



Chandler • Arizona
Where Values Make The Difference

MEMORANDUM

Case # 15-05

DATE: March 4th, 2015

TO: MAG Specifications and Details Committee Members

FROM: Warren White, City of Chandler Representative

SUBJECT: Proposed Revisions to Section 616 Reclaimed Water Line Construction and NEW Reclaimed Valve Box detail

Revisions:

1. Revision to Section 616 Reclaimed Water Line Construction

Section 616.2 MATERIALS:

Pipe materials shall be in accordance with Section 610.

Valves shall be in accordance with Sections 610 and 630.

Valve boxes shall be in accordance with Section 345, this Section and Detail 391-1, ~~and 391-2~~ and TBD.
Manholes shall be in accordance with Section 625, 787 and this Section, and applicable Details.

2. New Reclaimed Valve Box Detail No. TBD

See attached initial DRAFT for further development.

3. Implements land treatments to help achieve Surface Water Quality Standards;
 4. Implements supplemental feeding, salting, and parasite control measures to help achieve Surface Water Quality Standards.
- B.** The person to whom a permit is issued shall make the following information available to the Department, at the person's place of business, within 10 business days of Department notice:
1. The name and address of the person grazing livestock, and
 2. The best management practices selected for livestock grazing.

Historical Note

New Section made by final rulemaking at 7 A.A.R. 1768, effective April 5, 2001 (Supp. 01-2).

ARTICLE 6. RECLAIMED WATER CONVEYANCES**R18-9-601. Definitions**

In addition to the definitions provided in R18-9-701, the following terms apply to this Article:

1. "Open water conveyance" means any constructed open waterway, including canals and laterals that transports reclaimed water from a sewage treatment facility to a reclaimed water blending facility or from a sewage treatment facility or reclaimed water blending facility to the point of land application or end use. An open water conveyance does not include waters of the United States.
2. "Pipeline conveyance" means any system of pipelines that transports reclaimed water from a sewage treatment facility to a reclaimed water blending facility or from a sewage treatment facility or reclaimed water blending facility to the point of land application or end use.

Historical Note

New Section adopted by final rulemaking at 7 A.A.R. 758, effective January 16, 2001 (Supp. 01-1).

R18-9-602. Pipeline Conveyances of Reclaimed Water

- A.** Applicability.
1. Any person constructing a pipeline conveyance on or after January 1, 2001, whether new or a replacement of an existing pipeline shall meet the requirements of this Article.
 2. Any person who has constructed a pipeline conveyance before January 1, 2001, is considered to be in compliance with this Article.
- B.** A person shall design and construct a pipeline conveyance system using good engineering judgement following standards of practice.
- C.** A person shall construct a pipeline conveyance so that:
1. Reclaimed water does not find its way into, or otherwise contaminate, a potable water system;
 2. System structural integrity is maintained; and
 3. The capability for inspection, maintenance, and testing is maintained.
- D.** A person shall construct a pipeline conveyance and all appurtenances conducting reclaimed water to withstand a static pressure of at least 50 pounds per square inch greater than the design working pressure without leakage as determined in A.A.C. R18-9-E301(D)(2)(j).
- E.** A person shall provide a pipeline conveyance with thrust blocks or restrained joints where needed to prevent excessive movement of the pipeline.
- F.** The following requirements for minimum separation distance apply. A person shall:

1. Locate a pipeline conveyance no closer than 50 feet from a drinking water well unless the pipeline conveyance is constructed as specified under subsection (F)(3);
2. Locate a pipeline conveyance no closer than two feet vertically nor six feet horizontally from a potable water pipeline unless the pipeline conveyance is constructed as specified under subsection (F)(3);
3. Construct a pipeline conveyance that does not meet the minimum separation distances specified in subsections (F)(1) and (F)(2) by encasing the pipeline conveyance in at least six inches of concrete or using mechanical joint ductile iron pipe or other materials of equivalent or greater tensile and compressive strength at least 10 feet beyond any point on the pipeline conveyance within the specified minimum separation distance; and
4. If a reclaimed water system is supplemented with water from a potable water system, separate the potable water system from the pipeline conveyance by an air gap.

G. A person shall:

1. For a pipeline conveyance, eight inches in diameter or less, use pipe marked on opposite sides in English: "CAUTION: RECLAIMED WATER, DO NOT DRINK" in intervals of three feet or less and colored purple or wrapped with durable purple tape.
2. For a mechanical appurtenance to a pipeline conveyance, ensure that the mechanical appurtenance is colored purple or legibly marked to identify it as part of the reclaimed water distribution system and distinguish it from systems for potable water distribution and sewage collection.

Historical Note

New Section adopted by final rulemaking at 7 A.A.R. 758, effective January 16, 2001 (Supp. 01-1).

R18-9-603. Open Water Conveyances of Reclaimed Water

- A.** This Article applies to an open water conveyance, regardless of the date of construction.
- B.** A person shall maintain an open water conveyance to prevent release of reclaimed water except as allowed under federal and state regulations. The maintenance program shall include periodic inspections and follow-up corrective measures to ensure the integrity of conveyance banks and capacity of the conveyance to safely carry operational flows.
- C.** Signage for Class B+, B, and C Reclaimed Water. A person shall:
1. Ensure that signs state: "CAUTION: RECLAIMED WATER, DO NOT DRINK," and display the international "do not drink" symbol;
 2. Place signs at all points of ingress and, if the open water conveyance is operated with open access, at least every 1/4-mile along the length of the open water conveyance; and
 3. Ensure that signs are visible and legible from both sides of the open water conveyance.

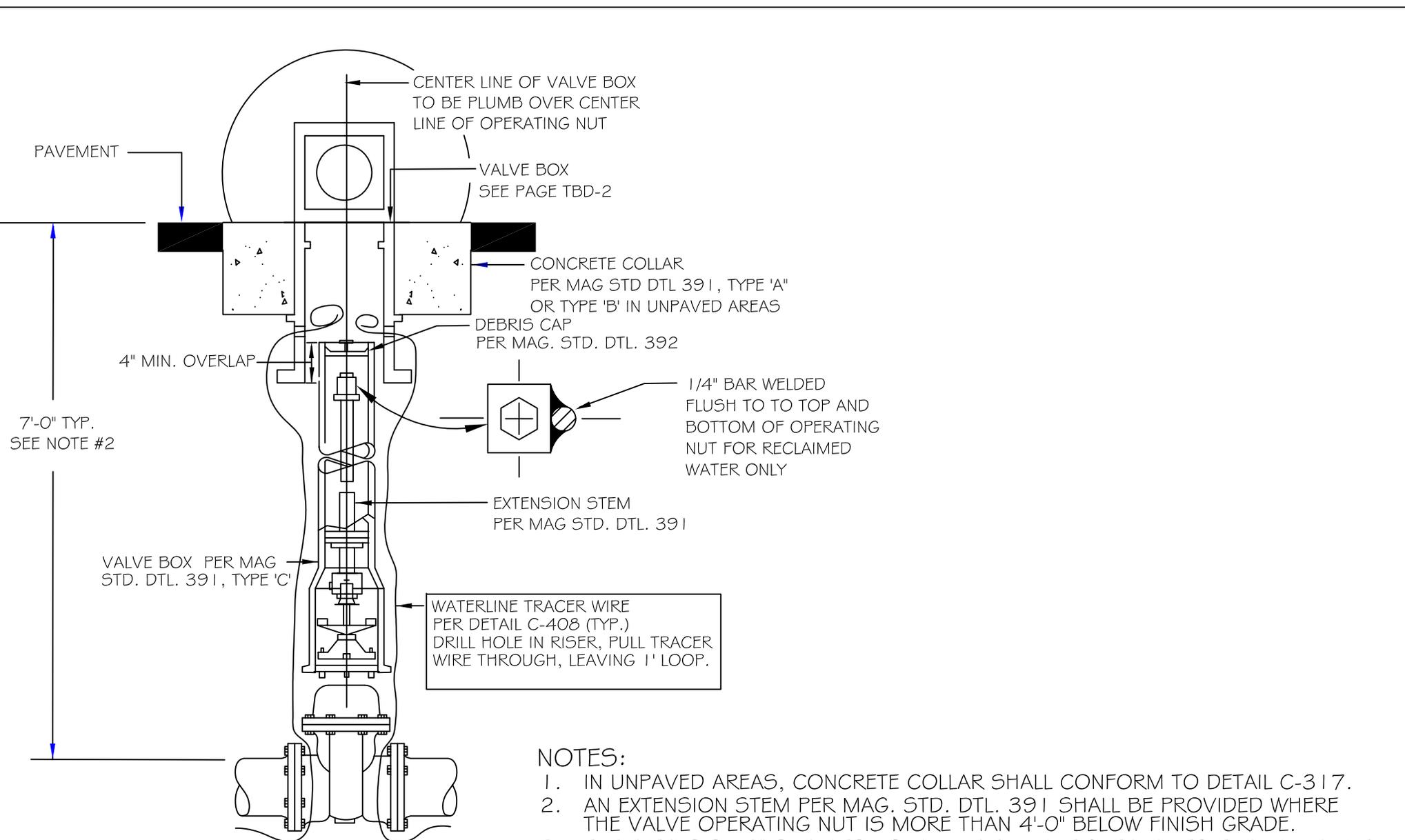
Historical Note

New Section adopted by final rulemaking at 7 A.A.R. 758, effective January 16, 2001 (Supp. 01-1).

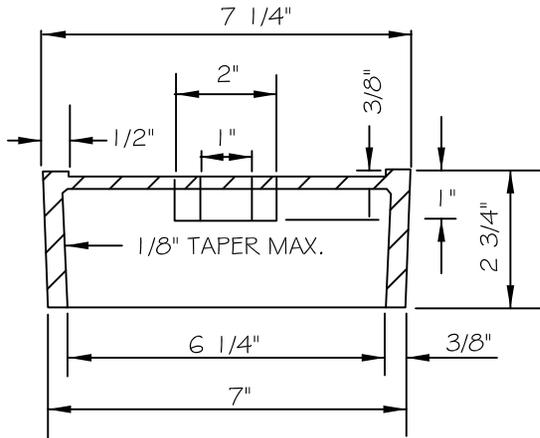
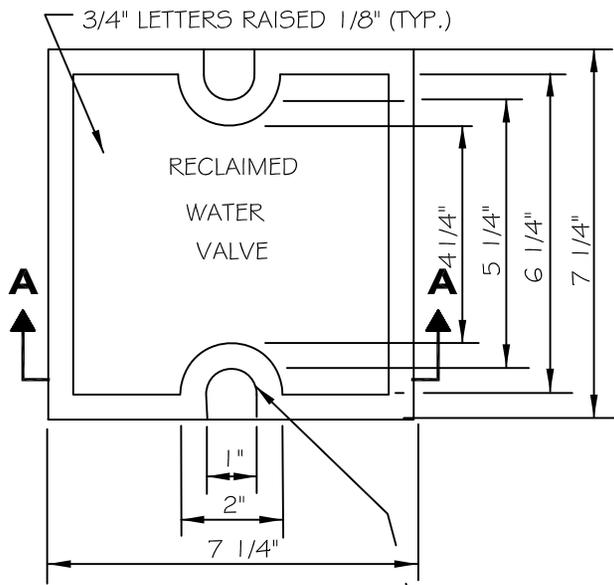
ARTICLE 7. DIRECT REUSE OF RECLAIMED WATER**R18-9-701. Definitions**

Unless provided otherwise, the definitions provided in A.R.S. § 49-201, A.A.C. R18-9-101, R18-9-601, R18-11-301, and the following terms apply to this Article:

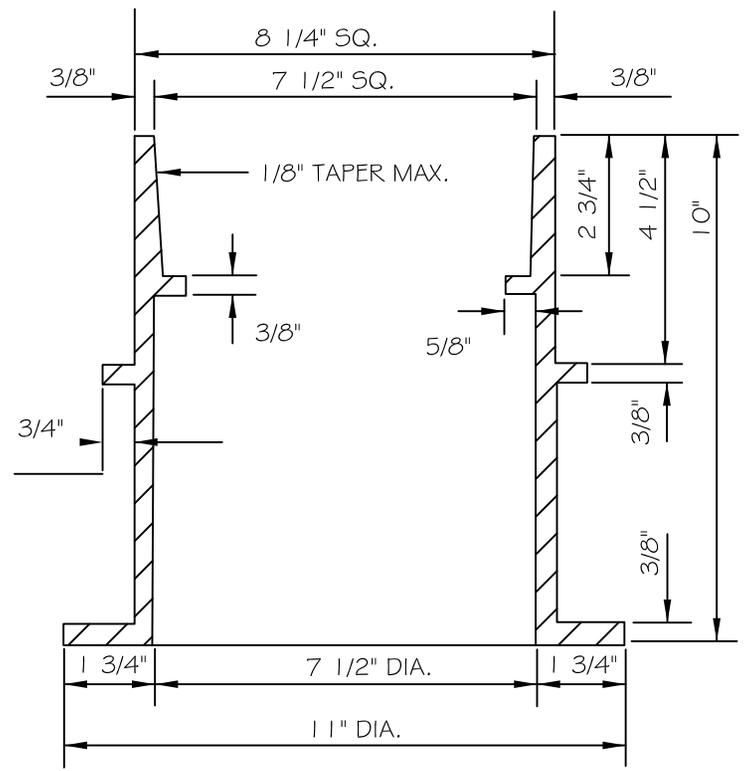
1. "Direct reuse" means the beneficial use of reclaimed water for a purpose allowed by this Article. The following is not a direct reuse of reclaimed water:



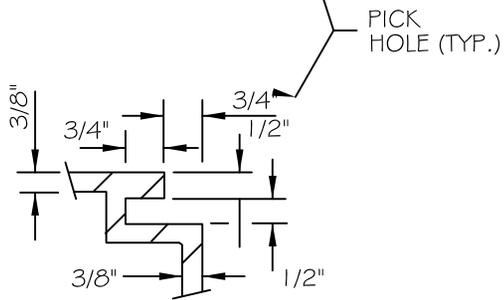
- NOTES:
1. IN UNPAVED AREAS, CONCRETE COLLAR SHALL CONFORM TO DETAIL C-317.
 2. AN EXTENSION STEM PER MAG. STD. DTL. 391 SHALL BE PROVIDED WHERE THE VALVE OPERATING NUT IS MORE THAN 4'-0" BELOW FINISH GRADE.
 3. THE EXTENSION 2" OPERATOR SHALL BE FIRMLY TIGHTENED TO THE VALVE NUT.
 4. BACKFILL SHALL BE 1/2 SACK CLSM. PER MAG. SPECIFICATION 718.
 5. VALVE BOXES SHALL NOT BE INSTALLED WITHIN CONCRETE GUTTER, SIDEWALK, RAMPS OR VALLEY GUTTER.



**SECTION A - A
COVER**



**SECTION
VALVE BOX**



SECTION

- NOTES:
1. ALL MATERIAL SHALL BE CAST IRON PER ASTM. A-48, CLASS 30 B.
 2. THE SURFACES OF THE COVER AND BOX WHICH COME IN CONTACT WITH EACH OTHER MUST BE SMOOTH AND FREE OF ALL CASTING RIDGES AND BURRS TO PROVIDE A SNUG FIT.
 3. THE VALVE BOX SHALL HAVE A ROUND BOTTOM TO ACCOMMODATE RISER PIPE. THE TOP OF THE VALVE BOX SHALL BE SQUARE.
 4. THE LID AND INSIDE AND OUTSIDE OF THE RISER PIPE SHALL BE COLORED PURPLE. COLOR MAY BE INCORPORATED INTO PIPE DURING MANUFACTURE OR PAINTED ONTO PIPE SURFACE. WHEN PAINTED THE PAINT SHALL BE SEYMOUR SAFETY PURPLE.
 5. LETTERING SHALL BE RESTRICTED TO THAT SHOWN ON THE VALVE BOX COVER.

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| DETAIL NO. TBD- 2 |  MARICOPA ASSOCIATION of GOVERNMENTS STANDARD DETAIL ENGLISH | RECLAIMED WATER VALVE BOX INSTALLATION | REVISED 3/4/15 Draft | DETAIL NO. TBD- 2 |
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