

**Your suggestions about improving
this presentation are welcomed.**

Please send comments to:

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Compelling Reasons to Rethink Our Communities



LEED®

Leadership in Energy and Environmental Design



Houston Business Issues

#1 Quality of life.

#2 Competition for people, business and profits.

#3 Houston as a leader.

#4 Growth.

#5 Green building demand, asset value, tax base and infrastructure costs.

#6 Tomorrow's building codes.

#7 Carbon regulations.

#8 You matter to our future.

What is a Green Building?

Building design, construction and operations practices:

- ***Sustainable Sites:*** Reduce site related development negatives.
- ***Water Efficiency:*** Safeguard water resources.
- ***Energy & Atmosphere:*** Reduce energy use and protect air quality.
- ***Materials & Resources:*** Recycle and minimize waste
- ***Indoor Environmental Quality:*** Improve the health and comfort of the occupant

Why is Green Building Important to Houston?

Do you want to live in a second tier city in
slow decline,

or

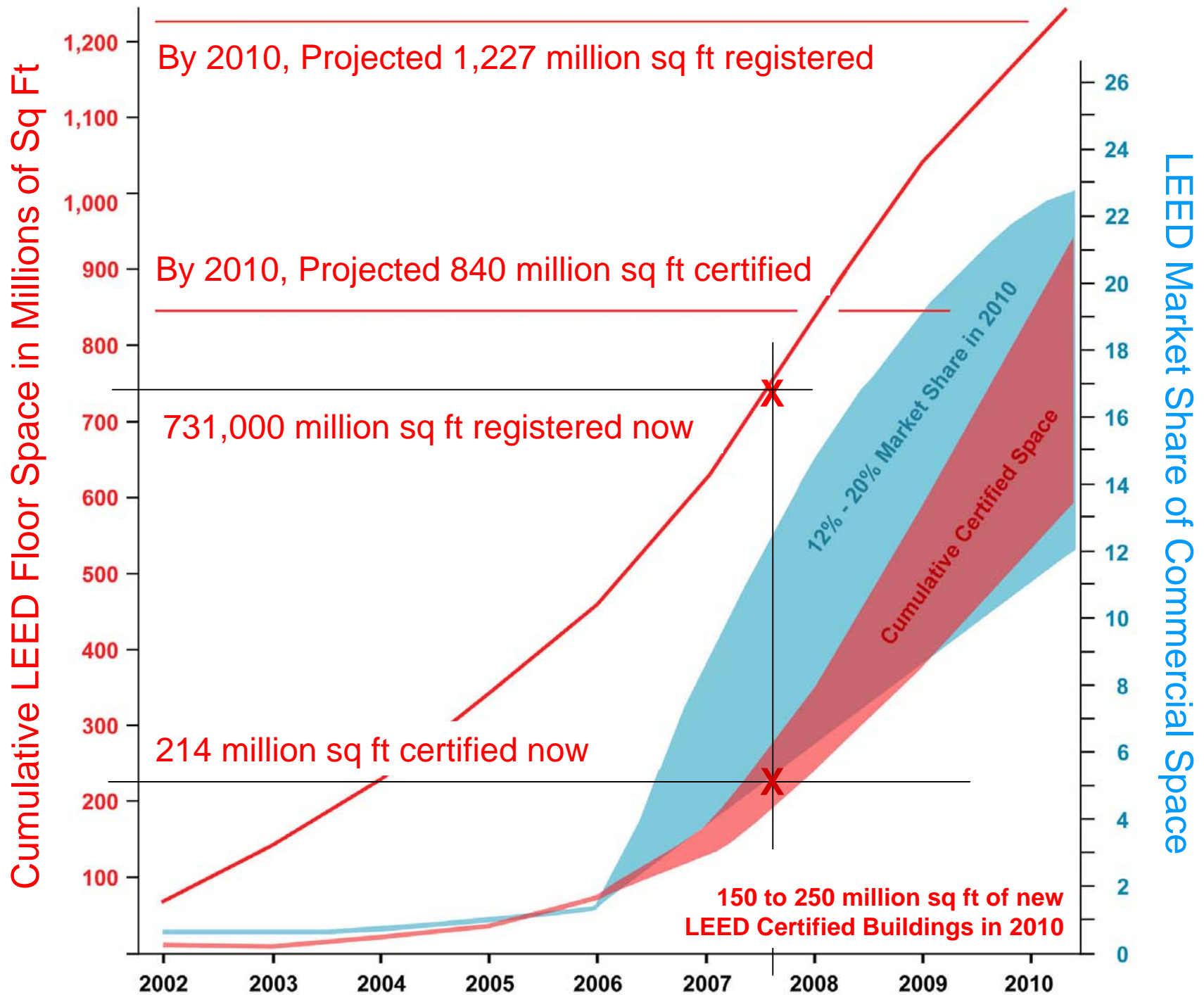
Do you want a city that is vibrant, healthy,
growing, prosperous and alive?

Hints:

Is Houston your retirement city?

Do your children plan to live here after graduation?

Figure 1: LEED Market Share of Commercial Space for New Construction and Core and Shell



LEED Cities

Rank	City	LEED Registrations
1	Los Angeles Area	48 / 228
2	New York	178
3	Seattle	158
4	Atlanta	151
5	Washington DC	143
6	Portland	132
7	Chicago	127
8	Boston	97
9	Houston	88
10	Denver	78
11	Dallas	75
12	San Francisco	74
13	Grand Rapids, MI	64
14	Pittsburgh	62
15	Austin	62
16	Las Vegas	59
17	San Diego	56
18	Raleigh / Durham	48
19	St. Louis	44
20	Miami Area	42



LEED Projects in Houston

- 88+ LEED registered projects (Top 10)
- 11 Certified LEED Projects (Certified & Silver)
- Seven registrations per month in 2007
- Hottest green market: speculative office space including downtown.
- Near Future: green homes.
- Reasons for optimism: Green Schools.

Houston Green Leaders

- **City of Houston:** 14 LEED project plus 4 others building to LEED standards
- \$30 million gift will lead to new **Rice** residential hall (HBJ 8/21/07)
- **University of Houston:** master plan calls for LEED Silver for new construction
- **NASA:** all projects over \$500K will be LEED Silver
- **Schools:** Houston ISD, Columbia Brazoria ISD, St. Catherine's Montessori, School of the Woods
- **Private sector:** Hines, Trammel Crow, Transwestern, Shell Oil, BP, Greater Houston Builders Assn & many others

LEED Certified Buildings in Houston

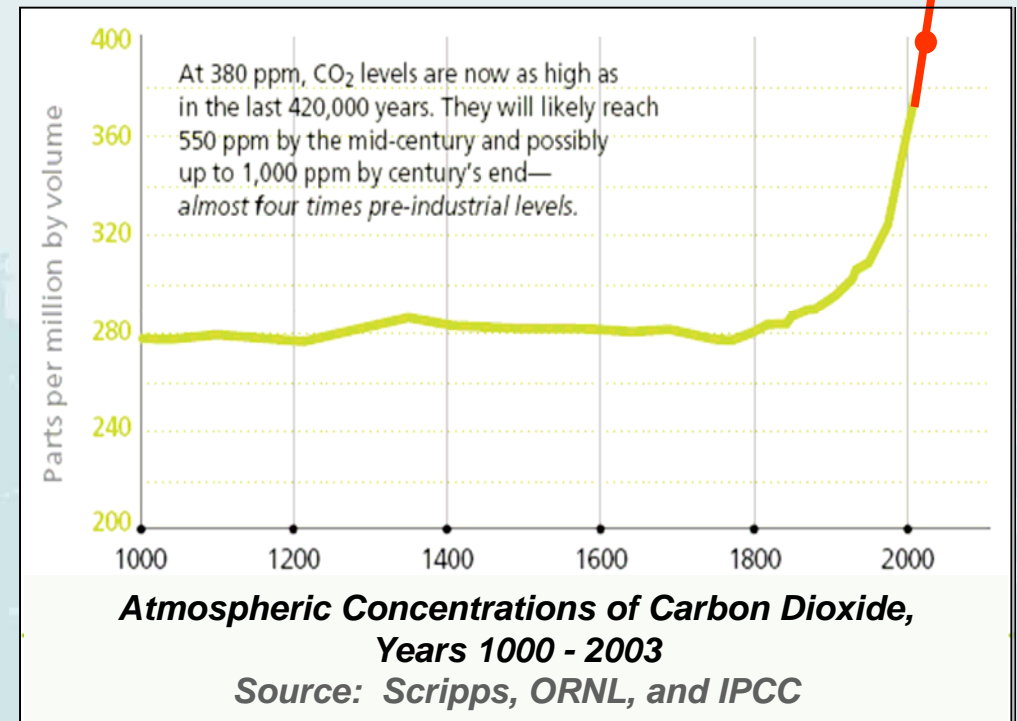
SpawGlass Corporate HQ (1 st LEED Building in Houston)	Silver NC
Emerson Unitarian Church Education Bldg	Certified NC
NASA B27 Astronaut Quarantine Facility	Certified NC
Kirksey Corporate Office Bldg (1 st LEED EB Building in Texas)	Certified EB
American Heart Assn Houston	Certified NC
Horizon Wind Energy Corp, Cameron Mgmt	Certified CI
West Brazos Jr. High, Columbia Brazoria ISD	Certified NC
St. Catherine's Montessori	Certified NC
Schlumberger Limited HQ	Certified CI
Pearland Pediatrics Bldg	Certified NC
Equivalent Data	Silver NC

Cost of Green Buildings

- **Cost is misunderstood. Some projects cost less or no more.**
- **Focus on budget not cost.**
- **Green building is about value:**
 - Recruiting and retention
 - Faster lease up
 - Higher occupancy
 - Better tenants
 - Higher lease rate
 - Higher occupant productivity
 - Better morale
 - Lower absenteeism
 - Improved learning retention
- **What is the cost of NOT building green?**

Environmental Impact of Buildings

- 77% of total U.S. electricity consumption.
- 39% of total U.S. primary energy use.
- 40% (or 50%) of total U.S. greenhouse gas CO₂ emissions.
- 136 million tons of construction and demolition waste in the U.S. (~ 2.8 lbs/person/day).
- 12% of potable water
- 40% of raw materials use globally (3 billion tons annually).
- Various sources including DOE.
- Goggle: “number of LEED registered buildings”



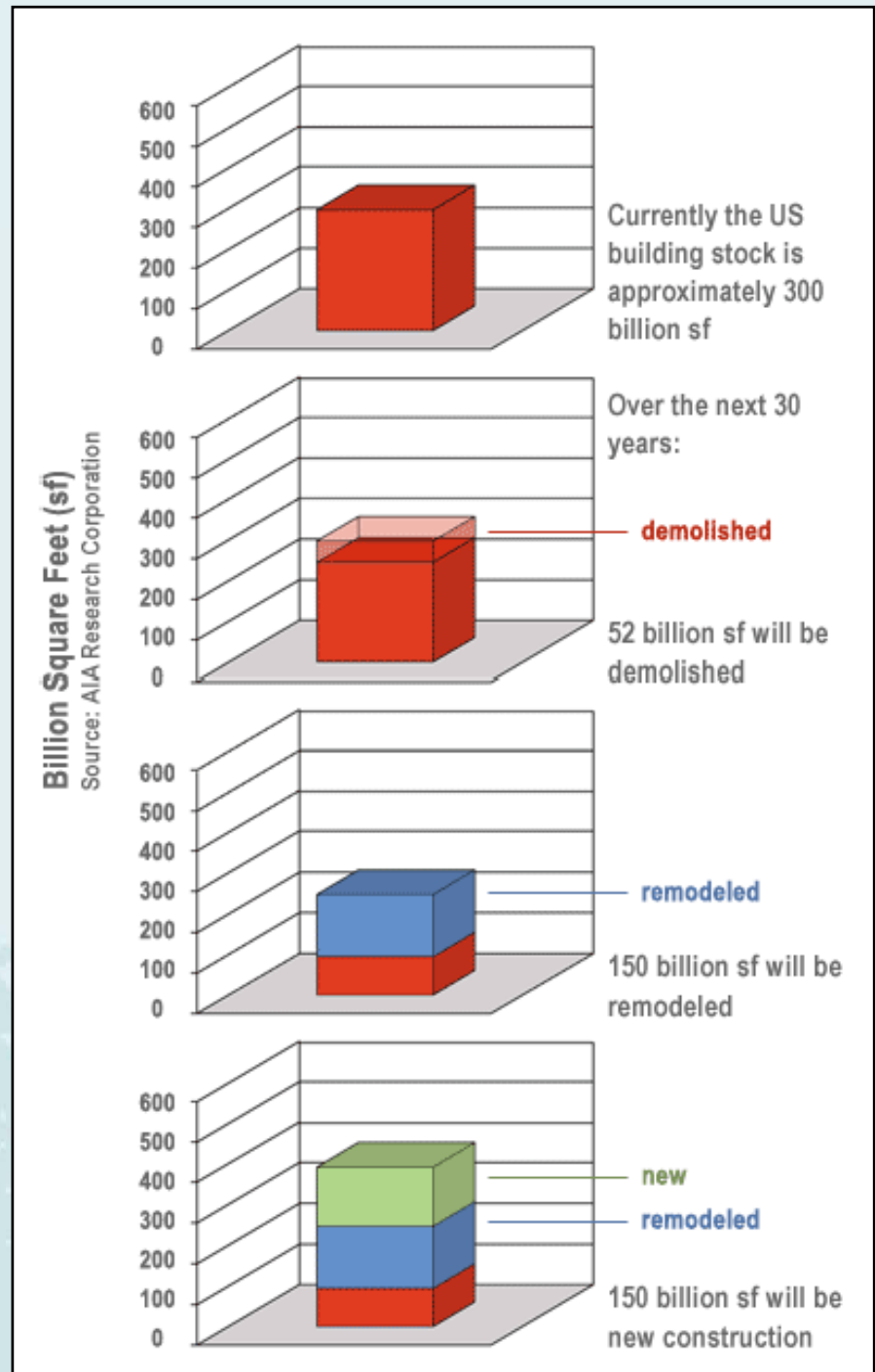
U.S. Building Stock

In the year 2035, 75% of the built environment will be either new or renovated.

Current stock: 300 B Sq Ft
Demolished: 52 B Sq Ft
Remodeled: 150 B Sq Ft
New: 150 B Sq Ft

Total in 2035: 398 B Sq Ft

Source: AIA Research Corporation



What is Houston Doing to Go Green?

- Greater Houston Partnership Green Building Task Force
- Greater Houston Area Green Building Action Plan
- Clinton Climate Change Initiative
- Greater Houston Partnership Quality of Life Committee
- Discovery Green Park
- Mayor White's initiative to make Houston "the energy conservation capital"
- Houston: a Top 10 LEED city

Green Building Action Plan



Citizens, small business, corporations and governments are participating in a strong wave of support for environmental issues.

Can Houston afford NOT to Go Green?