

GREEN BUILDING PROGRAM MANUAL

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INTRODUCTION

BACKGROUND AND PURPOSE

In 2012, as part of the Sustainable DC Plan to make the District of Columbia a nationwide leader in sustainability, Mayor Vincent C. Gray issued a directive to the District's Construction Codes Coordinating Board (CCCB)¹ to review, amend and adopt the model 2012 International Codes as published by the International Code Council (ICC). On March 28, 2014, the District officially adopted the 2013 District of Columbia Construction Codes, comprised of the 2012 International Codes and the 2013 DC Construction Codes Supplement². Included in the 2013 DC Construction Codes are the District of Columbia Green Construction Code (GCC) and Energy Conservation Code (ECC), comprised of the 2012 IgCC and IECC³ as modified by the 2013 Construction Codes Supplements (12 DCMR K and 12 DCMR I). These codes incorporate many local sustainable, energy- and water-efficient building best practices as mandatory requirements, giving the District one of the greenest construction codes in the country. The codes also extend the green building practices legislated by the District of Columbia Green Building Act of 2006 (GBA).⁴

The 2013 DC Construction Codes take into account the recommendations of a broad range of stakeholders and building industry professionals who participated as voting and non-voting members of the Technical Advisory Groups (TAG), as well as three public comment periods. With the TAG's input, the CCCB concluded that the new codes largely reflect sustainability practices that are already being implemented voluntarily by District commercial developers and building owners as a result of competitive market forces. According to many building industry professionals many of the new requirements are achievable by the building industry without significant additional cost, and will result in energy and water savings as well as a greener and healthier city environment.

The District Department of Consumer and Regulatory Affairs (DCRA) is responsible for enforcing the GCC and ECC. The primary focus of the Green Building Program Manual (GPBM or "Manual") is to give an overview of DCRA's enforcement process for the GCC, ECC, and the GBA, as well as provide guidance and educational resources to the public to aid in compliance with the codes and the GBA.

OVERVIEW OF MANUAL

Green construction codes are a relatively new concept within the building industry. Many jurisdictions, builders, architects, developers, and contractors, have minimal experience in applying them. Additionally, the new energy codes continue to be strengthened, requiring significant advances in building construction. For these reasons, the District's pioneering adoption of the new green and energy codes will require extra support and guidance to help the building industry successfully design and build to these codes.

¹ Information on the CCCB can be found at http://dcra.dc.gov/node/513992

² Published as Title 12 of the District of Columbia Municipal Regulations (DCMR), can be accessed online at

http://www.dcregs.dc.gov/Notice/NoticeListForPublic.aspx?type=Issue&CategoryName=Final%20Rulemaking&IssueID=486

³ The 2012 IgCC and IECC model codes can be accessed online at: http://publicecodes.cyberregs.com/icod/

⁴ Effective March 8, 2007 as amended (D.C. Law 16-234; D.C. Official Code § 6-1451.05 (2012 Supp.))

The goal of this manual is to provide guidance and information relating to DCRA steps and regulatory procedures, in order to assist the public in interpreting and complying with the relevant green building and energy conservation laws and regulations. To make the process easy to follow, the Manual is laid out to match the typical timeline of a building project:

- 1. Design Phase
- 2. Permitting Process
- 3. Building Inspections
- 4. Certificate of Occupancy
- 5. Post-Occupancy
- 6. Enforcement

The GBPM will be officially published in the D.C. Register, and become effective upon publication. The GBPM is meant to be a living document and guide to assist in complying with the GCC and ECC. It will identify processes, links between green programs, submittal forms needed, and other information to ensure compliance with the codes. The fields of green building and energy efficiency are evolving daily and new and better products, processes and technologies are being applied toward the goal of lower impact built environments. To this end, as new information is shared with and evaluated by DCRA, the GBPM will be updated and released as an Administrative Bulletin on the Green Building Division website⁵ to help guide project teams toward the current best practices in greening their projects consistent with legal and regulatory requirements.

The GBPM is not intended to be a substitute or replacement for District laws and regulations, and those sources should be consulted for the specific legal requirements applicable to the construction process. The GBA, GCC and ECC will be among the many green building-related regulations in the District, including the District Department of the Environment's (DDOE) Stormwater Guidelines,⁶ Green Area Ratio,⁷ and others. Many of these laws and regulations cross over multiple District agencies sharing in their development and enforcement. Although the new programs will transform the District's built environment for the better, there will be a learning curve for members of the building industry and it is imperative that they have a central informational source that will point them in the right direction as they navigate through the new requirements.

⁵ http://dcra.dc.gov/page/green-building-program

⁶ http://ddoe.dc.gov/swregs

⁷ http://ddoe.dc.gov/gar

DESIGN PHASE

It is critical when a construction project is in early conceptual design phases to consider and integrate green building requirements where required. This section provides guidance to assist project owners and developers in determining which legal and regulatory framework applies to their project.

APPLICABILITY OF DC GREEN BUILDING REQUIREMENTS

The primary District of Columbia statutes and regulations related to green building and energy efficiency administered through DCRA are set forth in the following documents:

- 1. 2013 District of Columbia Building Code (BC) (consisting of the 2012 International Building Code as amended by the 2013 District of Columbia Building Code Supplement, 12 DCMR A)⁸
- 2013 District of Columbia Energy Conservation Code (ECC) (consisting of the 2012 International Energy Conservation Code as amended by the 2013 District of Columbia Energy Conservation Code Supplement, 12 DCMR I)
- 3. Green Building Act (and implementing regulations set forth in Chapter 3, 12 DCMR K)⁹
- 2013 District of Columbia Green Construction Code (GCC) (consisting of the 2012 International Green Construction Code as amended by the 2013 District of Columbia Green Construction Code Supplement, 12 DCMR K)

The construction codes often refer to practices and other matters that are acceptable when "approved by the Code Official." In the GCC, for example, there are references to an "approved agency" who may undertake commissioning. The current lists of what is considered approved can be found in the Reference Guide by code section number. To seek Code Official approval of a new process, a request should be submitted to the Code Official with sufficient documentation.

2013 DC BUILDING CODE

The 2013 District of Columbia Building Code (BC) consists of the 2012 edition of the International Building Code (IBC) published by the ICC, as amended by the 2013 District Construction Codes Supplement¹⁰. Chapter 1 of the Building Code contains detailed provisions regarding the scope, administration and enforcement of all of the Construction Codes (with the exception of the Fire Code and the Property Maintenance Code). It should be referred to for legal guidance regarding issues such as:

- 1. Applicability and Scope of the Green Construction Code (Section 101.4.9.4)
- 2. Applicability and Scope of the Energy Conservation Code (Section 101.4.9.3)
- 3. Duties and Powers of Building Official (Section 104)

⁸ Certain projects may be covered by the 2008 District of Columbia Construction Codes.

⁹ D.C. Official Code §6-1451.05 (2012 Supp.)

¹⁰ Published as Title 12 of the District of Columbia Municipal Regulations (DCMR), can be accessed online at http://www.dcregs.dc.gov/Notice/NoticeListForPublic.aspx?type=Issue&CategoryName=Final%20Rulemaking&IssueID=486

- 4. Permitting Process (Section 105)
- 5. Inspection Process (Section 109)
- 6. Certificates of Occupancy (Section 110)
- 7. Appeals (Section 112)
- 8. Transitory Provisions (Section 123)

2013 DC ENERGY CONSERVATION CODE

The 2013 District of Columbia Energy Conservation Code (ECC) consists of the 2012 edition of the International Energy Conservation Code (IECC) published by the ICC, as amended by the 2013 District Construction Codes Supplement (12 DCMR I, Energy Conservation Code Supplement), and is an update to the 2008 District Energy Conservation Code. The 2013 ECC will produce a building that is significantly more energy efficient than a building built under the 2008 ECC.

Subject to certain provisions as more fully detailed below, or unless specifically excepted, the ECC applies broadly to all projects involving residential and commercial buildings, the building sites, and associated systems and equipment, including new construction, additions, alterations and repairs. The ECC regulates the design and construction of buildings for the effective use and conservation of energy over the useful life of each building. The ECC provides flexibility to use innovative approaches and techniques to achieve this objective. The ECC is not intended to abridge safety, health or environmental requirements contained in other applicable codes or ordinances.

As set forth in the Building Code,¹¹ residential buildings¹² shall meet the residential provisions and commercial buildings shall meet the commercial provisions of the ECC. Determine if a project must comply with the ECC using the following documents:

- 1. Chapter 1 of the 2013 Building Code, 12 DCMR A¹³
- 2. Energy Conservation Code Self-Selection Guide¹⁴

A summary of the applicability of the ECC is as follows:¹⁵

- 1. Existing buildings not completing work requiring a permit and lawfully in existence at the time of the adoption of the code will not be required to be removed, altered, or abandoned
- 2. Historic Buildings listed in the District or National Register of Historic Places where compliance will cause the loss of irretrievable historic components that may lead to the de-listing of the building as certified by the Historic Preservation Office or the Keeper of the National Register of Historic Places shall be exempt from the ECC

¹¹ Chapter 1, Section 101 of the 2013 Building Code, 12 DCMR A

¹² Residential Buildings includes detached one- and two-family dwellings and multiple single-family dwellings (townhouses) as well as Group R-2, R-3 and R-4 buildings three stories or less in height above grade plane, Chapter 2, Section 202 of the 2012 International Energy Code,

adopted without amendments to 2013 12 DCMR I

¹³ Published as Title 12 of the District of Columbia Municipal Regulations (DCMR), can be accessed online at

http://www.dcregs.dc.gov/Notice/NoticeListForPublic.aspx?type=Issue&CategoryName=Final%20Rulemaking&IssueID=486 ¹⁴ Appendix: Energy Conservation Code Self-Selection Guide

¹⁵ This list is intended as a summary; please refer to the Building Code, Section 101.4.7 and the ECC for further details

- **3.** Additions, alterations, renovations or repairs to an existing building, building system or portion thereof shall conform to the provisions of the ECC as they relate to new construction without requiring the unaltered portion(s) of the existing building or building system to comply with this code
- 4. Spaces undergoing a change in occupancy that would result in an increase in demand for either fossil fuel or electrical energy shall comply with the ECC
- 5. Any non-conditioned space that is altered to become conditioned space shall be required to be brought into full compliance with the ECC
- 6. Where a building includes both commercial and residential occupancies, each occupancy shall be separately considered and meet the applicable provisions of the code
- 7. Specified buildings, or portions thereof, separated from the remainder of the building by building thermal envelope assemblies complying with the ECC shall be exempt from the building thermal envelope provisions of the ECC:
 - a. Buildings, or portions thereof, with a peak design rate of energy usage less than 3.4 Btu/h ft² (10.7 W/m²) or 1.0 watt/ft² (10.7 W/m²) of floor area for space conditioning purposes
 - b. Buildings, or portions thereof, that do not contain conditioned space

The following need not comply with the ECC provided the energy use of the building is not increased:¹⁶

- 1. Storm windows installed over existing fenestration
- 2. Glass only replacements in an existing sash and frame
- 3. Existing ceiling, wall or floor cavities exposed during construction, provided that these cavities are filled with insulation
- 4. Construction where the existing roof, wall or floor cavity is not exposed
- 5. Re-roofing where neither the sheathing not insulation is exposed. Roofs without insulation in the cavity and where the sheathing or insulation is exposed during the re-roofing shall be insulated either above or below the sheathing
- 6. Replacement of existing doors that separate conditioned space from the exterior
- 7. Alterations that replace less than 50 percent of the luminaires in a space, as long as such alterations do not increase the installed interior lighting power
- 8. Alterations that replace only the bulb and ballast within the existing luminaires in a space, as long as such alterations do not increased the installed interior lighting power

If you have determined your project must comply with the ECC requirements, project teams may select to comply following a prescriptive or performance pathway under the ECC or ASHRAE 90.1-2010 (commercial projects only) and use the procedural guidance found in the following chapters of this GBPM.

GREEN BUILDING ACT

The Green Building Act (GBA) contains high-performance building standards on certain public and private projects, and in some circumstances requires financial security to ensure compliance with the Act's requirements. The 2013 GCC includes regulations implementing the GBA,¹⁷ and the 2008 Building Code¹⁸ includes parallel regulations for

¹⁶ Chapter 1, Section 101.4.7.5.3 of the 2013 Building Code, 12 DCMR A

¹⁷ Chapter 3, Section 302 of the 2013 Green Construction Code, 12 DCMR K

¹⁸ Chapter 13 of the 2013 Building Code, 12 DCMR A

projects constructed under that code. If a project falls within the scope of the GBA, and associated regulations, compliance with the GBA and regulations will be deemed compliance with the 2013 GCC.

Projects subject to the GBA include the following:¹⁹

- 1. Public Projects. A project that is new construction or a substantial improvement and, is either: a District-owned or District instrumentality-owned project, or a District financed or District instrumentality-financed project, where the financing represents at least 15 percent of the project's total cost. These include:
 - a. Project of Educational Group E occupancy
 - b. Project containing Residential occupancies containing 10,000 square feet (929 m²) or more of gross floor area²⁰
 - c. Interior construction of at least 50,000 contiguous square feet (4645 m²) of gross floor area of a mixed use space where residential occupancies exceed 50% of the project
 - d. Interior tenant fit-out alteration involving the alteration of 30,000 square feet (278^{7 m2}) or more of gross floor area
 - e. Interior tenant fit-out in new construction involving spaces of 30,000 square feet (2787^{m2}) or more of gross floor area
 - f. Other Non-residential projects; projects not described above, and with less than 50% of gross floor area containing residential occupancies
- 2. <u>Private Projects</u>. A project that is new construction or a substantial improvement and is (a) privately owned; (b) involves improved and unimproved real property acquired by sale from the District or a District instrumentality to a private entity; unimproved real property leased from the District or a District instrumentality to a private entity; or (c) less than 15 percent of the project's total project cost, but some portion of the project, is District financed or District instrumentality financed. These include:
 - a. Privately-owned non-residential projects of 50,000 square feet (4645 m²) or more of gross floor area
 - b. Interior construction of a mixed use space at least 50,000 contiguous square feet (4645 m²) of gross floor area in a Residential project

Determine if the project is required to comply with the Green Building Act (GBA) using the following documents as guidance:

- 1. The Green Building Act of 2006 as amended²¹
- 2. Chapter 13A of the 2008 Building Code²² as amended²³

¹⁹ This is intended to provide a summary. Please refer to the GBA and associated regulations in Chapter 3 of the 2013 GCC or Chapter 13 of the 2008 Building Code, if applicable, for more detail. Definitions of specific terms can be found in Chapter 2 of the 2013 GCC and Chapter 2 of the 2008 Building Code.

²⁰ Chapter 1, Section 199 of the Zoning Code, 11 DCMR

²¹ Effective March 8, 2007 as amended (D.C. Law 16-234; D.C. Official Code § 6-1451.05 (2012 Supp.))

²² Published as Title 12 of the District of Columbia Municipal Regulations (DCMR), can be accessed online at

http://www.dcregs.dc.gov/Notice/NoticeListForPublic.aspx?type=Issue&CategoryName=Final%20Rulemaking&IssueID=486

²³ Amendments to the Chapter 13 of the 2008 Building Code include the following: Final Rule Making: June 21, 2013; Emergency Rulemaking: August 2013; Emergency Rulemaking: September 2013

- 3. Chapter 3 of the 2013 Green Construction Code²⁴
- 4. Green Building Act Self-Selection Guide²⁵

If the project is required to comply with the GBA, it will be considered to have met the requirements of the Green Construction Code (GCC), and is not required to comply with the GCC in addition to the GBA. Projects subject to the GBA may be subject to fines for non-compliance and private sector projects that fall within the scope of the Act are required to submit financial security at the time of filing an application for a Certificate of Occupancy.²⁶

If the project is not required to comply with the Green Building Act, then proceed to determine if it is required to comply with the Green Construction Code.

Projects subject to the GBA may request an exemption²⁷ from the Director of District Department of the Environment (DDOE). The burden will fall on the applicant to show good cause why their project cannot to meet the requirements of the GBA. Projects seeking exemption will be required to submit documentation which may include but will not be limited to:

- 1. Substantial evidence of a practical infeasibility or hardship in meeting a required green building standard
- 2. A determination that the public interest would not be served if the applicant had to comply with the requirement
- 3. LEED certification is not available for the building type that is subject to the Act's requirements
- 4. Documentation that the building subject to the Act's requirements is and will remain unoccupied
- 5. Documentation that the building will be temporary
- 6. An explanation of the need for the building
- 7. Any other information requested by the Director of DDOE

All applications for exemption shall be submitted, through DDOE, to the Green Building Advisory Council (GBAC) for comments and recommendations. The GBAC's comments and recommendations shall be provided to DDOE within 30 days of the date of submission.

2013 DC GREEN CONSTRUCTION CODE

The 2013 District of Columbia Green Construction Code (GCC) consists of the 2012 edition of the International Green Construction Code (IgCC) published by the ICC, as amended by the 2013 District Construction Codes Supplement (12 DCMR K, Green Construction Code Supplement). The GCC provides an approach to design and construction that conserves resources, including energy, materials and water, and a healthier indoor environment.

Subject to certain transition provisions for projects underway at the time the 2013 Codes were adopted, as more fully detailed below, or unless specifically excepted, the GCC applies to the design, construction, addition, alteration, change of occupancy, relocation, replacement, repair, equipment, building site, maintenance, removal,

²⁴ Published as Title 12 of the District of Columbia Municipal Regulations (DCMR), can be accessed online at http://www.dcregs.dc.gov/Notice/NoticeListForPublic.aspx?type=Issue&CategoryName=Final%20Rulemaking&IssueID=486
²⁵ Appendix: Green Building Act Self-Selection Guide

²⁶ More information on this financial security requirement can be found below under "Certificate of Occupancy".

²⁷ Chapter 35, Section 3511 of 20 DCMR and D.C. Official Code §6-1451.10 (2012 Supp.)

razing, demolition of (a) every building or structure; (b) appurtenances connected or attached to such buildings or structures; and (c) the site on which the building or structure is located. Exceptions include the following:

- 1. New construction, including construction of an addition, of less than 10,000 square feet (929 m²)
- 2. Alterations where the aggregate area of construction or renovation is less than 10,000 square feet
- 3. Demolition or razing of less than 10,000 square feet (929m²)
- 4. Relocation of structures of less than 10,000 square feet (929 m²)
- 5. Detached one- and two-family dwellings and multiple single-family dwellings (townhouses) not more than three stories in height above grade plane with a separate means of egress, their accessory structures, and the site or lot upon which these buildings are located
- 6. Group R-3 residential buildings, their accessory structures, and the site or lot upon which these buildings are located
- 7. Group R-2 and R-4 residential buildings three stories or less in height above grade plane, their accessory structures, and the site or lot upon which these buildings are located
- 8. Equipment or systems that are used primarily for industrial or manufacturing
- 9. Temporary structures approved under Section 3103 of the Building Code

If a proposed building activity is determined to be subject to the GCC, a determination will need to be made as to which of the potentially applicable compliance paths will be elected. The compliance path elected will determine the specific regulatory requirements applicable to the building activity.

Determine if the project must comply with the Green Construction Code (GCC) using the following documents:

- Chapter 1 of the 2013 Building Code, 12 DCMR A²⁸
- Green Construction Code Self-Selection Guide²⁹

If the project is within the scope of the GCC, determine if you will elect to use the code or one of the four alternative compliance pathways:³⁰

- 1. ASHRAE 189.1-2011
- 2. Enterprise Green Communities Certified
- 3. LEED at the Certified Level or higher
- 4. National Green Building Standard (ICC 700) at the Bronze Level or higher, and ENERGY STAR New Homes or Multifamily High-Rise Certification

New Construction or Level 3 Alterations projects that choose to comply with the GCC itself must also comply with Appendix A.³¹ Once a compliance path (GCC or others as listed above) is selected, the project has committed to completing the project under the chosen pathway and is required to complete all steps necessary to prove compliance, including full certification if applicable. If a project is seeking to follow an alternate compliance pathway, a full determination should be made before permit application submission by the design team to ensure

²⁸ Published as Title 12 of the District of Columbia Municipal Regulations (DCMR), can be accessed online at

http://www.dcregs.dc.gov/Notice/NoticeListForPublic.aspx?type=Issue&CategoryName=Final%20Rulemaking&IssueID=486 ²⁹ Appendix: Green Construction Code Self-Selection Guide

³⁰ Chapter 1, Section 101.4.9.4 of the 2013 Building Code, 12 DCMR A

³¹ Submittal Forms: Project Elective Checklist. New Construction Projects are required to have 15 project electives, Level 3 Alterations 13 project electives, all others are not required to seek electives at this time.

that the completed project will be eligible for certification under that pathway. Projects that do not complete the requirements of their chosen pathway will be subject to infractions and fines.³²

If you have determined the project must comply with the GBA or the GCC requirements, the procedural guidance found in the applicable chapters of this GBPM should assist in understanding and complying with these requirements.

TRANSITORY PROVISIONS³³

Projects that are already engaged in development, design or construction when the 2013 Construction Codes are adopted may be permitted to continue development under the 2008 Construction Codes.³⁴ Projects at the following stages should refer to the appropriate section of the Building Code for guidance:

- 1. Existing Valid Permits (Section 123.1.1)
- 2. Existing Filed Application (Section 123.1.2)
- 3. Existing Design Contracts (Section 123.1.3)
- 4. Tenant Layout Permits (Section 123.1.4)

The Transitory Provisions only apply to the D.C. Construction Codes, and do not apply to the Green Building Act.

REQUESTS FOR DETERMINATION

If you have a question, would like guidance on issues of applicability of the green building-related regulations and codes, or would like an official determination for the requirements of your project, contact the Green Building Program at DCRA using Subject Line: "Request for Determination by the Code Official" at green.building@dc.gov. Project teams will be required to submit the Green Determination Request³⁵, including all exhibits to get a complete determination. Incomplete requests will be returned without determination.

All green building determinations will be required to come through the Green Building Program at DCRA who will complete a review and present it to the Chief Building Official for final determination.

³² Title 16 of the District of Columbia Municipal Regulations (DCMR)

³³ Chapter 1, Section 123 of the 2013 Building Code, 12 DCMR A

³⁴ If the project falls within the scope of Section 123, all associated regulations of the 2008 Construction Codes are still applicable, including but not limited to the 2008 Building Code and Energy Conservation Code.

³⁵ Appendix: Green Determination Request

PRELIMINARY DESIGN REVIEW MEETINGS

OVERVIEW

DCRA offers Preliminary Design Review Meetings (PDRM) to customers for a fee. PDRM's are meetings scheduled by owners, developers and contractors to review building plans for code compliance prior to submission for building permits as a service of the DCRA. PDRM's can be scheduled for individual trades, or for full plan review, and can include DCRA, DDOT, DDOE and WASA. These meetings are generally scheduled to review large scale projects however the meetings are not limited by job size. PDRM's are not mandatory, but can be very helpful in expediting development of a project. Green applicability and preliminary design reviews are incorporated into the current PDRM structure.

PDRM PROCESS

To request a PDRM, contact the PDRM Coordinator, Toni Taylor, at <u>toni.taylor@dc.gov</u> and provide the following information:

- 1. contact name,
- 2. name of the firm or entity requesting the meeting,
- 3. phone number,
- 4. email address,
- 5. scope of work being performed, and
- 6. gross square footage of the project.

The applicant will be given the next available date on the PDRM calendar. Each meeting will last approximately 90 minutes.

No later than 10 business days prior to the month in which the meeting is to take place, the applicant will be required to submit a brief narrative overview and agenda to Ms. Taylor outlining the topics that will be covered during the meeting. Based on the agenda, DCRA may invite other agencies to participate (e.g. DDOT, DDOE, and WASA) if there are topics in the agenda which are under their purview. DCRA will send payment documents and a confirmation of the PDRM date by email at least five business days before the meeting.

Applicant must pay the required PDRM fee³⁶ before the meetings begin, and provide evidence of payment. The customer is given 3 copies of the Soar Revenue Receipt and the Standard Deposit Ticket and directed to the Cashier on the second floor. The customer brings back stamped copies of the Standard Deposit Ticket and is given one copy for their records.

If a PDRM is held, the meeting sign-in sheet, agenda, and meeting noted recoded by DCRA will be attached to the project in the DCRA database once the permit application has been submitted.

During the PDRM, the developer can decide whether to retain a third-party inspection agency to comply with inspection requirements in accordance with the District's third-party Inspection program.

³⁶ Fees are based upon the scale as outlined in DCMR 12, Appendix A (Building Permits).

GREEN REVIEW MEETING

OVERVIEW

Outside of the PDRM's, an optional one-on-one green review meeting with a representative from the DCRA Green Building Program is also available at no cost for owners, developers and contractors. During the meeting the project representative and DCRA would further discuss their project and review for compliance with the green construction code, energy conservation code, and/or Green Building Act. To schedule a green review meeting, please contact the DCRA Green Building Program at green.building@dc.gov.

GREEN REVIEW MEETING PROCESS

To request a Green Review Meeting, contact the Green Building Division at <u>green.building@dc.gov</u> and provide the following information:

- 1. contact name,
- 2. name of the firm or entity requesting the meeting,
- 3. phone number,
- 4. email address,
- 5. scope of work being performed,
- 6. gross square footage of the project
- 7. questions/agenda for meeting.

The applicant will be given the next available date on the Green Review Meeting Calendar. Green Review meetings will be scheduled on an as needed basis. Each meeting will last approximately 60-90 minutes.

If a Green Review Meeting is held, the meeting sign-in sheet, agenda, and meeting notes recoded by DCRA will be attached to the project in the DCRA database once the permit application has been submitted.

PERMITTING PROCESS

Whether a project owner is altering a structure, putting up a fence, building a house, or installing certain equipment the owner is responsible for getting the right permits from DCRA before work starts. DCRA classifies permits into various categories, depending on the work involved.³⁷

The DCRA Permit Center opens at 8:30 am Monday, Tuesday, Wednesday and Friday, at 9:30 Thursday, and closes at 4:30 pm daily. Customers can begin the permitting process until 3:30 pm, and will receive a ticket indicating the customer's place in the processing queue. Every effort is made to process all tickets the same day. If not, the process will be completed the following business day. The complexity of the permitting process depends on the size and scale of the proposed project, and can involve other agencies besides DCRA. If you are ready to get started, you can start your permit application online at: http://cpms.dcra.dc.gov/OCPI/PermitMenu.aspx

OVERVIEW

GREEN AND ENERGY PLAN REVIEWS

Green and Energy plan reviews are integrated into the standard permit application and review process. When you come through intake at the DCRA Permit Center, your application will be processed and assigned the appropriate green and energy code plan reviews. During the Green Plan Review, the Green Plan Reviewer verifies the provided plans and documentation are sufficiently complete. The Energy Plan Review for compliance with the ECC is integrated into the other plan reviews (e.g. electrical and mechanical plan review), but will be overseen by the Green Plan Reviewer to ensure full compliance is met.

THIRD-PARTY GREEN AND ENERGY PLAN REVIEWS

Currently, DCRA does not offer third-party green plan reviews for the GCC or GBA. However, third-party plan reviewers will be responsible to review for compliance with the ECC based on their respective plan reviews. For example, mechanical plan reviewers will review the mechanical plans to ensure the mechanical system is in compliance with the ECC. The Green Plan Reviewer will perform quality assurance checks on the ECC compliance for Third Party Reviews.

If your project is planning to meet the Green Construction Code by building to the GCC or to ASHRAE 189.1, please reach out to the Green Building Division when you begin your third-party review process so that we can best advise you on a timeline to complete the Green Review for your project.

For more information on the Third-Party Plan Review Program, please review the DCRA Third-Party Plan Review Manual.³⁸

³⁷ Chapter 1 of the Building Code, 12 DCMR A

³⁸ http://dcra.dc.gov/service/permits-third-party-plan-review-program

PERMITTING PROCESS

BEFORE COMING TO THE PERMIT CENTER, THE CUSTOMER SHOULD...

- 1. Using the GBA, GCC, ECC, and the self-selection guides, determine what green and energy efficiency regulations are applicable to your project
- 2. Fill out online permit application, including the applicable green building questions at: http://cpms.dcra.dc.gov/OCPI/PermitMenu.aspx
- 3. Print the application and complete the required signatures
- 4. Keep the permit intake tracking number you received online

INTAKE³⁹

- Customer brings the completed application along with the plan drawings and supporting documentation to the DCRA Permit Center, located on the 2nd floor of 1100 4th Street SW, Washington DC 20024, and present it to the Intake staff at the Infodesk for processing.
- 2. Infodesk staff will give you:
 - a. A Q-matic number, please listen for your number to be called
 - Supplemental forms to complete. If you prefer, you can find these forms online and fill them out before coming to DCRA: <u>http://dcra.dc.gov/publication/building-permit-application-forms-package</u>
- 3. Once your Q-matic number is called, a DCRA Plan Review Coordinator will:
 - a. Review the permit application and documentation to make sure customer has all of the appropriate forms and documents to continue
 - b. Determine if the project is a walkthrough or file job
 - c. Review the application and assign the mandatory plan reviews to be completed
 - d. Update the existing project application record as necessary

GREEN PLAN REVIEW (COMPLETED BY THE GREEN PLAN REVIEWER)

- 1. Confirm which green and energy codes and regulations the project is required to comply with and that they have the required documents⁴⁰
- 2. Review the project plans, specifications, and other documentation as applicable
- 3. If project requires additional information to complete the review: mark the project as "hold for comments" in the online permit application
- 4. Once all necessary information has been submitted by the customer in compliance with the codes: approve plans

BUILDING PERMIT ISSUANCE

- 1. Once all other assigned reviews are completed and approved, the customer is given notice that project is ready for permit issuance
- 2. Customer comes to Infodesk at DCRA
- 3. Customer is given an invoice, pays at the cashier's desk

³⁹ If using the Development Ambassador Service (DAP) or a Third Party Reviewer, your process may be slightly altered. Please visit the DCRA website for more information on these programs.

⁴⁰ Submittal Forms: Instructions and Overview and Submittal Checklist

4. Building permit is issued

BUILDING PERMIT SUBMITTAL DOCUMENTS

Project documents, include construction drawings and supporting documents in sufficient detail to show compliance, must be submitted with all permit applications.⁴¹ These documents enable DCRA to determine whether the project complies with the applicable Construction Codes. This section sets forth the additional submittals required to determine compliance with the GBA, GCC and ECC for those projects subject to specific requirements.

Commencing March 28, 2014 with the adoption of the 2013 DC Construction Codes a timeline for submitting construction documents and all other supporting documents electronically will expand in three month increments on the following schedule:

- June 28, 2014: Projects of 100,000 sqft or more
- September 28, 2014: Projects of 75,000 sqft or more
- December 28, 2014: Projects of 50,000 sqft or more
- March 28, 2015: All projects⁴²

ALL PROJECTS

General Documentation

- 1. Complete the Online Building Permit Application
- 2. Green Building and Energy Efficiency Submittal Overview
- 3. Include code compliance information in drawings
- 4. Energy Verification Sheet with all applicable ECC design criteria, including but not limited to:
 - a. Exterior envelope component materials, insulation materials and their R-values
 - b. Air-barrier details
 - c. Fenestration U-factors and SHGCs
 - d. Area-weighted U-factor and SHGC calculations
 - e. Mechanical system design criteria
 - f. Mechanical and service water heating system and equipment types, sizes and efficiencies
 - g. Economizer description; equipment and system controls
 - h. Fan motor horsepower and controls
 - i. Duct sealing, duct and pipe insulation and location
 - j. Lighting fixture schedule with wattage and control narrative
 - k. Air sealing details
- 5. Other documentation may be required at the request of the code official as allowed by the code or standard such as HVAC Commissioning (ASHRAE 90.1-2010), manufacturer submittals, or other requirements

⁴¹ Chapter 1, Section 106 of the 2013 Building Code, 12 DCMR A

⁴² Exception: projects exempted from seal requirements

PROJECTS SUBJECT TO THE COMMERICAL ENERGY CODE

All New Construction, Alteration, and Tenant Layout Projects

- 1. Load Calculations
- 2. Energy Verification Drawing Page (one of the following)
 - a. DCRA template⁴³
 - b. COMCheck; include all verification and inspection checklists in drawings

Projects Using Energy Modeling

- 1. Modeling Compliance Form (if available)
- 2. Modeling Inputs
- 3. Modeling Outputs
- 4. Thermal Block Diagrams
- 5. Error Reports/ Unmet Hours

Projects Using Prescriptive Pathway

- 1. Insert code-based, prescriptive envelope values into COMCheck
- 2. COMCheck "Certificate of Compliance" Pages (Envelope, Mechanical, Electrical, Plumbing)
- 3. COMCheck "Envelope Assemblies" checklist
- 4. Select one of the three additional efficiency package options:
 - a. HVAC
 - b. Lighting
 - c. On Site Renewable Energy

PROJECTS SUBJECT TO THE RESIDENTIAL ENERGY CODE

Level 1-2 Alterations⁴⁴

- 1. Residential Energy Verification Sheet
- Load Calculations As Applicable for the replacement of Air-conditioner, heat-pump, furnace, boiler or other space heating and cooling mechanism⁴⁵

New Construction and Level 3 Alterations⁴⁶

- 1. Load Calculations
- 2. Energy Verification Drawing Page⁴⁷

Projects Using Prescriptive Pathway⁴⁸

1. RESCheck "Certificate of Compliance" Pages inserted into drawings

⁴³ Template provided by DCRA at http://dcra.dc.gov/page/green-building-documents-publications

⁴⁴ As defined by the Existing Building Code

⁴⁵ See Sectional Reference Guide, Residential Energy Section

⁴⁶ As defined by the Existing Building Code

⁴⁷ Template provided by DCRA at http://dcra.dc.gov/page/green-building-documents-publications

⁴⁸ Includes all options under R402.1

- 2. RESCheck "Envelope Assemblies" inserted into drawings
- 3. Insert code-based, prescriptive values into RESCheck

Projects Using Performance Pathway

- 1. Modeling Compliance Certificate inserted into drawings
- 2. Building Input Reports inserted into drawings
- 3. Updated Modeling Compliance Certificate to reflect As-Built conditions if construction was modified relative to the approved permit set

PROJECTS SUBJECT TO GREEN BUILDING ACT

All Projects

- 1. Submit ENERGY STAR Target Finder report demonstrating the project is designed to achieve 75 points or greater on the EPA Energy Performance Rating scale⁴⁹
- 2. Document all mandatory requirements in the submitted Construction Documents
- 3. Complete and Submit applicable sheets from the Submittal Documents:⁵⁰
 - a. Project Overview
 - b. Submittal Checklist
- 4. Compliance Path Documentation (choose one of the following)

LEED Projects (one of the following)

- 1. If certifying with Green Building Certification Institute (GBCI): Grant read-only access to the project's LEED Online Account⁵¹
- 2. If requesting verification by DCRA:⁵²
 - a. Submit a formal request⁵³ to DCRA to use DCRA
 - b. Submit Preliminary LEED Scorecard
 - c. DCRA will arrange a formal meeting to review next steps

Enterprise Green Communities Projects (one of the following)

- 1. If certifying with Enterprise:
 - a. Submit the Prebuild Approval Notification from Enterprise
 - b. Grant access to the project's online Enterprise Online Account⁵⁴
- 2. If requesting verification by DCRA
 - a. Submit a formal request to use DCRA GPR to review for compliance ⁵⁵
 - b. Submit a copy of the Enterprise "Intended Methods" checklist

⁴⁹ If applicable: projects 10,000 square feet or more of gross floor area, and is a building type available through the ENERGY STAR Target Finder Tool: <u>https://www.energystar.gov/index.cfm?fuseaction=target_finder</u>

⁵⁰ Appendix: Submittal Forms

⁵¹ The Green Division LEED Online Account is under Green Building DCRA, green.building@dc.gov

 $^{^{52}}$ Chapter 3, Section 302.5.1 of the 2013 Green Construction Code, 12 DCMR K

⁵³ Appendix: DCRA Compliance Review Request

⁵⁴ The Green Division Enterprise Online Account is under Green Building DCRA, green.building@dc.gov

⁵⁵ Chapter 3, Section 302.5.1 of the 2013 Green Construction Code, 12 DCMR K

- c. Submit energy model demonstrating compliance with the appropriate energy performance path, or a signed statement demonstrating compliance with the appropriate energy prescriptive path
- d. DCRA will arrange a formal meeting to review next steps

PROJECTS SUBJECT TO GREEN CONSTRUCTION CODE

All Projects

- 1. Document all mandatory requirements in the submitted Construction Documents
- 2. Complete and Submit applicable sheets from the Submittal Documents:⁵⁶
 - a. Project Overview
 - b. Submittal Checklist
- 3. Applicable documents based on the projects compliance path selection below

Green Construction Code

- 1. Complete and Submit applicable sheets from the Submittal Documents:⁵⁷
 - a. IgCC Energy Performance Path
 - b. IgCC Energy Prescriptive Path
 - c. Commissioning Requirements
 - d. Commissioning Plan
 - e. Project Elective Checklist
- 2. Optional Review Materials for Submittal
 - a. Initial Material Selection choices
 - b. Construction Waste Management Plan

ASHRAE 189.1

- 1. Document all mandatory requirements in the submitted Construction Documents
- 2. Complete and submit applicable sheets from the Submittal Checklist:⁵⁸
 - a. ASHRAE Energy Performance Path
 - b. ASHRAE Energy Prescriptive Path

LEED

1. Grant read-only access to the project's LEED Online Account⁵⁹

Green Communities

- 1. Submit the Prebuild Approval Notification from Enterprise
- 2. Grant access to the project's online Enterprise Account⁶⁰

National Green Building Standard

⁵⁶ Appendix: Submittal Forms

⁵⁷ Appendix: Submittal Forms

⁵⁸ Appendix: Submittal Forms

⁵⁹ The Green Division LEED Online Account is under Green Building DCRA, green.building@dc.gov

⁶⁰ The Green Division Enterprise Online Account is under Green Building DCRA, green.building@dc.gov

- 1. Submit the NGBS Scoring Spreadsheet⁶¹, Project ID and contact information for the NGBS Verifier
- 2. Submit one of the following to show compliance with the ENERGY STAR New Homes or ENERGY STAR Multifamily High-Rise Program
 - a. Energy model with a preliminary HERS Score satisfying the ENERGY STAR Target Score for ENERGY STAR New Homes
 - b. Energy model demonstrating a 15% improvement over ASHRAE 90.1-2007 (ES MFHR)
 - c. A signed letter by project team members, including but not limited to owner and architect, indicating project is designed to applicable Prescriptive Path

DEMOLITION OR RAZING SUBMITTAL DOCUMENTS

PROJECTS SUBJECT TO THE GREEN CONSTRUCTION CODE

- 1. Complete Online Demolition or Raze Application
- 2. Provide plans and supporting documents to show compliance with relevant chapter of the GCC, including, but not limited to, building site waste management requirements (Chapters: 4 Site Development and Land Use; 5 Material and Resource Conservation)
- 3. Complete and Submit applicable sheets from the Green Construction Code Submittal Checklist:⁶²
 - a. Project Overview
 - b. Submittal Checklist
- 4. Provide date for/schedule final inspection of demolition or raze

ALTERNATE COMPLIANCE PATHS

Demolition and Razing projects are not eligible for ASHRAE 189.1, LEED, Green Communities or ICC 700 certification and are therefore not eligible for an alternate compliance path and are required to comply with the Green Construction Code.

SITE WORK PERMIT SUBMITTAL DOCUMENTS

PROJECTS SUBJECT TO THE GREEN CONSTRUCTION CODE

- 1. Complete Online Site Work Permit Application
- 2. Site work permit types under this section include:
 - a. Civil Site Work Only
 - b. Excavation Only
 - c. Fence
 - d. Foundation Only
 - e. Garage

⁶¹ NGBS Scoring Spreadsheet can be found online at:

http://www.homeinnovation.com/services/certification/green homes/resources/ngbs green scoring

⁶² Appendix: Submittal Forms

- f. Retaining Walls
- g. Sheeting and Shoring
- h. Swimming Pool
- i. Underground Storage Tank
- j. Water and Damp Proofing
- 3. Provide plans and supporting documents to show compliance with the relevant green building construction practices as required by the GCC (Chapter 4 Site Development and Land Use)
- 4. Complete and Submit applicable sheets from the Green Construction Code Submittal Checklist:⁶³
 - a. Project Overview
 - b. Submittal Checklist
- 5. Provide date for/schedule final inspection of site work

ALTERNATE COMPLIANCE PATHS

Site Work projects are not eligible for ASHRAE 189.1, LEED, Green Communities or ICC 700 certification and are therefore not eligible for an alternate compliance path and are required to comply with the Green Construction Code.

⁶³ Appendix: Submittal Forms

BUILDING INSPECTIONS

It is the permit holder's responsibility to call for inspections at the appropriate stage of construction.⁶⁴ Inspections may be requested for the following day, depending on inspector availability, or up to five working days in advance of the day needed. Inspections can be scheduled over the phone by calling: (202) 442-9557. To schedule an inspection over the phone, you will need your permit number, the address where the work is being completed, and the three digit inspection code.⁶⁵

You may select automatic telephone notification of inspection results when you request your inspection. You will receive a confirmation number if requested. Inspection results are available within 48 hours after the requested inspection is completed.

OVERVIEW

GREEN AND ENERGY INSPECTIONS

Green and Energy Inspections are integrated into the general inspection process,⁶⁶ and will occur at the same time as other inspections that are required for your building project. During the inspections, the Green Inspectors verifies the construction matches what was submitted and reviewed at the plan review and permitting stage as it pertains to the Green Construction and Energy Conservation Codes.

THIRD-PARTY GREEN AND ENERGY PLAN REVIEWS

DCRA is responsible for the permitting of all construction projects and for inspection of projects, when notified by the permit holder, to confirm that the work complies with the issued permit and with the DC Construction Codes. Under certain conditions DCRA authorizes non-governmental persons or entities, called a "Third-party Agency", to perform field inspections of work performed pursuant to a building permit and to certify that such work complies with the Construction Codes.

All official guidance and requirements relating to the Third-party Inspections program, including Green and Energy Inspections, can be found in the most current version of the Third-party Inspections Manual.⁶⁷ There are currently no approved third-party green inspectors. Third-party inspectors will be required to enforce the Energy Conservation Code as outlined in the previous section.

INSPECTION PROCESS

Building inspections may include, but are not limited to, the verification of green and energy related code requirements as listed below:

⁶⁴ Chapter 1, Section 109 of the 2013 Building Code, 12 DCMR A

⁶⁵ Find inspection codes at: <u>http://dcra.dc.gov/service/schedule-construction-inspection</u>

⁶⁶ Find more on the inspection process at: <u>dcra.dc.gov/ivr</u>

⁶⁷ http://dcra.dc.gov/service/permits-third-party-plan-review-program

BUILDING FOOTING

Inspections at building footing are required prior to concrete placement, after trenches are excavated, forms are erected and reinforcement is in place, and shall verify compliance as required by the code and approved plans and specifications for:

Green Construction Code

- 1. Confirm soil reuse and restoration (Section 405)
- 2. Progress on Site Waste Management Form (Section 406)

BUILDING FOUNDATION / SLAB ON GRADE

Inspections associated with foundations are required before backfilling and shall verify compliance with the code and approved plans and specifications for:

Energy Conservation Code

- 1. Slab insulation R-value and depth (R402 prescriptive or R405 performance/C402 prescriptive or C405 performance)
- 2. Basement or crawl space insulation R-Value (if exterior or integral) (R402 prescriptive or R405 performance/C402 prescriptive or C405 performance)
- 3. Buried duct systems associated with HVAC systems (403)
- 4. Piping Systems associated with HVAC or service hot water systems (R403.4.2)
- 5. Freeze protection/snow melt systems (R403.8, C403.2.4.5)

MECHANICAL ROUGH-IN

Inspections at mechanical rough-in are required the roof, framing, fire blocking, bracing and all duct and fuel piping to be concealed are in place, and prior to the installation of wall and ceiling membranes and shall verify compliance as required by the code and approved plans and specifications for:

Energy Conservation Code

- 1. Confirm installed HVAC equipment match specified and modeled type, efficiency and size (R403.6/C403.2.1)
- 2. Confirm installed gravity and motorized dampers match specifications and plan locations (C402.4.5)
- 3. Confirm installation of required demand control ventilation (C403.2.5.1)
- 4. Confirm proper installation of insulation for ducts, plenums and piping associated with the HVAC system (R403.2.1, R403.3, C403.2.7, C403.2.8)
- 5. Confirm sealing of ducts and plenums (R403.2.2)
- 6. Confirm results of any required duct leakage testing (R403.2.2 if performing Rough-in test, C403.2.7.1.3 if using High-pressure duct systems)
- 7. Confirm installed economizers and associated controls match specifications and plan locations (C403.3.1 Simple HVAC Systems or C403.4.1 Complex HVAC Systems)
- 8. Confirm installed temperature, humidity and zone controls match specifications and plan locations (C403.2.4, C403.4.5)
- 9. Confirm required sizing of HVAC system fans and motors (C403.2.10)
- 10. Confirm required energy recovery capability (C403.2.6)
- 11. Confirm existence of a means to balance HVAC systems

- 12. Confirm installed controls for HVAC and hydronic systems match specifications and plan locations (C403.3.2
- 13. Confirm required limitations on hot gas bypass for cooling systems
- 14. Installation of radiant heating systems where not allowed (C403.2.11)

ELECTRICAL ROUGH-IN

Inspections at electrical rough-in are required after the roof, framing, fire blocking, bracing and wiring are in place, and prior to the installation of insulation and wall and ceiling membranes and shall verify compliance as required by the code and approved plans and specifications for:

Energy Conservation Code

- 1. Confirm installation of all required lighting controls match specifications and plan locations
- 2. Confirm installed lighting system components (fixtures and lamps) match specifications and plan locations (R404.1)
- 3. Confirm installed electric meters match specifications and plan locations

PLUMBING ROUGH-IN

Inspections at plumbing rough-in are required after the roof, framing, fire blocking, bracing and all water, soil, waste and vent piping are in place, and prior to the installation of insulation and wall and ceiling membranes and shall verify compliance as required by the code and approved plans and specifications for:

Energy Conservation Code

- 1. The R-value, location, thickness, depth of burial and protection of insulation on hot water piping (R403.3.1, R403.4.2)
- 2. Confirm the existence of required temperature controls on potable hot water systems
- 3. Confirm the installation of automatic time switches on circulating hot water systems or heat trace (R403.4.1)
- 4. Confirm the installation of heat traps on hot water storage tanks associated with noncirculating systems

ENERGY EFFICIENCY AND INSULATION

Inspections of thermal envelope requirements are required to be performed before covering them with any other materials, and shall verify compliance with the code and approved plans and specifications for:

Energy Conservation Code

- 1. Wall assemblies including:
 - air barrier installation (R402.4.1.1, C402.4.1.1)
 - insulation values (R402 prescriptive/R405 performance)
- 2. Floor assemblies (R402.4.1.1)
- 3. Roof/ceiling assemblies (R402.4.1.1)
- 4. Fenestration (R402.4.1.1, C402.3 prescriptive)
- 5. Required Vestibules (C402.4.7)

Green Construction Code

1. Verify insulation meets or exceeds the standards (806.6)

MECHANICAL/ELECTRICAL/PLUMBING FINAL

Final mechanical, electrical and plumbing inspections are required after the permitted work is complete, all systems, appliances, and fixtures are in place and properly connected and the structure, building or portion thereof is ready for occupancy, and shall verify compliance with the code and approved plans and specifications for:

Energy Conservation Code

- 1. Recessed lighting in the building thermal envelope, sealed and IC-rated & labeled (R402.4.4, C402.4.8)
- 2. Confirm Certificate at panel (R401.3)
- 3. Confirm Lighting Equipment (R404.1)

Green Construction Code

- 1. Verify dust and debris cleaned from ducts and all return air filters were replaced prior to system flush and building occupancy
- 2. Field Inspection of irrigation system installation to approved plans (614 Plumbing Code through 903.1)
- 3. Verify lighting lamps, ballasts, controls and calibration has been completed (611.3)
- 4. Confirm installed electric meters match specifications and plan locations (603)
- 5. Verify means for air systems balancing (611.1.2.1)
- 6. Verify means for hydronic systems balancing (611.1.2.2)

BUILDING FINAL

Final inspections verify that all required inspections have been performed and approved and shall verify compliance with the code and approved plans and specifications for:

Energy Conservation Code

- 1. Written report of air leakage test results (C402.4.1.2.3)
- 2. Programmable Thermostat installed (R403.1.1)
- 3. Confirm weather stripping in critical areas (C402.4.4, C402.4.6)
- 4. Confirm duct insulation and sealing (for all exposed duct work) (R403.2.2)
- 5. Written report of duct leakage testing (R403.2.2 if performing post construction test)

Green Construction Code

- 1. Verify finishes (including flooring and acoustic tile systems) meets or exceeds the standards
- 2. Use Project Elective Checklist approved at permitting to verify completion of project elective selections
- 3. Approved Completion of site remediation plan
- 4. Verify completion of Stormwater management system operation (12 DCMR 5, through 903.1)
- 5. Verify Site lighting (409)

DEMOLITION OR RAZING INSPECTIONS PROCESS

Demolition and Razing permits are required to call for a final inspection for compliance with GCC

Green Construction Code

- 1. Completed Site Waste Management Form⁶⁸
- 2. Completed Construction Waste Management Form⁶⁹

SITE WORK INSPECTIONS PROCESS

All site work permits are required to call for a final inspection for compliance with GCC.

Green Construction Code

1. Completed Site Waste Management Form⁷⁰

⁶⁸ Submittal Forms: Site Waste Management

⁶⁹ Submittal Forms: Construction Waste Management

⁷⁰ Submittal Forms: Site Waste Management

CERTIFICATE OF OCCUPANCY

The Green Construction Code requires a number of submittals and verifications prior to issuance of a certificate of occupancy (CoO) for the project.⁷¹ The first certificate of occupancy for a floor above grade will trigger submittals and verification requirements, including temporary or conditional certificates of occupancy. Where a project must meet post-occupancy requirements, a certificate of occupancy will not be granted unless the code official determines that the project is on track to be verified in accordance with the path selected.

Along with the application for the certificate of occupancy, the owner should submit the additional documents listed below as applicable. All Green Construction Code documents should be submitted electronically to green.building@dc.gov. At this time, DCRA will notify you if your project will be required to submit copies of your preliminary and final commissioning reports.

If your project is meeting the GBA or GCC through a third party process, at the time of application for the certificate of occupancy, DCRA will login to view your project's progress in completing your specified compliance pathway, including, but not limited to, looking for the applicable documents listed below. Project teams that have not made significant progress towards completing required certification documentation may be requested to provide additional information before the CoO can be issued.

CERTIFICATE OF OCCUPANCY PROCESS

GREEN BUILDING ACT

Where financial security is required, the project owner must submit evidence of a Financial Security⁷² to DCRA, prior to issuance of the first certificate of occupancy for a story above grade plane, by one of four methods:

- 1. Cash: 80% of the amount of the potential fine deposited into an escrow account in a financial institution in the District in the names of the applicant and the District. A copy of the binding escrow agreement is required to be submitted.
- 2. Irrevocable letter of Credit: 80% of the amount of the potential fine posted as in Irrevocable Letter of Credit benefitting the District is required to be submitted.
- 3. Bond: 80% of the amount of the potential fine posted as a bond benefitting the District is required to be submitted.
- 4. Binding Pledge:⁷³ a copy of the recorded pledge, signed by the project owner and the District of Columbia Office of the Attorney General (OAG), is required to be submitted. The pledge agreement must be in a form approved by OAG.

Enterprise Green Communities Projects

1. GPR will check for progress in Green Communities Certification Portal:

⁷¹ Section 110, Chapter 1 of the Building Code, 12 DCMR A

⁷² Section 302.6, Chapter 3 of the Green Construction Code, 12 DCMR K

⁷³ http://www.dcregs.dc.gov/Gateway/NoticeHome.aspx?noticeid=4794921

- a. Compliance Report progress including waiver requests
- b. ENERGY STAR certificate or alternate documentation as pre-approved by Enterprise to show compliance
- c. Project Photos
- 2. Verification Checklist from Enterprise Green Communities⁷⁴

LEED Projects⁷⁵

- 1. GPR will check for progress of the following in the LEED Online Account
 - a. Minimum Program Requirements Checklist
 - b. Environmental Site Assessment
 - c. Minimum Energy Performance
 - d. Minimum Indoor Air Quality Performance
 - e. Minimum Acoustical Performance
 - f. Environmental Tobacco Smoke (ETS) Control
 - g. Progress on credit compliance forms and checklists for credits selected

GREEN CONSTRUCTION CODE

Green Code Projects

- 1. Completed Site Waste Management Form⁷⁶
- 2. Completed Construction Waste Management Form⁷⁷
- 3. Commissioning Acknowledgement⁷⁸
- 4. Preliminary Commissioning Report (if requested)

ASHRAE 189.1 Projects

- 1. Completed Site Waste Management Form⁷⁹
- 2. Completed Construction Waste Management Form⁸⁰
- 3. Commissioning Acknowledgement⁸¹
- 4. Preliminary Commissioning Report (if requested)

Enterprise Green Communities Projects

- 1. Verification Checklist from Enterprise Green Communities⁸²
- 2. Reviewer will check for progress in Green Communities Certification Portal:
 - a. Compliance Report progress including waiver requests
 - b. ENERGY STAR certificate or alternate documentation as pre-approved by Enterprise to show compliance

⁷⁴ If selected by Enterprise for Verification Protocol

⁷⁵ Forms can be found online at <u>http://www.usgbc.org/resources/</u> and <u>https://www.leedonline.com</u>. Depending on the scope of your project not all forms listed above will be applicable

⁷⁶ Submittal Forms: Site Waste Management

⁷⁷ Submittal Forms: Construction Waste Management

⁷⁸ Submittal Forms: Preliminary Commissioning Report

⁷⁹ Submittal Forms: Site Waste Management

⁸⁰ Submittal Forms: Construction Waste Management

⁸¹ Submittal Forms: Preliminary Commissioning Report

⁸² If selected by Enterprise for Verification Protocol

c. Project Photos

LEED Projects⁸³

- 1. Reviewer will check for progress in online:
 - a. Minimum Program Requirements Checklist
 - b. Environmental Site Assessment
 - c. Minimum Energy Performance
 - d. Minimum Indoor Air Quality Performance
 - e. Minimum Acoustical Performance
 - f. Environmental Tobacco Smoke (ETS) Control
 - g. Progress on credit compliance forms and checklists for credits selected

National Green Building Standard/ICC 700⁸⁴

- 1. Copy of Rough Inspection Report from accredited verifier
- 2. Copy of Verification Report from accredited verifier

⁸³ Forms can be found online at <u>http://www.usgbc.org/resources/</u> and <u>https://www.leedonline.com</u>. Depending on the scope of your project not all forms listed above will be applicable

⁸⁴ Find more information on NAHB process online at: <u>http://www.homeinnovation.com/services/certification</u>

POST OCCUPANCY

Historically, most construction projects in the District of Columbia are complete with the issuance of the Certificate of Occupancy. Because there are sections in the Green Building Act and Green Construction Code that require verification of equipment and system operation, and material selections, after the building is occupied, permitted projects will need to complete some submittals after issuance of a certificate of occupancy. These final pieces of information verify the project's compliance with some or all of its green building requirements.

Due dates for these post-certificate of occupancy submissions vary based on the green requirements for your project. Pay close attention to when your documentation is due to avoid any issues and/or fines. If you are using a third-party verification system, such as LEED, ICC 700 or Enterprise Green Communities, be sure to familiarize yourself with the deadlines for those programs to ensure your project remains eligible for certification. The project owner is responsible for demonstrating compliance, so if the property is transferred to a new owner prior to certification, the new owner must assume responsibility for paying any fines or fees that may result from non-compliance.

AFTER C/O ISSUANCE SUBMITTALS

GREEN BUILDING ACT

Within two years of the date of issuance of the first Certificate of Occupancy for a story above grade plane

- 1. Demonstrate proof of compliance with the appropriate LEED or Green Communities level using one of the following methods:
 - a. Proof of certification from GBCI or Enterprise
 - b. Verified certification equivalency through DCRA or the approved third-party verifier as determined at Building Permit review stage

GREEN CONSTRUCTION CODE

Within 180 days of the date of issuance of the first Certificate of Occupancy for a story above grade plane

Green Code Projects

- 1. Submit Material Selection Form⁸⁵ and one of the following:
 - a. Life Cycle Assessment Report⁸⁶
 - b. Total Cost Calculation⁸⁷
- 2. Submit a Final Commissioning Report⁸⁸ including:
 - a. Results of all functional performance tests
 - b. Disposition of all deficiencies found during testing including details of corrective measures completed or proposed

⁸⁵ Submittal Forms: Material Selection

⁸⁶ If complying with Section 505, Chapter 5 of the Green Construction Code, 12 DCMR K through the alternative compliance under 505.1.1

⁸⁷ Submittal Forms: Material Selection, IgCC Total Materials Cost Calculation

⁸⁸ Submittal Forms: Final Commissioning Report

- c. All functional performance test procedures used during the commissioning process including the measurable criteria for test acceptance
- 3. Any additional documentation for Project Electives⁸⁹
- 4. Copy of the Final Commissioning Report (if requested)

ASHRAE 189.1 Projects

- 1. Submit Material Selection Form⁹⁰ and one of the following:
 - a. Life Cycle Assessment Report⁹¹
 - b. Total Cost Calculation⁹²
- 2. Submit a Final Commissioning Report⁹³ including:
 - a. Results of all functional performance tests
 - b. Disposition of all deficiencies found during testing including details of corrective measures completed or proposed
 - c. All functional performance test procedures used during the commissioning process including the measurable criteria for test acceptance
- 3. Any additional documentation for Project Electives⁹⁴
- 4. Copy of the Final Commissioning Report (if requested)

Within 12 months of the date of issuance of the first Certificate of Occupancy for a story above grade plane

LEED Projects

1. Proof of Certification by GBCI

Enterprise Green Communities Projects

1. Postbuild Approval Notification from Enterprise

National Green Building Standard/ICC 700:

- 1. Home Innovation NGBS Green Certified certificate
- 2. ENERGY STAR certificate

⁸⁹ Submittal Forms: Project Elective Checklist. New Construction Projects are required to have 15 project electives, Level 3 Alterations 13 project electives, all others are not required to seek electives at this time.

⁹⁰ Submittal Forms: Material Selection

⁹¹ If complying with Section 505, Chapter 5 of the Green Construction Code, 12 DCMR K through the alternative compliance under 505.1.1

⁹² Submittal Forms: Material Selection, IgCC Total Materials Cost Calculation

⁹³ Submittal Forms: Final Commissioning Report

⁹⁴ Submittal Forms: Project Elective Checklist. New Construction Projects are required to have 15 project electives, Level 3 Alterations 13 project electives, all others are not required to seek electives at this time.

ENFORCEMENT

While it is expected that projects will comply with the green building and energy requirements, in the event that projects do not comply, DCRA has the ability to enforce requirements through options, including, but not limited to, monetary fines and civil and criminal proceedings.⁹⁵

The Green Building Act (GBA) provides an additional enforcement mechanism because of the financial security that must be posted for certain projects prior to issuance of a certificate of occupancy. Where the project fails to submit verification as required by the GBA, and associated regulations, the District has the right to draw down on the financial security submitted as cash, irrevocable letter of credit or bond, and to enforce a pledge agreement⁹⁶ pursuant to its terms.

If you have questions regarding any applicability of any of the GBA, GCC or ECC, please contact DCRA's Green Building Program at green.building@dc.gov.

 $^{^{95}}$ Chapter 1, Section 113 of the 2013 Building Code, 12 DCMR A

⁹⁶ http://www.dcregs.dc.gov/Gateway/NoticeHome.aspx?noticeid=4794921

APPENDICES

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то:	David Epley, Green Building and Department of Consumer and R 1100 4th Street SW, Washington	Sustainability Coordinate egulatory Affairs n, DC 20024	or
FROM:			
DATE:			
GREEN B	UILDING ACT CON	IPLIANCE RE	IEW REQUEST
In order to estab by the code offic Green Communit	lish verification of compliance win cial that the following project minimes of the following project minimes of the following project minimes of the	th the Green Building Act, eets or exceeds the appli tially equivalent standard)	I/we formally request a determination cable LEED standard or the Enterprise
PROJECT ADD	DRESS:		
BUILDING PE	RMIT #:		
SCOPE:	New Construction	Substantial In	nprovement
% OF PUBLIC	FUNDING: ⁹⁷	-	
USE:	Non-Residential Educational	Tenant Fit Out Mixed Use Interiors	Residential
GROSS FLOO	R AREA:		
CERTIFICATIO	ON: Green Communities	LEED; Standa	ard:

Level:

Please contact us if you require more information at this time. We will submit documentation with our building permit application to fulfill the requirements of the review.

 $^{^{\}rm 97}$ As defined under the Green Building Act and adopted under 12 DCMR K, 302.2

Thank you.

By signing below, under penalties of perjury, I declare that I have examined this request, including accompanying documents, and, to the best of my knowledge and belief, the request contains all the relevant facts relating to the request, and such facts are true, correct, and complete.

 (Signature)
 (Printed Name)
 (Title)
 (Date)

TO:	David Epley, Green Building and Sustainability Coordinator		
	Department of Consumer and Regulatory Affairs		
	1100 4th Street SW, Washington, DC 20024		
FROM:			
DATE:			

GREEN DETERMINATION REQUEST

I/we would like to request a determination on the applicable requirements under the District Green Construction Code (the 2012 edition of the International Green Construction Code as amended by 12 DCMR K) for the following project based on the facts provided below and in attachments:

PROJECT ADDRESS:				
BUILDING PERMIT	#:			
SCOPE:	New Construction Alteration/Addition/F [provide full descripti	Repair; Level: I on of work in Exhibit A]	11	III
COST OF WORK:				
VALUE OF PROPERT	Y:	Source:		
% OF PUBLIC FUND	ING:	[provide full description c	of funding ir	ı Exhibit B]
USE:	Non-Residential	Tenant Fit Out	Resider	ntial
	Educational	Mixed Use [provide ful	l descriptio	n of work in Exhibit A]
GROSS FLOOR ARE	A:			
Please contact us if you r	equire more informatic	on at this time.		

Thank you.

By signing below, under penalties of perjury, I declare that I have examined this request, including accompanying documents, and, to the best of my knowledge and belief, the request contains all the relevant facts relating to the request, and such facts are true, correct, and complete.

 (Signature)
 (Printed Name)
 (Title)
 (Date)

<u>EXHIBIT A</u>

[DESCRIPTION OF PROJECT/WORK]

<u>EXHIBIT B</u>

[DESCRIPTION OF FUNDING]



GREEN BUILDING ACT SELF-SELECTION GUIDE

GREEN CONSTRUCTION CODE SELF-SELECTION GUIDE





ENERGY CONSERVATION CODE SELF-SELECTION GUIDE