On-Lot Ponding Requirements

Per Unified Development Code Chapter 350-605

The anticipated size & location of the on lot pond must be shown on a site plan in relation to property boundaries and existing/proposed structures on the property. Details provided on the site plan should include but are not limited to:

- Top & Bottom dimensions of the pond
- Top & Bottom of Pond finished grade elevations
- Distance from adjacent property lines/structures
- Pond sizing calculations
- Side slope treatment (see Table 6.16 for requirements)
- Pond cross section showing all appropriate detail
- Existing and proposed grades
- Location of Leach lines/Septic Tank (if applicable)

Other design requirements to consider as described in the Unified Development Code include the following:

- The pond shall be sized to hold 125% of all runoff from impervious area on the property. The following formula can be used to estimate required ponding storage:

  \[
  \text{Total Impervious Area (Sq. Ft.)} \times \left( \frac{\text{Runoff Coefficient}}{12} \right) \times 1.25 = \text{Total Required Storage (Cu. Ft.)}
  \]

**Runoff Coefficients:
- 2.0 for Mesa Areas (Land Slopes ≥ 1%)
- 2.8 for Valley Areas (Land Slopes ≤ 1%)

- Planning and design of pond dimensions/locations shall be such that flooding problems are not transferred beyond the property’s boundaries.
- The pond shall be located in a low lying portion of the property dictated by on site topography.
- The pond shall be located a minimum of five (5) feet from adjacent property lines and ten (10) feet from any structures.
- The pond shall not be placed inside easements that are intended for uses other than drainage.
- The minimum depth of the pond shall be 18 inches.
- Secure fencing shall be required if the depth of the pond exceeds three (3) feet.
- The side slopes (rounded to the nearest whole number) shall be treated with the applications found in Table 6.16 below.

<table>
<thead>
<tr>
<th>Side Slope</th>
<th>Typical Treatment Required or Other Acceptable Applications</th>
</tr>
</thead>
<tbody>
<tr>
<td>Side slope 2:1</td>
<td>Grouted rock, concrete, or wire-tied rip-rap</td>
</tr>
<tr>
<td>2:1 &lt; Side Slope &lt; 3:1</td>
<td>Hand placed rip-rap</td>
</tr>
<tr>
<td>Side Slope &lt; 3:1</td>
<td>Permanent best management practices, (i.e vegetation, landscape rock, etc.)</td>
</tr>
</tbody>
</table>

** Maintenance of the on-lot pond is the responsibility of the property owner(s)

**Hand drawn site plans as part of a building permit submittal are no longer accepted by this office. Site plan & all details must all be printed and hand delivered to the Flood Commission or sent digitally via email.
Examples of various ways to design your on lot pond: