Standard 189.1-2014
Standard for the Design of High-Performance Green Buildings

ISWG Update
March 19, 2015
Don Horn, FAIA, LEED Fellow
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
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

- 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

• 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 CO2e factors for different energy sources

- 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

- **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