

Urban Design Handbook

for

Community Organizations

April 2025

This guide was created by Spark CDI, for individuals without traditional urban design backgrounds, such as architecture or engineering, working with stakeholders and the broader community on neighborhood revitalization efforts. Given each project is different this guide is meant to be a starting point, rather than a comprehensive how-to guide. This guide comes with a selection of Excel worksheets that can be adapted to the project at hand.

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I. A BRIEF INTRODUCTION TO URBAN DESIGN

1. Urban Planning versus Urban Design

Urban design does not have a clear disciplinary definition. Generally speaking, whereas urban planning focuses on large-scale, long-term land use policies; urban design focuses on how people use and experience the urban environment. Urban design considers the functionality, flow, and feeling of a neighborhood. In creating desirable neighborhoods by design, the field blends aspects of urban planning with architecture, engineering, psychology, and ecology. Urban design outcomes should create community cohesion, increase economic and social activity, be feasible, highlight a neighborhood's unique character, and increase the neighborhood's appeal to both residents and visitors alike.

2. The Role of Urban Designers

In some projects, urban designers serve as project managers and key decision makers; for others, their purpose is to provide design alternatives and/or facilitate discussions and engage stakeholders to identify problems, goals, and design solutions. Urban designers in the former group tend to be urban planners, architects, civil engineers, and/or on the real estate development team while urban designers who engage stakeholders to facilitate community-based discussions on urban design and renovation projects tend to be community-based coordinators and/or advocates. This urban design handbook is aimed toward this latter group. The accompanying worksheets will help urban designers work with stakeholders to define problems, prioritize and align goals, build consensus, define and track success, and kickstart action items.

3. Contemporary Urban Design Movements

The newest movements in urban design include New Urbanism, Sustainable Design, Smart Growth, and Universal Design. First, New Urbanism champions walkable neighborhoods, preserving revitalizing urban centers, and conserving green space. Second, Sustainable Design focuses on how to build better infrastructure that minimizes pollution, harnesses renewable energy, builds in conservation efforts, and allows for natural phenomena such as erosion and flooding. Third, Smart Growth promotes multi-modal transit, mixed-use developments, densification to create efficiency and cost savings for public services. Fourth, Universal Design's goals are focused on equitable and flexible use of land and resources. Although aspects of these movements overlap, their priorities respectively are urban revitalization, conservation efforts, multi-modal transit, and equitable access.

Urban designers must remember that, although these design movements are influential as neighborhoods are revitalized; across the United States, low-density neighborhood preferences, car-centric thinking, and suburban sprawl will not be going anywhere soon. Therefore, creativity is needed by urban designers to blend "sprawl" and new designs and initiatives into a functional, cost-effective project.

4. Things to Consider

Urban design successes in one area of the country or even a different community in one's own city does not mean success on one's own project. Therefore, understanding key aspects of one's community and

how it is embedded into the broader metropolitan area and region should be fully understood and caution exercised when attempting to mimic a successful project from elsewhere.

A word of caution from an economic development perspective; many projects come with grandiose promises from developers, investors, and businesses. Although these stakeholders are critical to a redevelopment project; any promises such as increased land value, job creation, and increased neighborhood desirability should be challenged and calculated by different entities to better understand the extent these promises are most likely to play out. It is not unusual to have a successful project be an effect of regional variables, rather than an outcome of the project itself. “

II. FRAMEWORKS FOR UNDERSTANDING A PROJECT’S ROLE WITHIN ITS NEIGHBORHOOD

Neighborhoods do not exist in a vacuum. Urban designers should work with the stakeholders by gathering data and communicating limitations, options, and what is most likely to work within that specific neighborhood. In local government, ‘copy and pasting’ a trendy project idea from one community to another is common. Local governments see another’s success as proof a project or design idea will work in their community. Although some projects may be considered as ‘best practices’ and be successful, most communities do not talk about the number of project failures. Failures are generally due to lack of considerations¹ about the local context and/or readiness² of the neighborhood to sustain new development/project. Therefore, urban designers should consult the data³ regarding the neighborhood’s function⁴, geography⁵, logistics⁶, and demographic considerations⁷. Discussing the frameworks below can help individuals understand the role a project may play in relation to the broader street, neighborhood, and city.

¹ Lack of considerations may also include unwillingness to state the reality of the context, a blind eye due to political reasons, and lack of critical analysis of a study’s data, business interests, and funding sources advertising the guaranteed success of a project.

² Readiness considers economic, social, business, and migration trends and activities that serve as indicators a neighborhood would use/could sustain proposed development/project.

³ Data such as: migration trends of businesses/residents, school performance, traffic incidents, foreclosure, persons per household, distance from work, business day population vs residential, current strategic plans/large development plans, history of neighborhood, and community leaders

⁴ Function means how the neighborhood relates to the broader metro area such as whether it is a bedroom community, where people leave during the day, or business district, where many non-residents travel in for work. Function can also mean how the neighborhood operates internally, for example, in areas such as civic engagement, historical importance, daily living needs, and micro/local business culture.

⁵ Geography includes weather, land/water features, population density, and ecological considerations.

⁶ Logistics include timeframe for the project, funding to build and sustain over time, extent of which local/state/federal/residential votes are needed to proceed, relations/partnerships that need to be established, and interruptions or permanent changes to operations of the neighborhood and/or broader city and regional activities.

⁷ Demographic considerations include needs of the local population that may be correlated to the neighborhood’s age, mobility/transit, affordability, transiency/residential longevity, and household size/composition.

Remember, an ‘if you build it, they will come’, assumption does NOT work for development projects—conditions must support the need for a project. Relevant frameworks for understanding the neighborhood—and therefore possible needs, opportunities, and challenges for a project—may include (this exercise may overlap with the SWOT analysis in “Best Practice”):

1. Transit

- a. Is said neighborhood a starting point, destination, or transit community? How does this project affect this?

2. Built Infrastructure

- a. How does the existing built infrastructure contribute to or inhibit the following and how will the new project improve the following?
 - i. Economic activity
 - ii. Social engagement
 - iii. Cultural celebration
 - iv. Pedestrian safety
 - v. Health and walkability

3. Economic

- a. To what extent is said neighborhood an economic destination for both local residents and others across the metropolitan region? Does this project facilitate economic growth or create more vacant commercial spaces?

4. History

- a. What role has the neighborhood played in the region and how can this be highlighted in the project? It is important to consider the different roles different groups of people have had in creating the community throughout its history. Many times there are forgotten groups that have lived in the area, contributing to it in various ways? This consideration includes the historical evolution of natural features and prehistoric animals to the progression of its inhabitants—from the area’s Indigenous Peoples to today’s residents.

5. Social/Cultural Activities

- a. Is our neighborhood home to social and/or cultural activities throughout the year, how can this project contribute to them?

6. Growth

- a. Is there a trend to residents that are moving in and out of the neighborhood? b. What do new residents and businesses coming into the city want/need and this project help?

7. Public Opinion

- a. How do the residents think of their neighborhood and how do they believe others think about their neighborhood? Can the project be incorporated into a public relations campaign to communicate how residents would like others to view their neighborhood?

III. SCOPE, GOALS, ASSESSMENT, & METRICS

1. Defining and Communicating the Project's Scope

The scope of a project is simply outlining what the project is and what it is not. Generally, the scope of a project has already been outlined by investors and included in grant and other funding applications. For urban designers in a facilitation role, it is important to know and discuss this scope with key stakeholders. But be prepared to have scope-related discussions with key stakeholders as poor articulation of scopes are common.

The most common mistakes of written project scopes include:

- a. mistaking goals for the scope
- b. mistaking a company's or organization's mission or values for the scope
- c. is vague
- d. is grandiose
- d. is not included

Discuss with each decision-making stakeholder what the project is and is not meant to do as well as what is and is not included. In addition, discuss how this project should be communicated to the broader public to ensure that expectations are realistic. For example, if a project is meant to build a mixed-use building, the scope of the project should discuss the design and function of the building while the goals outline what the new building hopes to achieve. Measurements outline the data used to determine goal achievement.

Example of a project's scope:

This project aims to build a new mixed-use, multi-family development inclusive of ten 1- bedroom units, twenty 2-bedroom units, and twenty 3-bedroom units. Units will include ground-floor walk-out units, space for mail and package deliveries, a front desk for property management, and three commercial suites on the first floor.

Units will be priced to be affordable to middle-income households within [defined area]. This will be achieved, in part, through securing grants, TIF, only including one bathroom per unit, and having minimal amenities.

The scope of this project does not include recruiting or advertising the space for future tenants or businesses.

Whereas an example goal would be:

Goal one is to increase housing affordability for renters by increasing rental options in a neighborhood with a tight rental market.

An example of an assessment/evaluation of success would be:

The effect of new units on the neighborhood vacancy rate and rental market values

An example measurement would be:

Rental vacancy rate of building and neighborhood before/after compared to population growth/decline and median rents controlling for inflation. Measures will be taken at a base line prior to development's opening and every 6 months for the following 5 years.

2. Goals: Identifying, Prioritization, and Building Consensus

Before discussing goals, it is important for stakeholders and community residents to understand the defined scope of said project. This will help identify and communicate what the project is and—what is sometimes more important—is NOT meant to do.

During stakeholder meetings and community discussions, it should be made clear if a project's scope, goals, and/or outcomes already exist. If they do, these should be reiterated. Facilitators should also share behavior expectations, communication procedures, and what information participants can provide to have meaningful input in the project. Participants should be reminded that the facilitator may interrupt and redirect participants should comments and discussion get off topic.

Any project can and should have multiple goals. However, goals need to be realistic. Realistic means that goals are within one's ability to influence. Each stakeholder will and should have different goals in different priorities for their own internal process. However, as a collective, goals and their order of importance must be agreed upon for the success of the overarching project. Therefore, it is likely that some stakeholders will have to take a backseat during certain phases of the project.

Goal priority order is as important as the goals themselves, as many project decisions will have to sacrifice one goal for another. Every single decision on a project has embedded values reflecting goal priority. Many decisions will pit goals against each other; therefore, a project can only have ONE top priority when it comes to design. ONE.

Projects are much more likely to fail if:

1. Goals are not identified.
2. Goals are not prioritized.
3. Goals are not well-defined.
4. Goals are not realistic.
5. Goal success requires items/variables that one cannot control.
6. The identification and prioritization of goals are not agreed upon by the most influential stakeholders.

One way to build consensus on goals for the overall project is to do the following:

1. Have each stakeholder write down their organization's goals for said project in order of importance.
2. Write all stakeholder goals in order of priority on a board.
3. Identify goals that are similar across stakeholders, noting said goal's rank of importance in each list.
4. Provide opportunity for stakeholders to discuss their list, rankings, and “why’s” behind it.

5. With this increased understanding of each other's goals, then ask stakeholders to intermix with other organizations/businesses and rank common goals for the overarching project. 6. Have stakeholders share—this step can be repeated until goals and their priorities start to be similar or get stuck on disagreements. Addressing disagreements in goal rankings may be addressed in a “tournament challenge” for each goal.
6. Once this is done, test the prioritization. Break back into small groups and have the members think of a situation/decision where two or more of the goals would be competing and talk out how each goal, if prioritized differently, would affect the situation's/decision's outcome. Does the current order of prioritization create a big enough (not 100 percent) consensus to validate the goal prioritization for the project at hand.
7. Remember not everyone is going to be happy, and that is okay. The goal of the urban designer is not to make everyone happy but to help facilitate the best design for the needs of the community.

Note: Although one hopes each stakeholder's organization has discussed this and has come to a consensus internally, many times this is not the case and there is internal disagreement. For a more productive workshop between stakeholders, each stakeholder should have an internal consensus on its goals and their priority and come to the meeting prepared to share.

3. Assessments and Measurements

Assessments of any urban design project should be multi-dimensional and guided by its goal prioritization.

Stakeholders should define what success would look for each dimension, what data best measure said success, where the data will be gathered from, who is responsible for gathering/analyzing/sharing data, any relevant weights (if weighted, weights should reflect goal prioritization), frequency of assessments (short and long-term), and standard operating procedures for implementing corrections.

IV. BEST PRACTICES IN URBAN DESIGN

1. Observation

Observation is key in any project that aims to improve the use and feel of an urban space. During observation, urban designers document how the space is being used to identify areas for improvements and verify the need for the project. Observations are necessary before, during engagement processes, and after projects for evaluation.

It is important to create a systematic approach in documentation. This includes day, time, and season. For example, if an intersection is perceived as dangerous, differences of the day (weekend versus weekday), time (daylight, nighttime, or position of the sun), and season (sun's path throughout the year) may be at play. Part of systemic documentation is defining descriptions, for example, what constitutes ‘running a red light’ or what ‘heavy’, ‘moderate’, and ‘light’ traffic is.

Below are areas of observation urban designers should be aware of and/or data they should gather to provide insight on a project. This is not an exhaustive list, nor are all items relevant for every project. Each area includes examples of items and reasons why such observations could prove important to the project.

A. Topography

- Slopes can impact safety during heavy rains and icy conditions.
- Soils can determine feasibility of new developments and landscaping options.

B. Natural Features

- Window positions can be used to capture the sun's warmth in the winter.
- Existing trees and green spaces can be incorporated into designs.

C. Zoning/Land Use/Existing Strategic Plans

- Identifying the pros and cons of existing zoning requirements may identify where to place policy efforts and what types of developments are possible.
- Existing strategic plans could impact feasibility of new projects. In some cases, there may be contradicting or failed strategic plan initiatives. It is important to understand why said initiatives exist and/or fail.

D. Infrastructure/connectivity

- Street width can affect the ability for pedestrians to cross safely as well as a driver's proclivity to speed.
- Sidewalk width and proximity to traffic affect pedestrian perceptions of safety while sidewalks "interacting" with buildings affect pedestrian perception of distance. Interactions include proximity of buildings to each other, and window displays visible to passersby.
- Quick and easy access to neighborhoods is important for commercial activity since most businesses rely on significant outside customer patronage.

E. Existing Buildings

- Architectural styles can contribute to a neighborhood's identity and character.
- A new, tall building could overpower and/or cast shadows onto existing buildings.
- Placements of doors affect pedestrian flow on the sidewalk and can be used to encourage individuals to cross at a crosswalk rather than jaywalk.
- Wider entryways can create a more welcoming feeling for visitors.

F. Traffic and Pedestrian Activity

- Knowing noise levels and noise origins can help design noise mitigation designs.
- Proper lighting can increase safety, perceptions of safety, and pedestrian activity. Increased pedestrian activity is correlated with increased business activity and increased neighborhood desirability.

G. Economics

- Areas with high commercial building vacancies and/or where most commercial buildings are social service-related may indicate a low need for new additional commercial buildings and spaces.
- Demographic and employment variables such as local industries, employment participation, consumer spending patterns, unemployment rate, age, income, net migration, and education/skilled trades levels can indicate demand for (or lack of) specific types of business developments as well as potential success of recruiting businesses into the area.

H. Residential

- Migration trends, ages, family composition, mode of commuting, housing absorption rates, and income can help determine housing types, sizes, and price points.
- Unkept yards add challenges to economic revitalization, therefore if many of the properties are unkept, designs should include easy-to-maintain yard designs.
- Walking the neighborhood at 8pm on a Monday or Tuesday, for example, can help identify how many housing units are empty. For example, if most lights are on in a middle-income property, while few are on in a ‘high-end’ property, there is little need for more ‘high-end’ properties.

2. SWOT Analysis

Before a project is determined, the area should have gone under a SWOT Analysis – or an analysis that identifies the neighborhood’s strengths, weaknesses, opportunities, and threats. Within the analysis, understand what is within the power of this project to affect and what is not. Using the various frameworks listed above may help provide discussion points.

3. Data-driven Decision Making

Data is incredibly important in decision making. However, decisions are only as good as the data gathered and analyzed. The following are steps to help:

- A. **Create systematic gathering processes** to help guard against selection bias.
- B. **Use the best measure to project outcomes.** For example, if rentals are being built, use “renter” data for a neighborhood, rather than median measures for a metropolitan area.
- C. **Use the original data source** (for example Census.gov versus a website that pulls from the Census).
- D. **Ensure stakeholders are asking the right question.** The more specific a question is, the more accurate it can be answered. The original problem and/or the original question is rarely the actual problem or the best question. How questions are asked will determine what data is relevant. Urban designers will have to help stakeholders through the problem definition process to come to a question to answer.
- E. **Understand what is and is not included in said data and what one can and cannot analyze from said data.** Use research to help justify items like proxy variables, calculations, and analyses. Remember that data and analysis are different. Data is a specific point of information; analysis will determine what that means. Analyses must be contextualized.
- F. **Control variables are important.** Document what is controlled for and why.

- G. **If data does not reflect observations, dive deeper** to find out why.
- H. **Collecting, quality checking, and analyzing data is time consuming;** be prepared.

4. Urban Design Resources

Below are resources that may be helpful in thinking about and approaching projects.

- City of Omaha: <https://urbanplanning.cityofomaha.org/design-guidelines>
- Omaha by Design: <https://omahabydesign.org/playbook/>
- Vision Zero: <https://visionzeronetwork.org/resources/vision-zero-communities/>
- United Nations Best Urban Practices: <https://www.urbanagendaplatform.org/best-practice>
- Zero Waste: <https://www.zerowastedesign.org/03-collection-and-urban-design/b-collection-urban-design-best-practice-strategies/>
- National Association of City Transportation Officials: <https://nacto.org/>
- Strong Towns: <https://www.strongtowns.org/>
- American Planning Association: <https://urbandesign.planning.org/>

V. COMMON MISTAKES IN URBAN DESIGN

1. Following Design Trends Where It Does Not Make Sense

Common best practices in urban design trend for good reasons, however, not all trends are suitable for one's project. It is important to question why a specific project or development is being championed and to ensure it makes sense for the neighborhood in question. Below are some best practices in urban design, in addition to a few reasons why they may not work for some projects.

For Example:

A. Pedestrian Centric-design

Pedestrian-centric designs work in higher density areas, but the expense-to-use ratio may not be worthwhile in low density areas. An alternative is to create a destination that is pedestrian-friendly, rather than focusing on a sprawled neighborhood.

B. Mixed-use developments

Mixed-use developments work well in high-density neighborhoods and highly sought after destinations but often fail in struggling communities. A common development is a “4+1” building that has commercial suites on the bottom and 4 levels of residential on top. However, many of these commercial units are vacant for years. Any development proposing commercial units should have completed a feasibility study justifying the need for said commercial units and have a plan to ensure they do not remain vacant. This should include a business model that needs the commercial units to be filled,

Other reasons why mixed-use developments fail include:

- a. Low pedestrian traffic

- b. The area is not economically feasible due to local income-ratios, usually combined with the fact said neighborhood does not attract enough external residents to the area to support their business.
- c. Rent is too high for small businesses.
- d. The landlord/management group for a mixed-used development specializes in only residential or only commercial needs.

2. Low Accessibility-Feature Quality

Ensure that any designs meant to be inclusive are properly designed and of high quality. Sometimes a good idea is executed poorly and becomes a more costly and challenging obstacle. For example, handicapped accessible sidewalk curbs are also good for people with strollers, but if they crumble so wheels cannot traverse them, the project created additional obstacles for those it meant to help and more cost for the community.

3. Building Green Space Nobody Wants

Parks without children and families frequenting them are likely to be seen as empty lots suitable for criminal activity and/or homeless encampments. Parks are generally used more around multi-family buildings or when they are destinations for people across town.

The presence of children outside, people walking pets, and frequent resident use of existing green space may be indicators that parks and open space would be a good investment. If not, maintenance and surveillance costs may outweigh the benefit.

Alternatively, greenspace may be better designed as a network of small greenspaces for trails for people to ride bikes and walk dogs with less worry about crossing heavy traffic. Projects could also focus on improving localized streetscaping for curb appeal, as well as improving the lighting, equipment, and routes to an existing park.

4. Lack of Design Variability

Architectural design adds variety, interest, desirability, and uniqueness to a neighborhood. Although design should reflect and blend into the existing built environment so as to not overshadow or clash with it, new buildings and developments should also be unique enough to add interest and dimension to the streetscape.

5. Not Designing for Neighbor Interaction

Friendly neighborhoods are designed for individuals to interact while being designed so individuals in closer quarters do not feel crowded. Neighborhood interaction can be facilitated through residential design including front doors that open onto the street, front porches and stoops to gather, and balconies at a 30-foot distance.

6. Lack of Meaningful Public Engagement

Notably for larger and/or community-focused projects, residents should be included in discussions early enough in the process for their insights to be incorporated in the design. Residents should be informed of what already has been determined and where their voice is needed. Gathering this insight should be meaningful, meaning that resident voices can and will be incorporated, rather than just used as a check mark to fill a funding requirement. Notably in neighborhoods that have been the subject of historic injustices, engagement is critical to ensure future design does not reinforce historic injustices. This could be related to transit accessibility or a desire to repurpose an existing place. Meaningful participation is key to neighborhoods feeling ownership towards a project. Participation can be sought through in-person and online portals. Participation may include helping to define and prioritize goals, providing input on visual designs, and documenting problem areas on a map.

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