

**Comments Provided to DPS on  
Proposed Amendments to IgCC  
Multiple Chapters**

Respondent: Anonymous

- Chapter 2 - Definitions
- Chapter 3 - Jurisdictional Requirements and Life Cycle Assessment
- Chapter 4 - Site Development and Land Use
- Chapter 5 - Material Resource Conservation and Efficiency
- Chapter 7 - Water Resource Conservation, Quality and Efficiency
- Chapter 11 - Existing Building Site Development

For Clarity, do not refer to plant material as "landscaping", this term is too broad and is often used to describe lawn maintenance, landscape construction, and landscape design. For example, Landscaping Irrigation should be, planting or plant material irrigation, if a landscape plan is used to describe a plan that specifies plant material, then is a Planting Plan, not a landscape plan.



**MONTGOMERY COUNTY PUBLIC SCHOOLS**  
MARYLAND  
www.montgomeryschoolsmd.org

September 25, 2013



Mr. Mark Nauman  
Permitting Services Specialist  
Montgomery County Department of Permitting Services  
255 Rockville Pike, 2<sup>nd</sup> Floor  
Rockville, Maryland 20850

Dear Mr. Nauman:

The following represent comments from Montgomery County Public Schools (MCPS) regarding provisions of the **2012 International Green Construction Code (IgCC)**:

1. Chapter 8, Section 803.2 **Thermal environmental conditions for human occupancy:** *Requires buildings to be designed in compliance with ASHRAE 55, Sections 6.1 and 6.2.*

**MCPS Comment:** The State of Maryland does not provide funding for air conditioning of gymnasiums. If this is required by code for new construction, the remaining 200 MCPS schools will be requesting air conditioning in gyms as well.

2. Chapter 4, Section 408.2 **Site Hardscape:** *Requires not less than 50% of site hardscape to be light colored, shaded or permeable.*

**MCPS Comment:** Physical education specifications regarding paved play areas, safety considerations such as bus loops separate from student drop-off areas, and access for deliveries and service require a large amount of hardscape on MCPS school sites. Areas abutting parking lots are used for LID stormwater installations. MCPS will continue to specify permeable paving where the use of such does not interfere with emergency or heavy vehicle traffic, but this will not come close to meeting the 50% standard.

3. Chapter 4, Section 407.2 and 407.3 **Showering and Bicycle Parking.**

**MCPS Comment:** The requirement for showers and bicycle spaces is excessive. For a 90,000 sq ft new elementary school, MCPS would have to install 18 showers, rather than 2 as now required by LEED for Schools. In that same size school, IgCC would require 360 bike spaces, of which 180 would need to be covered.

4. Chapter 4, Section 402.6 **Park Land:** *Site disturbance or development of land located within a public park is not permitted.*

Division of Construction

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45 West Gude Drive, Suite 4300 ♦ Rockville, Maryland 20850 ♦ 240-314-1000 ♦ Fax: 301-279-3003

**MCPS Comment:** MCPS has a number of Park-School sites. While we discourage development on park land, we may install geothermal wells on adjoining park property (with permission from Parks), as it is often the only land available.

5. Chapter 8, Section 803.4.1 **Printer, Copier and Janitorial rooms:** *Requires deck to deck construction, self-closing doors and separate exhaust.*

**MCPS Comment:** The school system has instituted an award-winning green cleaning program in all schools.

6. Chapter 8, Section 803.5 **Filters** *Filters for air conditioning systems shall be rated at MERV11 or better.*

**MCPS Comment:** MCPS has investigated the cost-effectiveness of MERV 11 filters and finds that MERV 8 filters, changed on a regular basis, are a better fit with the geoechange system most often used in new construction.

7. Chapter 6, Section 610 **Building Renewable Energy Systems:** *Requires 2% of building energy use to come from PV, wind or solar thermal.*

**MCPS Comment:** Use of renewables is site specific and will not be practicable on many school projects where roofs are already taken up with vegetated trays. The alternative of a 10 year commitment to purchasing 4% of energy use through renewable energy credits is difficult, as it is the County that purchases wind power for MCPS and only in 2 year increments.

8. Chapter 6, Section 604 **Automated Demand Response Infrastructure:** *Must participate in a utility automated peak demand control program.*

**MCPS Comment:** The school system has developed its own custom peak management program that does not interfere with the instructional school calendar. Over its 5 year history, the program has effectively shaved peak on 80 to 100 percent of the days chosen by the Independent System Operator to determine annual capacity charges. The program, while demonstrably effective, would not qualify as utility operated demand response.

9. Chapter 6, Section 603.6 **Energy Display:** *Requires an energy dashboard in lobby of building or through the internet.*

**MCPS Comment:** MCPS has investigated a variety of real time energy display systems and has not found any that are actually used for educational purposes. Providing energy data over the web, if professional development was first provided to teachers, might be a more realistic approach.

The following represent comments from Montgomery County Public Schools (MCPS) regarding provisions of ASHRAE Standard 189.1-2011:

1. Section 6.4.1 **Site Water Use Reduction:** *Irrigation must be supplied from alternate on-site sources of water.*

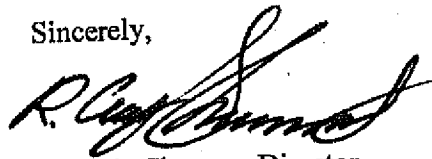
**MCPS Comment:** The school system has installed approximately 600,000 sq ft of vegetated roof which is not required to be watered, except in periods of drought. To require alternative sources of water for the emergency only condition will be expensive and wasteful.

2. Section 10.3.2.4.2 **Owner Occupied Buildings Transportation Plan:** *requires employee incentives for mass transit/bike/telework or initiate a carpool/rideshare program.*

**MCPS Comment:** As the owner of more than 200 buildings, the school system could face a huge cost in implementing these changes across all facilities.

If you have any questions or need further assistance, please call me at 240-314-1000.

Sincerely,



R. Craig Shuman, Director  
Division of Construction

RCS:mas

Copy to:

Mr. Adams  
Ms. Anderson  
Mr. Bagai  
Mr. Cross  
Mr. DeRosa  
Mr. Marhamati  
Mr. Shpur

# Analysis of Green Building Code Options for MCPS

## Background

US Green Building Council's LEED was developed as a voluntary rating system. Jurisdictions that require LEED certification for new construction have lacked until recently a code compliance path to document performance of these buildings.

Montgomery County is currently considering adoption of the ICC International Green Construction Code (IgCC) and ASHRAE 189.1 Standard for the Design of High Performance Green Buildings to fill this need. This could occur as soon as October 2014.

Legislation (Bill 3-14) proposed in January 2014 by Roger Berliner will be amended to require public buildings to meet IgCC or ASHRAE 189.1 instead of obtaining LEED certification. Resources that now go into project LEED documentation, registration and review costs could be reallocated into the building itself. It has not been determined whether LEED certification would remain an option for compliance.

## Technical Analysis

ASHRAE 189 is generally considered an easier path than IgCC. The scope covers new commercial buildings, additions and system additions to existing buildings. LEED for Schools is applicable exclusively to MCPS Revitalization/Expansion projects. It is not clear how site credits would be handled when only a portion of the site is being disturbed.

Similar to LEED, both IgCC and ASHRAE 189 have requirements dealing with site sustainability, water use efficiency, energy efficiency, indoor environmental quality and the building's impact on the atmosphere, materials and resources. Both codes include a section related to building construction and plans for operation, all of which represent best current practice and which MCPS already requires. They include acceptance testing, operations plan, maintenance plan, erosion control plan, commissioning, etc.

ASHRAE 189 contains mandatory provisions and then either a prescriptive or performance path. The energy efficiency requirements overall for climate zone 4A (Baltimore) are not more stringent than ASHRAE 90.1 2010, the current code.

Mandatory elements of ASHRAE 189 that differ from current LEED requirements or that may present cost considerations for MCPS:

- Heat Island Protect at least 50% of hardscape surfaces with shade, high reflectance paving and/or covered parking. At least 30% of east and west-facing walls must be shaded from grade to a height of 20 feet.
- Provide for future installation of on-site renewable at 3.7 watts per sq ft for the entire roof area (perhaps do this by assigning parking lots as future solar canopy areas?)
- Thermal comfort based on ASHRAE 55-2004—may impact cooling for gymnasiums
- Envelope requirements slightly more stringent than ASHRAE 90.1. Maximum 40% glazing.
- Automatic demand response systems required with ability to reduce peak by 10%
- Fan power limitations reduced by 10% compared with ASHRAE 90.1
- Condensate must be recovered and reused. Water use in cooling towers must be evaluated

# Analysis of Green Building Code Options for MCPS

- For most systems with cooling capacity exceeding 33,000 Btu/h, either an air or water economizer is required.
- Cooling towers shall be equipped with makeup and blowdown meters, conductivity controllers and overflow alarms. Also drift eliminators.
- All constant volume DX units with capacity greater than 110,000 Btu/h and all fan coils with hp greater than 5 hp must have at least a two-speed fan or variable speed fan to allow for reductions in fan power at lower loads.
- Building energy metering (gas, electricity, water) with remote communication capability must be installed and consumption records maintained for 3 years.
- The 189.1 standard references the interior and exterior lighting power density requirements of 90.1-2010, but lowers them by 10%. More stringent daylighting controls are incorporated into 189.1. (New ASHRAE 90.1 2013 will make daylight control mandatory for almost any space with a window.)
- Requirement in 189.1 for a transportation management plan, to include carpools, vanpools, bicycles.

## Standard 189 compared to LEED

A Carrier Corporation analysis found that using ASHRAE 189 is equivalent to LEED v 3 Silver. An analysis by Montgomery County staff found ASHRAE 189 equivalent to LEED v 3 Gold. A February 2013 analysis by the US Army found a negligible first-cost increase with adoption of 189.1. The standard was also found to be life-cycle cost effective in all climate zones. USGBC Illinois Chapter analysis found 189.1 equivalent to a minimum LEED Silver.

## Standard 189 compared to IgCC

The 189 standard is more concise than IgCC and in a format that is more familiar to engineers and architects. IgCC is more "progressive", basing savings on source energy, rather than site energy and using a measurement tool called zEPI (zero energy performance index) which rates the expected energy performance of the new building compared to the average performance in a benchmark year. IgCC has a number of other provisions that are problematic for MCPS (requires filters of MERV 11, PV systems required, etc.)

## Summary

Overall impression: Adoption of 189.1 will not seriously impact first cost (except for shading and gym cooling?) and will provide significant time savings for design and construction teams, particularly if Montgomery County accepts existing plans and specs as proof of compliance.

Mark Etheridge -- DPS/LD

2012 IgCC Review for compliance with normal DPS sediment control and stormwater management review practice and process. "General compliance" indicates an area with requirements generally met my current DPS review practice.

## CHAPTER 4 – SITE DEVELOPMENT AND LAND USE

### SECTION 401- GENERAL

401.1 Scope and intent. – General Compliance

401.2 Predesign site inventory and assessment. – General compliance, however we do not require mapping of invasive plants and/or native plants.

### SECTION 402 – PRESERVATION OF NATURAL RESOURCES

402.1 Protection by area. - General Compliance

402.2 Flood hazard areas. - General Compliance

402.2.1 Flood hazard area preservation, general.- General Compliance

402.2.2 Flood hazard area preservation, specific. - General Compliance

402.2.3 Development in flood hazard areas. - General Compliance

402.3 Surface water protection. - General Compliance

402.4 Wetland protection. - General Compliance

402.5 Conservation area. – DPS Water Resources does not enforce an additional buffer beyond delineated environmental buffers.

402.6 Park land. – DPS does not prohibit disturbance on public park property.

402.7 Agricultural land. – I believe this is a zoning issue. DPS Water Resources allows development on agriculturally zoned property where it is allowed by zone.

402.8 Greenfield sites. – DPS does not prohibit Greenfield development.

402.8.1 Site disturbance limits on Greenfield sites. – DPS does not limit development on Greenfield sites.

### SECTION 403 – STORMWATER MANAGEMENT

403.1 Stormwater management. - General Compliance

403.1.1 Increased runoff. - General Compliance

403.1.2 Adjoining lots and property. - General Compliance

403.1.3 Brownfields. - General Compliance

403.2 Coal tar sealants. - General Compliance

### SECTION 404 – LANDSCAPE IRRIGATION AND OUTDOOR FOUNTAINS

This section is outside the scope of DPS Water Resources sediment control / stormwater management review.

### SECTION 405 – MANAGEMENT OF VEGETATION, SOILS AND EROSION CONTROL

405.1 Soil and water quality protection. – DPS Water Resources does not require VSPAs as required under this section.

405.1.1 Soil and water quality protection plan. - DPS Water Resources does not require VSPAs as required under this section.

405.1.2 Topsoil protection. – Not generally required by DPS Water Resources.

405.1.3 Imported soils. – Not generally required by DPS Water Resources.

405.1.4 Soil reuse and restoration. – Not generally required by DPS Water Resources.

405.1.5 Engineered growing media. - General Compliance

405.1.6 Documentation. – Not generally required by DPS Water Resources.

405.2 Vegetation and soil protection. – DPS Water Resources does not require soil protection plans.

Within this section the only areas where we would currently be in conformance would be 405.2.1(2) and 405.2.1(3) through use of the Limit of Disturbance (LOD) that is required to be shown on the sediment control plans.

405.3 Native plant landscaping. – DPS Water Resources does not currently require this.



**SECTION 406 – BUILDING SITE WASTE MANAGEMENT**  
This section is outside the scope of DPS Water Resources.

**SECTION 407 – TRANSPORTATION IMPACT**  
This section is outside the scope of DPS Water Resources.

**SECTION 408 – HEAT ISLAND MITIGATION**  
This section is outside the scope of DPS Water Resources. Pervious pavements, when used, are generally in conformance with the requirements of **408.2.4 Pervious and permeable pavement**. Vegetative roofs, when used, are generally in conformance with the requirements of **408.3.2 Vegetative roofs**.

**SECTION 409 – SITE LIGHTING**  
This section is outside the scope of DPS Water Resources.

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**CHAPTER 7 – WATER RESOURCE CONSERVATION, QUALITY AND EFFICIENCY**  
This chapter is outside the scope of DPS Water Resources. Although we do allow and encourage cisterns for rainwater reuse, we do not review the components of the system as required under this chapter.

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2011 ASHRAE Review for compliance with normal DPS sediment control and stormwater management review practice and process.

**CHAPTER 5 – SITE SUSTAINABILITY**

**5.1 SCOPE**

DPS Water Resources does not track or review elements pertaining to site selection, mitigation of heat island effect, or light pollution.

**5.2 Compliance.**

Although some projects that are submitted for review may meet these requirements, DPS Water Resources does not track or review elements pertaining to these areas of compliance.

**5.3 Mandatory Provisions**

**5.3.1 Site Selection**

See comment under 5.2 above.

**5.3.2 Mitigation of Heat Island Effect**

This section is outside the scope of DPS Water Resources.

**5.3.3 Reduction of Light Pollution**

This section is outside the scope of DPS Water Resources.

**5.3.4 Plants**

DPS Water Resources does not enforce removal of invasive plants.

**5.3.5 Mitigation of Transportation Impacts**

DPS Water Resources does not enforce removal of transportation impacts.

**5.4 Prescriptive Options**

Many if not all of the options listed are allowed by DPS Water Resources as potential methods for providing required stormwater management. However, DPS Water Resources does not currently require the use of these specific options as presented in this section. The practices listed, such as Green Roof and Permeable Paving do generally conform to DPS minimum design standards for each practice. However the requirements for their use under this section is outside the scope of DPR Water Resources plan review.

#### **CHAPTER 6 – WATER USE EFFICIENCY**

This chapter is beyond the scope of DPS Water Resources plan review.



May 22, 2014

Robert M. Summers, Ph.D., Secretary  
Maryland Department of the Environment  
1800 Washington Boulevard  
Baltimore, Maryland 21230

Re: Maryland's 2014 Draft Zero Waste Plan

Dear Dr. Summers:

The Joint Water Reuse Committee of the Chesapeake Section of the American Water Works Association (CSAWWA) and the Chesapeake Water Environment Association (CWEA) (Water Reuse Committee) would like to congratulate you and the Maryland Department of the Environment (MDE) for establishing an ambitious policy framework for "Zero Waste Plan," which includes elimination of inefficient disposal of wastewater in Maryland. The Water Reuse Committee welcomes the wide range of proposed innovative actions related to solid waste and encourages the same level of commitment and dedication to water reuse. Effective implementation of such proactive measures will no doubt result in enhancement of quality of life and protection of the environment for generations to come.

Our committee has focused on the water reuse portion of the MDE report and recommends MDE's consideration of five (5) topics prior to finalization of the Draft document: 1) Regulations and Guidelines for Water Reuse; 2) Establishment of Long-Term Strategic Water Reuse Plan; 3) Utilization of Partnerships for Water Reuse Educational Programs; 4) Mandating Cooperation Between Water and Water Reuse Regulations; and, 5) Promoting Creative Water Reuse Strategies while Addressing Infrastructure Challenges.

**1) Regulations and Guidelines for Water Reuse**

Lack of guidelines from MDE is perhaps the biggest hindrance in promoting water reuse projects in Maryland. Producing regulations and guidelines will be the first fundamental step towards a successful path for water reuse. Such regulations, among other important parameters, need to define minimum safe water quality standards for various end-use non-potable applications (regardless of source water). This concept is in line with the "fit for purpose" concept promoted by the Environmental Protection Agency's 2012 Water Reuse Guidelines. MDE needs to provide guidelines for all types of water reuse projects by expanding the scope of applicability of water quality standards to both Centralized (e.g., effluent of wastewater treatment plant) and Decentralized (e.g., groundwater pumped from dewatering building foundation and used for flushing toilets) water reuse systems. The MDE report correctly states that "reuse on site within individual businesses and residences is often complicated or precluded by local plumbing and other requirements." If decisions related to Decentralized water reuse systems are left up to the local authorities and plumbing codes, there will be chaos, lack of consistency, significant waste of resources and possibility lack of adequate public health protection. While some details of on-site Decentralized projects can be addressed at the local level, water quality standards for all water reuse projects should be established by the State.

In addition to the important reasons listed above, including the Decentralized system in the State's Plans will contribute to the State's achievement of its reuse goals by increasing the total volume of reuse water used.

## **2) Establishment of Long-Term Strategic Water Reuse Plan**

An effective water reuse strategic plan is needed to support the Water Reuse Goals listed in Table ES-1 on page 2 of the Plan. Among other parameters, such a plan should contain steps to truly encourage and facilitate water reuse in all sectors throughout the State. This can be accomplished by discouraging wasteful practices, promoting efficient irrigation and groundwater recharge practices and an overall integrated water resource planning favoring water reuse. Another important consideration is the development of sustainable funding programs, including water reuse loans or grants. In addition, as stated in the report, it is critical to remove barriers to water reuse. This can be accomplished by adhering to scientifically based water quality standards such as appropriate application rates for spray irrigation, adequate buffers to ensure public health protection, allowing flexibility of irrigation and discharge schedules and overall annual limits. Developing these standards will promote more effective water reuse strategies and help to make water reuse acceptable. There are many examples of effective strategic plans that can be used as the basis for Maryland's program. Some references include:

*State of Florida: Strategies for Effective Use of Reclaimed Water*  
[http://www.dep.state.fl.us/water/reuse/docs/valued\\_resource\\_FinalReport.pdf](http://www.dep.state.fl.us/water/reuse/docs/valued_resource_FinalReport.pdf)  
<http://www.dep.state.fl.us/water/reuse/index.htm>

*New Jersey Water Reuse Program*  
<http://www.nj.gov/dep/dwa/reuseff.htm>

*Arizona Department of Environmental Quality*  
<http://www.azdeq.gov/environ/water/permits/reclaimed.html#class>

*California Recycled Water Regulations and Guidance*  
<http://www.cdph.ca.gov/healthinfo/vironhealth/water/pages/waterrecycling.aspx>

## **3) Utilizing Partnerships for Water Reuse Educational Program**

An important strategy for moving forward on this important initiative is water education. Such educational efforts should encompass all aspects of future water management programs that efficiently meet the water needs of our growing population. Incorporating water reuse projects at state and local government agencies, highway rest areas, state parks, visitor welcome centers, college campuses, and other government facilities can showcase effective reuse and promote public acceptance. The Water Reuse Committee is willing to volunteer its resources to help MDE develop an integrated water education program and facilitate the educational components of water reuse. Conducting outreach can be managed in conjunction with local jurisdictions, educational institutions, engineering firms and private developers by establishing various partnerships.

Dr. Summers  
Re: Maryland's 2014 Draft Zero Waste Plan  
May 20, 2014  
Page 3 of 3

**4) Mandating Cooperation Between Water and Reclaimed Water Regulations**

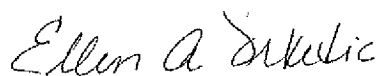
Requiring those that are applying for new potable water permits to explore options to use reclaimed water to reduce their dependence on new potable water sources will encourage water reuse and expand the reuse water potential. Many reuse water opportunities are lost due to isolated permitting agencies and a system that does not require coordination between permitting agencies. Many states such as New Jersey and New York promote reuse by requiring applicants to include reuse potential in the early stages of the potable water application process. This requirement promotes coordination between potable water and reuse water parties, and encourages the applicants and the regulators to explore potential reuse applications and conservation of traditional water sources.

**5) Promoting Creative Water Reuse Strategies while Addressing Infrastructure Challenges**

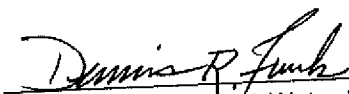
Currently, many utilities in the State are repairing and replacing a significant portion of their aging water and sewer infrastructure to address water main breaks and sanitary sewer overflows. Creative and strategic planning may allow incorporation of "purple pipe" during some of these projects.

In summary, the Water Reuse Committee is in full support of MDE's initiatives to promote water reuse and looks forward to collaborating with MDE in the months to come.

Sincerely,



Ellen Frketic, CWEA Water Reuse Committee Chair



Dennis Funk, CSAWWA Water Reuse Committee Chair

Mark Etheridge – DPS/LS/Stormwater

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**STUART D. KAPLOW, P.A.**

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[WWW.STUARTKAPLOW.COM](http://WWW.STUARTKAPLOW.COM)

STUART D. KAPLOW

June 23, 2014

Via email [mark.nauman@montgomerycountymd.gov](mailto:mark.nauman@montgomerycountymd.gov)  
Mark Nauman, Senior Permitting Services Specialist  
Department of Permitting Services  
255 Rockville Pike, 2<sup>nd</sup> Floor  
Rockville, Maryland 20850

Re: **Adoption of 2012 International Green Construction Code**

Dear Mr. Nauman:

Greetings. I thought it is necessary and proper to follow up my letter of May 27, 2014 with respect to the IgCC because Baltimore City has this evening introduced a bill enacting the City's version of the IgCC, and has recognized that the heat island mitigation provision needed to be altered, but dealt with it in a manner slightly different than I recommended to you.

Baltimore City as the largest city in the state and arguably the jurisdiction with the largest impact of urban heat island effect, is amending the form IgCC provision, "Section 408 Heat Island Mitigation" in two ways. First Baltimore is reducing the area requiring mitigation from "not less than 50% of the site hardscape" to "not less than 25% of the site hardscape". And second, Baltimore is adding porous asphalt pavement as one of the permitted mitigation strategies.

The precise language from the Bill No. 14-0413 is:

**SECTION 408 HEAT ISLAND MITIGATION**

**408.1 GENERAL. {AS IN IGCC}**

**408.2 SITE HARDSCAPE. NOT LESS THAN 25% OF THE SITE HARDSCAPE MUST BE PROVIDED WITH 1 OR ANY COMBINATION OF THE OPTIONS DESCRIBED IN §§ 408.2.1 THROUGH 408.2.5. FOR THE PURPOSES OF THIS SECTION, SITE HARDSCAPE DOES NOT INCLUDE AREAS OF THE SITE COVERED BY SOLAR PHOTOVOLTAIC ARRAYS OR SOLAR THERMAL COLLECTORS.**

**408.2.1 TO 408.2.4 {AS IN IGCC}**

**408.2.5 POROUS ASPHALT PAVEMENT. POROUS ASPHALT PAVEMENTS INCLUDE OPENGRADED ASPHALT MIXTURES WITH AIR**

Our law firm is constantly working to minimize our impact on the planet  
We strive to offer our services in an ever more energy efficient and environmentally friendly fashion



Mr. Mark Nauman  
Page Two  
June 23, 2014

VOIDS OF NOT LESS THAN 16%. POROUS ASPHALT PAVEMENTS ARE PERMITTED ONLY WHERE THE USE OF THESE HARDSCAPES DOES NOT INTERFERE WITH:

1. ACCESS OR EGRESS OF FIRE AND EMERGENCY APPARATUS, VEHICLES, OR PERSONNEL,
2. UTILITIES, OR
3. TELECOMMUNICATIONS LINES.

Such may be a reasonable way of addressing the issue in Baltimore City. The bill certainly introduces a notion of fairness and levels the playing field between hardscape materials. My client can live with the bill as proposed in Baltimore.

That said, I renew my suggestion that for Montgomery County's purposes the better strategy is that the entire matter of mitigation of urban heat island effect be moved to the "voluntary" Appendix A of the IgCC AND that the language be modified to allow porous asphalt (all as I have specifically suggested in my earlier correspondence).

Significantly, I am told that William McNamara's comments on behalf of the Montgomery County Department of General Services also recommend moving the entire matter of mitigation of urban heat island effect to Appendix A.

In all candor, what is clear from the Baltimore City bill is that this issue of mitigation of heat island effect need to be addressed.

In a broader context, I wrote a blog post today about the City bill. You might be interested in reading Baltimore City is Adopting the IgCC.

Thank you for the opportunity to participate in this process. And thank you for your continued courtesies

Sincerely,

*Stuart Kaplow*

Stuart D. Kaplow

SDK:tbm

cc: Brian Dolan, Executive Director, Maryland Asphalt Association



**Jetter, Reginald**

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**From:** Nauman, Mark  
**Sent:** Thursday, July 03, 2014 5:49 AM  
**To:** Jetter, Reginald  
**Subject:** Fwd: My testimony at the IgCC meeting July 2, 2014  
FYI.

Mark Nauman  
Senior Specialist  
Montgomery County  
Dept. of Permitting Services  
255 Rockville Pike  
Rockville, MD 20850  
240-777-6270  
301-370-3674 (mobile)

Begin forwarded message:

**From:** Molly Hauck <[mollyphauck@gmail.com](mailto:mollyphauck@gmail.com)>  
**Date:** July 2, 2014 at 8:19:48 PM EDT  
**To:** [mark.nauman@montgomerycountymd.gov](mailto:mark.nauman@montgomerycountymd.gov)  
**Subject:** My testimony at the IgCC meeting July 2, 2014

My testimony at the IgCC Meeting July 2, 2014

I am testifying in support of a mandatory building code to replace the voluntary LEED program.

My name is Molly Hauck, and I have lived in Kensington since 1982. I represent the Committee to Save Kensington, a group of Kensington residents which worked to reduce the level of density allowed by the Kensington Sector Plan passed by the Montgomery County Council in March 2012. We remain concerned about the impacts from high density on infrastructure, such as roads and schools, as well as the environment. This concern is heightened in non-transit oriented areas such as Kensington. For example, Kensington's Master Plan allows for three high-density 'mixed use' buildings located where there are low-density buildings today on the sites of the Hardware City and Savannah's Restaurant and on Metropolitan Avenue near the train tracks. The Plan also permits higher density office buildings and more development in residential areas.

One motivation for me to speak today on behalf of the CSK is that we have been told that the carbon footprint of Kensington will triple as a result of the new development and new residents allowed by the Master Plan. And these impacts are being allowed county-wide. Kensington is only one of the many sector plans that the Planning Board has proposed and the County Council has passed or is working on. We know we can do better in regulating HOW, not just HOW MUCH, the county grows in the critical near term as the effects of climate change begin to cost so much in both financial and environmental costs. Chris Graham, a member of the Committee to Save Kensington, spoke at a previous meeting outlining the environmental impacts of development and how best to mitigate the potential damage to the planet. We have the ability to plan growth and the technology to allow both

7/3/2014

development and the environment to co-exist and even thrive together.

We appreciate and agree with Mark Nauman's concern about climate change expressed when he opened these meetings on May 21st. We hope that your work will help implement the Climate Action Plan passed by the County Council. We advocate for the introduction of a mandatory building code, such as the IgCC, rather than the voluntary LEED program. We appreciate the many meetings scheduled to discuss the details of implementing the IgCC in Montgomery County, and including every stakeholder in the process. We support holding some sessions during the evening hours to allow more residents to participate. We encourage you to publicize these meetings widely in every way possible so more citizens find out about them and participate in them. We only found out about them because of our ongoing interest, and only one of our group heard about them.

Transparency is critical to the success of this process. We regard the Permitting Department as an entity that can regulate the otherwise unrestrained developed allowed by the Master Plans proposed by the Planning Board and adopted by the County Council. Our goal is to draw attention to how this building code will affect citizens and environmentalists who have to live with the development and its impacts.

We encourage you to implement the strictest building code possible that will require developers to severely limit the carbon footprint of the buildings and add the most effective environmental amenities possible. We support using the highest standards for water quality and stormwater management, tree canopy, and site design. Whenever the IgCC is better than the current Montgomery County code, we encourage you to use it.

We can and must do better for the future generations who will inherit our county. The time is now. Thank you for your work.

Molly P. Hauck, on behalf of the Committee to Save Kensington

4004 Dresden St.,  
Kensington, MD, 20895-3812  
H: (301) 949-0178  
C: 240-418-0263

**From:** Molly Hauck <mollyphauck@gmail.com>

**Date:** July 2, 2014 at 11:00:10 PM EDT

**To:** mark.nauman@montgomerycountymd.gov

**Cc:** Virginia Sheard <boots3303@aol.com>, Chris Graham <chraham73@verizon.net>, James Graham <iceagewasa@verizon.net>, Danila Sheveiko <dsheveiko@hotmail.com>, Diane Cameron <dianecameron60@gmail.com>

**Subject:** Publicizing the IgCC mtgs.

Dear Mark,

I think that the general public knows nothing about the mtgs. that you are holding. I don't know how you went about publicizing it, but I didn't see or hear anything about it. With the exception of the people in the Save Kensington Group, it looks as though everyone who is testifying is in the building field (architect, landscape architect, etc.). It would be good to have more input from the general public, environmentalists, people who care about their local neighborhoods, and neighborhoods that have had a sector plan foisted on them by the Planning Board and the County Council. These people are important stakeholders but probably have never heard about what you are doing.

One way of publicizing it might be to send an email about it to all the people who have testified before the County Council this year (if you can get their emails).

Another might be for you to write an Op-Ed to the Gazette describing what you are doing and asking citizens to get involved. They have a print edition and an online edition. The Patch is a local online publication, which you could probably send a letter to.

A third might be to have public service announcements about it on WAMU, WPFW, or WTOP. I don't know if WETA TV does PSAs.

A fourth might be to contact civic associations throughout the county and invite them to participate in the process.

Since it is summer, it might take time to reach people and you are only planning to have one more mtg. But it might help to have a mtg. in the evening in September specifically for the public. This would bring in environmentalists, civic associations, and other people who have just had a sector plan done in their neighborhood. People are very concerned about Chevy Chase Lake, since it was just involved in development because it is on the Purple Line plans.

I am cc'ing people in the Committee to Save Kensington and James Graham who attended the first mtg. He represents the Stormwater Partners and is from Neighbors of the Northwest Branch, Anacostia River. I am also cc'ing Diane Cameron, Director of Conservation at the Audubon Naturalist Society. They might have other ideas for publicizing the meetings.

Molly Hauck

**Jetter, Reginald**

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**From:** Diane Cameron [dianecameron60@gmail.com]  
**Sent:** Friday, July 18, 2014 4:02 PM  
**To:** Jones, Diane  
**Cc:** Jetter, Reginald  
**Subject:** Comment letter from Stormwater Partners and ANS re: IGCC  
**Attachments:** Stormwater Partners\_ANS\_comments on IGCC\_7.18.14.pdf

Dear Director Schwartz Jones,

Please accept the attached comment letter from the Stormwater Partners and ANS regarding the International Green Construction Code.

Our core requests are for an extension of the public comment period, and the assistance of DPS in making the IGCC publicly available for detailed review and comment.

Thank you for considering our requests and comments,

Diane Cameron

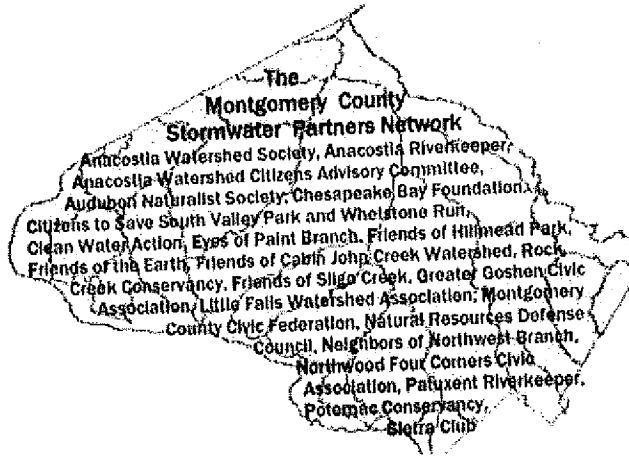
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Diane M. Cameron  
Coordinator, Montgomery County Stormwater Partners Network  
Conservation Program Director  
Audubon Naturalist Society

“Do unto those downstream as you would have those upstream do unto you.”  
– Wendell Berry

7/21/2014

AUDUBON NATURALIST SOCIETY  
*Connecting people with nature in the DC region*



July 17, 2014

Diane Schwartz Jones, Director  
Department of Permitting Services  
255 Rockville Pike, 2nd Floor  
Rockville, Maryland 20850-4166

Dear Director Schwartz Jones,

Montgomery County through the leadership of DPS is undertaking to adopt with amendments, the International Green Construction Code (IGCC). We appreciate that your staff have held several public information meetings to take input and have made that input available on your website. At the same time, we see the need for more information and IGCC-related guidance provided to the public from the County before the public comment window closes.

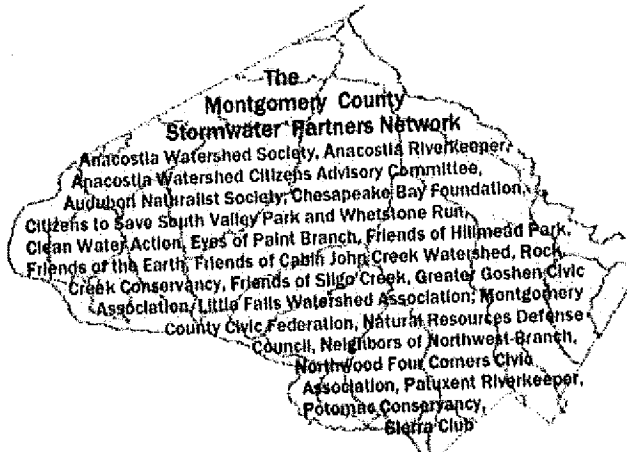
We are writing to express concerns about the County's process thus far in this effort and to request an extension of the public comment period deadline. Through the Montgomery County Stormwater Partners Network, several of us have participated in DPS meetings and have provided their preliminary comments to your staff.

The IGCC is important because it establishes a new set of more-sustainable construction codes, including for aspects of development related to local clean water protection and restoration. These aspects include site planning and stormwater management. The IGCC is also important to local clean water efforts here in Montgomery County, because we understand that DPS plans to offer developers the option of using the IGCC as their main compliance rubric for site design and plan submission.

So far, the IGCC public outreach process has given some limited opportunity to the public to weigh in, which we appreciate, but the process has not been fully adequate for effective public participation. We feel it is unreasonable to expect the public to review and comment on the IGCC document under present circumstances, because this document is copyrighted and not publicly available. We understand that DPS has promised to consider making the document available to stakeholders. We are glad to hear that; please let us know when this will be available. We request that you hold the comment period open long enough for the public to submit informed comments based on that review.

Further, Montgomery County has not issued publicly-available Administration policy statements on the IGCC that could serve to guide effective public input. Beyond DPS, other County agencies, including the Department of Environmental Protection, need to weigh in on this important environmental code. The Department of Permitting Services Web site that lists this project does not give enough information; while it lists comments and proposed changes, it does not give a policy statement on the Administration's approach, including goals and objectives, for the IGCC adoption process. With

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these considerations in mind, we ask DPS to extend the public comment & review period by another two months to assure adequate public consideration and response. We also request that you hold evening meetings to enable more people to participate, as we requested previously.

Yours for clean water,

Diane Cameron, Coordinator, Montgomery County Stormwater Partners Network  
Conservation Program Director, Audubon Naturalist Society

Paula Bienenfeld, President, Montgomery County Civic Federation

James Graham, President and James Fary, Board member, Neighbors of Northwest Branch

Dan Dozier, President and Sarah Morse, Executive Director, Little Falls Watershed Alliance

David Dunmire, Eyes of Paint Branch

Annita Seckinger and Ken Bawer, Watts Branch Watershed Alliance

Barry Peoples

Sandy Doveikis

Susan Dunnell

Molly Hauck

Patricia Mulready

Keith Sanderson

Linda Schade

Virginia Sheard

Danila Sheveiko

Anne Vorce



**From:** Thomas Evans [mailto:Tom@MarylandConcrete.com]  
**Sent:** Tuesday, September 02, 2014 12:12 PM  
**To:** Jones, Diane  
**Subject:** IgCC comments

Good afternoon Diane.

We spoke briefly at the MACo conference in Ocean City and you mentioned the county's status in the adoption of the IgCC.

As I reviewed the section documents, I noticed comments regarding permeable pavements or pavements in general. The comments seem to have a biased for asphalt. When it comes to pavements, concrete pavements are cooler than asphalt, reflect light better and when permeability is desired, pervious concrete performs as well or better than porous asphalt.

If you are still taking comments, please consider concrete pavements, as a material to help achieve your county's green goals in site lighting, storm water controls, and the overall urban heat island effect.

Section Number and Description	DPS Position	Comments
407 (AP) Transportation Infrastructure	ATA-PV, DCIS, MNCPPC, MCPS & WSSC	Moved to Appendix A General comments require formal letter to adopt with revisions.
408 Heat Island Mitigation	DPS Position	Moved to Appendix A
408 Heat Island Mitigation	Stuart Kaplan, ATNY	General Comment: The best mitigation County's supports the best strategy is that the entire required mitigation of urban heat island effect be covered in the "Appendix A" Appendix A of the ICC AND that the language be modified to allow porous asphalt.
408 Heat Island Mitigation	DPS	Adopt as written but move to Appendix A - Paved Edges
408 Heat Island Mitigation	MNC, PFC	Adopt Section 408 as written but in Sub-section 408.2 change all references to a "ten year runway" to a "fifteen year runway"
408.2 New Hardscape	MFCPS	General Comment: Because of the requirements for parking, all features of streets, sidewalks, etc. that are required to meet the 50% heat island mitigation requirements of this code. They should specify porous paving where possible but will not be able to meet a goal of meeting the 50% standard.
	DPS Position	However, Section 408.2 - DPS proposes to lower the required area of mitigation from 50% to 40%. The use of pervious asphalt is already prohibited when seeking compliance with Stormwater Management regulations however, pervious asphalt is not specifically prohibited by this code. Any pervious/permeable paving system shall meet the infiltration/percolation rates and solar reflectance index standards of the code. Heat island effect is a major concern for energy consumption and stream water quality and therefore cannot be made voluntary.
409 Site Lighting	ATA-PV	Delin copy: Covered by zoning regulations
	DPS Position	Agree: Modifying section to require compliance with the ICC and Zoning Code.

Please let me know if these comments can be included.

I may register for the briefing tomorrow.

Thanks,  
 Thomas Evans, Exec. Dir.  
 MRMCA  
 Mobile: 240-447-2044  
 Office: 301-694-4899

**Department of Environmental Protection Comments on  
Department of Permitting Services' Proposed Changes the  
International Green Construction Code (IgCC)  
October 6, 2014**

The Department of Environmental Protection (DEP) supports the intention of the Department of Permitting Services (DPS) to adopt the International Green Construction Code (IgCC) as part of the building code framework for Montgomery County. The renovation, construction, and operation of buildings are fundamental to modern society, and critical to the economic well being of the County. However, there is an impact on the environment associated with this activity, and ensuring that it is conducted in a sustainable manner is important, particularly because buildings constructed today will exist for many years. Incorporation of the IgCC into the design and construction process is the next logical step to help the County meet its goals related to reductions in greenhouse gas emissions and energy use, stormwater management, waste reduction and recycling, and a variety of other sustainability issues.

General Comments

The IgCC is made up of mandatory requirements and project electives (contained in Appendix A). The adopting jurisdiction can determine the number of elective requirements an applicant must fulfill. In addition to the electives included in the IgCC as adopted, DPS proposes to move a variety of other sections to Appendix A, thus creating additional electives for applicants. Under the current DPS proposal, an applicant would have to comply with two electives. As described in the IgCC, the items in Appendix A are "designed to offer conservation practices that achieve greater benefit than the minimum requirements of the IgCC." In other words, establishing the number of electives an applicant must fulfill determines the stringency of the code above the minimum requirements of the IgCC. DEP has two comments on the issue of project electives.

*Number of Required Electives* – There is a great degree of variability in the level of difficulty in achieving the project electives. Several appear to be relatively straightforward for a number of projects in Montgomery County to achieve, including the following:

- A104.3 Infill site project elective – The development of a building site that is an infill site with a new building and associated site improvements
- A104.5 Site restoration project elective – Previously developed sites that restore 25 percent or more of the nonbuilding footprint building site area with native or adaptive vegetation
- A104.6 Mixed-use development project elective - Development of a mixed-use building

By only requiring two electives, many projects that are occurring in Montgomery County would comply simply because of their location and the type of project being built without addressing some of the more substantive sustainability measures. This appears to be instituting an approach in the building code that has been the subject of criticism for both the LEED building standard and the CRZ zone – whereby credit is given for location and development type as opposed to real sustainability measures.

*Moving "Base" Requirements to Electives* – Under DPS's currently proposed modifications, a number of elements are moved from the "base" code to Appendix A. Moving "base" requirements from Chapters 3-1.1 has two effects. First, it reduces the "minimum requirements" of the IgCC. Second, by adding additional electives, it provides applicants the opportunity to choose as an elective an activity that originally was part of the base code, thus reducing the need to implement measures that were originally designed to go beyond the minimum requirements of the code. For this reason, very careful consideration has to be given to moving items from the base code to Appendix A. As an example, DPS proposes moving *Section 407.1 – Walkways and Bicycle Paths* to Appendix A. The requirement of this section is that "Not less than one independent, paved walkway or bicycle path suitable for bicycles, strollers, pedestrians, and other forms of nonmotorized locomotion connecting a street or other path to a building entrance shall be provided." It's hard to imagine many buildings that would not meet this requirement.

As DEP understands it, the majority of building codes implemented in Montgomery County are mandated for adoption by the State of Maryland; therefore, the County's ability to make substantive revisions to the provisions of a particular code is limited. At this point in time, the process for the IgCC is different because, although the State did adopt the IgCC, it did not make adoption by jurisdictions like Montgomery County mandatory. As a result, the County has greater flexibility to modify the code to meet our specific policy objectives. DEP understands that some of DPS's recommendations have been made to gradually adopt the IgCC to avoid burdening the building community with an entirely new code. This is reasonable. One way this is being