

# Standard 189.1-2014

Standard for the Design of High-Performance Green Buildings

ISWG Update

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GSA Office of Federal High-Performance Green Buildings

# Standard 189.1

- Collaborative effort between
  - ASHRAE
  - USGBC
  - IES
- First published in 2009
- Under continuous maintenance process
  - Addenda published after public comment/review
  - 3-year cycle for publication
    - 2011, 2014
- Code-intended language
  - Can be referenced or adopted by enforcement authorities
- [www.ashrae.org/greenstandard](http://www.ashrae.org/greenstandard)

# Sections

- Site sustainability
- Water use efficiency
- Energy efficiency
- Indoor environmental quality
- The building's impact on the atmosphere, materials, and resources
- Construction and plans for operation

# Format of Sections

- X.1 Scope
- X.2 Compliance
- X.3 Mandatory Provisions
- X.4 Prescriptive Option
- X.5 Performance Option

# 189.1-2014 New Provisions

- Site requirements
  - Prescriptive and performance made mandatory
  - Enhanced requirements for stormwater management
  - New bicycle parking requirements
  - Preferred parking for low-emission, hybrid, and electric vehicles
  - Predesign assessment of native and invasive plants
- Water
  - Increased stringency for toilets, clothes washers, dishwashers and green roofs

# 189.1-2014 New Provisions

- Energy
  - Significant updates to reflect Standard 90.1-2013
    - Revised building envelope provisions
    - Updated equipment efficiency tables
  - Fenestration orientation requirements updated
  - Updated Energy Star references
  - Continuous air-barrier requirements removed but 90.1-2013 must be followed for all climate zones
  - Whole-building pressurization or air-barrier commissioning is required
- Energy performance
  - Clarified energy performance and renewable energy requirements
  - Updated CO<sub>2</sub>e factors for different energy sources

# 189.1-2014 New Provisions

- IEQ
  - Added lighting quality and requirements for lighting controls in specific space types
  - Updates references to Standard 62.1-2013
  - References Standard 170 for ventilation of health care facilities
  - Clarified requirements for air sealing of filtration and air-cleaning equipment
  - Added requirement for preoccupancy ventilation and building envelope moisture management

# 189.1-2014 New Provisions

- Materials
  - Updated storage and collection of recyclables to include batteries and electronics
  - Updated construction waste management
  - Added maximum mercury content levels for electric lamps
  - Added requirements related to multiple-attribute product declaration or certification
- Construction and operation plans
  - Added air-barrier testing
  - New requirements related to idling of construction vehicles
  - New requirements to reduce entry of airborne contaminants associated with construction areas



**ANSI/ASHRAE/USGBC/IES Standard 189.1-2014**  
(Supersedes ANSI/ASHRAE/USGBC/IES Standard 189.1-2011)

# **Standard for the Design of High-Performance Green Buildings**

Except Low-Rise  
Residential Buildings



*A Compliance Option of the International Green Construction Code™*