

# LOW IMPACT DEVELOPMENT FOCUS GROUP

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## PARTICIPANTS

**JDM:** J.D. Martin, Arbor Engineering  
**JW:** Judy Wortkoetter, Greenville County Engineer  
**TMcD:** Tommy McDowell, Greenville City Fire Chief  
**JR:** Jeff Randolph, The Randolph Group (by phone)  
**DWS:** DeWitt Stone, Pickens County Planning Commission  
**CD:** Chandra Dillard, Greenville City Council  
**SN:** Steve Navarro, The Furman Company

**NOTE: The PowerPoint presentation and the handouts from the focus group (as well as a number of related documents) are available for download at [www.saludareedy.org/outreach/paving.html](http://www.saludareedy.org/outreach/paving.html).**

## PRESENTATION TOPICS AND RELATED DISCUSSION

*Discussion re goals for/constraints on narrower streets, particularly with regard to fire access.*

JDM: Key point re street width is *open* width, because that is what determines fire access. Parking is a crucial issue, and is difficult to enforce on residential streets.

JW: What is the volume that an 18 foot street can handle? [*Response: low hundreds*]

JW: Are alleys in such developments typically privately maintained? [*Response: yes*]

JW: [*correction to item in presentation*] Greenville Co minimum ROW is actually 40 feet, not 50 feet.

JDM: Montebello is a good example locally of some of these principles.

JW: Montebello was private streets -- county wanted to try it there before attempting narrow streets, small radii, etc. on public streets. Note that narrow radii can be subject to run-over damage.

*Discussion re bio-retention islands in cul-de-sacs, where runoff from the cul-de-sac is directed into a depressed vegetated island where it percolates into the soil.*

JW: Gvl Co would be fine with bio-retention cul-de-sac islands.

*Discussion re issue of fire codes and their impact on street widths, as well as of the constraints that communities face in ensuring fire response access.*

JDM: City has gotten creative with islands for traffic calming. However, this issue has to be closely coordinated with fire chiefs.

TMcD: Agreed – islands can make access impossible for fire vehicles. Need rolled curbs, cut corners, or reinforced curbs.

JR: My frustration is mostly with fire regulations. I have done square cul-de-sacs where I've been required to put two full lanes all the way around.

JDM: Need to look at Appendix D of fire code – it calls for making streets even wider than they are now.

TMcD: Served on SC Building Codes Council for last five years. In absence of other regs, fire chiefs point to state codes. Will need to provide alternatives via local ordinances.

JDM: There is a real opportunity here.

TMcD: Hammerhead cul-de-sac is a good alternative -- less pavement, works for fire access.

JR: Have done hammerheads, but not in Gvl Co. However, large vehicles need to do 3-point turns even in hammerheads, so why not allow smaller cul-de-sacs? Vehicles could make 3-point turns there.

DWS: Pickens now allows hammerheads.

*Discussion re use of swales as an alternative to standard curb and gutter, and of the circumstances under which such an approach is appropriate.*

JDM: Swales being used in low-density development. Should be by right if certain conditions are met.

JW: Would be in favor of swales if they met the criteria outlined by Tom Schueler of the Center for Watershed Protection. *[See the PowerPoint presentation slide 30 for a list of these criteria.]*

JDM: "Off-street" on-street parking a really interesting idea – narrow streets with parking only at intervals. *[See same slide as above.]*

CD: Need to be careful re ADA access when not using curb and gutter. Concrete strip at edge of asphalt is good – signal to people with impaired vision.

*Discussion re proposed sidewalk standards, and of potentially conflicting goals of pedestrian access and impervious cover reduction.*

JDM: Disagree with proposed standards re sidewalks. It would put them in places where they really aren't needed. Should really be focused on collector streets and on places where people really walk. Agree with basing sidewalk standards on street type rather than density.

SN: Needs to be an easier way to modify sidewalk standards -- they are overly rigid.

JW: Having issues in Greenville County with trees planted too close to sidewalk – tends to buckle the pavement.

SN: Also need to emphasize impact of aesthetics on property values. Trees and sidewalks can be real selling points.

JDM: Need to be sure not to pay too much attention to gross ROW width -- rather need to focus on what is in that ROW. Narrow street with wide sidewalks on both sides has as much impact as wide street.

*Discussion re parking ratios, and of how the market pushes for more parking spaces than low-impact development calls for.*

SN: Retailers want more parking than minimums -- none have under 5 per 1000. This is a bottom line for them, and if they don't get the parking they want, they'll go elsewhere. Only exception is in CBDs.

JDM: Clients often demand high parking ratios -- put developers in a tough spot. Have to deliver what the client wants.

CD: Most ordinances assume a single entity, not multiple users of a given parking facility.

SN: Challenge is that, while developers don't want to pay for more pavement than they need, they don't want to constrain future uses. Long-term value requires flexibility.

SN: Also -- need flexibility for medical building parking.

DWS: Interesting idea to require land reserve for additional parking if needed.

SN: Shared parking is not as easy in Greenville County as ordinances imply. Approvals can be cumbersome.

*Discussion re landscaping and stormwater management in parking lots.*

DWS: Pickens County *can* require parking lot landscaping on large projects.

SN: Major developers in the area use curb and gutter in parking lots; smaller ones will do whatever is cheapest.

JW: County has internal task force working on flooding issues. One issue is that soils are not very pervious here, so pervious pavement may not work as a strategy for reducing the impacts of parking lots.

*Discussion re setbacks from the street, street layout, and related issues.*

JW: Need deeper setbacks on streets with over 1000 vehicles per day – residents start to complain about traffic noise and safety issues.

DWS: Pickens just sent new setback rules to council -- 35" from centerline (down from 50") -- but hasn't passed yet.

JDM: Cluster development is allowed by right in Greenville County.

*Discussion re how to promote desired changes, as well as what kinds of changes are most likely to gain a favorable reception from the developer community.*

SN: Should track cost savings generated by alternative strategies, as well as reduction in impervious cover. Would be helpful to work up specifics as to cost savings and impervious cover reduction up front so as to make a solid case for what we will gain by instituting alternatives.

JDM: Could have Clemson students model the impervious cover the fiscal costs associated with a variety of scenarios using actual, already-developed sites.

DWS: What do developers see as areas for biggest cost savings?

JDM: Pavement widths are key, both in streets and in parking.

TMcD: Need to be careful to ensure that reduced pavement doesn't just translate into increased roofs.

SN: Need to think in terms of trades-offs as well as cost savings – i.e., getting a better development for the money.

JDM: Greenville LUDO needs to get passed -- it does a lot of what this project calls for.

CD: Agree. Have to educate the community that this is a good thing. If they smell "density," there is major resistance.

JW: What about abandonment of big boxes? This is major impervious cover issue.

JDM: Need to go after the things that everyone can live with, such as cul de sac design, parking lot dimensions, Appendix D and street width.

TMcD: Would like to see narrower streets tied to residential sprinkler requirements.