



PUBLIC WORKS DEPARTMENT

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RAUL M. ROJAS, DIRECTOR • CITY ENGINEER

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Engineering Firms

Subject: Drainage requirements for all Basins

There have been requests to clarify and develop specific requirements for the seven day basin drainage. This letter is to clarify section 2.8.5 of the Subdivision & Engineering Design Manual regarding the different types of soil analysis the City of Bakersfield will accept and to establish more precise standards.

The City of Bakersfield will only accept the following ASTM Test Methods for all retention basins for the 7 days drainage requirement:

- Permeability Test D 2434 or D 5084
- Double-Ring Infiltrometer D 3385

A minimum of 2 tests per acre of basin bottom shall be performed. The location of the samples shall be located at the basin site. Testing should be done for the most restrictive layers below the proposed basin bottom. A minimum of 2 borings per acre of basin bottom with a bore depth minimum of three times the maximum height of water below the proposed basin bottom shall be submitted to establish subsurface soil characteristics.


For all privately maintained basins, which are to retain 1 acre-foot of storm water or less, the City will also accept percolation tests provided that a Clear Water Absorption Rate conversion is included in addition to the percolation rate. This will take into account the volume absorbed and average wetted area of the bore hole. This rate shall be in depth per area per day and this will be the rate used for the basin design.

All reports submitted to the City of Bakersfield shall be certified by the engineer by clearly stating the proposed basin will drain within 7 days or less. Mitigation methods may be accepted for review and consideration. All basins shall be designed to meet the City of Bakersfield standards set by the Subdivision & Engineering Design Manual and will be subject to the approval of the City Engineer.

If you have any questions concerning this, please contact Public Works staff at (661) 326-3724.

Very truly yours,

RAUL ROJAS
Public Works Director


By: **MARIAN P. SHAW**
Civil Engineer IV - Subdivisions

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