Two-phase implementation strategy

Solution must be market-based

Phase 1:
- effective October 1, 2009

Phase 2:
- effective October 1, 2013
  - *originally effective October 1, 2011*
Ordinance 27131; Resolution 08-1070- adopted April 9, 2008, established the Green Building Program

Ordinance 27759; Resolution 09-2986-adopted December 9, 2009 amends water provisions and includes green roofs;
Ordinance 28386; Resolution 11-2564- adopted September 28, 2011 amends water and energy provisions; delays phase 2 and adds third-party verification;

Ordinance 28813; Resolution 12-2428- Adopted September 26, 2012 updates and delays Phase 2, and adds Chapter 61 “Dallas Green Construction Code”
Three Different Programs

- Single Family and Duplex
- Commercial Buildings under 50,000 Sq. Ft.
- Commercial Buildings over 50,000 Sq. Ft.
Mandatory Measures Effective Oct. 1, 2011

(*as amended)

**Energy**

**Water**

- Reduce Water Usage by 20%
- Must utilize drip irrigation emitters for all bedding areas of the landscape plan

Phase 1 ends September 30, 2013
New Commercial < 50,000 sf – Phase 1

Mandatory Measures Effective Oct. 1, 2011 (*as amended)

Energy

Water
  - Water use 20% reduction over EPAct 1992 baseline

Heat Island
  - Roofs:
    - Cool Roofs for slopes 2:12 or less to meet EPA ENERGY STAR, or
    - Install a green/vegetated roof that covers at least 50% of the roof area

Light Pollution
  - Outdoor Lighting restriction

Phase 1 ends September 30, 2013
New Commercial > 50,000 sf – Phase 1

Mandatory Measures Effective Oct. 1, 2011 (*as amended)

- 85% points for certified level
- 20% Water Use Reduction
- Certification by USGBC not required

Phase 1 ends September 30, 2013
Mandatory Measures Effective Oct. 1, 2013
(*adopted September 26, 2012—Resolution 12-2428 Ordinance 28813)

- Meet Min # points for certified level
- Certification by USGBC not required

Water
- 20% Water Use Reduction
All New Commercial - Phase 2 - Option 2

Mandatory Measures Effective Oct. 1, 2013
(*adopted September 26, 2012—Resolution 12-2428 Ordinance 28813)

Meet All Min. requirements

- Chapters 3, 4, 5, 7 & 8
- Deletes Chapters 2, 6, 9, 10 & 11
- New Chapter 61 of the Dallas City Code
Intent and Scope

- Will be enforced by Dallas Building Official or his designee
- Five jurisdictional requirements adopted
- Definition provisions deleted
- Applicable to the construction of
  - All NEW buildings, except:
    - IRC Buildings
    - R-3 Occupancies
    - R-2 and R-4 Occupancies 4 stories or less in height.
Proposed Jurisdictional Requirements - Table 302.1

- Chapter 1. **Scope** - recommend alternative path of compliance for new residential construction utilizing min. mandatory provisions of ICC 700.

- Chapter 4. **Site Development and Land Use** -
  - **Section 402.8** - Greenfield Sites-changed to provide for sites “specifically identified as greenfields and pursuant to the authority having jurisdiction.

- Chapter 5. **Material Resource Conservation and Efficiency** -
  - **Section 503.1** - Minimum percentage of waste material diverted from landfills – 50%

- Chapter 8. **Indoor Environmental Quality and Comfort** -
  - **Section 804.2** - Post Construction Pre-Occupancy Baseline AIQ Testing
Chapter 4: Site Development and Land Use -
Chapter Amended

Of Significance:
- Site Management and Erosion Control - site waste management plan shall be developed and implemented to divert not less than 50% of the land-clearing debris and excavated soils.
- Walkways and bike paths
- Heat Island mitigation
- Site lighting

Deletes Provisions for:
- Pre-design site inventory and assessment
- Designated protection areas
- Storm water
- Shower and changing facilities
- Bicycle parking and storage
- Preferred vehicle parking
Chapter 5: Material Resource Conservation and Efficiency - Chapter Amended

- Of Significance:
  - Minimum percentage of waste material diverted from landfills – 50%
  - Waste Management and Recycling
  - Material Selection
    - 45% of materials must be:
      - Recycled,
      - Recyclable,
      - Bio-based, or
      - Indigenous (within 500 miles)
    - (Materials are permitted to have multiple attributes.)
  - Mercury limits for fluorescent lamps

- Deletes Provisions for:
  - Reference to Whole Building LCA
  - Building Envelope Moisture Control
Chapter 6: Energy Conservation, Efficiency & CO₂e Emission Reduction

- Deletes Chapter 6 and requires current IECC compliance
- Keeps green code requirements separate from energy code requirements
Chapter 7: Water Conservation and Efficiency – Amended Chapter

- Coordinated with Plumbing Code
- Of Significance:
  - Regulates Fixtures, Fittings, Equipment and Appliances
  - Condensate drainage recovery
  - Water collection tank types
  - Potable Water applications and test procedures for rainwater
  - Gray water systems for irrigation provisions
  - Rain water collection system provisions
- Metering—any source associated with the building or building site “MAY” be individually metered
Chapter 8: Indoor Environmental Quality and Comfort- Amended Chapter

**Of Significance:**
- Indoor Air Quality Management Plan- **City to provide template**
- Air Handling system access to be unobstructed
- HVAC Systems- MERV 11 Filters- exception for multi-family filtration—MERV 6 for ≤30k BTUs; MERV 8 for over

**Deletes:**
- **Table 804.2** and requires total TVOC limits and not individual material /chemical VOC limits
- Acoustic provisions
- Daylighting provisions
Deleted Chapters

Chapter 9: Commissioning, Operations & Maintenance
Chapter 10: Existing Buildings
Chapter 11: Existing Building Site Development
1. Meet min. requirements of GreenBuilt TX; OR
   - 20% Water Use Reduction - only pre-requisite

2. Meet min. requirements of LEED for Homes; OR
   - 20% Water Use Reduction - only pre-requisite

3. Meet min. requirements of ICC700; OR
   - 20% Water Use Reduction - only pre-requisite

4. Meet ALL of the following prescriptive requirements:
   - **Storm Water**
     - Permeable lot. Design the lot such that at least 70% of the built environment, not including area under roof, is permeable or designed to capture water runoff for infiltration onsite.
   - **Water efficiency**
     - Utilize drip irrigation emitters for all bedding areas of the landscape plan; and
Meet water reduction strategies that include installing high-efficiency (low-flow) fixtures or fittings which meet at least three of the following requirements:

- The average flow rate for all lavatory faucets must be $\leq 2.0$ gallons per minute.
- The average flow rate for all showerheads must be $\leq 2.0$ gallons per minute.
- The average flow rate for all toilets must be:
  - $\leq 1.3$ gallons per flush;
  - Be dual-flush and meet the requirements of ASME A112.19.14; or
  - Meet the United States Environmental Protection Agency Water Sense specification and be certified and labeled accordingly.
- Utilize ENERGY STAR labeled dishwashers that use 6.0 gallons or less per cycle.
- Utilize ENERGY STAR labeled clothes washers with a modified energy factor (MEF) $> 2.0$ and a water factor (WF) $< 5$.

For additions to existing homes, meet at least two of following the water reduction strategies:

- The average flow rate for all lavatory faucets must be $\leq 2.0$ gallons per minute.
- The average flow rate for all showerheads must be $\leq 2.0$ gallons per minute.
- The average flow rate for all toilets must be:
  - $\leq 1.3$ gallons per flush;
  - Be dual-flush and meet the requirements of ASME A112.19.14; or
  - Meet the United States Environmental Protection Agency Water Sense specification and be certified and labeled accordingly.
Single Family and Duplex- Phase 2

- **Energy Efficiency**
  - Meet the performance requirements of ENERGY STAR for Homes to achieve a HERS rating of 75; or achieve 15% over the 2009 IECC baseline.

- **Heat Island Mitigation**
  - Install an ENERGY STAR Qualified roof on all roofs with slopes of 2:12 or greater.
  - The use of a vegetated roof may be an acceptable alternative subject to the review and approval of the building official.

- **Indoor Air Quality**
  - No HVAC equipment allowed in garage. Place all air-handling equipment and ductwork outside the fire-rated envelope of the garage.
  - Minimize pollutants from Garage. If there is a garage, tightly seal shared surfaces between garage and conditioned spaces, including all of the following:
    - In conditioned spaces above the garage:
      - Seal penetrations;
      - Seal all connecting floor and ceiling joist bays; and
      - Paint walls and ceilings
    - In conditioned spaces next to the garage:
      - Weather-strip all doors;
      - Seal all penetrations; and
      - Seal all cracks at the base of the walls.
  - Air filters. Install air filters with a minimum efficiency reporting value (MERV) >8 and ensure that air handlers can maintain adequate pressure and air flow. Air filter housings must be airtight to prevent bypass or leakage.
Questions

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