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Loiederman Soltesz Associates, Inc.


Providing Land Planning,
Civil Engineering, Surveying,
and Environmental Services
Since 1980

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Moving Development Forward



BENEFITS OF THE NEW REGULATIONS


- Increased ground water recharge
 - Reduction in “thermal pollution”
 - Maintains existing drainage patterns
 - Extends the time of concentration on site which will ultimately lead to streams being naturally fed
 - Removal of unattractive SWM ponds
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“SUBURBAN GOING URBAN”

Suburban Going Urban is NOT:

- Located in highly dense, urbanized Maryland locations with multiple tall buildings.
- Characterized by buildings over 4 stories requiring steel construction.

Suburban Going Urban IS:

- Located in areas adjacent to major highways, existing metro sites, and along existing public bus routes.
 - A design model that provides mixed use development, of residential, office, and retail, in a walkable community.
 - Characterized by buildings that are 4 stories, which allows for wood-frame or “stick-built” construction.
 - Developed based on the economics of land values, rent, and construction costs.
 - Generally infill or redevelopment projects.
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REDEVELOPMENT : THE BEST FORM OF SMART GROWTH

Redevelopment :

- Protects existing natural resources by not pushing development to the rural areas.
- Utilizes existing infrastructure.
- Removes and improves underdeveloped or dilapidated properties.

Redevelopment under the New Regulations:

- Is offered credit under the regulations which indicates a desire to encourage redevelopment.
- Requires the site meet a threshold of 40% impervious in order to qualify as “Redevelopment”. This threshold is too high to include a large portion of the “garden style” apartment properties that are prime locations for redevelopment.

PERCEPTION vs REALITY

- The perception is that ESD/MEP will cost the same or less than traditional storm drain infrastructure. The reality is that because of the regulatory design storm conveyance requirements the diameter of the storm drains will stay the same. And because of increased number of micro-drainage areas, the length of the pipe may increase.
- The perception is that maintenance requirements and costs will be the same as traditional stormwater management. The reality is that SWM ponds and Underground Treatment requires very little constant ongoing maintenance, whereas ESD devices can require ongoing regular maintenance which will increase cost.
- The perception is that offsite measures can easily be used if the site does not have the capacity to do ESD. The reality is that it is difficult to use offsite measures to compensate for treatment because of offsite ownership issues.
- The perception is that these devices will be able to be installed with only minimal changes to the proposed site plans and no loss in density. The reality is that since ESD devices use more land than underground storage devices and because Suburban Going Urban buildings tend to be capped at four stories, density will be reduced.

APPROVED ESD DEVICES

▶ Single Use ESD

1. Disconnection of rooftop runoff*
2. Disconnection of non-rooftop runoff*
3. Sheet flow to conservation areas*
4. Rain Water Harvesting
5. Submerged gravel wetlands
6. Landscape Infiltration
7. Infiltration Berms
8. Micro-Bioretenention


▶ Dual Use ESD

1. Green Roof **
2. Pervious Pavers **
3. Dry Wells

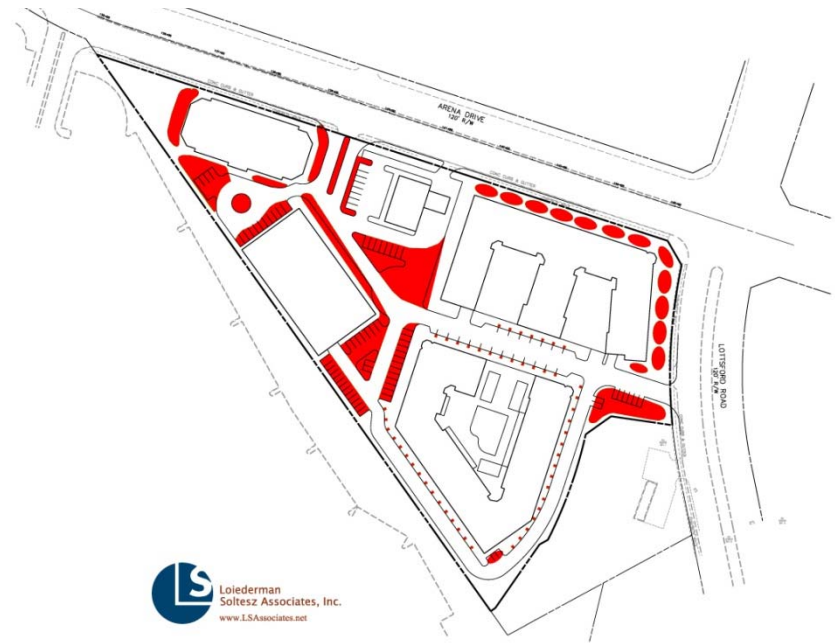
* These techniques require large areas of open space to be effective which is not available for infill or redevelopment.

** These devices are only dual use based on the actual device. (The roof functions as a roof.)

LARGO METRO CENTER

- ▶ Located within one mile of the Capital Beltway
 - ▶ Located adjacent to the Largo Metro Station
 - ▶ Located adjacent to Route 214 (4-Lane Arterial Highway)
 - ▶ High density project with retail, residential and office development.
 - ▶ No additional infrastructure improvements will be required beyond the site limit.
 - ▶ Ideal example of a Suburban Going Urban project.
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LARGO METRO CENTER




68 Parking Spaces Lost

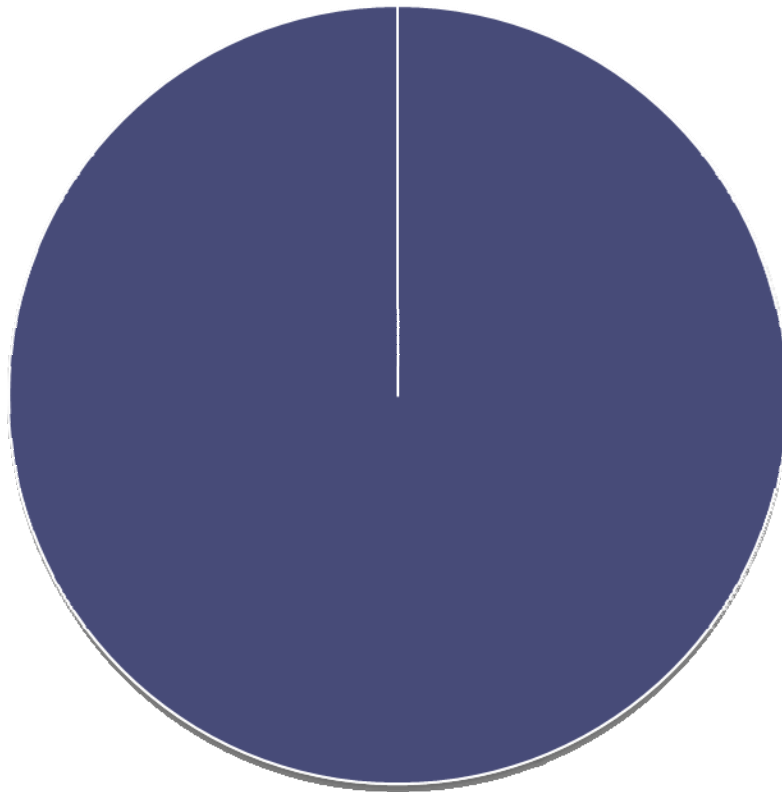
Existing Regulations

ESD Devices

IMPACT OF ESD ON THE LARGO METRO CENTER SITE

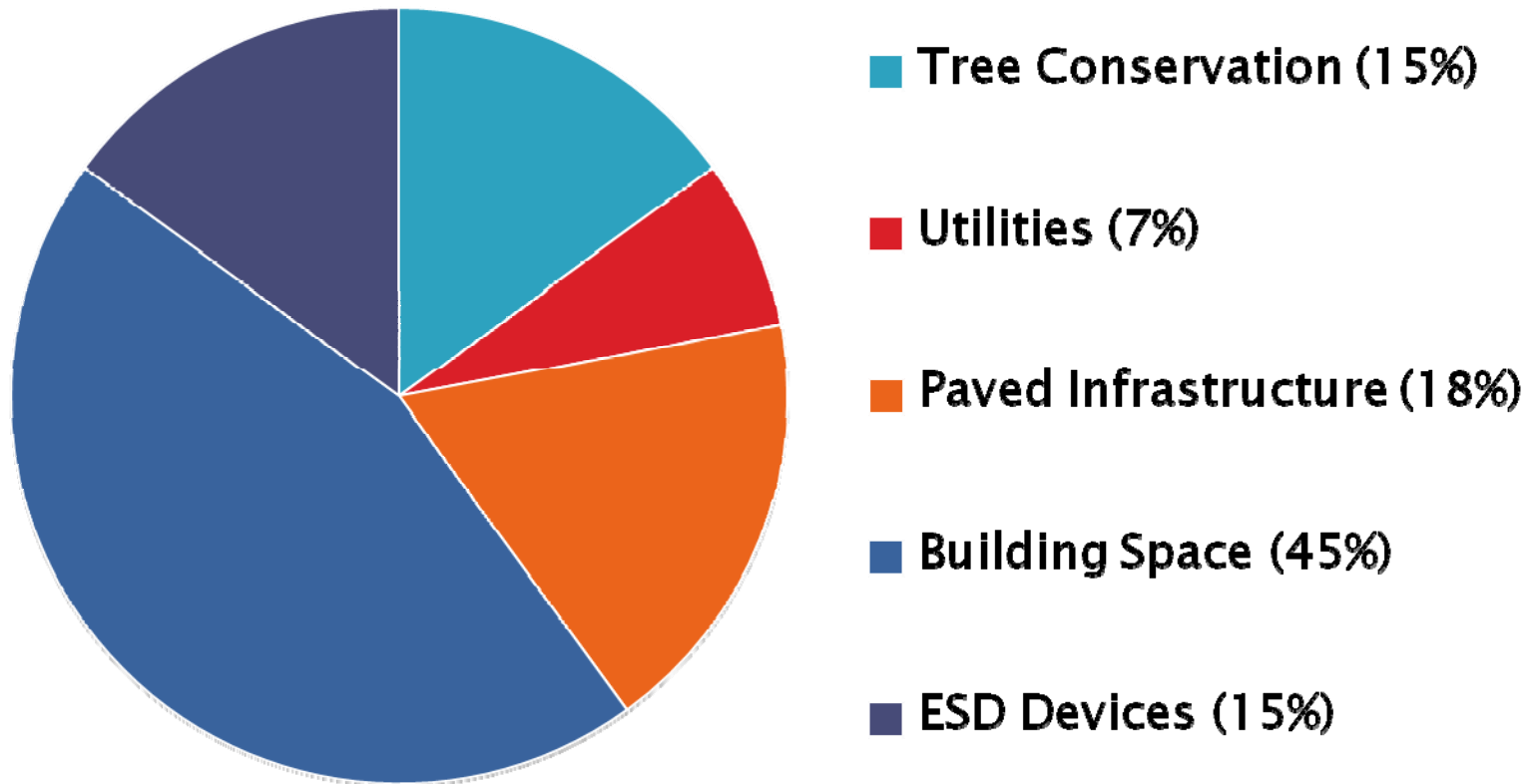
- ▶ Reduction in retail adjacent parking.
 - ▶ Loss of parking causes a less desirable retail experience.
 - ▶ Reduction in density in an area specifically programmed for high density.
 - ▶ Economic model may not work.
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LAND USE UNDER EXISTING REGULATIONS




- Tree Conservation (15%)
- Utilities (7%)
- Paved Infrastructure (22%)
- Building Space (56%)
- Underground SWM (0%)

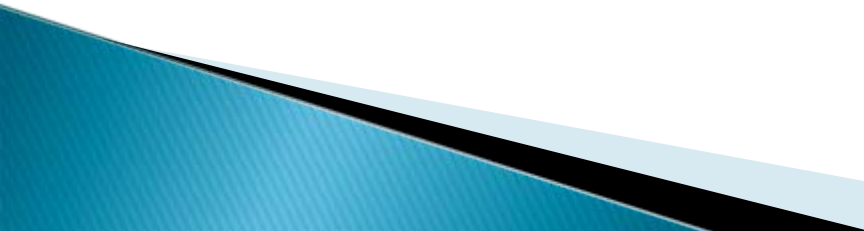
LAND USE UNDER NEW REGULATIONS



ESD to the MEP

- ▶ MEP is an acronym for “Maximum Extent Practicable”
 - ▶ The term “Maximum Extent Practicable” will mean something different to a citizen, a developer, a regulator, or an environmental advocate.
 - ▶ ESD devices require land and disproportionately impact high density smart growth as opposed to low density suburban sprawl.
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REDEVELOPMENT UNDER THE NEW REGULATIONS

- ▶ Belcrest Apartments as currently a garden apartment complex of 750 units built approximately 50 years ago. It is located near an existing Metro station.
 - ▶ There is currently no SWM on site and there are known flooding conditions offsite and downstream of the property.
 - ▶ The proposed Belcrest Project is a mixed-use 2,500 unit residential, retail, and office development that is designed to be pedestrian friendly and to take advantage of existing mass transit facilities.
 - ▶ As is typical of urban nodes, the site is designed to be 95% developed with buildings, access roads, sidewalks, public plaza and gathering spaces and utilities. Underground SWM is proposed for treatment and flood control.
 - ▶ Applying land intensive ESD devices to the MEP, this development could not proceed without a reduction in buildable area.
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BELCREST APARTMENTS AS ENVISIONED TODAY



BELCREST APARTMENTS WITH ESD/MEP



RECOMMENDED REVISIONS

- ▶ Encourage redevelopment by lowering the threshold requirement for Redevelopment to an existing impervious percentage of 30%, which will be more inclusive of Suburban Going Urban Smart Growth projects.
- ▶ Create a tiered definition of Maximum Extent Practicable so that urban projects can treat stormwater with structured devices as a first choice. We recommend that each jurisdiction define “urban” based upon their local development master plan. We also recommend that even for urban projects recharge volume must be treated with ESD devices.
- ▶ Require local jurisdictions to create an “Off-Site Stormwater Management Club” system which would allow multiple developers to contribute funds for stream restoration and other off-site projects within the local watershed in lieu of on-site stormwater management. Currently jurisdiction may create off-site mitigation banks but are not required to.
- ▶ Increase the benefit achieved for using flat green roofs to include a volume credit rather than just a runoff curve number credit.
- ▶ Revise the regulations to allow any existing SWM facility or facility built by December 31, 2012 treat under current design standards all development that drains to it. Reuse of existing infrastructure and limiting new infrastructure are key components of Smart Growth and should be encouraged. This lets the investment in planning, design and construction of infrastructure experience the maximum economic return on the investment and does not require additional infrastructure to accomplish the same goal. This revision will also allow time for local jurisdictions to remove impediments to ESD/MEP which ultimately will encourage Smart Growth and Low Impact Development.