



MARICOPA COUNTY
Department of Transportation

MEMORANDUM

Date: January 8, 2014

To: MAG Specifications and Details Committee

From: Robert Herz, MCDOT Representative

Subject: Revision to Section 405 MONUMENTS

Case 14-02

PURPOSE: Update specification to match current details and requirements.

REVISION: See the attached redlined strike-out version of the specification for revisions followed by the proposed modified specification in final form.

SECTION 405**MONUMENTS****405.1 DESCRIPTION:**

This work shall consist of furnishing and installing ~~Portland cement concrete right-of-way monuments and~~ survey monuments at the locations shown on the plans or directed by the Engineer ~~and as specified~~.

Monuments shall conform to the standard details or details shown on the plan.

405.2 MATERIALS:

The concrete portion of monuments shall be constructed in accordance with the provisions in Sections 725 and 505.

Concrete shall be Class B.

Brass caps for survey monuments ~~will~~ shall be furnished by the Contractor unless otherwise specified ~~in the special provisions~~.

405.3 CONSTRUCTION:

In constructing precast monuments, the forms shall not be removed until after the concrete has hardened. Monuments that are ~~warped~~ improperly aligned will be rejected. The exposed surface of the finished monuments shall be uniform, of even texture, and shall be free from holes, cracks and chipped edges. The precast monuments shall not be transported to the work site until the concrete has cured.

Cast in place monuments shall be cast in drilled holes without the use of forms.

Survey monuments shall be aligned vertically in the ground.

The brass caps assembly shall be firmly embedded in the concrete cylinder placed in survey monuments before the concrete ~~block~~ has acquired its initial set ~~and shall be firmly bedded in the concrete~~. The concrete ~~block~~ cylinder shall be so located that, the reference point will fall within a 1 inch circle in the center of the brass cap.

405.4 INSTALLATION:

~~Right-of-way monuments shall be set firmly and vertically in the ground to a depth of at least 3 feet.~~

The tops of survey monument covers shall be set flush with the pavement surface.

~~Survey monuments shall be set in position after the first course of asphalt concrete.~~

405.4 MEASUREMENT:

Survey monuments will be measured by the number of each type of monument constructed and accepted.

405.5 PAYMENT:

Payment for monuments will be at the contract unit price~~made on the basis of the prices bid~~ and shall include full compensation for furnishing all labor, materials, tools, equipment and incidentals, and for doing all the work involved in constructing the monuments, complete in place, ~~including asphalt seal and necessary excavation and backfill~~, as shown on the plans or as directed by the Engineer.

- End of Section -

PROPOSED SPECIFICATION IN FINAL FORM:

SECTION 405

MONUMENTS

405.1 DESCRIPTION:

This work shall consist of furnishing and installing survey monuments at the locations shown on the plans or directed by the Engineer.

Monuments shall conform to the standard details or details shown on the plan.

405.2 MATERIALS:

The concrete portion of monuments shall be constructed in accordance with the provisions in Sections 725 and 505. Concrete shall be Class B.

Brass caps for survey monuments shall be furnished by the Contractor unless otherwise specified.

405.3 CONSTRUCTION:

In constructing precast monuments, the forms shall not be removed until after the concrete has hardened. Monuments that are improperly aligned will be rejected. The exposed surface of the finished monuments shall be uniform, of even texture, and shall be free from holes, cracks and chipped edges. The precast monuments shall not be transported to the work site until the concrete has cured.

Cast in place monuments shall be cast in drilled holes without the use of forms.

Survey monuments shall be aligned vertically in the ground.

The brass cap assembly shall be firmly embedded in the concrete cylinder before the concrete has acquired its initial set. The concrete cylinder shall be so located that, the reference point will fall within a 1 inch circle in the center of the brass cap.

The tops of survey monument covers shall be set flush with the pavement surface.

405.4 MEASUREMENT:

Survey monuments will be measured by the number of each type of monument constructed and accepted.

405.5 PAYMENT:

Payment for monuments will be at the contract unit price and shall include full compensation for furnishing all labor, materials, tools, equipment and incidentals, and for doing all the work involved in constructing the monuments, complete in place, as shown on the plans or as directed by the Engineer.

- End of Section -