Greenville County Technical Specification for: LID-05 STORMWATER ALLEYS

1.0 Stormwater Alleys

A Stormwater Alley or service alley is designed as a private, one-way street with connections to larger public streets on both ends of an urban residential development. Stormwater alleys are only applicable for highly developed urban areas that have blocked street layouts. The alley will have 2 impervious driving strips separated by a strip of vegetation or other pervious cover. The design will allow rain water to infiltrate through vegetation or porous pavement to the ground, providing natural drainage.

1.2 Requirements

Stormwater Alleys are approved by Greenville County Land Development Division when the bulleted requirements in the following sections are met.

1.2.1 General Requirements

- The Stormwater Alley serves two rows of residences.
- Parking is not allowed within the stormwater alley right-of-way (ROW). The alley design must provide clear visual signs notifying that parking is not allowed.
- Each residential lot includes alley-loaded parking for at least two vehicles. In order to increase green space, no lots will have front-loaded parking.

1.2.2 Design Requirements

- The estimated ADT for the Stormwater Alley is equal to or less than 250.
- The Stormwater Alley is designed to be no less than 60 percent pervious surfaces calculated from the total ROW area.
- The Stormwater Alley design will have shared driveways when applicable.
- The Stromwater Alley will consist of two 4-ft driving strips separated by a 4-ft strip of pervious cover. Two 4-ft pervious pavers (see LID-01 Pervious Pavement Specification and Detail) will be installed adjacent to each 4-ft driving strip.
- Stormwater Alley design includes bypass design capable of managing the 10-Year 24-Hour rainfall event.
- Stormwater Alley design includes stormwater management structures capable of managing the water quality volume of rainfall which drains to the stormwater alley. Designs may include a pervious center strip with underdrain or any functional equivalent.
- Stormwater Alley driving strips are a minimum of 4-in thick, composed of 4000psi concrete with an appropriately designed base foundation layer.
- Include a concrete ribbon or apron that separates the adjacent roadway road from the Stormwater Alley.

1.3 References

EPA Managing Wet Weather with Green Infrastructure – Green Streets December 2008 Upstate Forever LID Strategies Stormwater Alleys.