



REGIONAL WASTEWATER RECLAMATION DEPARTMENT  
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Directive: ENG2015-01

Date: January 13, 2015

**SUBJECT: Paved Private Roads, Common Areas - Public Sewer Easement dedication language**

STATEMENT OF PURPOSE

This Directive modifies Sections 05 and 07 of the Engineering Design Standards 2012 in order to:

1. Reinforce the preference for public gravity sewer to be installed in paved public or private roads and streets;
2. Clarify the dedication language to be used for public gravity sewer installed in paved private roads and streets;
3. Remove the "Special Approval" requirement for public gravity sewer installed in paved private roads and streets designated as Common Area;
4. Modify the dedication language to the Special Approval of public gravity sewer in unpaved Common Area;
5. Remove the word "exclusive" in Section 07 when referring to the dedication of a sewer easement and replace it with the word "specific".

GENERAL PROVISIONS

Sections 05 and 07 of the Engineering Design Standards 2012 are modified as shown in bold:

Section 05, 5.1.1 Location and Alignment

*In accordance with Code, specifically 13.20.030(A)(1), public gravity sewers shall be located:*

- *Beneath the paved portions of public roads, streets, avenues, alleys and Right-of-Way, to the maximum degree possible, for sewer maintenance vehicle access (see Section 07); or*
- *Beneath the paved portions of private streets and within dedicated Public Sewer easements.*
- ***Beneath the paved portions of private streets dedicated as common area by final plat.***

***The following language shall be used for the common area dedication on the final plat:***

- 1. Grantor hereby irrevocably grants and dedicates easements to Pima County for access, installation, construction, maintenance and replacement of public sewer systems in all common area “\_\_” designated by this plat; or**
- 2. Grantor hereby irrevocably grants and dedicates easements to the respective utility providers for access, installation, construction, maintenance and replacement of underground utilities and public sewer systems in all common area “\_\_” designated by this plat.**

All new public gravity sewer shall be designed and located so as to be positioned within the paved portions of new streets to the maximum extent possible. This guideline shall be followed even in the case where adjacent lots may be required to utilize private, on-site mechanical wastewater pumping systems to achieve physical connection to the Public Sewer located beneath a street surface.

Due to environmental, operational and maintenance concerns, the location of sewers in the following areas/circumstances shall be avoided unless Special Approval is obtained from the Director or his/her delegate, on a case-by-case basis:

- Routing across, through and between lots;
- Within or along a wash or wash environment;
- Crossing a wash outside of a road Right-of-Way;
- **Within a common area except those designated as paved private streets; and**
- Within areas undisturbed by development.

**All sewers located outside the paved portions of public roads, streets, avenues, alleys and Right-of-Way or paved private streets shall require specific sewer easements if special approval is granted.**

If Special Approval is granted for placing a sewer within an **unpaved** common area, the following language shall be included on the final plat for the dedication of the sewer easement:

**“Applicant hereby grants to Pima County all rights of way and easements as shown hereon for the purpose of access, installation, maintenance, construction, and replacement of public sewers. Applicant agrees that all sewer rights-of-way and easements granted hereon shall conform to the PCRWRD Engineering Design Standards 2012, Section 7 and, in particular, Subsection 7.5.”**

Sewer lines shall be designed with a uniform slope, alignment (vertically and horizontally) and a constant diameter between manholes.

Curvilinear alignments for Public Sewer lines shall be avoided unless Special Approval is obtained from the Director or his/her delegate, on a case-by-case basis. Special Approval will not be issued unless there is absolutely no other practical solution. Cost savings shall not be the sole justification for allowing curvilinear alignments for Public Sewers.

#### Section 07, 7.1.1 Horizontal and Vertical Alignment

The design of Public Sewer easements shall conform to the following requirements:

- AAC R18-9-E301(D)(2)(I);
- S.D.s RWRD-109, -110 and -111;
- Easements should be horizontally centered along the sewer line and at each manhole, to the highest degree possible;

- For sewer depths less than or equal to 10 feet, the minimum width for sewer easements shall be 20 feet;
- For sewer depths greater than 10 feet, the minimum width for sewer easements shall be twice the depth of the sewer line (invert to finish grade) and rounded up to the nearest 5 feet;
- **Public Sewer easements shall be specific to Public Sewers, unless otherwise Approved by the Department on a case-by-case basis;**
- The driving surface shall have longitudinal slopes not greater than 9.0%, unless otherwise Approved by the Department on a case-by-case basis, and cross slopes not greater than 2.0%;
- Provide a 20-foot landing area in front of each manhole with a relatively flat surface (2.0% maximum slope in any direction);
- Easements shall provide all-weather maintenance access to all manholes; and
- Dead-end easements shall be avoided, except for flow-through sewers that are constructed to the subdivision/development boundary during initial sewer installation.

The Department reserves the right to modify or waive any of these requirements on a case-by-case basis (i.e. existing sewer easements).

#### REVISIONS

The modifications to the Engineering Design Standards 2012 by this Directive will be incorporated into the Standards as part of a formal Design Standards revision.

#### AUTHORITY

Pima County is empowered by A.R.S. 11-264 to construct and maintain a sewer system and it is necessary to establish design standards to be adhered to in the construction plans for facilities which are to be incorporated in the Pima County public sanitary sewer system.

#### PROCEDURE

Effective March 1, 2015 all first submittals of final plats shall incorporate these modifications to the Engineering Design Standards 2012.

#### PROCEDURAL RESPONSIBILITY

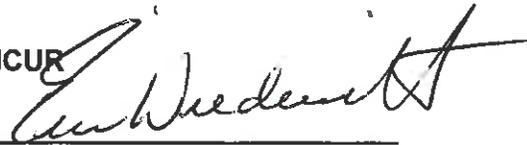
The Sanitary Engineering Manager of Pima County Regional Wastewater Reclamation Department, and/or designated representative(s), is responsible for the enforcement of this Directive and the associated standards.

#### RECOMMEND



Carol A. Johnson, P.E.  
Sanitary Engineering Manager

#### CONCUR



Eric Wieduwilt, P.E.  
Deputy Director, Planning & Engineering

#### APPROVED



Jackson Jenkins

Date: 1/13/15