

June 6, 2017

SUBJECT: Bioretention Design Changes

To Whom It May Concern,

The Metro Nashville Low Impact Development (LID) Manual has been the City's required design manual for Low Impact Design since March 10, 2015. During this time we have seen many successful installations of Green Infrastructure Practices, as well as, a few failures. As with anything new, we have to adapt to and improve on what works for us, and move away from what does not. The following items are things that we feel should be revised to fit our local needs:

1. Quantity of trees required
2. Percent plant coverage at maturity
3. Ground cover

We have consulted with various experts, including the City Forester, Landscape Professionals, Engineers, and Professors, who all expressed concern that many varieties of trees will have difficulty surviving in the media mix specified within the Metro Nashville LID Manual. Those concerns held true in the field. Therefore, the City has decided to no longer require or allow trees in bioretentions. We have also been advised to reduce the coverage area from 100% at maturity to 70%. Along with the plant coverage and tree revisions, we will also begin requiring a combination of 20-50% river rock *and* mulch as the ground cover to minimize the transportation ability of the mulch.

These changes are effective immediately and are retroactive for any bioretention that has been designed, but not yet installed. However, if plants or trees have already been purchased as designed, an exception can be offered. Please be aware though, that functionality of a bioretention is the primary goal and ultimately the owner has responsibility.

As a reminder, construction of a bioretention area should begin after the entire contributing drainage area has been stabilized with vegetation. This is the most important factor determining the success or failure of the bioretention area. Bioretention areas will fail if sediment is allowed to flow into them. It may be necessary to block certain curb or other inlets while the bioretention area is being constructed.

If you have any questions or concerns, please call me, Jeff Bryant at 931.645.7464 or email me at jeff.bryant@cityofclarksville.com.

Sincerely,



Jeff Bryant, P.E.
Civil Engineer
Clarksville Street Department