



Preliminary Sewer Layout Acceptance
Substantive Review Checklist

PLAN NO. G-20____ - _____

FOR RWRD USE ONLY

Start Date of 1 st Submittal:		Returned Date:		# Review Days:	
Start Date of 2 nd Submittal:		Returned Date:		# Review Days:	
Reviewer	<input type="checkbox"/> Thomas Porter <input type="checkbox"/> _____			Reviewer Phone #	

This checklist provides the minimum proposed Preliminary Sewer Layout (PSL) requirements for typical public sewer projects. Each system is unique and depending on the circumstances, RWRD or the controlling jurisdiction, may ask for additional requirements prior to acceptance.

APPLICABILITY:

Preliminary Sewer Layout acceptance is required for any project that will be constructed by a private party to serve any development and either (a) involves new public sewer construction that will be turned over to RWRD for ownership upon completion and acceptance by RWRD, (b) contains an existing public sewer or public sewer easement within the project boundaries, or (c) may require construction of new public sewer within the project boundaries to serve a property upstream of the development. Preliminary Sewer Layouts are accepted by RWRD as authorized by Pima County Code Section 13.20.030 and Chapter 13.12.

Preliminary Sewer Layout Acceptance is one of a series of licenses that may be required prior to connecting to the RWRD Public Sewer System. Other licenses that may also be required prior to connecting to the RWRD Public Sewer System may include Sewerage Capacity Allocation (RWRD), Sewer Improvement Plan Acceptance (RWRD), Final Plat (RWRD), Construction Authorization (PDEQ) and Sewer Construction Approval (RWRD).

REQUIRED WITH ALL SUBMITTALS:

1. Submit one folded PSL Plan prepared and sealed by an Arizona professional registrant in conformance with the PSL Substantive Review Checklist. The development plan, tentative plat, site plan or other equivalent document may serve as the PSL, so long as it meets all of the requirements of a PSL.
2. Submit a completed copy of the PSL Acceptance Substantive Review Checklist (this document).
3. Submit a Type II- Sewerage Capacity Availability Request (or Type II Capacity Availability Letter or Type III Capacity Allocation Letter).
4. Submit a check made payable to Pima County Treasurer. First review fee is \$166.00 base fee plus \$50.00 per sheet. Second review fee is \$50.00 per revised sheet. Subsequent submittal review fee is \$39.00 per sheet.
5. Submit the folded plan set, checklist, capacity letter and check to:
 Regional Wastewater Reclamation Department
 201 N Stone Ave, 1st Floor
 Tucson, AZ 85701

Name of Project:			
Project Engineer:			
Company:			
Contact Information:		Phone:	
		Email:	

Notes:

- Construction plans for all new public sewerage facilities will be submitted to RWRD for review and acceptance prior to the issuance of sewer construction permits.
- All new public sanitary sewerage facilities must be accepted and released for service by RWRD prior to the issuance of sewer connection permits.

References (Ref.) for Preliminary Sewer Layout (PSL):

1. Arizona Administrative Code, Title 18, Chapters 5 & 9
2. Pima County Code of Ordinance, Titles 13.12 & 13.16, Preliminary Sewer Layout Requirements, March 1984 (revised April, 1988)
3. Engineering Design Standards, 2012
4. Standard Specifications and Details for Construction, 2012
5. **Pima County Sewer Improvement Plan Formatting Standards Substantive Policy Statement DLU12-XX (to be adopted), 2013**
6. Pima County RWRD Directive ENG2005-01
7. Pima County RWRD Directive ENG2009-019

Engineer	Reviewer	Use the Following Symbols	
		✓	Plan Complies with Requirements
		○	Plan Does Not Comply with Requirement
		N/A	Not Applicable
		1.	The plan sheet size shall be 24" X 36". (Ref. 5)
		2.	All mapped data on the plan shall be drawn at a standard engineering scale as accepted by RWRD or jurisdiction. Scales of 1" = 20', 1" = 30' and 1" = 40' are typical. ". (Ref. 5)
		3.	All lettering and dimensions shall be clear, legible and no smaller than 1/10" in size; quality shall be such that readable reproductions are attainable. (Ref. 5)
		4.	Plan and lettering shall be oriented with north toward the top or right of the sheet. (Ref. 5)
		5.	The sheet number shall be noted on the bottom right corner (i.e., Sheet ____ of ____). (Ref. 5)
		6.	A small location map shall be provided, drawn at a scale of 3" = 1 mile. The map shall be located in the upper right corner of the cover sheet. (Ref. 5)
		7.	Title Block shall be provided at the lower right corner of each sheet. Note: If PSL is not incorporated into a tentative plat, development or site plan, label the plan as "Preliminary Sewer Layout." (Ref. 2, A.1)
		8.	Prior project development and zoning case cross reference numbers shall be shown near title block. (Ref. 5)
		9.	Plans shall be sealed, signed and dated by an Arizona Licensed Professional Registrant. (Ref. 5)
		10.	Show current and proposed conditions such as topography, property boundaries, easements, hardscape, utilities (water, gas, etc.), and manhole rims and inverts, along with pipe slopes. Show existing conditions less prominently than proposed development. (Ref. 5)
		11.	Show all existing and proposed pump/lift stations and force mains. (Ref. 2, C.2.c,d)
		12.	All lots or blocks that will provide sanitary service via individual onsite disposal systems are identified on the plans. (Ref. 5)
		13.	Public sewer easements shall conform to the easement and accessibility requirements of Ref 4; Section 7. For off-site easements and projects that do not require a Final Plat, easements shall be recorded by separate instruments. (Ref. 2, B.3)
		14.	Proposed landscaping near public sewers shall conform to easement and accessibility design requirements. (Ref 4; Section 7.7)
		15.	When proposing connection to a 15" or larger sewer, written authorization from RWRD shall be obtained. (Ref 4; Section 5.2.1)
		16.	For commercial/industrial projects provide wastewater fixture unit equivalent calculations, shown in tabular form. Include the number, size and location of all proposed and existing water meters. (Ref. 2, Subsection 13.20.040 (A.4))
		17.	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. (Ref. 2, C.1.a)
		18.	To the greatest degree possible, all new public sewers shall be located within the project's right-of-way and beneath the paved portions of the roads/streets (public or private). In the event that this is not possible, the public sewerage facilities shall be located within dedicated easements. (Ref. 2, C.1.b) and (Ref 4; Section 5.2.1)
		19.	The routing of public sewers, within easements, "across' lots/parcels shall be avoided. (Ref. 2, C.1.c)
		20.	The routing of public sewers through storm water basins shall be avoided. (Ref 4; Section 5.1.11.B)
		21.	At the point of connection of new systems to the existing systems, the manhole rim and pipe invert elevations of the existing and proposed public sewers shall be called out. If a new manhole is to be constructed over an existing sewer main, the existing pipe material shall also be called out. (Ref. 2, C.2.a)
		22.	Any existing public sewers in the vicinity of the project shall be identified by size, plan number, and manhole/cleanout IMS identification numbers. (Ref 4; Section 4.2)

	23.	The location of all proposed manholes and cleanouts, including the rim and invert elevations, shall be shown. (Ref. 2, C.2)
	24.	The Engineer of Record shall provide calculations to justify system integrity (i.e. sewer depth) and scour analysis (i.e. wash crossings) when necessary or required by the Department. Sufficient elevation information shall be provided to clarify any unusual depth or cover situations. (Ref. 2, C.2.e) and (Ref 4; Section 5.1.11.A)
	25.	All new sewer lines shall be designed for gravity flow in accordance with the Engineering Design Standards, 2012 unless otherwise approved by the Sanitary Engineering Manager. (Ref. 2, C.2.f)
	26.	Metering and/or sampling manholes shall be shown as needed or required in order to enforce Pima County Ordinance No.1991-140. (Ref. 2, C.2.g)
	27.	Are appropriate General and Permitting Notes on cover sheet (see Notes below). (Ref. 2, D)
EXAMPLE 1		<p>For proposed sewers and force mains, plan shall call out pipe size, pipe material, ownership classification (Public or Private), length (feet, hundredths), slope (percent, hundredths) and directional flow arrow as shown in the following example: (Ref. 1, R-18-9-E301(4.01)(C)(7))</p>
EXAMPLE 2		<p>For existing sewers and force mains in the project's vicinity, plan shall call out pipe size, pipe material, ownership classification (Public or Private), IMS numbers, length (feet, hundredths), slope (percent, hundredths) and directional flow arrow as shown in the following example: (Ref. 1, R-18-9-E301(4.01)(C)(7))</p>

General Sewer Notes - Preliminary Sewer Layout

When on-lot private individual disposal systems are to be used:

1. SEWAGE DISPOSAL FOR LOTS ____ THROUGH ____ WILL BE BY PRIVATE INDIVIDUAL DISPOSAL SYSTEMS. CONCEPTUAL APPROVAL BY THE PIMA COUNTY DEPARTMENT OF ENVIRONMENTAL QUALITY FOR PRIVATE INDIVIDUAL DISPOSAL SYSTEMS WILL BE OBTAINED, PRIOR TO APPROVAL OF THE FINAL PLAT BY THE PIMA COUNTY REGIONAL WASTEWATER RECLAMATION DEPARTMENT.

When private sewers are involved:

2. 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 REGIONAL WASTEWATER RECLAMATION, AT THE TIME OF SUBMITTAL OF PLUMBING/BUILDING PLANS. **Or**
3. 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 THE PIMA COUNTY REGIONAL WASTEWATER RECLAMATION DEPARTMENT. **Or**
4. 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 THE PIMA COUNTY REGIONAL WASTEWATER RECLAMATION DEPARTMENT, AT THE TIME OF SUBMITTAL OF PLUMBING/BUILDING PLANS.

When on-site and/or off-site sewers will be Public:

- 5. ON-SITE SANITARY SEWERS WILL BE PUBLIC AND WILL BE DESIGNED AND CONSTRUCTED TO PIMA COUNTY REGIONAL WASTEWATER RECLAMATION DEPARTMENT STANDARDS.
- 6. THE REQUIRED OFF-SITE PUBLIC SANITARY SEWER LINE WILL BE DESIGNED AND CONSTRUCTED TO PIMA COUNTY REGIONAL WASTEWATER RECLAMATION DEPARTMENT STANDARDS.

When sewer augmentation is required:

- 7. THE REQUIRED OFF-SITE PUBLIC SEWER AUGMENTATION WILL BE DESIGNED AND CONSTRUCTED TO PIMA COUNTY REGIONAL WASTEWATER RECLAMATION DEPARTMENT STANDARDS.

When rim and invert elevations are not shown:

- 8. 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.)

In the case of every commercial and/or industrial development:

- 9. ANY WASTEWATER DISCHARGED INTO THE PUBLIC SANITARY SEWERAGE SYSTEM SHALL MEET THE REQUIREMENTS OF THE INDUSTRIAL WASTE ORDINANCE (PIMA COUNTY ORDINANCE NO. 1991-140, AS AMENDED).

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

- 10. A PROPERTY OWNERS' ASSOCIATION WILL BE FORMED TO ACCEPT RESPONSIBILITY AND LIABILITY FOR CONSTRUCTION, MAINTENANCE, OPERATION AND CONTROL OF ALL PRIVATE SEWERS.

If no property owners' association is being formed, as in the case of an apartment complex or commercial development:

- 11. MAINTENANCE AND OPERATION OF THE PRIVATE SANITARY SEWER TO ITS POINT OF CONNECTION TO THE PUBLIC SANITARY SEWER IS THE RESPONSIBILITY OF THE PROPERTY OWNER.

If no service laterals, on-site or off-site sewers are proposed and the commercial development will be served by the existing on-site private sewer:

- 12. THE ON-SITE SEWERS ARE EXISTING AND PRIVATE. NO NEW SEWERS ARE PROPOSED.

If new service laterals or private on-site sewer are proposed for the commercial development:

- 13. ON-SITE SANITARY SEWERS WILL BE PRIVATE AND WILL BE CONSTRUCTED, OPERATED AND MAINTAINED ON A PRIVATE BASIS, AND IN ACCORDANCE WITH AN APPROVED OPERATION AND MAINTENANCE PLAN, IF REQUIRED. THE LOCATION AND METHOD OF CONNECTION TO AN EXISTING PUBLIC SANITARY SEWER IS SUBJECT TO REVIEW AND APPROVAL BY THE PIMA COUNTY WASTEWATER MANAGEMENT DEPARTMENT.
- 14. 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, AND IN ACCORDANCE WITH AN APPROVED OPERATION AND MAINTENANCE PLAN, IF REQUIRED. THE LOCATION AND METHOD OF CONNECTION TO AN EXISTING PUBLIC SANITARY SEWER IS SUBJECT TO REVIEW AND APPROVAL BY THE PIMA COUNTY WASTEWATER MANAGEMENT DEPARTMENT.

If Public on-site sewer is proposed for the commercial development:

- 15. THE ON-SITE SANITARY SEWAGE COLLECTION LINES WILL BE PUBLIC AND DESIGNED AND CONSTRUCTED TO PIMA COUNTY REGIONAL WASTEWATER RECLAMATION DEPARTMENT STANDARDS. ALL BUILDING CONNECTION SEWERS WILL BE PRIVATELY MAINTAINED.

If any off-site Public sewers are proposed for the commercial development:

- 16. THE REQUIRED OFF-SITE PUBLIC SANITARY SEWER LINE WILL BE DESIGNED AND CONSTRUCTED TO PIMA COUNTY REGIONAL WASTEWATER RECLAMATION DEPARTMENT STANDARDS.
(This note not required when the off-site Public Sewer is not in adjacent ROW or a Public sewer easement)

