



To: Montgomery County Planning Department
From: Sarah Morse, Executive Director, Little Falls Watershed Alliance
Date: February 20, 2019

Re: Regency Centers Development, 120170170; 120180190

Dear Planning Staff,

On February 18, LFWA met with Regency Centers and their engineering firm, JBA, to discuss ways that stormwater management in Westbard could better support the goal of naturalizing the Willett Branch and creating a new stream valley park. While we very much appreciate Regency's recent commitment to include 24 inch gravel sumps under ALL the micro-bioretenion facilities and to use permeable pavement in some of the parking spaces in shopping center site, there is more that can be done to increase stormwater infiltration without changing the footprint of the buildings. The following list was developed from our discussions at the meeting. 1) We would like to see Silva Cells installed in place of tree boxes throughout the development. 2) We would like the green roof run-off infiltrated instead of being piped to vaults. 3) We think that there should be permeable pavement in the loading dock area and maybe other areas. 4) The Springfield Park should have a rain garden (micro-bioretenion) and a grove of trees.

As you know, the goal of our requests is to ensure that the Willett Branch will be a healthy, vibrant stream when it is naturalized and the new Willett Branch Stream Valley Park is finished. It is well established that stormwater run-off is one of the biggest threats to the health of a stream, and it is established that using green vegetative techniques (ESD) that allow the stormwater to soak into the ground are paramount to good stormwater management. Indeed, the Montgomery County RainScapes program is based on this premise. The County gives rebates to home owners and businesses who install infiltration ESD on their properties allowing the stormwater run-off to soak into the ground, where it is cleaned, recharges the ground water, and ensures a healthy baseflow for streams. Without adequate baseflow, streams can run dry during parts of the year.

With the extensive Westbard development happening adjacent to the Willett Branch, there is a unique opportunity to install a stormwater management system that focuses on infiltrating the run-off to improve the health of the stream. With a robust plan, we can create more baseflow and prevent the type of pollution, erosion and flooding that excess stormwater causes when it flows directly to the stream. We can have a vibrant, healthy Willett Branch.

Although Regency Centers' SWM for its site plan meets most of the State's technical SWM requirements, it is severely lacking in ESD techniques that allow the stormwater to infiltrate and feed the stream. In their January 14, 2019 plan, only 38% of the required SWM ESDv used infiltration techniques. The addition of permeable pavement mentioned above adds less than 1% more. Regency is also requesting a fee-in-lieu waiver for treating the run-off from the roadway – or 10% of the total run-off for the development. That run-off will never be cleaned and will flow directly to the stream, carrying a toxic mix of chemicals picked up from the road.

In December, 2018, we hired Designgreen to review Regency Centers' plan from the stream's point of view. Using the January 2019 SWM numbers, they ran the EPA SWMM model to explore:

- Would Regency Centers' plan allow enough re-charging the ground water to ensure a good baseflow?
- Would more infiltration ESD give the Willett Branch a better baseflow?
- Were there other opportunities to do more infiltration ESD on the site?

What they found was:

- More infiltration ESD would considerably improve the baseflow of the stream—in some sections as much as 47%.
- More infiltration ESD would also reduce run-off, which is one of the leading causes of flooding in major storms.
- There was room in the development, **without reducing the footprint of the buildings**, to increase infiltration.

Following the study, we did a thorough review of the proposal and accompanied by Rebecca Stack from Designgreen, and Diane Cameron, Green Growth, met with Regency Centers and their engineers from JBA to explore how to increase the infiltration. Our recommendations follow. Again, these are not requests to change the footprint of the development, but rather to tweak the SWM plan to allow more infiltration.

Use Silva Cells instead of Tree Boxes:

Infiltration can be increased along the public and private roadways and in the civic green with the use of Silva Cells for tree planting. With the Silva Cell, the sidewalk around the tree is held up by pillars which create additional space for the water to soak in and tree roots to spread. They are designed to provide stormwater management in urban areas where the soil is seriously compacted and trees roots and utilities compete for space. Existing and new utilities can run through the Silva Cells which are filled with loamy soil to allow for maximum tree root spread. We recommend that the Silva Cells have at least 1,500 cf of soil per large tree (less for smaller trees). The soil must be loam, not structured. We would like to see ALL proposed tree boxes in the development replaced by Silva Cells.

Replacing the tree boxes with Silva Cells not only increases infiltration, but fosters healthier tree growth. Large healthy trees provide additional stormwater management and benefit in other ways. They soak up rainwater as well as provide shade, and reduce the heat index. Wouldn't it be nice if in 15 years, we were proud to see a well-established tree canopy in the development, rather than the pathetic stunted trees you so often see at shopping centers where the trees are planted without the soil, nutrients and space they need to grow properly.

Direct Green Roof Run-off to Bioretention Sumps, NOT to Stormwater Vaults:

Although green roofs are an ESD technique, the water they treat doesn't go into the ground. Instead, it runs off the roof in a down spout system. In Regency Centers' plan, this run-off is then piped to stormwater vaults. The vaults release the water into the storm drain system which flows directly to the Willett Branch. We would like the run-off from the green roofs infiltrated by piping it to the micro-bioretention sumps instead of the vaults. This is an easy way to add more infiltration to the site, as the water is already being piped - it just needs to be re-directed. It should be noted that there is no need to resize the micro-bioretention facilities if the green roof run-off goes directly to the sumps.

Install Micro-bioretentions in Springfield Park:

There is no stormwater management shown in the half acre park on the edge of the development. We would like to see infiltration ESD through micro-bioretentions in the park, as well as a nice grove of trees—either as part of the micro-bioretentions or maybe in Silva Cells, depending on the design for the park. This would increase the total ESD for the development considerably.

Install Permeable Pavement for the Loading Dock:

We appreciate that there is limited space for doing permeable pavement in the development because of the restraints of the County's regulations. However, we would like the developer to explore using it in the loading

dock area. Any time that run-off from a parking surface can be infiltrated, it is a win for the environment. Nothing man-made can clean polluted water as well as the bacteria in the ground.

No Waiver for Treating the Road

We remain firm in our objection to a waiver for the road run-off. Road water running directly into the stream, with its toxic mix of chemicals, is the worst case scenario for the Willett Branch. In their effort to find places for more ESD, Designgreen offered some ideas on how to treat the stormwater that are used in DC and Montgomery County. For example, the water can be captured and treated in the median, a technique used in DC. In Montgomery County, the Dennis Avenue green street is another good example of stormwater management in the right-of-way and in the median. In addition, water from the road could be directed to the triangle of land created by the re-alignment, where it could be treated. In our meeting with Regency Center, they agreed to explore these options. In any event, the 87% fee-in-lieu waiver requested for managing the stormwater from the road is too great, and violates the Sector Plan’s requirement that waivers should be limited.

Stormwater Buffer between Kenwood Condo and the New Town Houses

One other point we would like to touch on is the design of the stormwater buffer at the west side of the shopping center redevelopment. The buffer strip is mandated in the Sector Plan to “address the unmitigated storm flows”. We understand that "stormwater buffer strip" is not a technical term, but given the focus on ESD in the Sector Plan, we feel confident that a conveyance swale to the storm drain system is not what was envisioned. Tree roots were mentioned as the reason for not infiltrating. Given the length of the swale, there must be some areas where tree roots are not an issue. Rock Creek Conservancy recently converted a grass conveyance swale to infiltrate in an area with mature trees in Derwood. At the very least, the conveyance swale should be planted with natives and have check dams to slow the water.

Healthy Willet Branch, Beautiful Development!

We would like to think we have common goals with the developer—the health of the new Willett Branch and the most beautiful development in Montgomery County. The Willett Branch Stream Valley Park will be something our grandchildren will cherish, and will attract people to the shops and restaurants. Hedonic studies of housing prices have shown that higher prices and rents can be realized for residences near parks. The additions we have proposed will beautify the development with bigger trees creating the type of urban oasis everyone would love to see and the increased infiltration will ensure a healthy Willett Branch. We should note that the stormwater management system installed is likely to be there for a long, long time, making it even more important that we get it right. With so much at stake, no one wants to look back at missed opportunities.

Thank you for your attention.

Sincerely,

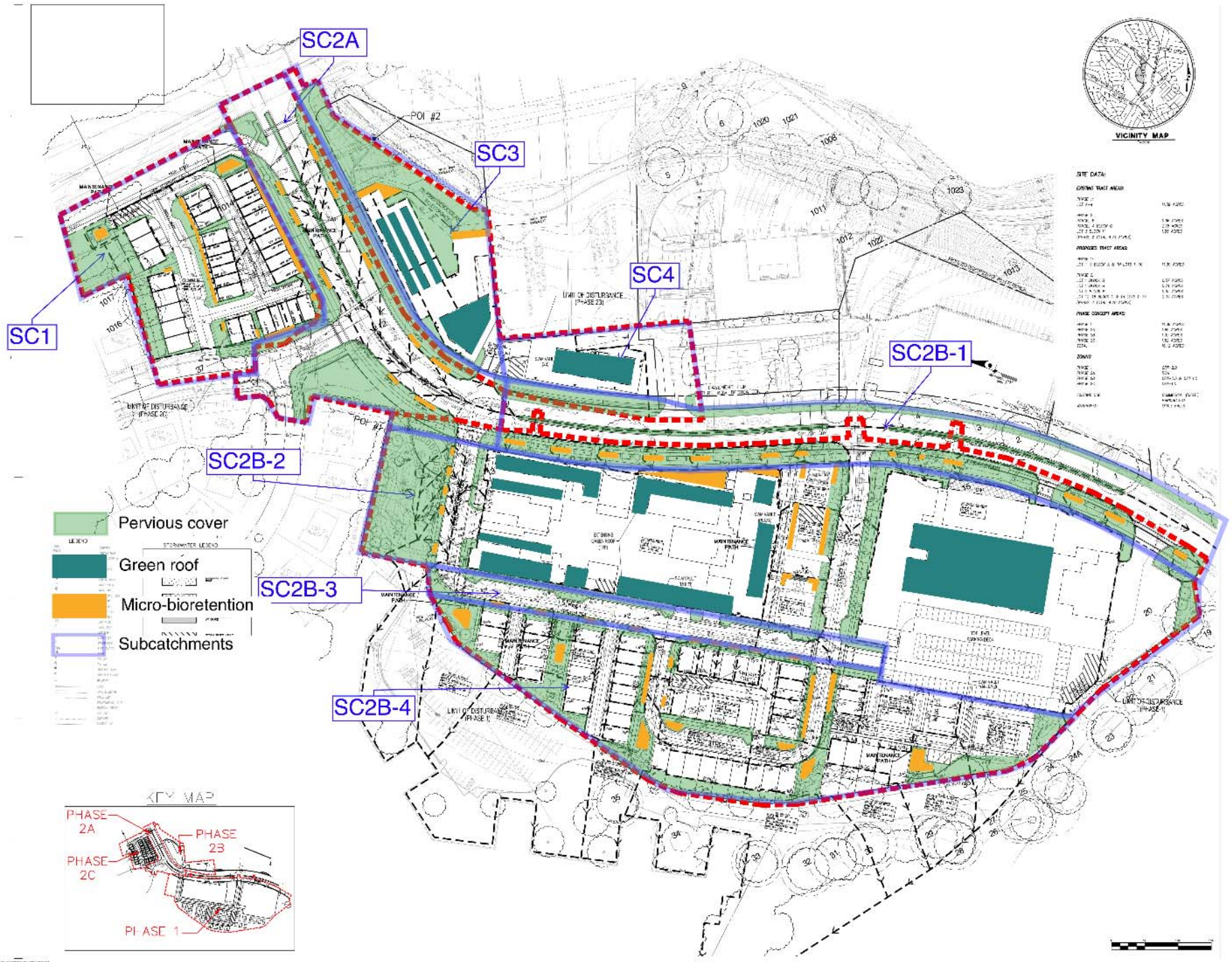
Sarah Morse
Executive Director

cc:

Marc Elrich, County Executive
Andy Frank, Montgomery Parks
Andrew Friedson, County Council
Dominic Quattrocchi, Montgomery Parks
Mike Riley, Director, Montgomery Parks

Mark Etheridge, Department of Permitting Service
Gwen Wright, Director, Montgomery Planning

BEFORE: Regency Centers Development Stormwater Management Concept



Stormwater Management Calculations from Regency Centers, Jan 14, 2019 filing*

Project Phase	Required ESDv	ESD				TOTAL SWM FOR PROJECT					
		Green roof		Bio-Retention		Total ESD		Structural		Waivers	
		ESD volume (CF)	%	ESD Volume (CF)	%	ESD (CF)	%	Vaults (CF)	%	Volume (CF)	Fee-in- lieu Waiver
Total Phase 1	60,624	5,654	9.3%	24,838	40.97%	30,492.00	50.3%	30,132	49.7%	0	0
Total Phase 2	29,500	1,601	5.4%	9,920	33.63%	11,521.00	39.1%	8,190	27.8%	9,789.00	33.2%
Phase 2A - Road	11,900	0	0%	2,111	17.74%	2,111.00	17.7%	0	0	9,789.00	82.3%
Phase 2B - Westwood II	7,605	1,601	21.1%	3,304	43.45%	4,905.00	64.5%	2,700	35.5%	0	0
Phase 2C - Manor Care	9,995	0	0%	4,505	45.07%	4,505.00	45.1%	5,490	54.9%	0	0
Total Project	90,124	7,255	8.1%	34,758	38.57%	42,013.00	46.6%	38,322	42.5%	9,789.00	10.9%

*There are several typos and math errors on the calculations sheets submitted to Planning. They are corrected here.

Prepared by: Little Falls Watershed Alliance - www.LFWA.org - info@lfwa.org