

PIMA COUNTY, ARIZONA

DEPARTMENT OF WASTEWATER MANAGEMENT

PRELIMINARY SEWER LAYOUT REQUIREMENTS

MARCH 1984

REVISED: APRIL 1988

PRELIMINARY SEWER LAYOUT REQUIREMENTS

Preamble

The Preliminary Sewer Layout is intended to provide answers to the following questions:

- o Where and how will the proposed development and the involved sanitary sewerage system connect to the existing public sanitary sewerage system?
- o Will the entire development be served by gravity flow on-site sewage conveyance/collection system?
- o Are there any unique design considerations involved with the proposed public sewer system?
- o Is flow-through capacity within the new on-site system required? If so, to what degree and how will such flow-through be accommodated?

The preliminary sewer layout shall be shown on a plan incorporating the latest tentative plat (showing, as background, surface contour elevation information) for the development. The layout shall be submitted, through the appropriate subdivision process, to Wastewater Management for review and approval.

In order to facilitate the proper and orderly submittal of these plans, the following guidelines/information is presented:

A. General

1. The preliminary sewer layout must be shown on the Tentative Plat unless special permission is obtained, in advance, from the Planning Section of the Engineering Division of the Wastewater Management Department.
2. Construction plans for all new public sanitary sewerage facilities will be submitted to Wastewater Management for review and approval prior to the issuance of sewer construction permits.
3. All new public sanitary sewerage facilities must be accepted and released for service by Pima County Wastewater Management prior to the issuance of sewer connection permits.
4. Permits may be issued for model units in accordance with Ordinance #1981-97, provided any required public sewer plans have been approved by Wastewater Management and Arizona Department of Health Services.
5. All lots within a subdivision that utilize an individual disposal system must contain a minimum of 43,560 square feet, exclusive of easements, rights-of-way, and other unusable areas. Conceptual approval by the Pima County Health Department for private individual disposal systems will be obtained prior to final approval by Pima County Wastewater Management.

6. Where certain segments of the proposed on-site public sewage conveyance systems are designated to provide flow-through capacity for upstream development, the developer will be required to extend the appropriate size sewer through to the boundary of the development in question. The costs of any such extension shall not be eligible for credits -- unless oversizing (requested by Wastewater Management) is involved.

B. Rights-of-way (Easement) Requirements

1. Eight (8) inch diameter public sewer mains, with six feet or less of cover, will require a fifteen (15) foot wide easement. Unless otherwise approved, the sewer shall be centered within the easement.
2. Wider easements will/may be required for larger and/or deeper sewer mains. The Wastewater Management Department reserves the right to establish the specific required width on a case-by-case basis. Generally, the following easement widths will be required:

<u>Main Size/Diameter</u>	<u>Easement Width</u>
8"	15'
10" - 21"	20'
24" or larger	30'

3. Any required easements for off-site public sanitary sewerage facilities will be documented and recorded on separate instruments.
4. The easements required to accommodate flow-through sewer reaches (see Section A6 above), will be extended through to the boundary of the involved project.
5. Easements involved with public sanitary sewerage facilities will not be permitted to "dead end" within a lot/parcel/block -- without the prior approval of the Chief Engineer or designated representative.

C. Layout Requirements

1. Horizontal Alignment

- a. Changes in direction of the proposed public sewer, incorporating acute angles, shall be avoided. In the event that such a change in direction is unavoidable, special provisions may be required in order to accomplish the change in direction.
- b. To the largest degree possible, all new public sewers shall be located within the right-of-way of the project's roads/streets (public or private). In the event that this is not possible, the public sewerage facilities will be located within dedicated easements.

- c. The routing of public sewers, within easements, "across" lots/parcels shall be avoided.

2. Vertical Alignment

- a. The rim and invert elevations of the existing and proposed public sewers, at the point of connection of new systems to the existing one, shall be called out.
 - b. The rim and invert elevations of the upstream terminal ends of any sewers designated to provide flow-through capacity shall be called out.
 - c. Any involved existing public sewers shall be identified by size and plan number.
 - d. The location of all proposed manholes and cleanouts shall be shown -- the rim and invert elevations need not be shown.
Note: All public sewers shall be laid out in such a manner as to meet the criteria called out within Wastewater Management's Design Standards for such sewers.
 - e. At all points of extreme shallow cover, wash crossings or extreme depth of cover, sufficient invert, cover, ground elevation, etc. information shall be provided as necessary to clarify the situation.
 - f. All new sewer mains shall be designed for gravity flow -- in accordance with the applicable Wastewater Management Standards -- unless otherwise approved by the Chief Engineer or his designated representative.
 - g. Metering and/or sampling manholes shall be shown as needed/required in order to enforce Pima County Ordinance No. 1983-5.
3. Additional information -- discuss need with Wastewater Management prior to submittal of tentative plat and preliminary sewer layout.
- a. In the event trunk or flow-through sewer(s) are required through the development, the following information will be provided on or with the preliminary sewer layout.
 - o Invert and rim elevations for all manholes involved with the trunk/flow-through sewer reaches.
 - o The diameter and type of pipe to be installed.
 - o The slope of each reach of trunk/flow-through sewer.

- o A basin-study may be required in order to more accurately determine the size and location of the trunk/flow-through sewer facilities. (Note: If PCWMM does require a basin study be prepared for a project involving trunk/flow through sewer facilities, and the owner/developer of the involved project opts to not prepare the subject basin study, then PCWMM Department staff will do so, but only on an "as time permits" basis.)

D. Required General Notes - Preliminary Sewer Layout

1. When on-lot private disposal systems are to be used.
 - a. "Sewage disposal will be by private individual disposal systems. Conceptual approval by the Pima County Health Department for private individual disposal systems will be obtained prior to the approval of the Development Plan by the Pima County Wastewater Management Department" or
 - b. "Sewage disposal for Lots ____ through ____ will be by private individual disposal systems. Conceptual approval by the Pima County Health Department for private individual disposal systems will be obtained prior to approval of the Final Plat by the Pima County Wastewater Management Department."
2. When private sewers are involved.
 - a. "On-site sanitary sewers will be private and will be constructed, operated and maintained on a private basis. The location and method of connection to an existing public sanitary sewer is subject to review and approval by Pima County Wastewater Management at the time of submittal of plumbing/building plans," or
 - b. "On-site sanitary sewers, except public sewers within public sewer easements or rights-of-way, will be private and will be constructed, operated and maintained on a private basis. The location and method of connection to an existing public sanitary sewer is subject to review and approval by Pima County Wastewater Management."
 - c. "The required off-site sanitary sewer line will be constructed, operated and maintained on a private basis. The location and method of connection to an existing public sanitary sewer is subject to review and approval by Pima County Wastewater Management at the time of submittal of plumbing/building plans."
3. When on-site and/or off-site sewers are to be public.
 - a. "On-site sanitary sewers will be public and will be designed and constructed to Pima County Wastewater Management Department Standards."
 - b. "The required off-site public sanitary sewer line will be designed and constructed to Pima County Wastewater Management Department standards."

4. When sewer augmentation is required.

"The required off-site public sewer augmentation will be designed and constructed to Pima County Wastewater Management Department standards."

5. When sufficient rim and invert elevation data not shown.

"All sanitary sewers will be designed to provide gravity flow." (This note is not required if approximate invert and rim elevations as shown on the preliminary sewer plan indicate gravity flow will be achieved.)

6. In the case of every commercial and/or industrial development.

"Any wastewater discharged into the public sanitary sewerage system shall meet the requirements of Pima County Ordinance No. 1982-154, as amended by Pima County Ordinance No. 1983-5."

7. When a property owners' association is to be formed, and when all or a portion of the involved sewers are private.

"A property owners' association will be formed to accept responsibility and liability for construction, maintenance, operation and control of all private sewers."

A RESOLUTION OF THE BOARD OF SUPERVISORS OF PIMA COUNTY, ARIZONA, APPROVING AND ADOPTING A REVISION TO THE MANUAL OF ENGINEERING STANDARDS AND PROCEDURES FOR WASTEWATER MANAGEMENT.

WHEREAS, Pima County is empowered by A.R.S. 11-264 to construct and maintain a sewerage system; and

WHEREAS, Resolutions Numbered 1983-133 and 1984-44 adopted the "Pima County Wastewater Management Manual of Engineering Standards and Procedures"; and

WHEREAS, it is necessary from time to time to revise this Manual of Engineering Standards and Procedures;

NOW, THEREFORE, BE IT RESOLVED BY THE BOARD OF SUPERVISORS OF PIMA COUNTY, ARIZONA, that the "Pima County Wastewater Management, Manual of Engineering Standards and Procedures" is hereby amended as shown in the "PIMA COUNTY WASTEWATER MANAGEMENT, MANUAL OF ENGINEERING STANDARDS AND PROCEDURES, REVISION, APRIL 1988," attached hereto as Attachment A.

ADOPTED AND APPROVED, this fifth day of April, 1988.

PIMA COUNTY BOARD OF SUPERVISORS

By: 

Chairman

ATTEST:


Clerk, Board of Supervisors

APPROVED AS TO FORM:


Deputy County Attorney