

DATA-DRIVEN DESIGN FOR LIVABLE COMMUNITIES

By right-sizing infrastructure and development, we can create sustainable and resilient communities now and in the future. Planning and developing our small cities for financial, environmental, and social sustainability is all the more important in the face of current population trends in much of the Upper Midwest. Birth rates are low, and with few exceptions, talent attraction from other parts of the country is a struggle. The pressure this puts on workforce capacity, funding for critical services, affordability, and livability is immense. This two-pronged approach of increasing the efficiency of land-use and reducing infrastructure costs per capita is needed to put our cities on the necessary path of true sustainability.

BENEFITS OF RIGHT-SIZING INFRASTRUCTURE + DEVELOPMENT



- 1 Increased Taxable Area**
Changing sections within zoning regulations where development is unnecessarily restricted or hampered can increase tax revenue or reduce tax rates.



- 2 Less Future Cost Liability**
Identifying where infrastructure efficiencies are most feasible to reduce future needs and maintenance costs can greatly reduce a city's expenses.



- 3 Improved Livability**
Engaging neighbors and the community and empowering them in decision making can help them see the benefits they will realize in their lives.

PRESENTERS



Jason Gilman, AICP

Independent Consultant, JBG

Jason is an independent consultant after service as the Director of Planning and Development for the City of La Crosse, Wisconsin. His 34-year career has centered on the improvement of the City, focused on the stewardship and revitalization of the urban core.



Will Kratt, PE, PTOE

Associate Principal and
Practice Group Leader

Will knows the effect that transportation networks, land use planning, and parking arrangements have on a community and works to support positive future development. He truly listens to community members to understand their needs, goals, and development objectives.



Danyelle Pierquet, PLA

Landscape Architect

Danyelle is passionate about grassroots engagement and creating meaningful change through expert master planning and community engagement. Her work managing dozens of community development projects equips her with a thorough understanding of managing public dollars responsibly and sustainably.

KEY FACTORS

When infrastructure projects wholly consider the context of the place and make data-driven policy, design, and implementation decisions, we can find balance to accomplish our community's goals. Below are just a few of the infrastructure and development data factors that are helpful in making these decisions.

Infrastructure Costs

- Costs/FT
- Utility Funds Balance
- Costs per capita
- Maintenance Cycle
- Age of facilities
- Life Cycle Costs

Development Efficiency

- Taxable Value/Acre
- Mix of uses
- Taxable Value/Bed
- Mix of sizes
- Beds/Acre
- Mix of affordability

Traditional Community Design



- Taxable Value = \$2.86M
- Total Area = 7.1 Acres
- People Housed = 85
- Median Home Value = \$85,200
- Range of Rents = Unknown
- Annual Infrastructure Costs per capita = \$315

Sustainable Community Design



- Taxable Value = \$14.78M
- Total Area = 7.1 Acres
- People Housed = 268
- Median Home Value = \$129,900
- Range of Rents = \$600-\$1,800
- Annual Infrastructure Costs per capita = \$75

Traditional Community Design

Sustainable Community Design

VS.

Unsustainable infrastructure costs that force us to choose unaffordable taxes, deferring maintenance, or accepting lower levels of quality.

Can reduce per capita infrastructure costs by 1/4 by reducing costs and spreading them among nearly 3X as many people.

Has taxable values of \$404k per acre due to low density design of about 6 housing units per acre.

Has taxable values of \$2.1M per acre due to medium density design of about 18 housing units per acre.

Lack of efficient land use encourages sprawl, flight to the suburbs, and a car-centric society. Stormwater is typically not actively managed.

Efficient land use and proximity to needs reduces reliance on single-occupancy vehicles. Stormwater can be efficiently managed.

Maintains the status quo and can encourage NIMBYism due to homogeneity and protectionism.

With good community engagement, empowerment, and buy-in can show that there is a better way while still maintaining cherished traits.

Private ownership of relatively larger lots and lack of community commons or space weakens social capital in the neighborhood.

Community commons, other social spaces, and a diverse mix of neighbors builds social capital and increases the sense of security.

Homogeneous design of neighborhood and houses limits the diversity of housing types, sizes, and affordability levels.

A diverse mix of housing types, sizes, and affordability allows for multiple household sizes, income levels, and stages of life.

Separated zoning makes the neighborhood unwalkable for many needs and can cause food, childcare, and other access issues.

Mixed uses provide for small neighborhood businesses, office space, and even community gathering spaces within walking distance.