# Concrete Footing Installation for I-LIDS

The footing plate that the blue I-LIDS housing is bolted to is designed to either be screwed into the ground with the helical auger that is welded to it or placing the footing plate/auger into a concrete footing. Securing the I-LIDS with a concrete footing is preferable as it is less likely to be vandalized, keeps the dirt out of the threads, is stable when wind hits the sign, and is more secure season over season. The times when you would screw the foundation into the ground is when you are not sure of the final location, want to reuse the footing, or just do not have the resources to pour a footing at that time.

The concrete footing is typically a 14" diameter Sonotube that goes down 40"-48" below grade with the footing plate/auger placed into it after the wet concrete has been put into the tube. The depth may vary as close to water a hole augured by a skid steer may fill quickly with water at which point you need to put in the Sonotube, a dry bag of concrete and work with the depth you have. (If underground low voltage power is to be used, a PVC fitting and 1' length of PVC needs to be screwed and glued into the tapped thru hole in the base for later threading of a 18/2 electrical line.)

ESP provides:

- I-LIDS footing plate/screw with tapped holes covered by duct tape on both sides
- Level < 12”, tape measure, duct tape, box cutter
- 90 degree PVC turn, 1/2" pvc, and a 1/2-14 NPT fitting (if power is to be run underground)

Customer provides:

- 10 - 60lb bags of sakrete
- 5 gallon bucket
- 2 shovels (1 flat ended), hoe
- Wheelbarrow (deep) or mixing trough
- Post hole digger or preferably power equipment with a 14"-20" auger attached
- Sonotube 14" diameter x 4' long (if > 12” diameter, more concrete is needed)
- 2 workers

The concrete needs to be mixed a little soupy so the footing plate can be turned into it. If the footing plate is not within the circumference of the Sonotube when it nearly in, the assembly needs to be pulled out and recentered. Having a round bubble level on the footing plate as its turned in helps keep it on target. The excess Sonotube cardboard needs to be carefully cut away with a box cutter so final work can be done to settle the flange into the form. Final flange placement is centered in the middle of the Sonotube/concrete, **leveled in both directions**, and top level with concrete. Water will seep out the top of the form and for several minutes the flange should be pressed into the concrete to encourage water to come out, constantly checking level and adjusting by standing on flange. Overnight the concrete will shrink down exposing a 1/4" rise in the footing plate over the dried level of the concrete. Tape from the top of the tapped holes can be removed the next day. Dirt from the hole is typically spread out in the woods.

Typically, ESP is onsite to assist with this process and ensure final placement of auger into concrete.

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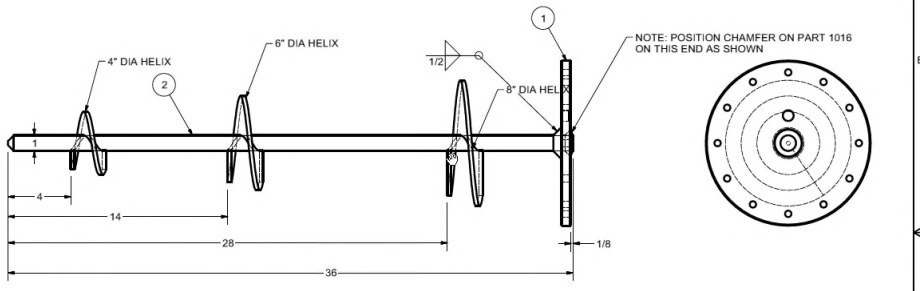
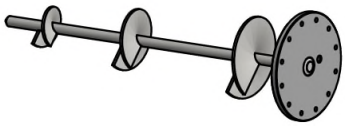
|---|---|---|
| 2 | 1 | earth anchor 3 augers |



NOTE:
PRIME WITH OUTDOOR PAINT

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|---|---|---|---|
| Qty | 1 | Unless otherwise specified all dimensions are in inches | Environmental Sentry Protection, LLC<br>13500 Grove Drive #1301<br>Maple Grove, MN 55311 |
| Weight | N/A | Tolerances:<br>3 place decimals: ±0.010<br>2 place decimals: ±0.02<br>Fractions: ±1/32<br>Angles: ±1° | WELDMENT, AUGER 3 BLADES |
| Material | SEE BOM | | |
| Heat treat | NONE | | |

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|---|---|---|---|
| Drawn by: L. STOUT<br>Date: 4/5/2019 | Developed by:<br>Eric Lindberg | Drawing No.<br>1038w | Rev: |
| Checked by: LAS<br>Date: 4/5/2019 | Ref: 1014a | | Sheet: 1/1 |