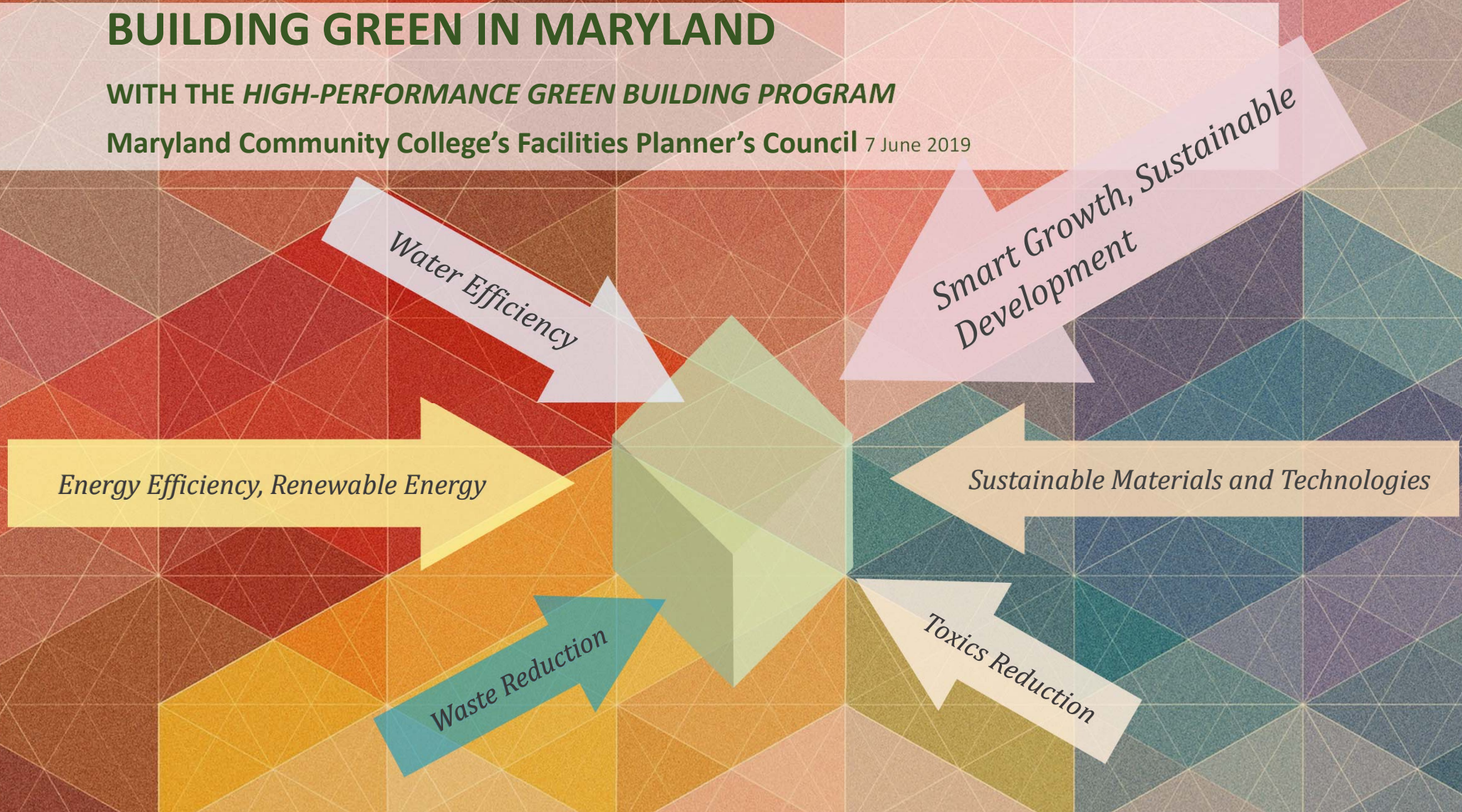


BUILDING GREEN IN MARYLAND

WITH THE *HIGH-PERFORMANCE GREEN BUILDING PROGRAM*

Maryland Community College's Facilities Planner's Council 7 June 2019

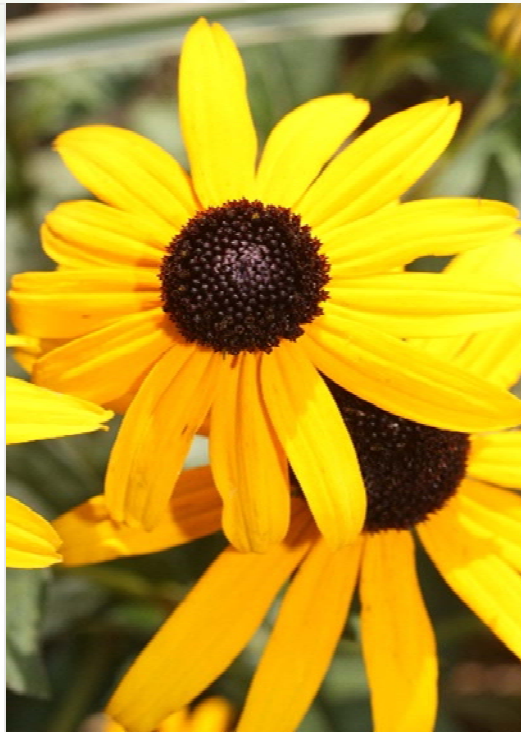


BUILDING GREEN IN MARYLAND

- **HOW GREEN BUILDING FITS WITH MARYLAND**
- **MARYLAND GREEN BUILDING COUNCIL ROLE AND RESPONSIBILITY**
- **THE *HIGH PERFORMANCE GREEN BUILDING PROGRAM* – APPLICABILITY AND PATHS TO PERFORMANCE**
- **PROJECTS (REQUIRED TO COMPLY, NOT REQUIRED TO COMPLY)**
- **PROJECTS - MARYLAND GREEN SCHOOLS**
- **REPORTING**
- **RESOURCES**
- **MARYLAND GREEN BUILDING COUNCIL**

HOW GREEN BUILDING FITS WITH MARYLAND

Maryland Green Building Council's mission is to protect and conserve our state's resources through creation of resource-efficient facilities. This dovetails with other agencies.



- **Maryland Department of Agriculture** conservation to balance crop and livestock production with protection of natural resources,
- **Department of Planning** Water and Sewerage Plan Facilities planning to assure adequate resource protections associated with development,
- **Maryland Department of Natural Resources** Conservation and enhancement of open space and,
- **Maryland Department of the Environment's** efforts to clean and protect the state's surface waters, air and indoor environments.

MARYLAND GREEN BUILDING COUNCIL ROLE AND RESPONSIBILITY

The Maryland Green Building Council was established in 2007 with *House Bill 942 – Section 4-809* of the State Finance and Procurement Article. The council resides within the Maryland Department of General Services (DGS). Membership includes private-sector Governor gubernatorial appointees, representatives of state agencies and staff support from DGS. The council meets monthly and reports to the Governor and General Assembly annually.

Reports include the status of each of the state's green building projects.

Building Green in Maryland; Community College's Facilities Planner's Council
7 June 2019

Maryland State Finance and Procurement Article Code Ann. § 3-602.1 (2014) requires that the State employ green building technologies when constructing or renovating State-owned buildings that meet specific criteria. To support the goal, the council established the *High Performance Green Building Program*.



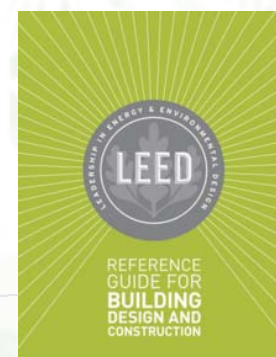
THE HIGH PERFORMANCE GREEN BUILDING PROGRAM – APPLICABILITY AND PATHS TO PERFORMANCE

The *High Performance Green Building Program* (the *Program*) applies to all State of Maryland agencies and local educational agencies (LEAs) that program, design and build facilities.

The *Program* also pertains to capital projects funded solely with State of Maryland funds, state-funded new and replacement school construction and community college capital projects receiving state funds.

The *Program* requires use of one of three green building certification or rating programs in the design, construction and operation of facilities.

- **Leadership in Energy and Environmental Design (LEED)**, a program of the U.S. Green Building Council
- **International Green Construction Code (IgCC)**, one of the many codes of the International Code Council
- Two globes of **Green Globes** protocol of the Green Building Initiative.



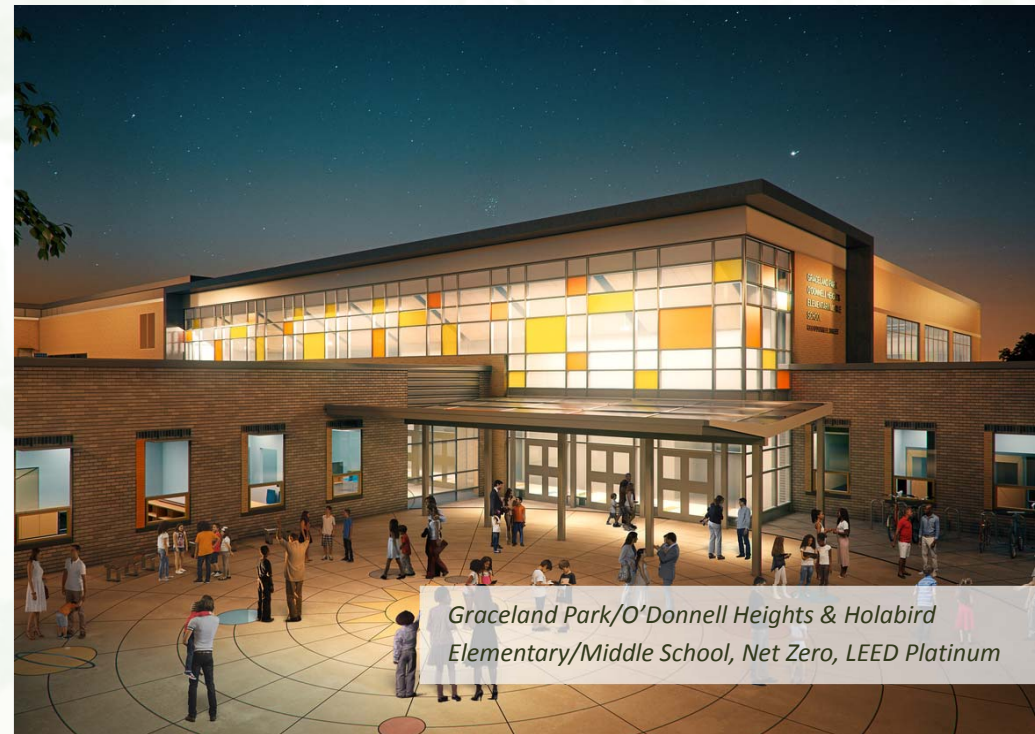
PROGRAM UPDATES

21st Century Schools Facilities Act

The HPGBP has been modified for LEAs constructing K-12 schools.

In 2018, *21st Century Schools Facilities Act* (Senate Bill 1243 and House Bill 1783) was passed by the legislature. It requires that the “Maryland Green Building Council develop guidelines for **achieving the equivalent of LEED Silver standards without requiring LEED certification** of new (K-12) school buildings, including some independent certification that school systems have achieved the required standards.”

The council anticipates having the alternate system in place by late 2019.



Graceland Park/O'Donnell Heights & Holabird
Elementary/Middle School, Net Zero, LEED Platinum

PROJECTS REQUIRED TO COMPLY WITH THE *HIGH-PERFORMANCE GREEN BUILDING ACT*

Projects that receive all their funding from the State of Maryland must meet the minimum *Program* requirements of either;

- USGBCs LEED Silver,
- 2 Green Globes or
- compliance with the *International Green Construction Code*.

PROJECTS REQUIRED TO COMPLY WITH THE *HIGH-PERFORMANCE GREEN BUILDING ACT*

Towson University, New Science Facility	LEED Silver (Min.)	316,000 GSF and \$187,819,000	Now in construction, anticipated complete by 2020
<p>This project will align all departments and programs of the Fisher College of Science and Mathematics into two adjacent buildings. The facility will be the largest academic building on TU's campus and will include;</p>			
<ul style="list-style-type: none"> • 50 teaching and 30 research laboratories • 50 classrooms • 10 collaborative student spaces • 8 lecture halls • 1 outdoor classroom leading into the Glen Arboretum • planetarium, observatory, rooftop greenhouse, museum and vivarium • a rain garden for storm water control 			



GREEN BUILDINGS INDEPENDENT OF THE *HIGH PERFORMANCE GREEN BUILDING ACT*

Although not required to do so, these facilities meet the minimum requirements defined in the *Program* by achieving either USGBCs LEED Silver, 2 Green Globes or compliance with the International Green Construction Code.

Although most, but not all funding for these facilities may be from State of Maryland sources, they are exempt from the program requirements.

GREEN BUILDINGS INDEPENDENT OF THE *HIGH PERFORMANCE GREEN BUILDING ACT*



Ballinger Architects and Clark Construction

University System of Maryland A. James Clark Bioengineering Building

LEED
Silver
(Min.)

184,715 GSF
and
\$155,430,000

Construction
complete

The facility is a new Bioengineering Building to house the Robert E. Fischell Department of Bioengineering and the Robert E. Fischell Institute for Biomedical Devices.

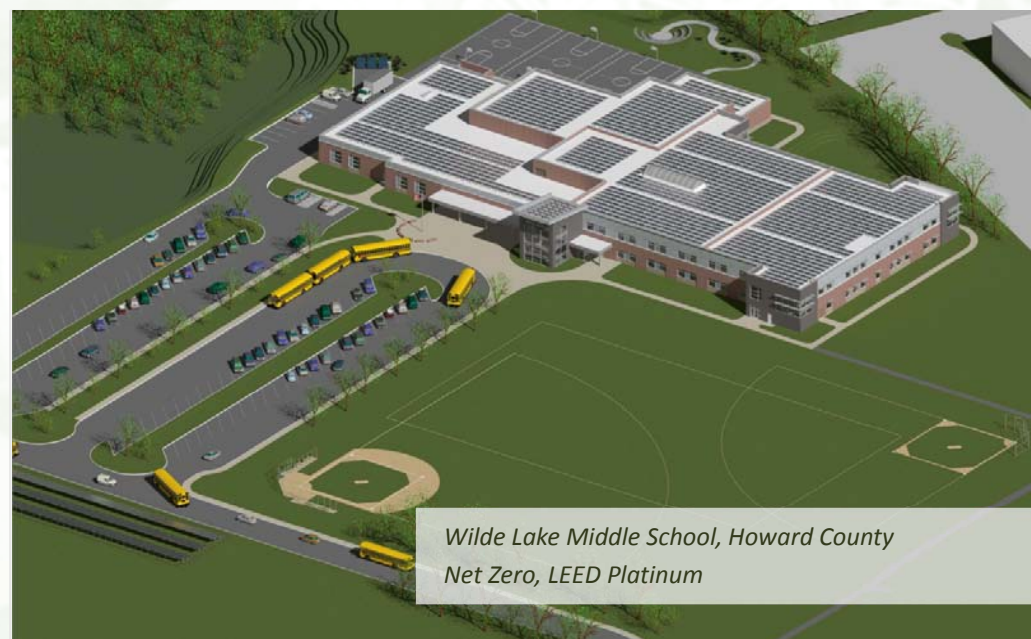


*University System of Maryland
A. James Clark Bioengineering Building, LEED Silver*

Building Green in Maryland; Community College's Facilities Planner's Council
7 June 2019

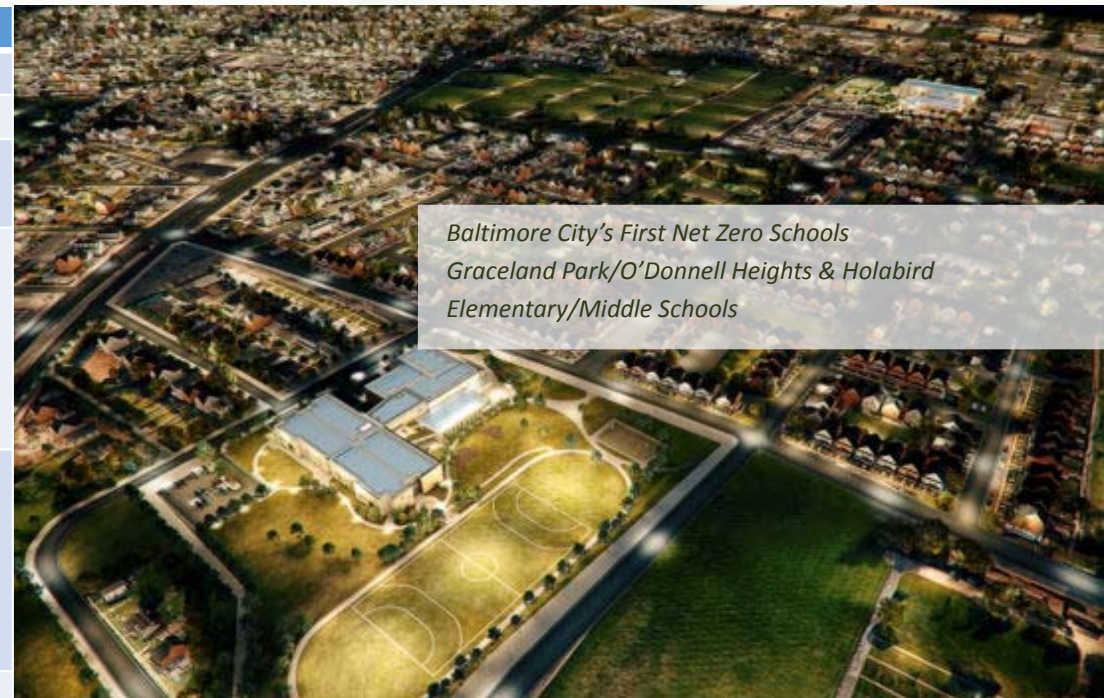
MARYLAND GREEN SCHOOLS – REQUIRED TO COMPLY WITH THE *HIGH PERFORMANCE GREEN BUILDING ACT*

The Maryland Public Schools Program implements the greatest number of high performance facilities in the state. In 2018, notable projects initiated or completed in the state will seek or have achieved LEED Silver and Gold certifications. A few, will achieve net zero status and a platinum LEED certification. A net zero-energy building means the energy used by the building on an annual basis, is equal to or, exceeds the renewable energy created within the facility and on site. This is achieved with efficient plumbing systems, smart monitoring and controls, photovoltaic solar, geothermal heating and cooling, green roofs and stormwater bioretention on site.



Wilde Lake Middle School, Howard County
Net Zero, LEED Platinum

PROJECT	RATING	LOCATION
Allegany County High School	Silver	Allegany County
Crofton High School	Silver	Anne Arundel County
Baltimore City has started or completed 24 new facilities and major additions for high schools, elementary and middle schools.	Silver and Gold	Baltimore City
Baltimore County has started or completed 16 new facilities and major additions for high schools, elementary and middle schools.	Silver and Gold	Baltimore County
Northern High School	Silver	Calvert County
Beach Elementary School	Silver	Calvert County
Career and Technology Center	Silver	Carroll County
Greensboro Elementary School	Silver	Caroline County
Gilpin Manor	Silver	Cecil County
New Chesapeake City Elementary School	Silver	Cecil County



Baltimore City's First Net Zero Schools
 Graceland Park/O'Donnell Heights & Holabird
 Elementary/Middle Schools

*“Utilizing the sites as teaching tools, the schools will be equipped with student gardens, outdoor classrooms, rooftop solar labs, and vegetative roofs that further push innovation while intertwining sustainable concepts in education – staying true to their mission to nurture, engage, and empower the whole child for life-long excellence.”
 Grimm and Parker Architecture, Inc.*

PROJECT	RATING	LOCATION
Charles County has started or completed 4 new facilities and major additions for high schools, elementary and middle schools.	Silver	Charles County
North Dorchester High School	Silver	Dorchester County
Frederick County has started or completed 6 new facilities and major additions for high schools, elementary and middle schools.	Silver	Frederick County
Youth Benefit ES	Silver	Harford County
Havre de Grace MS/HS	Silver	Harford County
Joppatown Elementary School	Silver	Harford County
Howard County has started or completed 5 new facilities and major additions for high schools, elementary and middle schools.	Silver (4) Platinum (1)	Howard County

PROJECT	RATING	LOCATION
Montgomery County has started or completed 13 new facilities and major additions for high schools, elementary and middle schools.	Silver	Montgomery County
Prince George's County has started or completed 6 new facilities and major additions for high schools, elementary and middle schools.	Silver	Prince George's County
J. M. Tawes Center	Silver	Somerset County
Easton ES	Silver	Talbot County
Urban Educational Campus - BOE component	*	Washington County
Sharpsburg ES	Silver	Washington County
West Salisbury Elementary	Silver	Wicomico County
Beaver Run ES	Silver	Wicomico County
Showell ES	Silver	Worcester County

REPORTING

What to Report?

For each project, the agency responsible for design and construction shall provide a brief narrative description of how green building principles were used in its design.

Provide an updated Scoresheet at completion of each phase of design and construction.

For LEED and Green Globe Projects: Provide the final **LEED Scoresheet** to the MDGBC at project completion.

For *International Green Construction Code* (IgCC) projects: Provide latest **IgCC Compliance Form** at completion of each phase of design.

REPORTING

What to Report?

Green Building Operations and Maintenance Manual based on the green features and operations of each building.

The manual is in addition to other operating and maintenance manuals for the facility. Its focus is on system maintenance required to keep green features operating as intended.

A draft of the manual shall be submitted to the state project manager or LEA project manager at the 100% Construction Documents (CD) phase for review.

The final Green Building Operations and Maintenance Manual shall be **submitted to the project manager** at project Substantial Completion.

The final energy model for all complying projects shall be submitted to the managers at the completion of 100% design documents.

REPORTING

Where to Report?

LEA Projects

Robert A. Gorrell, Executive Director, Interagency Commission on School Construction
Maryland State Department of Education
200 West Baltimore Street, Baltimore, MD 21201
robert.gorrell@maryland.gov
(410) 767-0610

University System Projects

Mark Beck, Director of Capital Planning and Sustainability
University System of Maryland
701 East Pratt Street
Baltimore, MD 21202
mbeck@usmd.edu
(301) 445-1984

Community College Projects

Clarence Felder, Office of Facilities Planning, Design, Construction and Energy
Maryland Department of General Services
301 West Preston Street, Suite 1405
Baltimore, Maryland 21201-2388
clarence.felder@maryland.gov
(410) 767-3615

All other State of Maryland Projects

Steve Lauria, Architect, Landscape Architect, LEEDap
Capital Projects Manager & Green Building Council Support
Maryland Department of General Services
Facilities Planning, Design, Construction and Energy
301 West Preston Street, Suite 1405
Baltimore, Maryland 21201-2388
Steve.Lauria@maryland.gov
(410) 767-4163

RESOURCES

Maryland Department of Transportation's Solar Contract

The Contract allows Maryland County's, municipalities, instrumentalities of the State, and other non-State of Maryland governments or government agencies and not for profit 501 (c) (3) organizations within the State of Maryland to purchase the Contractors' services covered by the Master Services Agreement (MSA). All such purchases by instrumentalities of the State, non-State of Maryland governments, government agencies or not for profit organizations.

(Please refer to:
<http://www.mdot.maryland.gov/newMDOT/Planning/Environmental/Solar>)

Building Green in Maryland; Community College's Facilities Planner's Council
7 June 2019



RESOURCES

Maryland Green Purchasing Committee

General Info

[Admin Workspace](#)
[About DGS](#)
[Meet the Secretary](#)
[Executive Staff](#)
[Employee of the Month](#)
[Caught DGS](#)
[Annual Reports](#)
[Employment](#)
[Capital Grants](#)

For State Agencies

[Green Purchasing](#)
[Green Building](#)
[Green Operations](#)
[Inventory Forms](#)
[Records Management](#)
[DGS State Facilities](#)
[Design and Construction](#)

Maryland Green Purchasing

Events and Resources

[Annual Reports](#)

[Best Practices Manual](#)

[Events Calendar](#)

Newsletters

- [Spring 2016](#)

Product Focus

- [Janitorial Services](#)
- [Toner and Ink Cartridges](#)
- [Janitorial Supplies](#)
- [Interior Lighting](#)

Contract Reference Guides

These guides show how environmentally preferable products can be found on current Maryland state contracts.

Maintenance, Repair & Operations Contracts

- [W.W. Grainger](#)
- [Fastenal](#)
- [MSC Industry Supply](#)

Janitorial Supplies Contract

- [Blind Industries & Services of Maryland \(BISM\)](#)

Fleet Vehicles

- [Vehicle Contracts](#)

The Committee develops and implements statewide green purchasing policies, guidelines, programs, best practices, and regulations which will provide benefits to the health and well-being of Maryland citizens and environment.

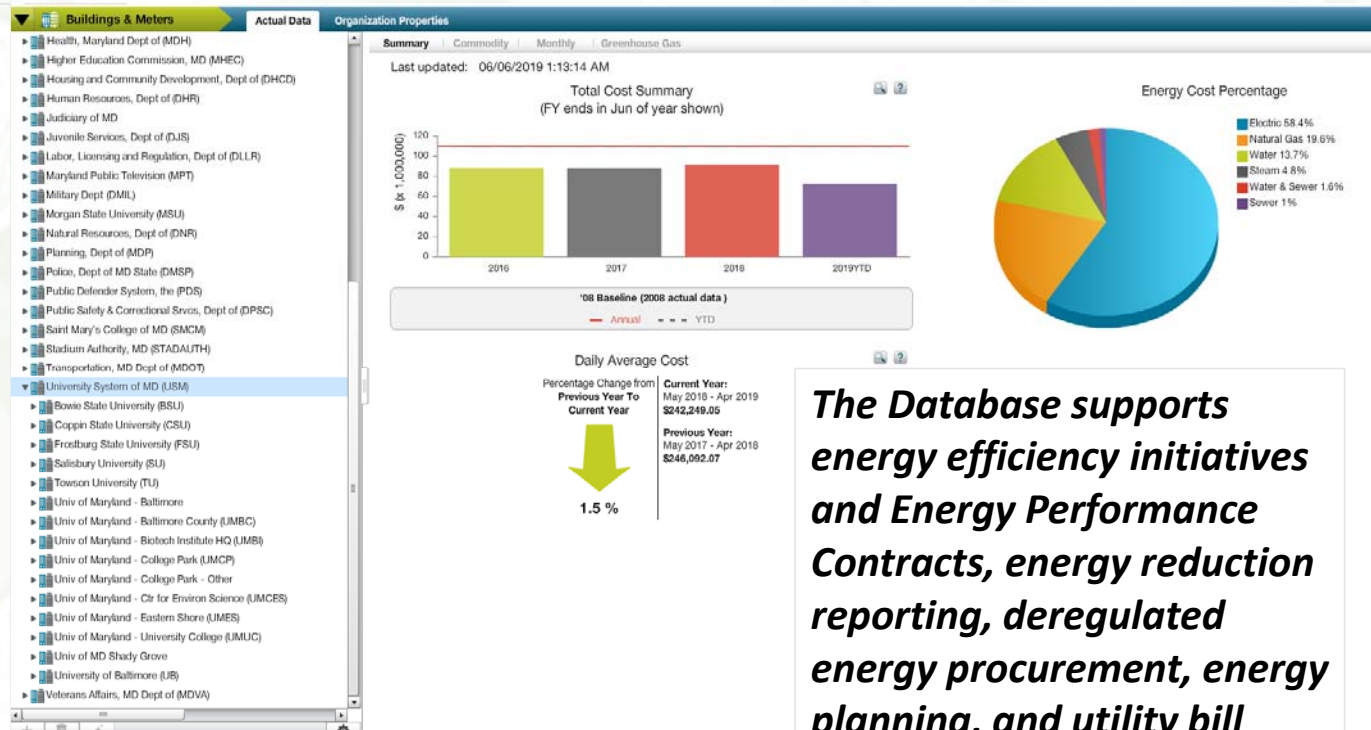
(Please refer to:
<https://dgs.maryland.gov/Pages/GreenOperations/GreenPurchasing/index.aspx>)

RESOURCES

Maryland Energy Database

The database provides access, accountability, and tracking for 58 State entities. It is accessible to the public in a limited version, and with additional detail to over 300 registered users with login privileges.

(Please refer to <https://dgs.maryland.gov/Pages/Energy/Database/Energy-Public-Database.aspx>)



The Database supports energy efficiency initiatives and Energy Performance Contracts, energy reduction reporting, deregulated energy procurement, energy planning, and utility bill analysis.

INFORMATION

Maryland Green Building Council

<https://dgs.maryland.gov/Pages/GreenBuilding/index.aspx>

Maryland Green Building Council Meetings

Monthly Meetings are held on the third Wednesday 10:00 AM to 12:00 PM at either;

Maryland Department of General Services
Facilities Planning, Design, Construction and Energy
301 West Preston Street, Suite 1405
Baltimore, Maryland 21201-2388

or

Maryland Historical Trust
100 Community Place, 3rd Floor
Crownsville, MD 21032-2023

Questions

Steve Lauria, Architect, Landscape Architect, LEEDap
Capital Projects Manager & Green Building Council Support
Maryland Department of General Services
Facilities Planning, Design, Construction and Energy
301 West Preston Street, Suite 1405
Baltimore, Maryland 21201-2388
Steve.Lauria@maryland.gov
410-767-4163

MARYLAND GREEN BUILDING COUNCIL

Gubernatorial Appointees



Nakita Reed, AIA, APT, NOMA, NCARB, LEED AP BD+C, GGP, Chair
Principal, Encore Sustainable Design, LLC



Michael Li, Senior Policy Advisor
Office of Energy Efficiency and Renewable Energy,
U.S. Department of Energy



Cherise Y. Seals, Senior Business Development
Manager
WGL Holdings, Inc.

Agency Representatives



Laura Armstrong, LEED AP O+M
Director, Sustainability Program



Susan Gore, Budget Analyst Lead, Office of Capital
Budgeting



Ryan Schwabenbauer, MBA, LEED AP, Director of
Sustainability
St. John Properties



Stuart Kaplow, Esquire
Stuart D. Kaplow, P.A.
Sustainability & Green Real Estate Attorneys



Donald VanHassent, Associate Director
Maryland Department of Natural Resources,
Maryland State Forester



Laura Rogers, Program Manager Office of
Environment
Maryland Department of Transportation



Christopher Russell, Program Manager, State
Buildings & Energy Codes
Maryland Energy Administration

Agency Representatives



Arabia Davis, Manager
Interagency Committee on Public School
Construction



Mark Beck, Director of Capital Planning and
Sustainability
University System of Maryland



Anne B. Raines, Deputy Director / Deputy State
Historic Preservation Officer
Maryland Historical Trust (MHT), part of the
Maryland Department of Planning



Norman Wang, RA, Director of Maryland Codes
Administration
Department of Labor, Licensing and Regulation
Norman leads the Maryland Building Codes



Stephen Lauria, Architect & Landscape Architect,
LEEDap, Capital Projects Manager and Green
Building Council Staff Support
Department of General Services

/ JUNE 2019

