

Core Elements of a World Class City

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Abstract: - As world population demographics shift, fossil fuel energy resources become scarcer, human activities continue to threaten our environment and economies grow ever more inextricably linked, cities need to become more resilient, sustainable and capable of providing a high quality of life to their inhabitants. In this era, what does it mean to achieve a “world class” city? The ten most important and prevalent factors of world class communities are identified and the core elements are applied in a design for a 4 ½ mile corridor in Michigan. During the design process, the key needs and opportunities for development in the corridor were identified as connectivity (transportation), opportunity (jobs) and density and mixed use (housing). The result of synergy between citizens and the environment is a creative and globally competitive atmosphere where individuals can work, live, learn, and play.

Key-Words: - World Class, Urban Design, Community Design, Resilient Cities

1 Introduction - World Class

The notion of creating a world class community is not new. Each World’s Fair offers examples of creating such places. From the 1883 Great Exhibition in London (UK) with the Crystal Palace, to the Chicago World’s Fair of 1893 and the City Beautiful Movement, Habitat from Expo 67 in Montreal, Canada, and then to the largest ever 2010 World Expo in Shanghai, these events speak to three important concepts: the continual desire to create world class communities, the continual evolution of such communities, and the potential impact of innovation. In each they sought to exemplify a contemporary ideal with a thriving economy and a high quality of life. This paper explores the question of ‘what are the core elements of the new World Class city and community?’

2 Problem Formulation - The New World Class

A world class community of today and tomorrow seeks to be highly diverse and inclusive with high concentrations of talented, creative and well-educated residents (Robinson and Buccigrossi, 2003). World class status is defined by an ability to

retain talent in search of high-quality lifestyles; to attract the best talent both nationally and internationally; to develop a thriving arts and cultural community; to establish a highly tolerant community which embraces diversity; and to attract technology and technologists which are needed for innovation and competitiveness (Florida, 2002).

As world population demographics shift, fossil fuel energy resources become scarcer, human activities continue to threaten our environment and economies grow ever more inextricably linked, cities need to become more resilient, sustainable and capable of providing a high quality of life to their inhabitants. In this era, what does it mean to achieve a “world class” built environment, particularly in urban areas?

Through a literature analysis, the ten most important and prevalent factors of world class communities were identified: (1) functional and attractive, (2) private-public partnerships with anchor institutions, (3) compact, connected and oriented downtowns, (4) diverse, affordable housing options, (5) liveable neighborhoods, (6) resilient and scale appropriate infrastructure, (7) carbon neutrality and building and community scale, (8) regional interdependence and community vision, (9) green, resilient ecosystems,

and (10) inclusivity and innovation (Graebert, et al., 2014) (Figure 1).

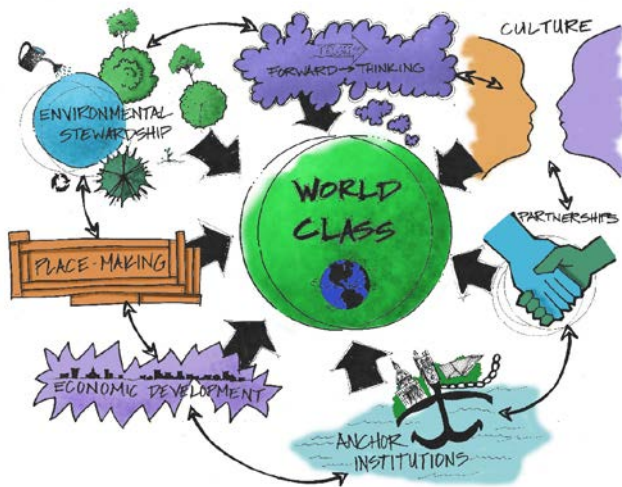


Figure 1: Prevalent Factors for World Class Communities

2.1 Functional and Attractive

The knowledge workers that are driving the new economy are looking for functional environments with easy access to myriad opportunities for entertainment, recreation, arts, culture and social interaction.

2.2 Private-Public Partnerships with Anchor Institutions

Resilient centers of commerce will require partnerships of private capital and public institutions. Anchor institutions, such as universities, hospitals and cultural institutions, and natural resource features, such as waterfronts, provide the permanence for related activities to plant, grow and attract talent (Birch, 2010).

2.3 Compact, Connected and Human Oriented Downtowns

A World Class Built Environment of the 21st Century transforms cities and downtowns from auto-oriented to people-oriented spaces. Walkable neighbourhoods and urban cores, and streets serve both movement and social purposes, rather than roads which only serve movement of motorized vehicles.

2.4 Diverse, Affordable Housing Options

Housing affordability in growing cities will be a challenge, given the increase in land values that city growth stimulates, and the increasing costs for the private sector to build affordable homes (Voith and Wachter, 2009). Ensuring that there are affordable housing opportunities in downtowns and along transit will be critical for making built environments that are equitable and sustainable.

2.5 Livable Neighborhoods

Livable neighborhoods within World Class Built Environments support a safe and enriching home life, demonstrate a small ecological footprint, incorporate nature, foster health-giving activity and provide ready access to places of work, school and play.

2.6 Resilient and Scale Appropriate Infrastructure

As the world's population is becoming more urban (projections indicate that it will reach 70% by 2050), some cities are set to grow at a rapid pace, while others are contracting. Population loss has led to a number of issues, including fragmentation of population across the urban area, numerous vacant and abandoned properties (often in poor condition), limited economic growth (or decline) and an aging public infrastructure system. On the opposite end of the spectrum, cities can't keep pace with their growing populations and provide the infrastructure and services that they need.

2.7 Carbon Neutrality at Building and Community Scale

Today, the 114 million households and more than 4.7 million commercial buildings in the United States account for nearly 40 percent of total nation's energy use (DOE, 2008). Sustainable cities shift away from the dominant use of fossil fuels, understand and make efficient use of circular urban metabolism, recognize the benefit of natural and urban systems working synergistically (in which they use local energy, water, food and fiber resources) and seek to achieve carbon neutrality.

2.8 Regional Interdependence and Community Vision

Creating a World Class Built Environment requires a larger vision, both from a forward-looking and a geographic standpoint. Strategic planning on a regional scale identifies urban centers, nodes and

corridors where compact, connected development (or redevelopment) will be concentrated, as well as less dense, rural places where growth is not expected to go.

2.9 Green, Resilient Ecosystems

Similar to the need for the built environment to achieve energy sustainability, planners and designers of World Class Built Environments need to respect and protect the natural environment. Having green space within urban environments is highly beneficial.

2.10 Inclusivity and Innovation

A World Class community is highly diverse and inclusive, with high concentrations of talented, creative and well-educated people (Robinson and Buccigrossi, 2003). Millennials want places that are welcoming, tolerant and diverse.

3 Problem Solution - Creating a World Class Design for Michigan

The foundation of a world class community is the people and the environment. People with a deep understanding of the area's historical, social and cultural characteristics make up the community. An invigorated community with a deep-seeded knowledge of historical traditions and customs can develop integrated educational, entrepreneurial and civic systems in a city. An engaged world class community in Lansing, East Lansing and Lansing Township is one that honors its history while maintaining an eye for future development and progress. A uniquely designed and planned environment will attract the mobile workforce from national and international markets while retaining a larger number of college graduates from Michigan State University.

3.1 Design Team & Process

A team of 42 people participated and contributed to the planning and design process over a three and a half month period. A mix of undergraduate and graduate students worked with faculty and practitioners to analyse existing studies, determine development targets that could crystalize existing assets into World Class opportunities, and generate hypothetical development ideas through sketches. The design process included two design charrettes

with team members, dozens of meetings, interviews with key stakeholders, integration of 20 years of coursework and research on local redevelopment options, and literature reviews by the School of Planning, Design and Construction (SPDC) at Michigan State University (Figure 2). Because of the long history of community engagement projects led through the School, it is not an exaggeration to say that the ideas of thousands of citizens, researchers, business partners and local municipal leaders were considered in the process.



Figure 2: Team Work Sessions

A core goal of the SPDC Team is to create places where people can live, work, play, and learn. When asked to describe a world class university/community, the Team expressed their vision with phrases such as lively open spaces, funky, a little chaos, connected + interconnected, impressive architecture and celebrate the everyday. The comments were consolidated into a mind-map diagram (Figure 3).

The Team distilled what they learned from the process to create project goals and planning principles. The key needs and opportunities for development are identified as connectivity

(transportation), opportunity (jobs) and density and mixed use (housing).

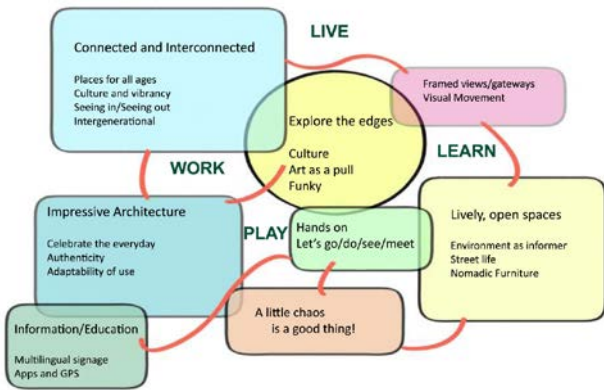


Figure 3: Mind Map Diagram

3.2 Connectivity (Transportation & Mobility)

A multi-modal transportation approach is essential for the corridor in order to enhance connectivity and reduce congestion and clutter (Figure 4). The corridor requires multi-modal transportation alternatives given that local connections, regional connections and global connections are integral to its status as a world class community.



Figure 4: Connectivity (Transportation & Mobility)

Beyond the changing demographics, a complementary cultural shift at the citizen and political level is necessary to respect and honor the transportation ideals and traditions of the past while implementing novel and unique principles that are reflective of the needs of the next generation. This shift can be as simple as prioritizing pedestrians and non-motorized transportation by providing bike lanes, slowing traffic, and minimizing street crossings through curb bump outs and visually enhanced mid-block crosswalks. These minimalist adjustments to the corridor can duplicate as recreational opportunities for citizens, as well.

A network approach capitalizes on the strengths of each mode to meet the needs of the community. Many of the successful communities studied (e.g., Copenhagen, Frankfurt, Little Rock, Minneapolis, Philadelphia and Portland) include a light rail with connections to major anchor institutions and transit hubs, commercial districts, and airports. Bicycles, motorcycles, cars, buses, streetcars, subways, trains and airplanes each provide a needed type of transit.

3.3 Opportunity (Jobs)

Placemaking is an economic development tool that flips the traditional paradigm of emphasizing the attraction of new businesses with incentives and abatements to creating and fostering a community that embraces, promotes and stimulates creativity and entrepreneurship. Job placement office data indicates that 66% of young educated knowledge workers first choose where they want to live, and after they have moved there, look for work or start their own business (Schindler, 2012). On a larger scale, businesses prefer to settle in regions with a more knowledgeable and skilled workforce as they follow the individuals who follow elegant and interesting places to live. The first step is to develop an entrepreneurial environment. Expanding anchor institutions to enrich economic clusters is a vital principle of a world-class local economy (Figure 5).



Figure 5: Opportunity (Jobs)

“Brains are beautiful” proclaims Daniel Gilmartin of the Michigan Municipal League at the 2013 Inaugural PlaceMaking Leadership Council held in Detroit, Michigan. To support his enthusiasm, Gilmartin explains that the biggest predictor of a city’s success is educational attainment of its citizens. Communities embarking on Placemaking should focus on educating their populace and attracting college graduates from across the world. A city with a high proportion of four-year college graduates collectively possesses a knowledge and

creative capacity that fosters an entrepreneurial spirit. An environment of entrepreneurialism also functions as an attractor, bringing more people to the city. Specifically, the concentration of 25 to 34-year-olds – a group theoretically possessing knowledge and talent related to the New Economy – is a key driver of place competitiveness in the global economy and translates to job creation in urban areas (Adelaja, Hailu & Abdulla, 2009).

Global cities, which are the best business climates, possess a rich culture, zero emission public transit, venture-capital mind set, renaissance neighborhoods, car sharing and smart energy among other assets (Fast Company, 2010). These characteristics do not all lead to a thriving entrepreneurial economy but serve to attract the four-year college graduates who are more likely to become future innovators and business owners. To be considered a dynamic urban core, the corridor should reflect Michigan’s cultural and economic heritage; emphasize historic and emerging neighborhoods with innovative architecture and urban design; and provide multi-modal transportation options that embody the environmental and sustainable values of the new working class (Von Hausen, 2013). Young and innovative entrepreneurs that will create and continue to grow the knowledge-based economy need a community that reflects their aesthetic, professional and personal values. A vibrant and dynamic community is essential to creating an environment conducive to entrepreneurship and a sustainable world-class economy.

3.4 Density & Mixed Use (Housing)

A local hedonic survey indicates that young people prefer to live in an urban area, which is a paradigm shift when compared to previous generations that moved away from city cores and into newly developed suburbs (Graebert, 2013). The next generation of college graduates is in the process of reclaiming the urban lifestyle (Figure 6). General trends in the Lansing area show a preference for walkability to small stores, such as grocery stores, retail, and markets, and a preference for driving to “big box stores” (Graebert, 2013). A national survey reaffirms the results in Lansing, indicating that 60% of people prefer a mixed-use community. The four key characteristics that determine housing purchases for current buyers are: safety, affordability, commute time and walkability. The latter two – commute time and walkability – are knowledge economy priorities that diverge from interstate-

dependent commutes that dominated the second half of the 20th century (Graebert, 2013).



Figure 6: Density & Mixed Use (Housing)

4 Conclusion - Cultural Shift

Creating a world class community is as much a culture shift as it is an infrastructure improvement in the built environment. Physical space must reflect the mentality, values and desires of the populace that the community wishes to attract.

The advent of widespread use of technology, telecommunications and increased mobility amongst the working class is altering the definition and characteristics of a world class community. Competition for attracting citizens now occurs at the global scale as technology allows for remote work possibilities. Lansing, Michigan residents and business owners Skype, G-Chat and use Go-To Meetings to participate live in the global economy. Likewise, they can access the international airport to arrive in Seoul, Korea in 22 hours and create global business initiatives for the regional economy. This occupational flexibility alters the old economy paradigm of building a city around large grounded manufacturing bases. In the new mobile computing economy, citizens value lifestyle and choose where to live first and then find a job in their desired community afterwards. The desired lifestyle of the new working class is a product of the environment.

The primary goal of the built environment in the New Economy is to build an attractive place for people to live. Appealing metropolitan communities that attract youthful, talented and entrepreneurial individuals have: safe and walkable urban neighborhoods, vibrant places for social opportunity, transit options, outdoor recreation, and the arts (Layton, Pruitt & Cekola, 2011). Individuals desire to inhabit an environment that fosters and

encourages creativity while developing a globally unique identity. The result of the synergy between citizens and the environment is a creative and globally competitive atmosphere where individuals can work, live, learn, and play.

The corridor design not only has the possibility of becoming a model for inter-community collaboration for economic development but also a living laboratory for revolutionary urban planning practice, design and community building. Both Michigan's Governor Snyder and years of urban design and planning literature define and highlight the ideas of Placemaking. The actual implementation of these theories and principles set a precedent that could lead to a world class community and a better Michigan.

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