Designing the City of Tomorrow: Fighting Urban Sprawl

Andrew Statz      City of Madison, Mayor’s Office      Feb 22, 2010
Building a Sustainable City

Because the City of Madison is both a steward of our environment and a consumer of its resources, it must incorporate the principles of sustainability to ensure that our current and future needs can be satisfied.
Madison is a Growing Community

- Second largest city in the state with 227,700 people
- Rate of growth greater than the state as a whole
- No municipality in Wisconsin has grown more since the US Census of 2000

This is good news, but it presents a challenge...
Two Types of Urban Sprawl

**Suburban Sprawl**

- Near or adjacent to urban areas
- Repetitive design

*Source: nextup.files.wordpress.com*

- Auto dependence
- Separated uses
- Big box retail
- Big parking lots

*Source: accessniagra.com*
Two Types of Urban Sprawl

Exurban Sprawl

- Small, decentralized clusters of housing in rural environments

- No distinction between city and country
- No municipal sewer or water utility hookup

Source: medialaxh.rapmls.com

Source: exurban.osu.edu
Tools to Combat Urban Sprawl

- New sustainable zoning code
- Infill development
- Density, walkability
- Transit access, RTA, BRT, commuter rail, transit oriented design
- Intergovernmental agreements
- Land use planning
- New comprehensive plan
- Neighborhood plans
- Corridor plans
- Pending downtown plan

**Goal:** To build a strong city with long-term valuable and desirability
Infill Development

- Sequoya Commons
- Edgewater Hotel
- Union Corners
- Hilldale Shopping Center
- UW campus redevelopments
- University Square
- Downtown housing

Source: sequoyacommons.com

Source: hilldale.com

Source: madison.com
Density

• Density of development proposals is part of the review process.

• After decade of lighter densities, Madison is back on track.

• Planning Division reports annually on density of new development.
Transit & Transportation

- Regional Transit Authority (RTA)
  - Recent legislation allows for a ½% sales tax
  - Revenue to support bus and new commuter rail
- Metro Transit bus service to outlying areas
- Transit Oriented Design (TOD)

Source: rtd-fastracks.com
Northeast Neighborhoods

- 2,800 acres
- Largely undeveloped
- Bounded by I-94 to Milwaukee and I-90 heading north
- 30+ year timeline
- About 25,000 people
- Mixed use: homes, retail, jobs, services, open space
- Collection of several neighborhoods

“We’re building a city from scratch”
Some Basic Questions

• Good initial plan for $2/gallon gas... but what about $4... or $8 ???

• How can we incorporate into the Northeast Neighborhoods everything that is:
  – Good for the environment;
  – Good for residents; and
  – Good for businesses?

• How can we make sure this area is and remains desirable?
NENH was Inspired by Freiburg’s Vauban and Rieselfeld
Five Basic Environmental Goals for NENH

1. Vehicle Use
2. Energy Use
3. Water Use
4. Stormwater Run Off
5. City Services

Used to frame the development of the Northeast Neighborhoods Plan
Goal #1 – Vehicle Use

• 25% mode share
  – Capturing 25% of all trips made by persons living in the NEHN by walking, bicycling or transit

• VMT reduction
  – Reducing household VMT by 25%
Goal #1 – How can we get there?

- Transit-oriented development
- Traditional neighborhood development
- Mixed-use development
- Transit access for early neighborhood residents
- Transportation-demand management plans
- Walkable environments
- Bike facilities
- Other transportation demand management practices
Goal #2 – Energy Use

- Reducing household consumption of natural gas in NENH by 25%
- Reducing household consumption of fossil fuel-generated electricity in NENH by 25%
- These are consumption numbers – Separate from efficiency measures
Goal #2 – How can we get there?

- Energy efficient construction
- Alternative energy sources
- On-site energy production
- Conservation education and outreach
- Other energy conservation practices
Goal #3 – Water Use

• Reducing residential per capita water use in NENH by 25% compared to current city-wide per capita levels
  – Inspired by citywide goal of a 20% reduction by 2020

• Baseline and monitoring using Madison Water Utility service records
Goal #3 – How can we get there?

- Low-flow appliances and fixtures
- Dual-flow and low-flow toilets
- Rain barrels
- Encourage the use of EPA Water Sense-labeled water fixtures
- Low-impact lawn care design
- Discourage use of outdoor lawn irrigation systems
- Conservation education and outreach
- Other water conservation practices
Goal #4 – Stormwater Run Off

• Infiltrating 25% of the NENH’s stormwater volume on or adjacent to points of generation
• Monitored by City Engineering
Goal #4 – How can we get there?

- Rain gardens
  - Individual and shared
- Larger bio-swales
- Green roofs
- Porous paving
- Other on-site stormwater management practices
Goal #5 – City Services

• The City will deliver services in the most energy efficient method possible

• Monitored through fuel usage, GPS/AVL
Goal #5 – How can we get there?

- Alternative fuel systems
- Efficient refuse/recycling pick up
- Solar hot water on fire stations
- Basic infrastructure upgrades
- Other facility and operations enhancements
For More Info... 

Northeast Neighborhoods plan, maps, meeting minutes and more is available at:

www.cityofmadison.com/planning/northeast.html 

Contact Andrew Statz at:

• astatz@cityofmadison.com

• (608) 266-4611