

# Economic Development Advisory Board July 16, 2008



Chandler Fire Admin. Building

## Chandler Green Building Program



# Presentation Overview

- ◆ Why Green Building?
- ◆ LEED
- ◆ Developing a Green Building Program
- ◆ Green Building Program





# Building Statistics

- Buildings Consume (Nationwide):
  - **70%** of electricity
  - **39%** of primary energy
  - **25%** of all water supplies
  - **40%** of all raw materials
- Buildings Generate:
  - **35%** of solid waste
  - **36%** of CO<sub>2</sub> emissions
  - **46%** of SO<sub>2</sub> emissions
  - **19%** of NO<sub>x</sub> emissions
  - **10%** of fine particulate emissions



Sources: DOE, EPA, U.S. Geological Survey, Worldwatch Institute



# Green Building Characteristics

- ✓ Energy Efficiency
- ✓ Water Conservation
- ✓ Environmentally-Sensitive Material Use
- ✓ Sustainable Site Development
- ✓ Healthy Indoor Environments
- ✓ Smart Investment

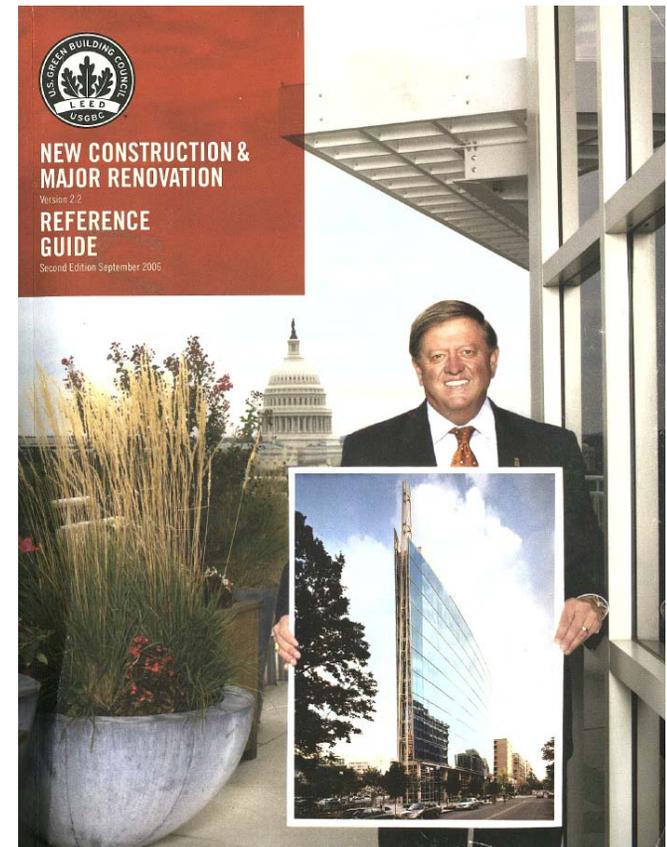


Chandler CARE Center:  
Pursuing LEED Certification



# What is LEED?

- ◆ Leadership in **E**nergy and **E**nvironmental **D**esign
- ◆ Nationally-Recognized Green Building Rating System
- ◆ Established by the U.S. Green Building Council (1998)





# LEED Categories

- ◆ 69 Points and 7 Prerequisites in 6 Categories:
  - ◆ **Sustainable Sites**
  - ◆ **Water Efficiency**
  - ◆ **Energy and Atmosphere**
  - ◆ **Materials & Resources**
  - ◆ **Indoor Environmental Quality**
  - ◆ **Innovation & Design**



# LEED Certification Levels

- ◆ **Meet all Prerequisites and Earn Points as Follows:**
  - **Certified (26 – 32 Points)**
  - **Silver (33 – 38 Points)**
  - **Gold (39 – 51 Points)**
  - **Platinum (52 – 69 Points)**





# LEED Costs

- ◆ LEED adds 0 – 10% to initial building cost
  - Certified/ Silver Level – 0 – 5%
  - Gold/ Platinum Level – 2% +
- ◆ Soft Costs can add 0.25 – 1% to building cost
  - Commissioning Required
  - Documentation Required
  - Extra Design Time
  - LEED Certification Fees up to \$17,500



# LEED Benefits

- ◆ Initial Costs Paid Back over Life of Building
  - Energy Savings
    - Certified/ Silver: 25 – 30% Cost Reduction
    - Gold/ Platinum: 45% Cost Reduction
  - Water: 30 – 40% Reduction
  - Fewer Service Calls



Pecos Village  
Pursuing LEED Silver Certification



# LEED Benefits (Cont.)

- ◆ Productivity Increases/ Reduced Absenteeism (1 – 16%)
- ◆ Increased Sales Price (39%)
- ◆ Higher Rents (22%)
- ◆ Higher Occupancy Rates (3.5%)



# Chandler Green Building Program



city of chandler  
**green building  
program**



Chandler CARE Center:  
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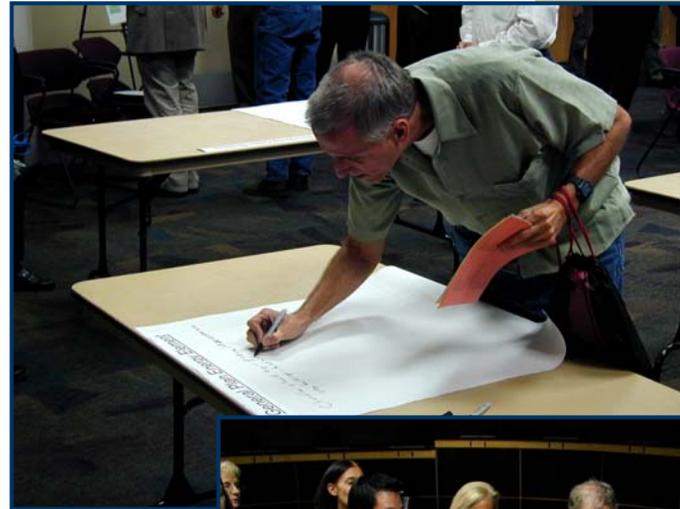
# Developing the Program

- ◆ 2006 - 2007 - P&D Clientele Survey
- ◆ Nov. 15, 2007 – Energy and Green Building Forum
- ◆ 2007 - 2008 – Green Building Task Force Meetings
- ◆ Spring, 2008 – Council and P&Z Briefings
- ◆ June 26, 2008 – Program Adoption



# November 15<sup>th</sup> Energy and Green Building Public Forum

- ◆ 63 Attendees  
(Including Staff)
- ◆ Participant Support For:
  - City Green Building
  - Incentives to Encourage Private Green Building
  - Some Minor Regulations





# Chandler Green Building Program

## *Program Outline*

1. Code Modification
  - a. International Energy Conservation Code (2006)
  - b. International Plumbing Code (2006)
2. Incentives for Private Development
3. City Green Building
4. Green Building Education and Outreach



# Incentives for Private Development

- ◆ Incentives Awarded to LEED-Certified Projects:
  - Expedited Plan Review
  - Developer Recognition
  - Technical Assistance
  - LEED Certification Fee Reimbursement





# City Commitments

- ◆ LEED Silver Certification for New City Buildings
- ◆ Energy Upgrades to Existing Buildings
- ◆ Education and Outreach



# Discussion

Questions/ Comments

