City Post EAC (Embedded Anchor Cup)
Installation Procedures

A) **Purpose**

This is a visual guide to aid in the installation of the City Post anchor cups. This document covers the recommended procedures for installation.

B) **<u>The complete City Post assembly includes:</u>**

- Post – the taped final assembly
- Anchor Cup – Aluminum molded anchor that will be imbedded into the roadway
- Adhesive Shield – Clear sheet used to prevent epoxy from making contact with the post.
- Rubber Gasket - 0.20" rubber ring to seal the base and anchor cup

Core Drill: Any drill capable of accepting and centering a 2.1" minimum sized core bit.
Core Bit: Any masonry bit capable of creating cores a minimum of 2.1" in diameter. Numerous Suppliers have bits: HILTI, Grainger and BOSCH, etc.
Epoxy/Adhesive: There are two adhesive systems approved for use: EAS-06 / FIRMmarker epoxy (for all surfaces) and Hilti HY 200 (concrete only).
<u>Please refer to the table below:</u> all times are for a nominal 86oF; higher temps will result in faster times, lower temps will take longer to cure. Approximately 7 – 9 fluid ounces or 200 - 260 ml of epoxy for estimating for one install.

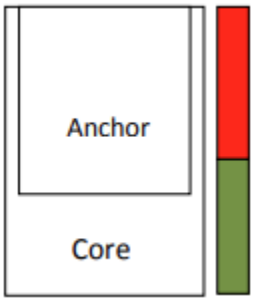
	Work Time	Cure Time	Dispensing / Application
EAS-06 / FIRMmarker	**8 min**	**1 hr Qts./Gallon**	**Hand Mixed & Poured**
EAS-06 / FIRMmarker	**8 min**	**1 hr 20 oz.**	**Cartridge / Gun Systems**
Hilti HY 200A Hybrid (CONCRETE)	**4 min**	**30 min**	**Cartridge system / multiple guns**

Depth Gauge: Disposable tool used as a stop point for epoxy fill, see below.
Protective Gear: Glasses, latex gloves, rag for cleanup, etc.... your list may vary.

This shows how to create a depth gauge to speed your process along in the field. There are several ways to mark the depth, this is one simple and effective way. Please refer to the table below to determine your fill depth of epoxy.

Core Diameter	2.1"	2.25"	2.5"	2.75"	3.0"	3.5"
2" Anchor SFD* – from top with gasket	1.69"	1.48"	1.20"	0.99"	0.83"	0.61"
4" Anchor SFD* - from top with gasket	3.29"	2.87"	2.32"	1.92"	1.61"	1.19"

***SFD = Stop Fill Depth**



Anchor Cup – set inside of the cored hole
Stop Fill Depth (SFD) – the point the epoxy must not rise above when dispensed into a cored-out hole
Epoxy Fill
Core - opening into which adhesive and anchor will be installed

For example: using a 2.25" core the adhesive can reach a maximum fill that leaves 1.61" of air space. The air space will be displaced by the anchor cup when inserted.

C) **Making a simple depth gauge tool using a business card:**

Layout
Draw two lines to be cut degrees.
per the SFD dimension shown above.

Cut
Make cuts on the lines drawn.

Fold
Fold flap back 90

The flap of the card should match the stop fill depth required. When filling the core hole with epoxy, stop as soon as contact is made with the edge of the flap that is inserted into the hole.

Caution: Overfilling the core hole can result in the City Post being permanently adhered to the roadway. Do Not Overfill.

D) **Coring your Holes**

Guidance – the suggested core depth is 3" (2" Cup) or 5" (4" Cup). The hole will leave a jagged bottom when the core is broken off. The extra ½" of depth ensures that the minimum depth of 2.5" or 4.5" is achieved.
Check Fit – Insert the assembled City Post into a dry hole, does it sit level, if not remove more material and recheck.
Clean – Holes must be free of debris and dust, blow them out with an air hose.
Dry – if using a wet bit core drill, ensure the holes are completely dry before applying adhesive.

E) **Installing the Anchor Cup Using the Hilti Cartridge System**

Tools needed to proceed:
- HILTI Adhesive dispenser – Manual or electric
- HILTI Adhesive
- Depth Gauge
- City Post Assembly

Using the adhesive dispenser, evenly distribute the adhesive into the hole to keep air bubble/pockets to a minimum.
Fill to SFD depth shown in table above.

Insert the SFD gauge into the hole. It is critical to STOP the adhesive at contact with the gauge to ensure you do not over fill the opening.

This will give you a clean and installation.
Caution: Do not overfill.

Adhesive contact with the SFD gauge should leave a little adhesive on the edge of the flap.

Backfill the flights of the 4” cup with adhesive prior to installation.

Slowly, insert and rotate the anchor cup into the adhesive filled hole and twist one full turn.
Rotating the post spreads the adhesive evenly around the anchor cup. This is critical to get a good even distribution of adhesive.

Once final depth has been reached, no adhesive should be visible around the base.
Allow the anchor and epoxy to set up, refer to the adhesive manufacturer’s directions for cure time.

Once the adhesive is fully cured you can remove the City Post from the anchor cup. If the steps are followed correctly and in sequence you should have an installation that looks very similar to this.

Finally, tighten down the City Post with the City Post wrench. This tool is also useful to loosen the City Post when it needs to be removed. (Wrench is sold separately).

F) **Important Notice To Purchaser**

The following is made in lieu of all warranties, expressed or implied, including the implied warranties of merchantability and fitness for purpose: Seller's and manufacturer’s only obligation shall be to replace such quantity of the product proved to be defective. Before using, user shall determine the suitability of the product for it's intended use, and user assumes all risk and liability whatsoever in connection therewith. Neither manufacturer nor seller shall be liable either in tort or in contract for any loss or damage, direct, incidental, or consequential, arising out of the use of or the inability to use the product.