

STATE BID

9/10/18 36

**THE PARTIES HERETO HAVE EXECUTED THIS CONTRACT**

**Persons signing for Contractor hereby swear and affirm that they are authorized to act on Contractor's behalf and acknowledge that the State is relying on their representations to that effect.**

<p style="text-align: center;"><b>CONTRACTOR</b></p> <p style="text-align: center;"><b><u>HAYWARD BAKER, INC.</u></b> Legal Name of Contractor</p> <p>By: <u>Rick Forsyth</u> Name of Authorized Individual</p> <p><u>Sa. Project Manager</u> Title: Official Title of Authorized Individual</p> <p><u>RC Forsyth</u> *Signature</p> <p>Date: <u>August 5, 2009</u></p> <p style="text-align: center;">2nd Contractor Signature if Needed</p> <p>By: _____ Name of Authorized Individual</p> <p>_____ Title: Official Title of Authorized Individual</p> <p>_____ *Signature</p> <p>Date: _____</p>	<p style="text-align: center;"><b>STATE OF COLORADO</b></p> <p style="text-align: center;"><b>Bill Ritter, Jr. GOVERNOR</b></p> <p style="text-align: center;">Department of Transportation (for) Russell George, Executive Director</p> <p><u>Patricia Hutton</u> Chief Engr. By: Name &amp; Title</p> <p>Date: <u>8-13-09</u></p> <p style="text-align: center;"><b>LEGAL REVIEW</b></p> <p style="text-align: center;">John W. Suthers, Attorney General</p> <p>By: <u>Kathryn E. Young</u> Signature Assistant Attorney General</p> <p>Date: <u>8-20-09</u></p>
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**ALL CONTRACTS REQUIRE APPROVAL by the STATE CONTROLLER**  
CRS §24-30-202 requires the State Controller to approve all State Contracts. This Contract is not valid until signed and dated below by the State Controller or delegate. Contractor is not authorized to begin performance until such time. If Contractor begins performing prior thereto, the State of Colorado is not obligated to pay Contractor for such performance or for any goods and/or service provided hereunder.

**STATE CONTROLLER**  
David J. McDermott, CPA

By: David J. McDermott

Date: 8-24-2009

Routing #

**22. EXHIBIT A**

**STATEMENT OF WORK**

**SLAB JACKING DESCRIPTION**

This work includes raising and supporting of concrete slabs. This work may also include filling voids under slabs, slope paving and abutments.

**MATERIALS**

The material used for raising concrete slabs shall be a water-blown two-component urethane polymer system conforming to the following:

a) Property	ASTM Test Method	Value
Density, lbs/ft <sup>3</sup> , range	D1622 without conditioning	4
Compressive Strength at yield point, kPa (psi) minimum	D1621 without conditioning	90
Volume Change % of original	D2126 (Temperature to be selected)	0.0%

The polyurethane material shall reach 90% of full compressive strength within 15 minutes from injection. The Contractor, at no additional cost to the project, shall perform sampling and testing of the polyurethane material. The Contractor shall supply Certified Test Results on the above ASTM Test Methods for each lot used on the project prior to placement.

**Slab Jacking**

Slabs shall be raised and supported in accordance with the following:

- (a) *Contractor experience.* The Contractor shall have a minimum of three years of experience in using high density polyurethane material to raise concrete slabs, as demonstrated by completed job references. The contractor must submit a minimum of Three (3) completed job references with their bid.
- (b) *Equipment.* The minimum equipment required, but is not limited to, the following:
  - (1) A pneumatic drill and an electric drill capable of drilling 16mm (5/8 inch) diameter holes.
  - (2) A truck-mounted pumping unit capable of injecting the high density polyurethane formulation between the concrete pavement and the sub-base and capable of controlling the rate of rise of the pavement.
  - (3) A laser leveling unit to ensure that the concrete is raised to an even plane and to the required elevations.
- (b) *Construction Methods.*

**Preparation.** A preliminary profile shall be performed to determine where and how much the slabs need to be raised. The profile shall be taken in each lane of the area to be raised. At least one profile shall be taken in the shoulders of the area to be raised. The interval between each point on the profile shall not exceed 6 feet. The plot of the preliminary profile shall be available to the Engineer prior to raising any slabs.

**Drilling.** The injection holes shall be drilled in the following manner. A series of 5/8 inch holes shall be drilled at a maximum of 8 foot intervals through the concrete. The exact location and spacing of the holes shall be determined by the Contractor. The holes shall be drilled so they do not crack the existing slabs.

Schedule I – East of the Continental Divide

Item	Unit of measure	Estimated Quantity	Unit Cost	Extended Cost
Slab Jacking Foam	Pound	2,600	\$ 6.50	\$ 16,900.00
Mobilization	Each	1	\$ 400.00	\$ 400.00

Total: \$ 17,300.00

Schedule II – West of the Continental Divide

Item	Unit of measure	Estimated Quantity	Unit Cost	Extended Cost
Slab Jacking Foam	Pound	2,600	\$ 6.50	\$ 16,900.00
Mobilization	Each	1	\$ 500.00	\$ 500.00

Total: \$ 17,400.00

**Injecting.** The high density polyurethane formulation shall then be injected as required to raise the slab to the required elevations. The Contractor shall construct cofferdams or other temporary structures to insure that excessive material does not escape. The amount of rise shall be controlled by regulating the rate of injection of the high density polyurethane material. When the nozzle is removed from the hole, all excessive polyurethane material shall be removed from the area and the hole sealed with a non-expansive cementations grout

**Final Profile.** Final elevation shall be within ¼ inch of the proposed elevation. A tight string line may be used to monitor and verify elevations for areas with a length less than 50 feet. For longer sections, a laser level shall be used to monitor and verify elevations. The Engineer may direct the Contractor to flood the area with water to confirm that the paving has been realigned properly. A final profile shall be performed to determine how much the slabs were raised. The profile shall be taken in each wheel path of the affected area. At least one profile shall be taken in the shoulders of the affected area. The interval between each point on the profile shall not exceed 6 feet. The plot of the final profile shall be provided to the Engineer for the project records

Upon completion of the work, the Contractor will be responsible for clean-up of the work site.

**Warranty.** The Contractor shall provide to the Engineer copies of warranties provided by the manufacturer and/or installer of the product.

The Contractor shall be responsible for any pavement blowouts, new cracks or excessive pavement lifting which may result from the process and shall repair the damaged area to the satisfaction of the Engineer without additional cost to the project.

#### **METHOD OF MEASUREMENT**

Slab Jacking will be measured by the pound of injected polyurethane material.

Work hours will be specified on an as needed basis by CDOT personnel. The work hours may consist of both Day and Night hours.

CDOT will supply any traffic control needed to accomplish the slab jacking services.

#### **Hot Mix Asphalt (HMA)**

The vendor is not required to install Hot Mixed Asphalt (HMA) unless the failure was created by the vendor's actions. All HMA repair service must be in accordance to CDOT Standard Specifications for Road and Bridge Construction, standards 403. These specifications may be viewed by clicking on the following link:

<http://www.dot.state.co.us/DesignSupport/Construction/2005SpecsBook/2005Book/2005text%201.htm>

#### **BASIS OF PAYMENT**

The accepted quantities of injected polyurethane material will be paid for at the contract unit price per pound. Payment will be full compensation for all materials and labor necessary to bring the slabs to grade.

Vendor to supply, written cost estimates in triplicate for each site. Each estimate must have original signatures, photocopies will not be accepted.

#### **MOBILIZATION**

Mobilization fees shall be submitted to provide the necessary equipment for Slab jacking Services at required locations throughout the State of Colorado.