# Category: Planning and Design

## Compelling vision

Madison's land use patterns, and our planning and design policies and practices, provide and protect quality of life for existing and future generations. Our built environment respects the natural environment.  Our neighborhoods have convenient access to food, health, recreation, economic livelihood, and other basic needs for individuals and families. Our neighborhoods include informed and engaged people of mixed income and diverse ethnicity. The places where we live, work, learn and play are safe, sustainable, affordable, healthy, and inspire a sense of wellbeing.  Our city government and staff set examples of reduced energy use and emissions for businesses and individuals to emulate.

## Scope

Zoning; transit; building code (policy); drinking water, storm water, sewerage; intergovernmental relations; open space; public safety

## Systemic threats/opportunities

- Natural systems are not constrained by municipal borders; planning processes at various governmental scales make large scale improvements difficult unless carefully coordinated

- Lack of systems thinking & planning (e.g., separation of City Planning and City Engineering; separation of zoning and building codes)

- NIMBYism

- Neighborhood plans and positions on new development routinely focus on preserving the status quo

- Existing patterns of development (e.g., lack of appropriate density; automobile-orientation)

- Existing values/norms (e.g., turf lawns; large lots; big houses; reliance on personal autos)

- Climate change (e.g., increased flooding)

- National/global economics, including secondary mortgage requirements

- Limited set of public incentives for development (e.g., TIF; payments-in-lieu)

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- Current segregation of what should be compatible uses (e.g., shared space for pedestrian, bicycle, vehicle, parking, etc.)

- Opportunity to "supercharge" use of existing public spaces for 24/7 activation (e.g., optimize recreation, stormwater management, wildlife habitat, food production, $CO_2$ capture)

- Inadequate public transportation currently drives development, urban planning and density decisions

# Major stakeholders

- Developers

- Builders and contractors
  - Residential
  - Commercial
  - Mixed Use
  - Cross-classify by size?

- Property owners
  - Residential
  - Commercial
  - Developable
    - Strip malls
    - Land close to public transit
    - Land near employment concentrations

- Major city staff stakeholders
  - Parks Department
  - Traffic Engineering Department
  - Zoning Department
  - Planning & Development Department
  - Police

# Goal 1—Strengthen transportation planning and development to provide improved service and guide future development

Develop a transportation system that provides full multi-modal travel opportunities within Madison and connections to out-of-city transportation, reduces fossil fuel use and promotes physical health, is accessible to everyone, regardless of ability and offers speed and quality that attracts people away from routine automobile use.

- Numerical transportation goals to be established by Transportation group

- Multi-modal travel opportunities include all fuel-powered and human-powered options

**Recommendations:**

- Create benchmark measurements as an essential first step using existing data and gathering new data where needed

- Increase business and organizational use of programs that discourage single-occupant vehicles, e.g. Ride Share, discounted and/or pretax bus passes

- Provide efficient regional transit hubs for commuters & visitors

- Create new mixed-use, transit oriented developments at strategic locations identified in Comprehensive Plan and reevaluate all existing plans for same. [[[*Suggested substitute: Identify strategic locations for mixed-use, transit oriented developments. Assure that transit resources will be available when developed and remove regulatory impediments*]]]

- Buses
  - Develop Bus Rapid Transit program to decrease commute times and improve customer service
  - Increase express bus service and label express bus stops
  - Implement bus route numbering system that simplifies route identification
  - Improve bus trip planning resources

- Human powered, e.g. bicycles, tricycles, skates
  - Improve resources for seasonal and year-round commuting
  - Improve plowing and sweeping of on-street bicycle lanes
  - Keep bicycle riders out of (automobile) "door zone" by modifying bicycle lanes and re-striping streets.
  - Actively support "Bicycle Station" or other concepts to provide secure, weather-protected bicycle storage and services at transit hubs and other strategic locations
  - Evaluate bicycle path systems for full linkages within City and region with emphasis on closing gaps in current network and improving challenging intersections

- Streets
  - Incorporate concepts such as "woonerf," "spiegelstrasse" and "Complete Streets" when residential streets are designed or reconstructed to give priority to pedestrians, human-powered and electric-assisted devices and electric-powered chairs for the disabled.
  - Augment traffic calming with partial intersection closures and other methods to keep through traffic off of residential streets
  - Coordinate improved infiltration with salt reduction/elimination
    - Providing additional incentives & encouragement for residents to request terrace rain gardens
    - Revise curb & gutter engineering specifications to provide for a higher number of locations for terrace rain gardens
    - Incorporate permeable pavement systems in mid-block areas of residential streets
    - Minimize loss of tree cover and greenspace

- Work with utilities toward programs to place neighborhood utility lines underground
- Modify impermeable coverage charge on water bills to encourage residential rain gardens
- Tax impervious paving not already taxed by water utility, e.g. surface parking lots

# Goal 2 – Holistic land use

Insure the design and planning process holistically addresses sustainability, functionality and design. Madison should lead the surrounding area by example in sustainability. Sustainability "systems overlay" principles (including addition of future residences and businesses, transit-oriented development, stormwater management) should apply to all city planning.

A high percentage of the population increase in Dane County should occur along transit lines and in transit-oriented developments that will eventually be served by mass transit. Density within the City of Madison should be high so that affordable housing can be close to employment opportunities. It is essential that suburban areas also be centered around public transit opportunities because the carrying capacity of Madison streets is limited.

Madison should continue to be the predominant community and regional center for government, employment, health care, educational and entertainment activities. It should also remain a vibrant urban residential community. Its diverse and engaging neighborhoods should provide an attractive alternative to suburban sprawl.

All neighborhood and city plans need to be reviewed and made consistent with holistic land use and sustainability principles

## Recommendations

- Preserve and enhance Madison's unique beauty and character with architectural, urban design and natural resource policies and rules that promote and protect a sustainable, high-quality built environment and preserve the area's important natural resources and open spaces
- All Madison residents including individuals, families and other household units should have access to daily needs (e.g. food, health care, employment and/or transit access and primary education) within ¼ - ½ mile
- Respect existing public and private infrastructure, e.g. schools, libraries, businesses and utilities
- Effectively utilize underdeveloped parcels (e.g. large surface parking lots, brownfield sites
- Develop a set of guiding principles for green development that includes accounting for costs not traditionally considered ("externalities")

- Create a development pattern and service infrastructure that supports and encourages energy-efficient life styles and promotes long-term conservation of natural resources and the health of the environment.

- Improve open space, parkland and recreational opportunities.

- Reduce sprawl growth rate by 25% by 2015.

$$\text{Sprawl growth rate} = \frac{\text{(new residential units)}}{\text{(newly developed res. acres)}} + \frac{\text{(new commercial. sqft)}}{\text{(newly developed comml. acres)}}$$

- Create a systematic process to review and revise existing city and neighborhood plans and make them consistent with holistic land use and sustainability principles

- Implement a Transferable Development Rights program within the county. Agricultural lands sell development rights to developers who exchange the rights with the city in return for other benefits, e.g. waiver of fees, higher density, subsidy.

- Join the city planning, engineering and traffic engineering departments, because when you plan streets and infrastructure, you are planning the city.

- Encourage higher density of single family housing, e.g. row houses and small single-family lots near parkland

- Develop density targets for neighborhoods based on city growth and infrastructure projections, apportioned to neighborhoods by planning dept.

- Create transit-oriented development incentives

- Advocate for creation of a metropolitan planning agency (MPA) for Madison (requires state action). If state action is not forthcoming, implement county-wide planning, recognizing that current roads will allow sprawl to develop beyond the county lines.

- Re-purpose public rights-of-way as edible landscapes, sculpture gardens, community gardens, etc

- Rewrite zoning codes and other regulations to permit district and decentralized energy generation and distribution systems

- Permit and incentivize decentralized renewable energy utilities (e.g. wind installations and solar canopies in mall parking lots, etc.) on public and private structures. Use caution to minimize impact on existing architecture and historic areas while recognizing that state law prohibits regulatory protections

- Remove minimum parking requirements from the zoning code. To protect residents, combine this with a "residents and guests only" parking system similar to Cambridge MA

- Establish maximum parking requirements (e.g. 3 stalls per thousand sq. ft. commercial floor area). Require projects which exceed the maximum (via

variance) to increase stormwater infiltration, increase canopy tree cover (i.e. heat island mitigation) and/or install multi-level parking.

- Change requirements for all surface parking to increase stormwater infiltration, reduce heat island effect and other strategies to reduce environmental impact

- Re-invent shopping malls to better use the land and surrounding parking lots:
  - o Add density and other uses;
  - o Capture, filter and make use of storm water;
  - o Solar collectors and green roofs on the large flat roofs
  - o Use as centers for transit-oriented development

# Goal 3 – Infrastructure and Buildings

Encourage sustainable private development while demonstrating sustainability on all public projects. Our infrastructures and built environment are designed and built to be compatible with the natural environment and create spaces that are energy efficient, safe, inspiring and promote a sense of well-being.  The city sets examples of good stewardship with city facilities, transportation systems, and processes (sewer and water) by reducing energy use and emissions.

## Recommendations:
- Create LEED or equivalent third-party certified construction with tiered incentives based on level of certification

- Require minimum LEED silver or equivalent third-party certification for all construction supported by public funds (e.g., TIF)

- Require recycling of construction and demolition waste for all construction supported by public funds and other projects above a certain size

- Create ombudsfolk within city agencies to support and encourage developers and builders toward comprehensively 'green' outcomes. Ombudsfolk need to be LEED accredited professionals or equivalent and very knowledgeable about city regulations and approval processes

- Affordable housing
  - o Promote urban as well as suburban use of available subsidies (Sec 42 and Section 8) and homeless services
  - o Encourage mixed-income buildings
  - o Develop and publicize green affordable housing concepts

- Create incentives to encourage rehabilitation of existing buildings and new infill development

- Create a Mayor's honor roll and award program for exemplary green projects

- Encourage wind power onsite for larger, PUD-type and commercial projects with appropriate attention to aesthetics. Assure that expertise is available, e.g. from utilities and broadcasters to avoid TV/radio interference

- To increase overall density, promote 'pocket parks' within a development that are within easy walking distance. Design the parks to provide rain catchment and provide solar spacing between buildings. Pocket parks with adjacent row houses can provide increased density that is also family-friendly. Innovative street designs that support transit and human-powered activities (discussed in more detail under goal #1) would complement these innovations.

- Take $CO_2$ into account when determining city policy and projects.
    - Create an internal carbon pricing system for the City. Determine a price per ton of $CO_2$. Add the cost of $CO_2$ to all relevant areas when weighing options.
    - Use internal carbon pricing to factor into infrastructure costs
    - Use internal carbon pricing to factor into building costs. Used to compare energy efficiency, energy source, $CO_2$ cost of material production [[[*This bullet and sub-bullets need clarification*]]]

- Identify and create a mapped database of "pedestrian paths," a network of commuter sidewalks that the city will plow in the winter. Identify and correct gaps in the network.

- Use high volume cement replacements in all public building and infrastructure projects.

- Establish revolving loan fund for energy efficient upgrades. The outstanding balance is a lien on the property. The city gets half of projected savings or interest (whichever is greater) until the loan is paid off.

- Examples of good stewardship shall:
    - Be measurable and verifiable
    - Be documented technically and financially for potential use by individuals and businesses

## Goal 4—Water and watersheds: swimmable lakes and edible fish

Dane County lies at the head of the Yahara River watershed. It does not inherit problems that flow down from other areas. The City of Madison is a large part of the watershed. It has a major duty to preserve and enhance the quality of our lakes and wetlands. Madison is also the largest groundwater user in the area. Currently, the water withdrawal rate exceeds the recharge rate. This threatens the water levels in our lakes, which depends on the level in the water table, as well as future water supplies. Sedimentation, largely from Willow Creek, whose watershed extends to Westgate Mall, has destroyed one swimming beach and damaged the productivity and utility of University Bay. While countywide

action is needed to solve all problems in our lakes, Madison is a major contributor—therefore, a necessary solver.

**Recommendations**

- Consider a dual water system with large common water catchment cisterns that would replace deep-well drinking water for:
  - Residential blocks, to water lawns and gardens and wash cars
  - Commercial projects, for irrigation, cooling-tower spray and other innovative purposes

- Create comprehensive watershed-based ("upstream") stormwater management (e.g. "daylighting" streams; diffuse infiltration, proper sediment control, etc.)

- Madison Stormwater Utility encourages innovative watershed-based stormwater management practices (incentives for private sector to implement best management practices; diffuse infiltration; etc.)

- Remove legal and regulatory barriers to capturing and re-using stormwater and graywater in substantial quantiies (e.g. cisterns, not simply rain barrels) for domestic uses such as clothes washing, toilet flushing, etc.

- Use treated, disinfected MMSD effluent to irrigate golf courses and industrial parks as western states have done for many years

- Detention ponds and rain gardens should count to mitigate impermeable surface charges and toward open space and green space requirements

# Goal 5—Food and food systems

Madison needs to support local and regional agriculture and food systems that provide fresh local food to consumers. Madison needs to encourage and/or provide venues, such as its excellent farmers' market, where local producers and consumers can connect. It should also encourage in-town agricultural opportunities that are appropriate in a well-populated urban area. Community gardens are successful and deserve continued support. Commercial agricultural should also be encouraged as appropriate to an urban environment, for example hydroponic cultivation and protection of existing prime agricultural land.

**Recommendations:**

- Identify and by 2020 commit 4 percent of City of Madison land area to "for-profit" urban agriculture (NOTE: appendix to include reference to historical and current data from Paris—LOU)

- Identify and support use of naturally unbuildable properties adjacent to parkland, greenways, railroad ROW, former landfills etc. subject to assurance that the land is safe for agricultural use

- Identify and develop strategies to eliminate "food deserts," i.e. areas of the city that are distant from food stores

- Plant low-maintenance fruit & nut trees in public areas

- Consider allowing chickens in low population density areas as many cities have already done

- Encourage use of community garden plots and increase the number of plots as needed to meet demand. Identify and prioritize use of public open space for community gardens

- Indemnify private land owners who voluntarily allow private property to be used for community gardens

- Assure that zoning regulations allow urban agricultural uses in all districts, as appropriate. Offer incentives, such as property tax abatement to owners who offer space for such use

## Resources

Walk Score: <http://www.walkscore.com/>

Sustainable Sites Initiative: <http://www.sustainablesites.org/>

LEED for neighborhood development: http://www.usgbc.org/DisplayPage.aspx?CMSPageID=148<http://www.usgbc.org/DisplayPage.aspx?CMSPageID=148>

Philadelphia - "Plan Philly": <http://planphilly.com/>

Denver -- sustainable planning & citizen input

Madison daylighting streams Cap Times article <http://host.madison.com/ct/news/local/environment/article_c2f99c93-c590-5fc3-8e59-846710c2aea7.html>

Seattle -- daylighting streams <http://www.seattle.gov/parks/proparks/projects/RavennaCreekatCowen.htm> <http://www.seattle.gov/parks/proparks/projects/RavennaCreekatRavenna.htm> <http://www.seattle.gov/parks/maintenance/MadronaCreek.htm>

ASHRAE 2007 Handbook, Chapter 35, "Energy Use and Management"

The "gap list" from Madison Zoning Code Re-write Committee's (ZCRAC) efforts

### Existing examples to emulate

Hilldale
Midvale Plaza
Schenks Corners
Rain garden street in Vilas neighborhood
Daylighting of Starkweather Creek