



**MARICOPA COUNTY**  
*Department of Transportation*

**MEMORANDUM**

**Date:** April 2, 2014

**Ref:** CASE 13-21 Pre-Cast Concrete Manhole Base  
REVIEW COMMENTS

**From:** Robert Herz, MCDOT Representative

Draft Detail 420-2

**Detail Title:** Revise PRE-CAST to PRECAST, no hyphen or space is needed.

**Plan Elevation View**

- Notes on left side identifies the pipe as FACTORY PRODUCED CLAY PIPE and as FACTORY PRODUCED EXTRA STRENGTH VITRIFIED CLAY PIPE, the detail should be for all pipes types not just vitrified clay pipe. Provide details or otherwise identify the treatment require for each allowable pipe type. Identify the type of pipe or pipe fitting that is cast into each side of the manhole base. Clarify the type of connections required or options allowed between the pipeline and manhole, there may be different requirements for different types of pipe.
- Notes on left side identify pipe lengths of 1', 2' and standard length pipe. When pipe length is dependent on a particular type of pipe material have it defined as a special case. Pipe lengths outside of the manhole should not need to be defined.
- Rock is shown on UNDISTURBED NATIVE SOIL. What excavation method would result in an undisturbed soil condition? What is the maximum depth of disturbed soil that can be present at the time of placing the rock layer?
- A keyway joint is shown – Where is this type of joint detailed?

Note 1. Do not use the abbreviation NPCA without defining it – Spell out the title: National Precast Concrete Association.

Note 3. Revise to read: TOP HALF OF PIPE (AREA ABOVE SPRING LINE) TO BE OMITTED WITHIN MANHOLE BASE. BOTTOM HALF OF PIPE MAY BE USED TO FORM THE MANHOLE CHANNEL FLOW LINE.

Note 4. Delete: "OR LAP JOINT", Lap Joint is non-standard terminology not found in ASTM C822 or ASTM C478.

Note 13. The term "anti-float ring" is not contained in ASTM C478 or in ASTM C822. Suggest revising first sentence of note 13 to read: MANHOLE BASE IS TO EXTEND BEYOND THE RISER EXTERIOR A MINIMUM OF 6" FOR 48" RISER, 7" FOR 60" RISER, AND 8" FOR 72" RISER. Delete the second sentence from the note and add the dimension onto the detail where applicable: 5" MIN.

Note 7. Coordinate with Note 13. Note 13 indicates the detail can be used for a 72" riser. ASTM C478 section 14.3 requires a minimum wall thickness of 6" for a 72" diameter riser.

Note 14. Define joint requirements for the various allowable pipe types.