at each post location that are approximately 20" diameter, 36" deep. If final sand depth is more than 16" for SVB27, and 12" for SVB23 field construct a 24" square plywood form with the top of the form approximately 16" for SVB27, and 12" for SVB23 from the final playing surface. See Figure 3.
- A3. Assemble the "J" Bolts (C), Template (G), 5/8" Hex Nuts (D), 5/8" Flat Washers (E) and 5/8" Lock Washers (F) as shown. See Figure 2.
- A4. A 20" diameter by 36" deep hole will require approximately 10, 60# bags of ready mix concrete. Allow for more if the hole is deeper or wider. Make sure you have enough concrete before beginning pour because allowing a portion to dry before the hole is completely filled will affect the strength of the footing.
- A5. Drive 36" Rebar (H) into the bottom of the hole. Equally space the 36" Rebar (H) so that it forms a square and does not interfere with the "J" Bolts (C).

- A6. Mix the concrete according to the instructions on the bag. It is a good idea to have the concrete mixture be "wet". This will increase your working time and allow batches to mix in the hole. Pour the hole full to the top of the hole on the footing or form. Insert a broomstick or other device into the wet concrete and agitate it up and down. REPEAT SEVERAL TIMES. The top of the concrete footing should be approximately 16" for SVB27, and 12" for SVB23 from the final playing surface when cured.
- A7. Insert the Template/"J" Bolt assembly from #3 above into the wet concrete footing making sure that it is correctly positioned relative to the court. Vibrate the assembly as you insert it so the concrete fills in around the "J" Bolts (C). Make sure the Template is pressed firmly against the surface of the wet concrete and the lower 5/8" Hex Nuts (D) are imbedded into the concrete. See Figure 2.
- A8. Clear all excess concrete from around the *Template* (G) and the exposed "J" Bolt (C) threads and nuts.
- A9. Once the concrete is cured, you may now remove the upper 5/8" Hex Nuts (D) from the "J" Bolts (C) and remove and discard the *Template* (G).
- A10. Place the 5/8" Hex Nuts (D) you just removed back on each "J" Bolt (C) and finger tighten against the nut that is embedded in the concrete footing. Install one 5/8" Flat Washer (E) on the top of each 5/8" Hex Nut (D). See Figure 3.
- A11. Install the *Twistlock Base Plate* (B) over the "J" Bolts (C) making sure that the *Twistlock Base Plate* (B) is properly positioned relative to the court. Place 5/8" Flat Washers (E), 5/8" Lock Washers (F) and 5/8" Hex Nuts (D) on the "J" Bolts (C) to tighten base down. Level the *Twistlock Base Plate* (B) by adjusting the 5/8" Hex Nuts (D) above and below the base plate. Make sure all hardware is tight. See Figure 2 and 3.
- A12. With the *Twistlock Base Plate* (B) permanently installed into the footing, the *Sand Volleyball Socket* (A) can be installed and removed as desired by pushing back the sand from the base that is covered with approximately 16" of sand (SVB27), or 12" of sand (SVB23) and installing the *Sand Volleyball Socket* (A) over the three Lock Pins and twisting until fully engaged. A hole is drilled through the socket wall to help facilitate twisting the socket with a bar when sand or other impediments make rotating difficult. If the footing and *Twistlock Base Plate* (B) have been installed at the correct depth, the *Socket* (A) should extend approximately 4" above the final playing surface.
- A13. Proceed with installation of poles and nets, follow the instruction provided with the posts. Due to the irregular nature of the actual sand playing surface you may need to do one of the following.
- A.) Shim the bottom of the sockets.
 - B.) Add or subtract sand to the court.
 - C.) Use any adjustment feature provided on the pole.



Installation Option B

- B1. Locate the correct position of the upright posts. It is recommended that posts (sockets) be 37' center to center.
- B2. Discard "J" Bolts (C), 5/8" Hex Nuts (D), 5/8" Flat Washers (E), 5/8" Flat Washers (F), Template (G) and 36" Rebar (H) as they will not be used in this application.
- B3. Position *Twistlock Base Plate* (B) on concrete floor as shown in Figure 3.
- B4. Anchor *Twistlock Base Plate* (B) into concrete floor using appropriate 5/8" concrete anchoring system (not supplied). Anchor at 4 places per *Twistlock Base Plates* (B).
- B5. Proceed to Option A Instruction #A12.

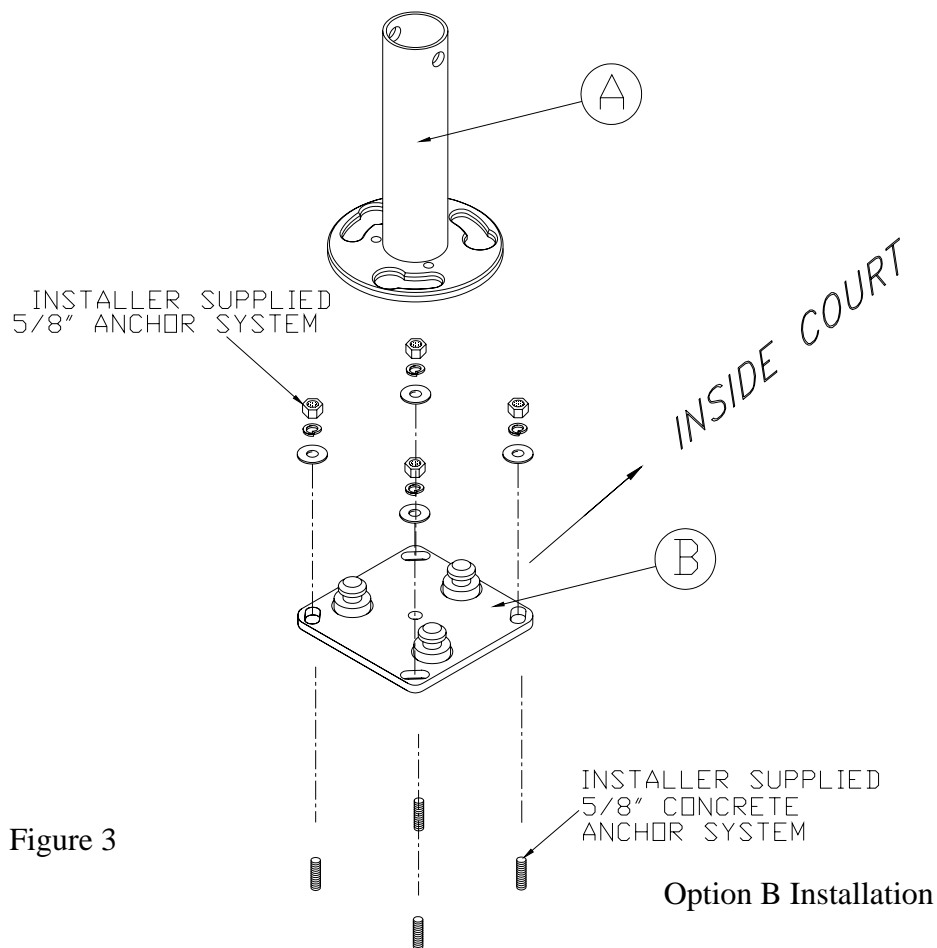


Figure 3

Option B Installation

Installation Option C

- C1. Follow all instructions for Installation Option A except that instead of digging a hole in compacted soil for the footing, field construct a plywood form that is 36" x 36" x 36" with the top of the form being approximately 16" for SVB27, 12" for SVB23 below the final playing surface. See Figure 4.
- C2. Proceed with Option A instruction numbers A3, A6, A7, A8, A9, A10, A11, and A12.
- C3. Remove the plywood form and pack sand completely around and over the concrete base.

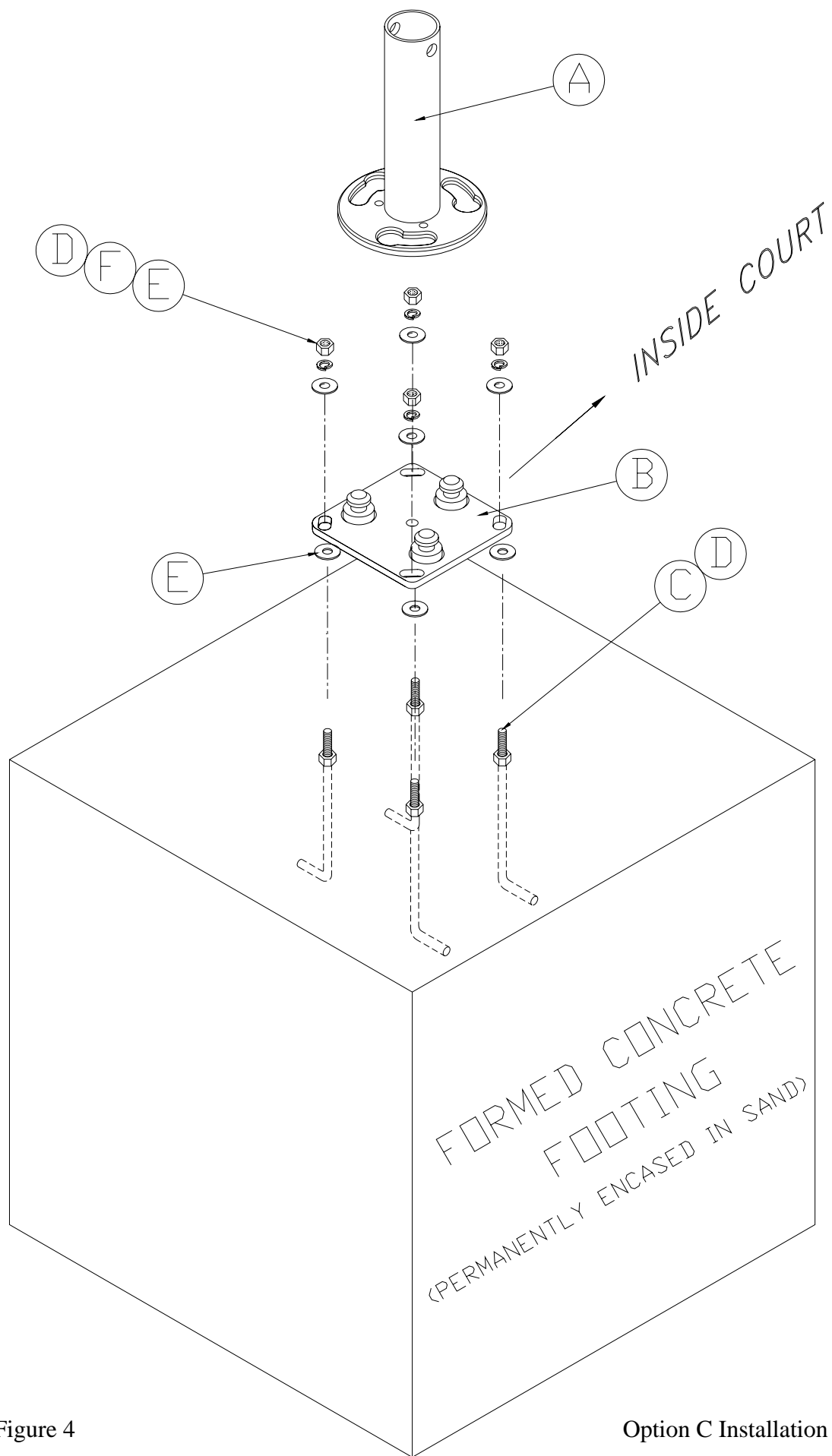


Figure 4

Option C Installation