

WALLER COUNTY ROAD AND BRIDGE DEPT.



Ross McCall, P.E.
County Engineer

To: Waller County Commissioners Court

From: Ross McCall, County Engineer

Re: Amendment to Subdivision and Development Regulations: Drainage Criteria Manual –
Detention Facilities

Item 3b on the agenda for December 6, 2023 is to amend the Subdivision and Development Regulations to modify road construction criteria. The amendment, if approved, would modify Appendix E, Section 5: Detention Facilities – General Requirements:

As shown in the storm frequency table earlier, detention facilities will be designed to provide enough storage to accommodate a 100-year event for the sub-area it is intended to serve. Detention facilities may be designed to be wet (constant level ponds) or may be designed to drain completely. They must be designed and constructed with stable slopes (4:1), they must provide adequate access and maintenance berms around the entire perimeter (30' minimum), and they must have erosion control elements (i.e., backslope swales, drop pipes, slope pavement, etc.) as necessary to ensure a stable, low maintenance facility. All detention facilities less than 2 acres in size must provide for 6 inches of freeboard between the projected 100-year water surface elevation and the top of the berm.

All detention facilities over 2 acres must provide 1 foot of freeboard. Outfall structures must be designed to restrict outflow from the detention facility at a rate not to exceed the pre-developed conditions, and must include a controlled release mechanism to safely discharge runoff from storm events in excess of the 100- year design storm.

Detention storage may not be placed in the floodway, road-side ditches, or in curb-and-gutter streets in public or private easements and rights-of-way.