



DATE: August 16, 2016
TO: Chairs Novotny and Thurston and Members of the Streetscape Taskforce
FROM: Kerri Oddenino, Planner
THROUGH: Paul Stoddard, AICP, Principal Planner
SUBJECT: Vibrant and Functional Streetscapes

Streetscape Goals

The Streetscape Design Charter references the following four goals:

1. Use streetscape elements to brand the City;
2. Create an identity that is different from the rest of the region; and
3. Promote economic activity in the City's commercial areas; and
4. Provide accessibility and safety for street users.

These goals speak to providing vibrant and functional spaces. Recent research and case studies can inform design to achieve these goals. This memo reports on recent research about how to best create a vibrant and walkable downtown.

Learning from other Places

The sources below speak to the issues of vibrant streets, safe and functional streets, and successful urban design.

Vibrant Streets Toolkit

The Vibrant Streets Toolkit is a "collection of tools" designed to help individuals and entities resolve issues impacting their retail streets and commercial districts. The Toolkit was created by Heather Arnold and James McCandless for Streetsense Consulting, a company that does branding and marketing work relating to urban design, retail, real estate and development. The Vibrant Streets toolkit provides information about the characteristics of model retail streets and the attributes they shareⁱ.

Urban Street Design Guide

The Urban Street Design Guide is a publication from the National Association of City Transportation Officials (NACTO) that outlines the practices used by the best engineers, planners and designers in the

nation. The guide serves as a blueprint for safe, livable and economically vibrant streets. The guide outlines a vision for complete streets and shows communities how to create a space where people can safely travel using a variety of modesⁱⁱ.

Measuring Urban Design

Measuring Urban Design is a book that pinpoints “the precise design elements that make an area appealing”ⁱⁱⁱ. The book was authored by Reid Ewing, a Professor of City and Metropolitan Planning at the University of Utah and Otto Clemente, a Senior Transportation Planner in Fairfax County. Ewing is a well-known planning academic with expertise in pedestrian and transit-oriented design and ways of measuring and creating walkable streets. The guide “provides operational definitions and measurement protocols of five intangible qualities of urban design, specifically imageability, visual enclosure, human scale, transparency, and complexity”^{iv}.

Conclusion

The above resources serve as a guide for identifying the elements that contribute to vibrant places and functional spaces. Information collected from these resources is discussed below, including specific streetscape features, spacing guidelines and examples from other communities.

Vibrant Spaces

There are several key elements of the streetscape that contribute to vibrant places and attract commercial activity. Borrowing from Ewing and Clemente, 2013, p.89, several elements of streetscape design contribute to a sense of vibrancy.

Vibrancy in Streetscape Design

The following elements are specific items that Reid and Clemente identified as contributing to vibrancy:

Imageability

- Courtyards/plazas/parks
- Outdoor dining
- Major landscape features (such as bodies of water, mountain ranges, or man-made features)^v
- Buildings with identifiers (signs or symbols that advertise a building’s street-level use)^{vi}

Human Scale

- Street furniture^{vii}
- Number of small planters (potted trees, shrubs or flowers, less than 10 ft² at the base)^{viii}

Complexity

- Public art (including monuments, sculptures and murals)^{ix}

Vibrancy in a Broader Urban Design Context

Imageability, enclosure, human scale, transparency and complexity are more intangible qualities of the streetscape. Listed below these qualities are urban design characteristics that represent some of the measurements used to define these qualities. The urban design characteristics below each of these qualities are characteristics that would not be included as a part of Streetscape Design Guidelines.

(From Ewing and Clemente, 2013, p.89)

Imageability

- Proportion of historic buildings
- Buildings with rectangular silhouettes

Enclosure

- Proportion of street wall- same side
- Proportion of street wall- opposite side
- Long sight lines
- Proportion of sky ahead

Human Scale

- Proportion of first floor with windows
- Building height- same side

Transparency

- Proportion of first floor with windows
- Proportion of active uses

Complexity

- Number of buildings
- Dominant building colors
- Accent colors^x

Functional Spaces

Vibrant and functional streetscapes are also walkable. Below are spacing guidelines that promote pedestrian activity.

Pedestrian Through Zone

According to NACTO, 2013, p.38:

- “The pedestrian through zone is the primary, accessible pathway that runs parallel to the street. The through zone ensures that pedestrians have a safe and adequate place to walk and should be 5–7 feet wide in residential settings and 8–12 feet wide in downtown or commercial areas”^{xi}.

Average Sidewalk Width

The pedestrian through zone exists within the larger sidewalk space. According to Arnold and McCandless, 2014, p.49, that sidewalk space ranges from eight to 40 feet:

- “Sidewalk widths on model retail streets are appropriately sized to accommodate the amount of customer traffic generated.
- Sidewalks for small-scale shopping streets are as narrow as eight feet (Madison Park) but are generally nine or 10 feet wide. Two streets that draw regional customers and tenants, Bethesda Row and Oak Street, are significantly wider, with 14- and 17-foot-wide sidewalks, respectively.
- Destination retail streets have the largest sidewalks, with most ranging between 15 and 20 feet wide. Avenue d’Champs-Elysees takes the prize for widest sidewalks in this study, averaging 40 feet”^{xii}.

Additional Attributes of Vibrant Streets

Reading further into the Vibrant Streets Toolkit, vibrant streets are created by more than just urban design and streetscape standards. Partnerships, safety and a mix of retail types are additional attributes of streets that contribute to vibrancy.

“Vibrant Streets typically share the following attributes:

- Managed
 - o Support from an active Merchants’ Association or Non-Profit Organization provides clear leadership and serves as a surrogate for single landownership for most vibrant streets.
- Retail appropriate
 - o Ground-floor spaces along vibrant streets have high ceiling heights (12 feet or more), transparent storefronts, adequate sidewalks (8 feet and more), and few disruptions in retail continuity (few instances of interference by professional offices, open spaces, residential-only buildings, etc.).
- Mixed
 - o The types of retail tenants on vibrant streets reflect the market demand. Unsupportable tenants are not artificially introduced. That said, the merchandising mixes on most vibrant streets have a prevailing retail category (NG&S, F&B, or GAFO) with smaller percentages of tenants from the other two retail categories.
- Safe
 - o Regardless of the crime statistics for the neighborhood, vibrant streets maintain a perception of safety.
- Championed

- A vibrant street is likely to show signs of investment, either by the public or private sector. Examples of these investments can include major development, street furniture, public art, and removal of above-ground power lines, to name a few.
- Anchored
 - The street is activated by a civic or cultural anchor that attracts people for purposes other than commerce.
- Walkable
 - A vibrant street is part of a walkable community and is supported by pedestrian oriented residents.
- Unified
 - Vibrant streets generally have a common character or theme, often historical in nature; that binds the street's range of uses^{xiii}.

Examples from Other Communities

Shirlington



Above: This sidewalk on Campbell Avenue in Shirlington features pedestrian space in between building space and the amenity area. A number of small planters are present. The sidewalk is 19-25 feet wide, with 8-12 feet of building space, 5-8 feet of pedestrian space, and a 5-7 foot amenity area. The sidewalk is comprised of 60-70% passable space.

Old Town



Above: This sidewalk on King Street in Old Town features building space adjacent to the curb and a pedestrian space adjacent to the building façade. Unique signage adds interest to the streetscape. The sidewalk is 12-16 feet wide, with 7-9 feet of combined building and amenity space and 5-8 feet of pedestrian space. Overall for the street segment, the sidewalk is comprised of 70-80% passable space.

Mosaic



Above: This sidewalk on Strawberry Lane in the Mosaic District is located in between a low wall that serves as the edge of an open space, and an amenity area adjacent to the curb. The sidewalk is 16-19 feet in width with a pedestrian space of 7-10 feet and an amenity area of 6-9 feet. The sidewalk here is comprised of 60-70% passable space.



Above: This sidewalk features a pedestrian space in between the building space and amenity area. The sidewalk is 19-21 feet wide, with 6-7 feet of building space, a pedestrian space of 7-9 feet and an amenity area of 6-8 feet. The sidewalk here is comprised of 50-60% passable space.

Bringing it all Together

Streetscape efforts and street cross sections in Salt Lake City, Utah and Alexandria, Virginia are shown below. Efforts for vibrancy and activity must be paired with efforts for functionality and clear space.



Above: This streetscape in Salt Lake City features a wide sidewalk but lacks transparency, complexity and imageability. Wide sidewalks alone do not create a vibrant streetscape. Photo by Reid Ewing.

Below: This segment of historic King Street in Old Town Alexandria has less building space available than the Salt Lake City example above. The City allows for flexibility and a variety of uses in a tight space.



-
- ⁱ Arnold, H. & McCandless, J. (2014). Vibrant Streets Toolkit. Bethesda, MD: Streetsense, LLC.
- ⁱⁱ Engelman, R., Rockefeller Foundation, National Association of City Transportation Officials, & Summit Foundation. (2013). Urban street design guide. New York, [New York]: Island Press.
- ⁱⁱⁱ Ewing, R. H., & Clemente, O. 2013. Measuring urban design: Metrics for livable places. Washington, DC: Island Press, book description.
- ^{iv} Ewing, R. H., & Clemente, O. 2013. Measuring urban design: Metrics for livable places. Washington, DC: Island Press, book description.
- ^v Ewing, R. H., & Clemente, O. 2013. Measuring urban design: Metrics for livable places. Washington, DC: Island Press, page 105.
- ^{vi} Ewing, R. H., & Clemente, O. 2013. Measuring urban design: Metrics for livable places. Washington, DC: Island Press, page 108.
- ^{vii} Ewing, R. H., & Clemente, O. 2013. Measuring urban design: Metrics for livable places. Washington, DC: Island Press, page 125.
- ^{viii} Ewing, R. H., & Clemente, O. 2013. Measuring urban design: Metrics for livable places. Washington, DC: Island Press, page 123.
- ^{ix} Ewing, R. H., & Clemente, O. 2013. Measuring urban design: Metrics for livable places. Washington, DC: Island Press, page 133.
- ^x Ibid.
- ^{xi} Engelman, R., Rockefeller Foundation, National Association of City Transportation Officials, & Summit Foundation. (2013). Urban street design guide. New York, [New York]: Island Press, page 38.
- ^{xii} Arnold, H. & McCandless, J. (2014). Vibrant Streets Toolkit. Bethesda, MD: Streetsense, LLC, page 49.
- ^{xiii} Arnold, H. & McCandless, J. (2014). Vibrant Streets Toolkit. Bethesda, MD: Streetsense, LLC, page 56.