

Preliminary Drainage Report (PDR) Checklist

The purpose of the Preliminary Drainage Report is to identify specific solutions to problems onsite and offsite resulting from the development of the subdivision to be platted. In addition, those problems that exist prior to development must be addressed in the preliminary report. The PDR shall be in accordance with the following outline and contain the applicable information listed. Drainage reports must utilize the following format and major headings as noted below.

Report Contents

- 1) Table of contents, pages numbered.



General Location

- 2) City and County, and local streets within and adjacent to the subdivision.
3) Township, range, section, ¼ section.
4) Major drainageways and existing facilities.
5) Names or surrounding platted developments.



Description of Property

- 6) Area in acres.
7) Ground cover (type of trees, shrubs, vegetation).
8) General topography.
9) General soil conditions.
10) Major drainageways.
11) Irrigation facilities.
12) Utilities and other encumbrances.



Major Basin Descriptions

- 13) Reference should be made to major drainageway planning studies; such as drainage basin planning studies, flood hazard delineation reports, and flood insurance studies or maps, if available.
14) A flood plain statement shall be provided indicating whether any portion of the development is in a designated floodplain as delineated on the current FEMA mapping.
15) Major basin drainage characteristics.
16) Identification of all nearby irrigation facilities and other obstructions which could influence or be influenced by the local drainage.



Sub-Basin Description

- 17) Discussion of historic drainage patterns of the property in question.
18) Discussion of offsite drainage flow patterns and their impact on the development.



Drainage Design Criteria

- 19) Reference all criteria, master plans, and technical information used for report preparation and design; any deviation from such material must be discussed and justified.
- 20) Discussion of previous drainage studies (i.e. PDR, drainage basin planning studies, master plans, flood insurance studies) for the site in question that influence or are influenced by the drainage design and how the studies affect drainage design for the site.

Hydrologic Criteria

- 21) Identify design rainfall.
- 22) Identify runoff calculation method.
- 23) Identify design storm recurrence intervals.
- 24) Identify detention discharge and storage calculation method.

Drainage Facility Design – General Concept

- 25) Discussion of compliance with offsite runoff considerations.
- 26) Discussion of anticipated and proposed drainage patterns.
- 27) Discussion of the content of tables, charts, figures, plates or drawings presented in the report.

Drainage Facility Design – Specific Details

- 28) Presentation of existing and proposed hydrologic conditions including approximate flow rates entering and exiting the subdivision with all necessary calculations.
- 29) Presentation of approach to accommodate drainage impacts on existing or proposed improvements and facilities.
- 30) Presentation of proposed facilities with respect to alignment, material and structure type.
- 31) Discussion of drainage impact of site constraints such as streets, utilities, existing and proposed structures.
- 32) Environmental features and issues shall be presented if applicable.
- 33) Discussion of maintenance access and aspects of the preliminary design.
- 34) Discussion and analysis of existing and proposed downstream drainage facilities and their ability to convey developed runoff from the proposed development.

Drawing Contents

- 35) General Location Map: A map shall be provided in sufficient detail to identify drainage flows entering and leaving the development and general drainage patterns. The map should be at a scale of 1"=50' to 1"=2000'. The map shall identify any major construction (i.e. development, irrigation ditches, existing detention facilities, culverts, storm sewers, etc.) that shall influence or be influenced by the subdivision. 
- 36) Drainage Plan: Map (s) of the proposed development at a scale of 1"=20' to 1"=200' shall be included to identify existing and proposed conditions on or adjacent to the site in question. 
- 37) The drainage plan shall delineate all sub-basins and proposed initial and major facilities as well as provide a summary of all initial and major flow rates at design points. All floodplains effecting the site shall be shown. 