



**City of Henderson  
Department of Public Works  
Quality Control Division**

*To insure that constructed public infrastructure meets applicable standards*

**Standard Operating Procedure**

<b>SOP Name</b>	<b>SOP Number</b>
Concrete Patch and Repair	QC-EC-03

**PURPOSE:**

To define the process for safely and consistently patching and repairing concrete.

**PROCEDURE:**

1. Determine the limits of the damaged concrete area. The repair area shall not be any larger than six inches in length and/or width and may not be deeper than  $\frac{3}{4}$  inch. All damaged areas larger than the above specification must be removed or replaced.
2. The repair must be completely bonded to sound concrete free of cracks, compatible in appearance, impermeable, and resistant to weathering or other physical attacks. Remove all unsound and disintegrated concrete. The surface face should be bright and crystalline in appearance.
3. A bonding agent should be brushed onto the surface. The bonding agent must be a polyvinyl acetate (PVA) that is resistant to moisture, or an epoxy based resin.
4. Apply the patch material. Listed below are types of acceptable patch materials.
  - a. **Epoxy Mortar** consists of one, two-part epoxy adhesive (one part base resin and one part curing agent) to three parts sand by volume.

The epoxy mortar approved products are as follows:

**Burke**

- i. Burke Epoxy Mortar
- ii. Burke Epoxy NS, mixed with mortar

**Evco**

- iii. Evco Poxo Vertigel
- iv. Evco #452 Epoxy System mixed with Evco #456 mortar

**Rezi-Weld**

- v. Rezi – Weld 3/2
- vi. Rezi – Weld LV, mixed with mortar

Approved by Division Manager: 8/23/04  
Approved by Public Works Department: 1/30/06  
Revised:

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- b. **Epoxy Resin Adhesive** to be used for posts or traffic markers. The resin must meet ASTM C881 Standards. **Dry Pack Mortar** is not accepted in the City of Henderson.
  
- c. **Pavemend** Rapid Concrete Surface Repair. High early strength material for patching and repair of concrete and asphalt surfaces. Suitable for bridge decks, parking garages, floors, sidewalks, joint repair, and pavement.

In the use of any epoxy system, the recommendations and instructions of the manufacturer must be followed. Should any contractor wish to use any other product, the alternate must be submitted to the City of Henderson for review and approval.

## **END OF PROCEDURE**