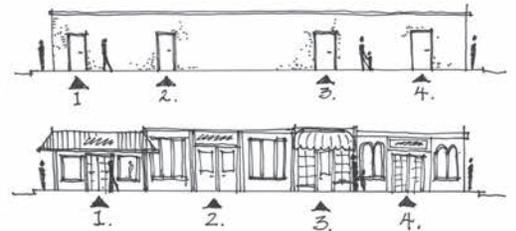
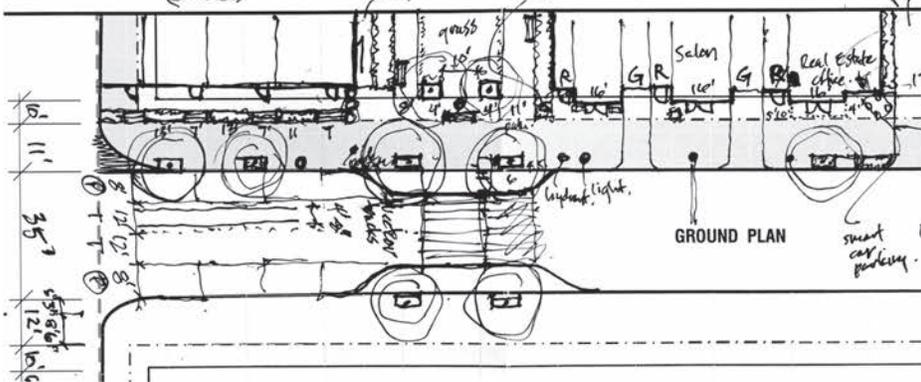
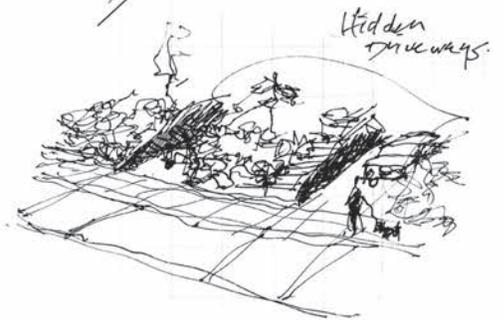
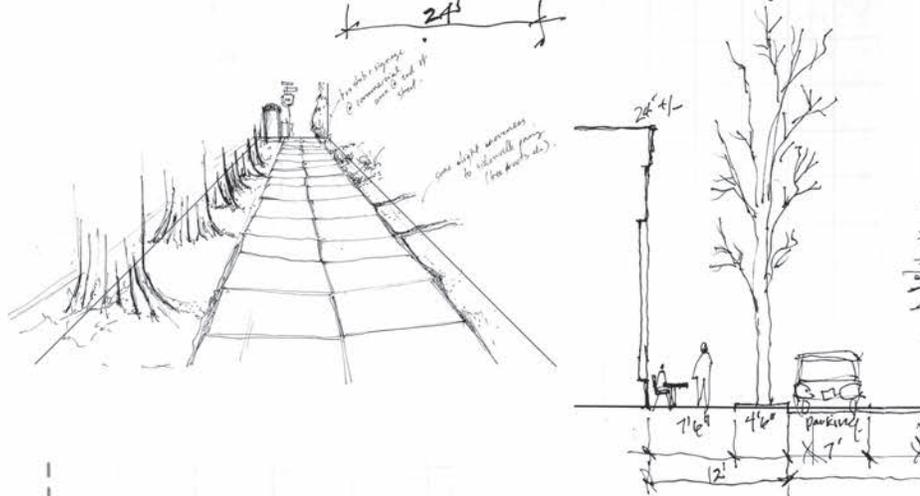
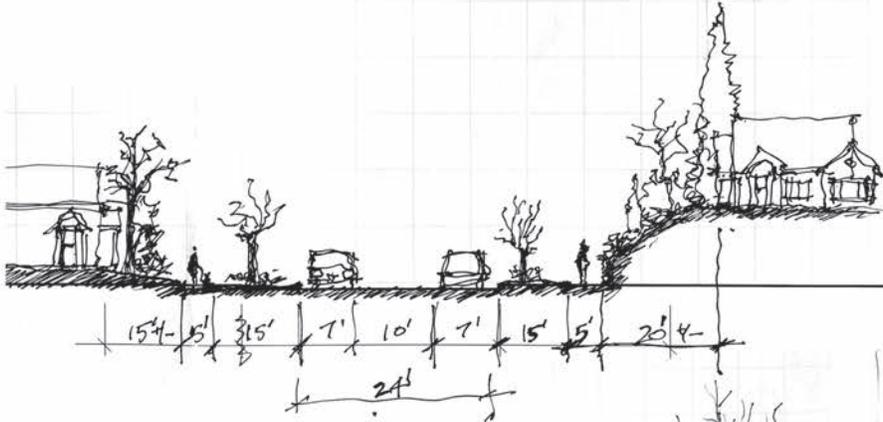
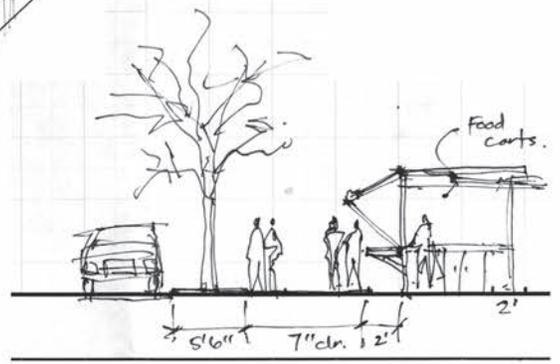
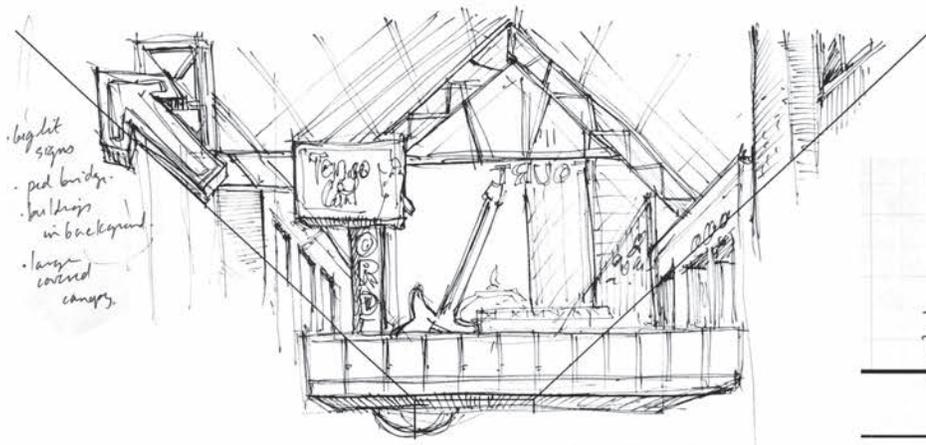


**ACTIVE DESIGN**

**SHAPING THE SIDEWALK EXPERIENCE:**

# **TOOLS AND RESOURCES**



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**ACTIVE DESIGN**  
**SHAPING THE SIDEWALK**  
**EXPERIENCE:**  
**TOOLS AND RESOURCES**



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# TABLE OF CONTENTS

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<b>Introduction</b>	<b>4</b>
Chapter 1 <b>Key Questions and Considerations</b>	<b>8</b>
Chapter 2 <b>Methodologies for Measuring Sidewalks</b>	<b>18</b>
Chapter 3 <b>Examples of Site Studies</b>	<b>26</b>
Appendix A – Forms and Toolkits <b>1. Transparency Guide</b> <b>2. Neighborhood Context Form</b> <b>3. Sidewalk Context Form</b> <b>4. Onsite Measuring Toolkit</b>	<b>70</b>
Appendix B – A Collection of National Sidewalk-Related Policies	<b>92</b>
Glossary	<b>117</b>
Bibliography	<b>120</b>
Photography/Image Credits	<b>123</b>
Acknowledgements	<b>124</b>

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# INTRODUCTION

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This document is a tools and resources companion to *Active Design: Shaping the Sidewalk Experience* (AD:SSE). Together, they present a study of sidewalks conducted not from the perspective of those who drive past them or those who construct them, but of those who actually use them. The point of view of the pedestrian—the person inhabiting and experiencing the sidewalk—is prioritized throughout the work.

Funded by the Centers for Disease Control and Prevention through the New York City Department of Health and Mental Hygiene, *Active Design: Shaping the Sidewalk Experience* aims to provide theory, resources, and toolkits for communities working to encourage physical activity by transforming their built environments. This two-part publication aligns with the goals of the Active Design Guidelines ([www.nyc.gov/adg](http://www.nyc.gov/adg)) in striving to promote health and integrate physical activity into our daily lives through intelligent design. The Active Design Guidelines is a multi-agency publication released by the City of New York in 2010.

The work and research undertaken in these documents has been completed by the Office of the Chief Urban Designer at the New York City Department of City Planning (DCP). The Department of City Planning promotes strategic growth, transit-oriented development, and sustainable communities as ways of enhancing the quality of life in New York City. Understanding that sidewalks are the most fundamental network of public open spaces that knit each neighborhood together, DCP views this work as a resource for building great sidewalks across the country—a critical component in fostering healthy, active, sustainable, and resilient future generations.

A complex set of players and regulations contribute to the design of all sidewalk spaces. While the specifics vary by location, sidewalks typically fall within the legal jurisdiction of transportation agencies. These documents attempt to complement those agencies' efforts while broadening the list of people—whether policy makers, planners, urban designers, architects, landscape architects, or local shopkeepers—who should share responsibility for building successful sidewalks.

To strive for the best possible pedestrian experience on sidewalks is also to strive for healthy and active communities. By prioritizing the infrastructure that enhances a neighborhood's walkability, designers can enable and encourage people to be more physically active in their daily routines—and to in turn be healthier in their lifestyle decisions. As one of the easiest, most affordable, and most accessible forms of physical activity, walking as part of our daily routine, even in short bursts, can help us meet our daily recommended physical activity levels and take the steps to achieving healthier bodies and minds. By requiring sidewalks, requesting sidewalks, and carefully considering sidewalks' spatial

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design, those who shape the built environment contribute to the public health of their communities.

While the first section of *Active Design: Shaping the Sidewalk Experience* includes a brief background about the topic of sidewalks, (including history, health impacts, existing efforts, infrastructure and financial benefits, challenges, and synergies) the document focuses primarily on presenting the conceptual framework of the “sidewalk room.” Approaching the sidewalk as an inhabitable space, with the “room” broken into four planes that surround the pedestrian, provides a methodology for beginning to grapple with the complexities involved in shaping that space. *Active Design: Shaping the Sidewalk Experience* focuses on three parallel investigations:

**Sidewalks: The Experience:** The sidewalk is not a static condition but a dynamic space that people experience at their own paces. Chapter Two of AD:SSE discusses how the human senses impact our sidewalk experience and acknowledges that while design can impact certain factors, many are impossible to control. It outlines a set of key factors that contribute to an active sidewalk experience, recognizing that a variety of pedestrian experiences contribute to the interest and diversity of a city or neighborhood.

**Sidewalks: The Physical Space:** The pedestrian experience occurs within a space shaped by a variety of physical elements, all of which contribute to its individual character. The presence, scale, and composition of these elements matter a great deal. Chapter Three of AD:SSE focuses on the physical space of the sidewalk at three scales of context. It begins with the neighborhood context, touches on the different street typologies within it, and finally defines the sidewalk room by its four planes: the ground plane, the roadside plane, the canopy, and the building side plane.

**Sidewalks: The Policies:** Many of the physical elements that define sidewalks are regulated by a range of city codes and policies. Chapter Four of AD:SSE focuses primarily on zoning codes and the various tools for shaping the built environment within them. A subset of physical elements within the sidewalk’s four planes are expanded upon from this perspective of zoning, understanding that the relevant codes and policies differ with each municipality.

While the first portion of this study presents the conceptual framework of the sidewalk room and asks the reader to begin to think differently about sidewalk spaces, the second section aims at enticing the reader to take action. Drawing on extensive fieldwork conducted in cities across the United States, this study offers a set of key considerations, tools, and references for shaping the sidewalk experience. These tools can be used by designers, policy makers, students, and anyone else striving to create healthy sidewalk environments in his or her community.

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The subsequent chapters provide a proactive framework. They encourage the reader to question, observe, and analyze their local sidewalk experiences, physical spaces, and policies. The chapters utilize the following structure:

### **1. Key Questions and Considerations**

While some of the specific questions depend heavily on whether the reader is an urban designer, architect, landscape architect, planner, policy maker, or community advocate, designing the right questions can be a critical first step in working toward an appropriate solution. This section can be used to help uncover where particular responsibilities might lie, to spark further discussions, or to identify aspects of creating active healthy sidewalks.

### **2. Methodology for Sidewalk Measurement and Documentation**

This section describes and demonstrates the detailed methodology for measuring, observing, and learning from existing sidewalks developed for this study. Topics covered include the value of collecting different types of information and the way to conduct independent “sidewalk safari” visits with colleagues or students.

### **3. Examples of Site Studies**

The site studies, which include a detailed case study of Atlantic Avenue in Brooklyn, NY, summarize studies of street typologies in six American cities developed using the methodology described in the previous section. These studies are presented in three groups organized according to the typologies of downtown commercial streets, neighborhood main streets, and residential-only streets. Drawn at identical scale with the same metrics extracted, the different street studies allow for a comparative analysis of dimensions and other criteria and can be used to guide decision-making at the outset of the street design process.

### **Appendices:**

A series of blank forms and instructions are included for use during site visits or sidewalk analysis to evaluate transparency levels, neighborhood context, and street typology, and to measure each of the planes of the sidewalk room.

The Appendix also includes a collection of national sidewalk-related policies, categorized by the topics highlighted in Chapter 4: “The Policies” of AD:SSE.

This wide array of resources can be used by urban designers, architects, landscape architects, planners and policy makers, community activists, educators, and students eager to inform and enhance their work, to learn new skills, and to become local “sidewalk safari” experts.

Judging from the pedestrian perspective, the sidewalk is conceptualized as a room with four planes.



-  Ground Plane
-  Roadside
-  Building Wall
-  Canopy

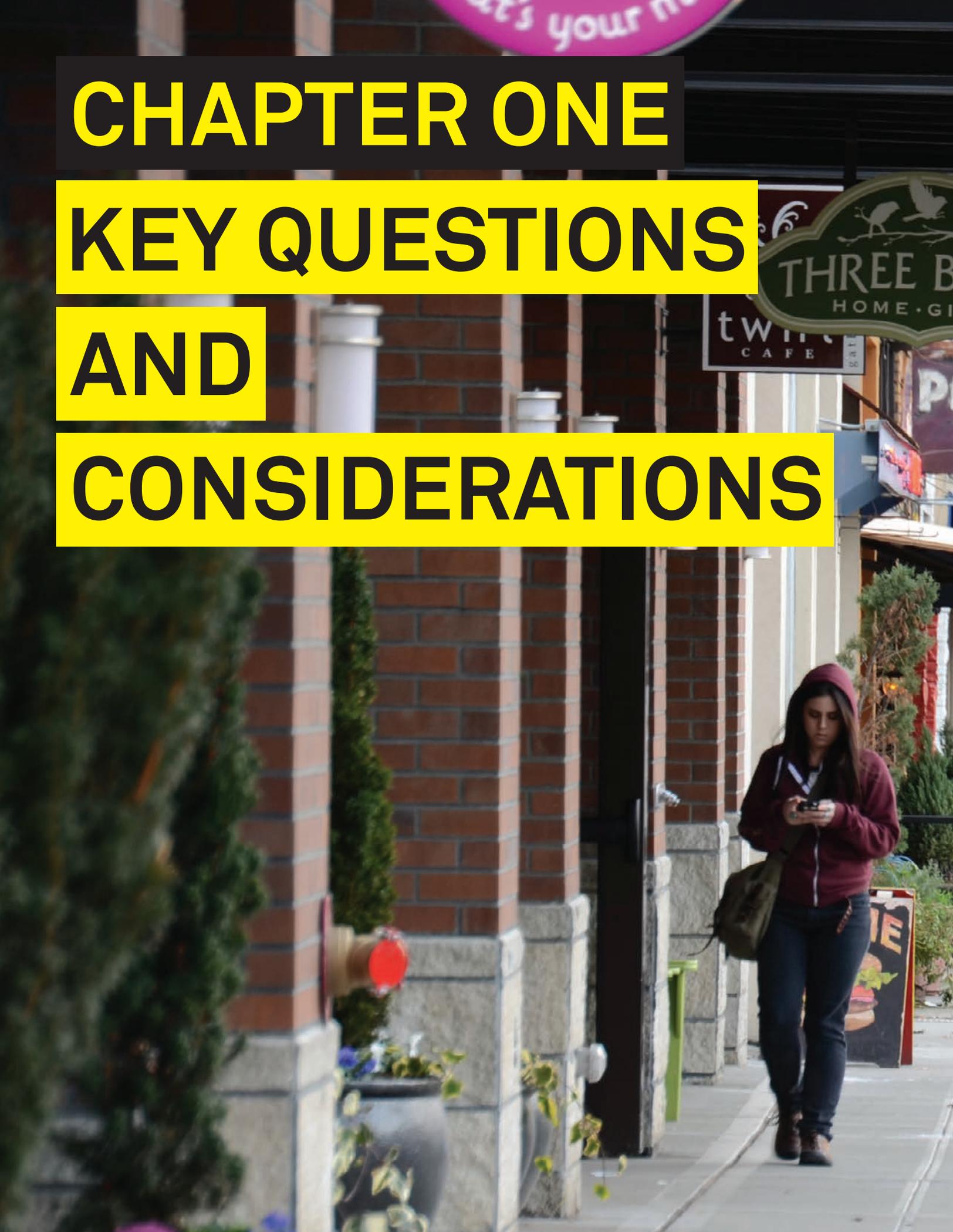


**CHAPTER ONE**

**KEY QUESTIONS**

**AND**

**CONSIDERATIONS**



BIRDS  
FTS

ARAGON  
BAR & GRILL

QUEEN ANNE  
FARMERS  
MARKET  
THURSDAYS 3-7pm | JUNE-OCTOBER  
WEST CROCKETT ST | QAFMA.ORG

Man in dark jacket walking

Man with camera and backpack walking

Work hard for  
www.g  
FREE

Breakfast  
Sandwich  
Ham & cheddar  
Tillamook cheddar  
organic & locally  
sourced to

THREE BIRDS  
HOME  
GIFTS

# KEY QUESTIONS AND CONSIDERATIONS

The complexity and variability of the sidewalk environment presents many challenges to those hoping to shape or influence the sidewalk through design, policy, or community participation. Below are some of the key variables to be considered. This list is by no means complete, and given that it is intended to be used by professionals and community members alike, considerations are presented in the form of an open question, based on the premise that designing the right question is a critical first step in working toward the appropriate solution.

In analyzing examples of unsuccessful existing sidewalk conditions, the most pressing issues and challenges come to the forefront. By studying examples of desirable sidewalk experiences and successful precedents, some of the key components of a healthy and active sidewalk become more apparent and easily transferable to other contexts. Of course, many sidewalks have both positive and negative characteristics: this analysis can help strengthen their assets and address their weaknesses.

**In posing these questions, and in laying out the methodology outlined in the next chapter, this document is intended to help:**

- **The urban designer, architect, and landscape architect** realize that, with every building or open space they design, they are in fact contributing to the design of the sidewalk experience as well. Designers should carefully consider how they detail their buildings and open spaces to meet the sidewalk and therefore contribute to the public realm network. The designer is asked to design the sidewalk room first, rather than as an afterthought.
- **The policymaker** become aware of the specific regulations that might ensure, encourage, or restrict certain kinds of pedestrian experiences, knowing that achieving the right balance is critical. Policymakers should be wary of the unintended consequences of over-regulating, or of providing no guidance at all for the elements that shape a sidewalk. The sidewalk should be carefully considered while reviewing and critiquing local development proposals. Detailed attention at the early planning stages can have a great impact on a neighborhood's ultimate character and overall walkability.
- **The public advocate and student** gain tools for observing, understanding, measuring, and recording the complexities of the sidewalk experience. These steps allow community members to articulate their goals and rationales precisely, and to assist in communicating their needs to the relevant municipal representatives.

While there are many complex considerations in creating a great sidewalk room, some of the critical questions provided below form a useful framework for beginning this process.

***Are sidewalks required by policy or regulation?***

Not all municipalities and townships require sidewalks to be built at the outset of a new development project. It is much easier to build sidewalks at the planning stage of new construction than to do so retroactively. Designers should research the parameters within which sidewalks are to be designed, and discuss them with local policy makers if they are insufficient or inadequate. Policy makers in places where sidewalks are not required should look to the many cities that are adopting Complete Street Policies and ask how they might serve as models to promote local policy change. Local property owners or advocates should take maintenance responsibilities into account, communicate the various benefits of sidewalks, and garner support from local neighbors to advocate for requiring safe and active sidewalks in the community.

***How does the sidewalk operate as a part of the larger pedestrian network?***

Building on considerations of connectivity (Chapter 2 of AD:SSE) and neighborhood context (Chapter 3 of AD:SSE), a specific sidewalk from a project or neighborhood can act as a “subject sidewalk”, and serve as a model for connecting destinations as part of a larger network of great public spaces or as a place to visit in its own right. The subject sidewalk site should be studied as much as possible before making an onsite analysis. GIS data and mapping can be used when available; in their absence, online map sites can give a better sense of the area. Relevant questions might include: How long is the stretch of sidewalk before it reaches an intersection? Are there any dead ends? Onsite data gathering can be completed using the Neighborhood Context Form (in Appendix A) to help build a profile of the larger neighborhood scale of the sidewalk. This will help users identify where the subject sidewalk connects key destinations like schools, parks, shops, and transit and learn about pedestrian usage and other more general characteristics of the sidewalk. Analysis of the larger neighborhood context might help some users prioritize the allocation of available funds or identify a new sidewalk site.

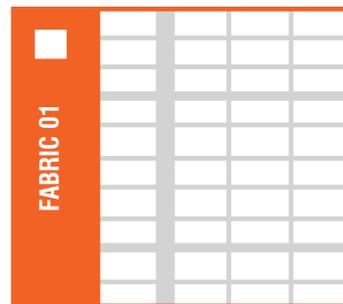
**How is the subject sidewalk shaped by its immediate adjacencies?**

The Sidewalk Context Form (provided in Appendix A) can help users identify and understand the subject sidewalk typology and the key metrics of its immediate context. The form can be used as a guide for recording building heights, overall right-of-way distribution, setbacks, ground floor uses and heights, and sidewalk width. How do the metrics of the surrounding street inform the subject sidewalk room? Does it sit within a tall narrow context, or low and wide?

**What type of experience should the subject sidewalk room provide?**

When determining the most desirable and fitting experience for pedestrians walking within the subject sidewalk room, planners, designers, and community members should take the variety of possible pedestrian experiences into account. The interest and diversity of a city or town can inform the most appropriate experience for a particular sidewalk context. For example, should it be ordered and coordinated, creative and distinctive, or lush and green? Is the subject sidewalk close to achieving the desired state with only small changes, or is a drastic transformation required? (See Chapter 2 of AD:SSE for details on varying sidewalk experiences.)

Fill out and draw on the forms in Appendix A in order to identify the key destinations within walking distance of your sidewalk location.

**WHICH BEST REPRESENTS YOUR SIDEWALK CONTEXT?** (Tick and circle)

**Fabric 1:** Is the sidewalk in a tight grid pattern, with short blocks and a dense urban fabric? Is it on a main thoroughfare or a side street within this context? Consider where the sidewalk sits within the hierarchy of streets.



**Fabric 2:** Is the sidewalk in a well-connected grid system with mid-density buildings, but with longer distances between intersections and lower pedestrian flows? Is it on a main street or side street?



**Fabric 3:** Is the sidewalk in a suburban or less urban context with lower 1- to 2-story detached buildings and fewer pedestrians? Is it on an arterial road that connects the residential streets, or within the residential-only area?

**Is there a sidewalk room experience that exists elsewhere that would be appropriate for the subject sidewalk? What can be learned from visiting it? Could it act as a precedent sidewalk?**

When possible, visiting a precedent sidewalk can be a useful tool for all users, regardless of drawing ability or expertise. It offers a chance to record observations and address questions like: Does the sidewalk seem too narrow? Too wide? Who is using it? Are pedestrians stopping and pausing, looking in windows, or using the sidewalk simply as a thoroughfare? Are there other amenities like benches, bus stops, and cafés?

Draw key metrics from the immediate context of your sidewalk, tall and narrow vs low and wide.

**SIDEWALK CONTEXT**  
 Draw your sidewalk adjacency: ROW dimensions, building setbacks, land use, heights.  
 Complete this form using data and/or on-site observations

City: \_\_\_\_\_ Street: \_\_\_\_\_  
 Date: \_\_\_\_\_

Visiting a precedent sidewalk allows users to walk, draw, measure, photograph, and film the site. It allows for careful observation of the ways in which people use and experience the sidewalk. If possible, conducting multiple site visits at different times and in various weather conditions can demonstrate how activities and users might change. A checklist of tasks to complete onsite and materials to bring to the site are provided in the Onsite Measuring Toolkit forms (Appendix A). This toolkit provides a series of blank forms to document conditions during the visit. The following section shows an example of a completed sidewalk analysis that illustrates the developed methodology in more detail.

After adequate observation, the most prominent physical elements can be identified and their contribution to the success of the precedent sidewalk can be discerned. The list of physical elements discussed in Chapter 3 of AD:SSE, as well as the “Prevention” list in Chapter 4 of AD:SSE, can be used as a guide.

### ***What could be done to facilitate great sidewalks in a specific local context?***

#### **Policy makers:**

- What should be done to ensure that new developments get it right from the beginning? Can appropriate sidewalks be incentivized or required from the start?
- What are the local characteristics of the different neighborhoods in your municipality, and would a varied strategy for shaping sidewalks be appropriate? Should different approaches be included to address landscaping, signage, parking, and street furniture for different neighborhoods?
- Where are the opportunities to integrate sidewalk priorities in the planning and design phases of projects undergoing municipal review, building the evaluation and review of sidewalks into routine agency review processes for each project? How can policy makers ensure that sidewalks are designed first and buildings afterwards, in order to support the desired pedestrian experience?
- What are the various agencies and stakeholders that help shape the city’s sidewalks? Could they identify policies and regulations that impact the quality of the sidewalk experience? How can policy makers foster collaborations to support aligned projects and policies and help other agencies and stakeholders understand the role they play in promoting active and healthy neighborhoods?
- What are the most prominent physical elements (see Chapter 4 in AD:SSE) specific regulations can shape? Which key policies relate to them? Are there minimum dimensions that are critical to the success of future sidewalks? What is the applicability of the different zoning toolkits discussed at the beginning of Chapter 4? Have certain conditions been allowed, required, or incentivized?
- Do provisions in the current zoning or other municipal codes restrict the replication of characteristics that have been identified in successful precedent sidewalks? In that case, are there rules that need to be updated or amended?

- Are there elements in the precedent sidewalks that generally work, but would need to be adapted or adjusted to better suit the character and needs of the context under consideration in subject sidewalk sites?
- Are there instances of over-regulation and the unintended consequences of overly restrictive regulations? Sometimes, aside from a few basic parameters, a more flexible set of rules may allow for more creative and interesting outcomes. Striking the right balance is difficult but critical in achieving a desirable and active sidewalk experience.
- If there is an existing built environment without a sidewalk and one is desired or makes sense, can local property owners and municipal agencies work together to determine how the municipality can get enough land to extend its right-of-way or whether the roadbed can be narrowed to allow for an adequate sidewalk width?
- What are the local construction, maintenance, and liability obligations? These vary in each city, but often involve the adjacent private property owner or local business district. What are the opportunities for developing public-private partnerships to aid management and funding?
- What are the existing city policies that align with the goal of prioritizing the pedestrian experience, and how can they be employed? Is there a Complete

Below are just a few examples of the vast range of sidewalk experiences that could be emulated or used to derive specific characteristics.



Streets policy or a goal in the city's strategic or master plan that involves creating walkable neighborhoods, managing storm water runoff, or addressing public health issues like obesity and diabetes?

- How can a sidewalks strategic plan or master plan for a neighborhood or the entire municipality be created to communicate expectations and standards for future developments?
- What are the opportunities for developing metrics for analyzing and mapping the condition of existing sidewalks in the city? Can local health statistics, lack of sidewalks, narrow sidewalks, tree locations, and other general sidewalk conditions be mapped together to reveal correlations or inform investment priorities?
- Are there local organizations or community groups that can be supported by explaining the concept and importance of a great sidewalk room? Can they be provided with a copy of this document as a resource?
- Are there any flexible federal transportation or other more local funding opportunities that support walkability, sustainability, transportation, and public health projects?

### **Urban Designers, Planners, Architects, or Designers:**

- How can the sidewalk be designed first? What widths are appropriate and feasible for the proposed development and its desired character, as well as for the predicted pedestrian volumes?
- Have each of the elements described in this document been thoroughly accounted for in the design of buildings and public open spaces? How will the placement of entrances, transparency levels, façade texture, details, and materials impact pedestrians as they walk by? When the building is set back from the street, how does the design of the setback area improve the sidewalk experience? How can trees and street planting best be incorporated?
- Are there existing policy impediments to creating the best possible sidewalk experience? If so, how can these impediments be presented to local policy makers to best identify what it would take to change them?
- How can planners and designers emphasize the importance of the pedestrian experience to a successful design and a great public realm network when presenting a project? Can they illustrate this point with renderings and perspective views drawn from a pedestrian vantage point? Active sidewalks will contribute value to the neighborhood, and it should be explained that careful consideration has been given to the way in which the building meets the sidewalk.
- Local health department representatives and/or public health academics might be able to assist in providing available health data and evidence, making the health case, and evaluating health-related outcomes.
- When faced with designs in neighborhoods with high base flood elevations and increased flooding events, how can the interface of a raised occupiable ground floor level with a lower sidewalk elevation be designed so that it still supports a walkable environment? Can designers utilize multiple smaller levels, rather than single large blank walls that the pedestrian cannot see past? Can some of the level change be mitigated within the footprint of the

building rather than the public right-of-way? Can landscaping, artwork, and the provision of other amenities like benches be used to further mitigate the impacts of elevated floor levels?

### Public Advocates or Students:

- Advocating for sidewalks where they do not exist is critical.
- Who in the community can convey the variety of citizens' concerns, hesitations, and priorities while explaining the importance of walkable neighborhoods when necessary?
- Can local officials and government agencies be approached? This document should be used as a guide for conducting analyses, making drawings, and taking photos and measurements to highlight specific attributes of local conditions that may be improved. Such information might be helpful in any relevant decision-making processes.
- Can other groups be gathered to complete a series of sidewalk-measuring exercises (or "sidewalk safaris") on other sites, in order to build a more comprehensive analysis package for a whole neighborhood? Can the findings be compared to identify similarities and differences between the various locations? Can they be presented to the local government agencies or elected officials?
- What are the synergies between better sidewalk rooms and sustainability, transportation, urban design, and public health goals? Could these be used to increase opportunities for local funding, conducting local studies, or proposing buildable projects? Are there different stakeholders within the same local government structure or design community who are not necessarily aware of others' complementary efforts? Can studies and other information be shared if they have the similar overall goal of striving for an active and healthy built environment?

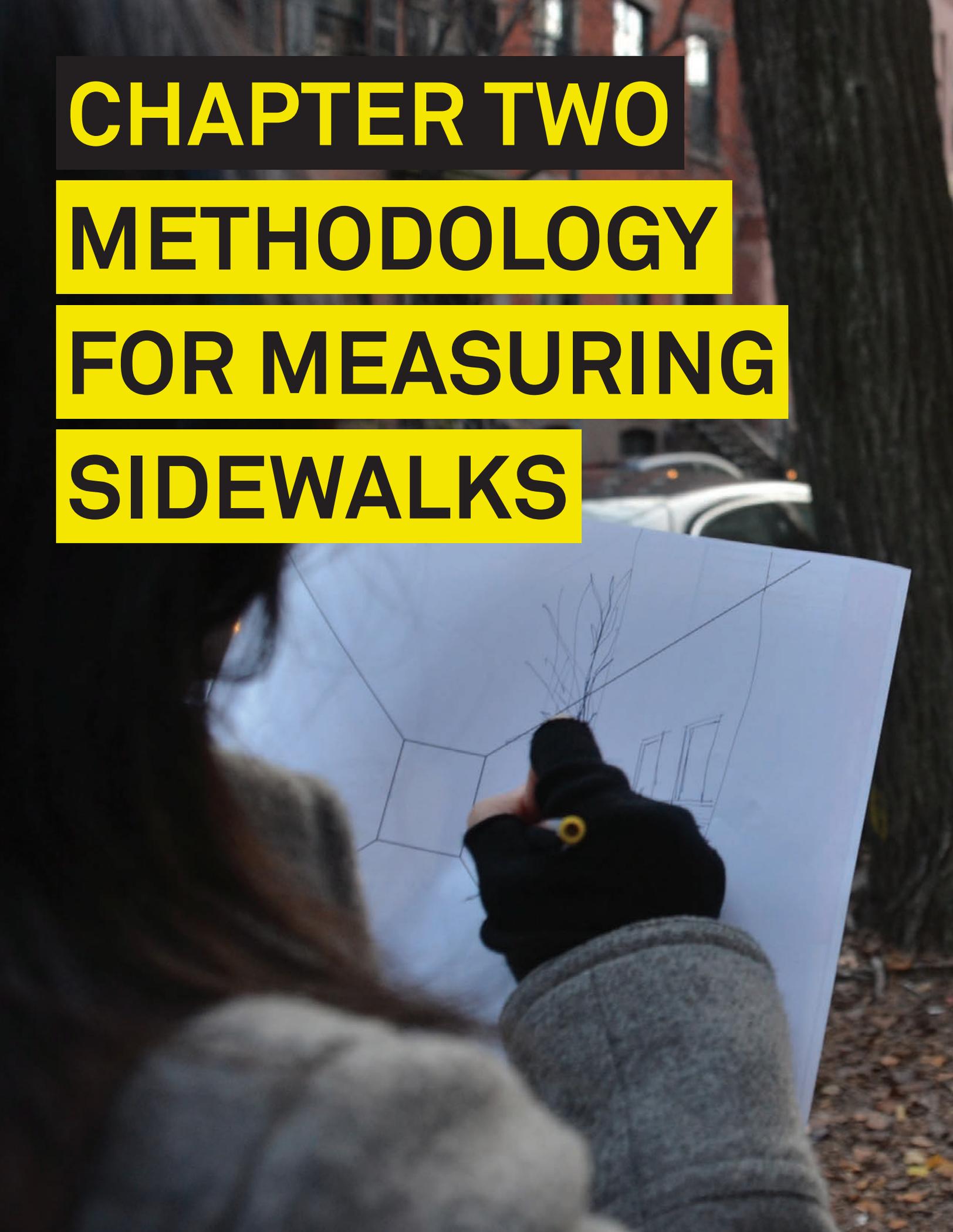
This list of questions is not comprehensive. It should serve as a catalyst for the consideration of different responsibilities within various professional realms. Some readers will be able to take tangible action by shaping projects, processes, and policies; some will produce many more questions that can spark discussions; and others may become local sidewalk shepherds. These lists do not intend to generate immediate answers, but to foster a different way of looking at the sidewalk room. Noticing what catches one's eye, what entices a pedestrian to pause, or what causes a slightly uncomfortable feeling is important. Articulating these characteristics is the first step in championing the creation of great active sidewalks and communities.

**CHAPTER TWO**

**METHODOLOGY**

**FOR MEASURING**

**SIDEWALKS**





# METHODOLOGY FOR MEASURING SIDEWALKS

*Active Design: Shaping the Sidewalk Experience* set out to explore the role of sidewalks in creating walkable communities. The study was based on the premise that different policies shaped various physical elements of the sidewalk room, and that the way these elements were composed and compiled in each location drastically impacted how pedestrians experienced the sidewalk room. While sidewalks are a component of the urban environment that the authors both measure and use on a daily basis—for a range of neighborhood projects—this study aimed to develop a methodology that would capture the more experiential qualities of the space, supplementing the more traditional methods of measuring sidewalks.

The research began with an investigation of sidewalk typologies. This included an examination of over thirty physical sidewalk examples from six different cities, and policies relating to sidewalks from over twenty cities. Site-recording methodology was developed and tested on a range of New York City sidewalks, then further tested and refined on at least three sidewalks in each of the other five cities. This chapter presents the study methodology, followed by Chapter 3 - Examples of Site Studies which includes one full case study example to illustrate the materials collected onsite, and a summary sheet of each of the sidewalks measured. This book provides readers with tools for completing their own sidewalk site visits, or “sidewalk safaris,” and a reference guide of varying conditions in the site visit summary sheets.



At the time of the site visits, the cities in the study were all undertaking various initiatives related to the connection between health and the built environment. They were chosen to represent geographic diversity across the nation. The specific locations chosen for measurement within each city were recommended by local contacts from public city agencies and pedestrian advocacy organizations. Locations were presented as “good” or “typical” sidewalk experiences in the following three contexts: a downtown commercial street, a neighborhood main street, and a residential-only street. The resulting measurements, observations, drawings, photographs, and video collections all contributed both qualitative and quantitative information about the sites.

## COLLECTING DIFFERENT TYPES OF INFORMATION

The methodology outlined below is thorough and call for a number of different types of information to be collected. The breakdown and rationale for this method is discussed below, and blank versions of all the forms to use onsite are provided in Appendix A.

### 1. Quantitative Drawings: Plans, Sections, and Elevations

Use these two-dimensional drawings to gather the key metrics of each of the four planes of the sidewalk, as well as the section of both the overall right-of-way and sidewalk room. In the drawings, use the icons provided in the Onsite Measuring Toolkit forms to guide you in determining which elements to record. Note key dimensions of individual buildings and establishments, and record observations about sidewalk and natural materials, window patterns, and building articulations. Record the spacing of entrances, storefronts, trees, and other physical elements, which may reveal certain scales and rhythms. While the sections, ground plane plan, and building wall elevation are the most important drawings and should be prioritized, the roof plan and the roadside plane can also help record key elements shaping the sidewalk room. Record as many dimensions as possible on the first visit. It is generally easier to record too many dimensions than to have to return to a site to resurvey and capture additional information.

### 2. Qualitative Drawings: Sketching the Four Planes

Drawing the four planes separately from a single perspective promotes consideration of the sidewalk from the pedestrian's point of view. It registers the spatial quality of the sidewalk room and helps users identify the most dominant physical elements as they appear spatially in each of the planes. The ground plane often reveals clearly divided zones, and becomes more complex on either side of the clear path. The trees and light poles become more dominant than the buildings across the street in the roadside plane. The façade texture and detail or front yard landscaping in the closest 25 feet of the building wall plane dominate the picture. The building heights, elements hanging from façades, tree canopies, and the amount of visible sky dominate the canopy plane. The drawing can be messy and imperfect: it is the act of observing and choosing what to record that can help identify different hierarchies. Add notes as necessary and reference Chapter 3: "The Physical Space" of AD:SSE for more detail on the sidewalk planes.

### 3. Photos

By taking the series of photographs suggested below you can record information that can later be revisited in more detail. The list of suggested images includes a center sidewalk room photograph, a series of elevation shots of the building wall plane both from the centerline of the subject sidewalk (giving ground level façade and front yard details) and from across the street (showing building heights, scale, and profiles), and photographs of key details. Stitching the elevations together digitally at a later time enables a relatively accurate measurement of transparency levels or other rhythms that might have been missed onsite. The center room photograph allows for the overlay of key dimensions to be read spatially, as is shown in the Examples of Site Studies section of this publication. Recording specific details encourages the photographer to capture some of the unique and special conditions of the sidewalk.

#### 4. Video

Video footage allows you to document not only the physical characteristics of the sidewalk room but also the way in which pedestrians interact within it, the walking rhythms it fosters, and other experiential visuals and sounds that cannot not captured with still photography. Below is a list of onsite videos to be collected:

- The most critical footage is a ten-minute-long shot taken from the center point of the sidewalk. You can capture this shot best by using a tripod set to human eye height at the center point of the sidewalk room. This allows you to count the number of people moving through the site, record how people interact within the space, and observe the general speed of the traffic adjacent to the sidewalk room while also capturing sounds and weather conditions.
- The second-most-critical piece of footage to collect is a video walkthrough of the 330-foot length of the sidewalk room. Holding the camera at eye height will allow you to capture the dominant details and elements that change, reveal themselves, or become more prominent as you move through the space. This captures movement in a different way than it does when the camera is stationary and the movement is happening around it.
- While not the most critical piece of site documentation, perhaps the most interesting is the footage of each of the four planes in isolation. These shots are best completed by holding the camera at eye height, facing it toward the plane you want to record, and walking down the length of the sidewalk. It offers a rare opportunity to capture each plane in isolation in an experiential way through the forward motion of the footage. Different details emerge without the overload of complexities occurring in the other planes of the sidewalk room.

Using measurements, sketches, still photography, and video to document various aspects of the sidewalk experience.



## SITE LOCATIONS

A full list of the sidewalks measured across these six cities is included in the map below. One-page site visit and metric summaries follow.

Each full site visit took between 2 and 3 hours to complete a 330-foot section of sidewalk, with an “abbreviated” version taking about 45 minutes when time constraints or local weather required. In these cases, only the prioritized drawings were completed, and they are indicated on the forms. Site visits are most efficient with at least two people to split the tasks of drawing, photographing, and videography between them. When less information is collected onsite, it typically means that more follow-up work after the site visit is necessary. This is where film footage can be a very helpful tool for deeper understanding of the sidewalk post-site visit. Time constraints generally make only one site visit possible, and therefore sidewalk conditions are often recorded at a single moment in time. Activities and users might vary at different times of the day, week, or year, and multiple site visits should be conducted for further observation when possible.



### New York, NY

Atlantic Avenue, Brooklyn (DT)  
Bowling Green, Financial District (DT)  
MacDougal St, Soho (NH)  
Baltic St, Park Slope (RES)  
W11th St, West Village (RES)  
Clinton Ave, Fort Greene (RES)

### Birmingham, AL

20th Street N, Downtown (DT)  
20th Street S, Five Points South, (NH)  
6th Ln North, Park Place (RES)  
Clairmont St, Forest Park (RES)

### Nashville, TN

Lower Broadway, Downtown (DT)  
12th Ave, The Gulch (NH)  
5th Ave N, Germantown (RES)  
21st Ave, Hillsboro (RES)

### Louisville, KY

Fourth Street Live, Downtown (DT)  
Bardstown Ave, Deerpark (NH)  
Ruby Ln, Woodland Park (RES)  
Eastern PKWY, Germantown (RES)

### Seattle, WA

5th Avenue, Downtown (DT)  
Queen Anne Ave N, Queen Anne (NH)  
1st Ave N, Queen Anne (RES)

### Portland, OR

NW 23rd St, Northwest District (NH)  
SW Alder St, Downtown (DT)  
NW Irving St, Pearl District (NH)  
SE Ladd Street, SE Division (RES)

DT=Downtown Commercial  
NH=Neighborhood Main Street  
RES=Residential Street



New York, NY



Louisville, KY



Birmingham, AL



Seattle, WA



Nashville, TN

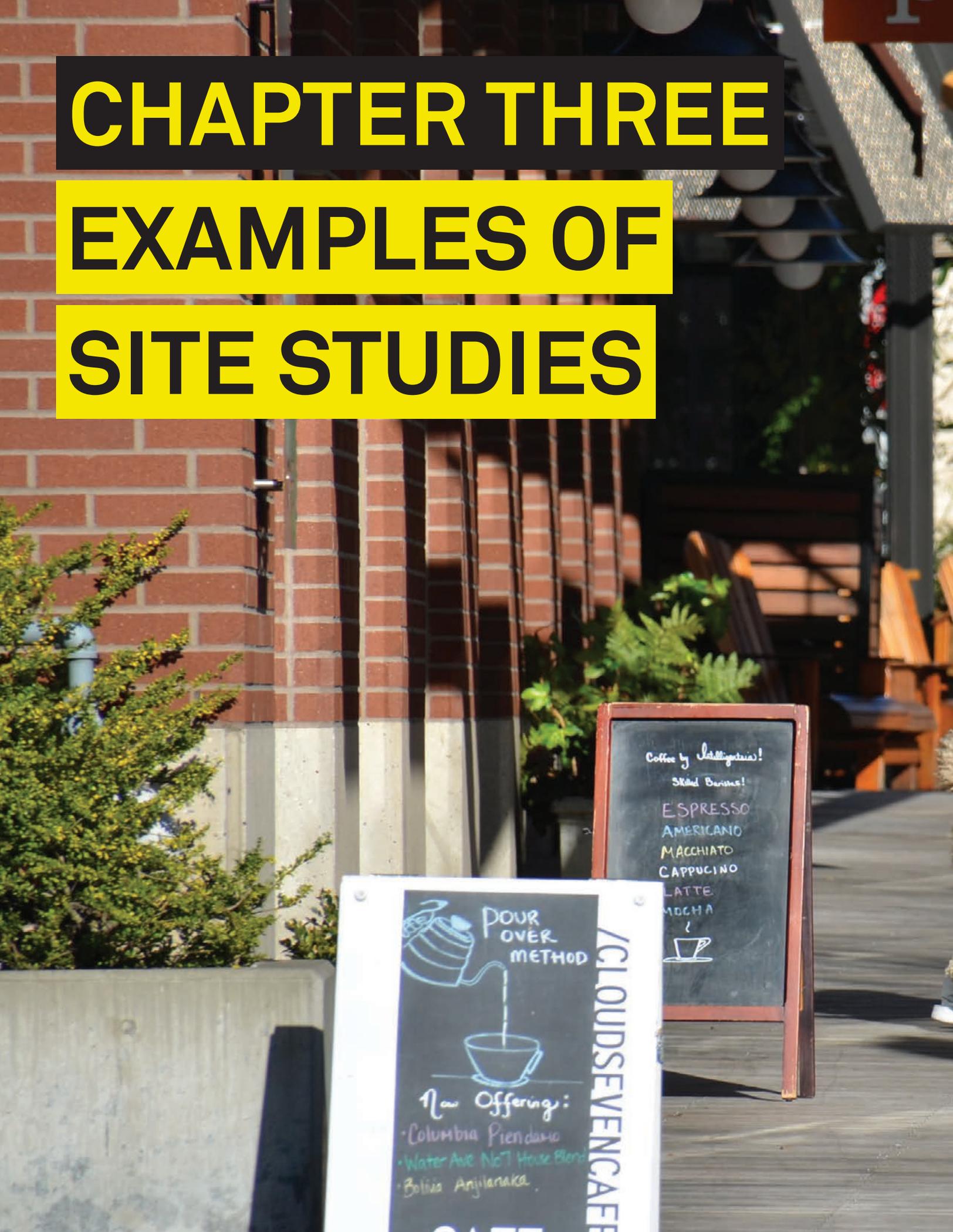


Portland, OR

# CHAPTER THREE

## EXAMPLES OF

## SITE STUDIES



Coffee by Intelligence!

Skilled Baristas!

ESPRESSO

AMERICANO

MACCHIATO

CAPPUCINO

LATTE

MOCHA



New Offerings:

- Columbia Piendamio
- Water Ave No7 House Blend
- Bolivia Anijlanaka

CLAUDESEVENCAFE

furniture

LOVE YOUR BAKERS

COFFEE



## CASE STUDY

### ATLANTIC AVENUE

Below is a case study of a successful sidewalk that visually illustrates the methodology described for conducting site visits. The sidewalk studied, on Atlantic Avenue, is close to downtown Brooklyn, New York City, and is part of the Special Downtown Brooklyn District created in 2001. The drawings shown were completed onsite. The special district's key goals are to promote and protect public health, safety, and general welfare and to preserve the district's historic character while fostering new development. It was chosen as part of a subdistrict (Atlantic Avenue Subdistrict) to demonstrate a large range of detailed regulations that apply to this area given its unique character. It should be noted that these regulations would not be appropriate for all contexts. The full zoning text for this sub district can be found in the NYC Zoning Resolution, Chapter 1: Special Downtown Brooklyn District.





Capturing the experience through qualitative drawing



# CASE STUDY ATLANTIC AVENUE

## NEIGHBORHOOD CONTEXT FORM

Neighborhood connectivity and profile

Complete this form using maps, data and on-site observations

City: New York

Street: Atlantic Ave.

Date: March 7<sup>th</sup> 2022

CONTEXT AND PROFILE

### Fabric

Understand density and predominance of land use



Density estimate: low medium **high**

Residential  Mixed use   
Commercial  Industrial

Other relevant land use notes:  
Historic fabric buildings

### User Profile

What kind of people do you see walking in this neighborhood?



Age groups: middle → elderly  
Ethnicities: mixed  
Evident Occupations: —  
Average number of people/5 min: 25

Health survey (if known):  
High percentage of any of the following diseases?  
 Obesity  Diabetes  Cardiovascular disorders

CONNECTIVITY

### Key Destinations

Check key destinations close to your site



Transit stop   
School   
Hospital   
Park   
Market/ Shops   
Other   
specify: church/day care

### Traffic Characteristics

Understand the type of street next to your sidewalk

(truck route)

Type of street:  
Local street   
Neighborhood main St   
Downtown avenue   
Highway   
Bike Lane   
Bus Lane   
# parking lanes: 2  
# travel lanes: 4

### Describe the sidewalk context:

How is the sidewalk across the street? Similar bulk to type/scale? Or different? In what way?

wide/clear sidewalk with large tree pits - some trash collected in tree pits  
Great interesting facades with depth + texture + display windows. Great variety!

WHICH BEST REPRESENTS YOUR SIDEWALK CONTEXT? (Tick and circle)

FABRIC 01

FABRIC 02

FABRIC 03

DRAW YOUR "CONNECTIVITY PLAN" AND LOCATE KEY DESTINATIONS:

Legend:  
school (S icon)  
hospital (H icon)  
church (C icon)  
market (M icon)  
park (P icon)  
transit stop (T icon)

**Connectivity Plan**  
Aprox. Scale: 1"=200'

### SIDEWALK SURVEY: SUMMARY

Recording key elements and grading the "sidewalk room"  
Complete this form after you are done with the site visit

City: New York Street: Atlantic Ave  
Date: March 7<sup>th</sup> 2012 Time: 10am

<b>KEY ELEMENTS METRICS</b>	<b>Width/Clearance</b>	Total R.O.W width: <u>90'</u> ft Roadbed width: <u>~60'</u> ft Sidewalk width: <u>19'</u> ft Clear path: <u>12'</u> ft	<b>Architectural detailing</b>	Main vertical and horizontal components: <u>rich articulation every 20'</u>
	<b>Land Use</b>	Residential <input type="checkbox"/> Commercial <input type="checkbox"/> Mixed use <input checked="" type="checkbox"/>	<b>Building signage</b>	Type: <u>limited to signs mostly</u> Dimensions: <u>12'</u> x <u>3'</u> <small>min. height projection clearance from wall</small>
	<b>Ground floor setbacks</b>	Street wall <input checked="" type="checkbox"/> Setback <input checked="" type="checkbox"/> _____ ft Planting <input checked="" type="checkbox"/> Parking <input checked="" type="checkbox"/>	<b>Canopy/awning</b>	Type: <u>1x Residential</u> Dimensions: <u>12'</u> x <u>2'</u> <small>min. height projection clearance from wall</small>
	<b>Length lot/frontage</b>	Average length: <u>20'</u> ft	<b>Building height</b>	Base: <u>X</u> Total: <u>20-50'</u>
	<b>Entries</b>	Total number: <u>23</u> Average width: <u>6'</u> ft Recess: <u>3'</u> ft	<b>Green strips/ Street trees</b>	Tree type/dimension: <u>tree pits</u> Planter dimensions: <u>6' x 7'</u>
	<b>Transparency</b>	Average: <u>50</u> %	<b>Outdoor uses</b>	Type: <u>potted plants</u>
			<b>Curb cuts</b>	Total number: <u>1 (but not used)</u> Average width: _____

### Grading the sidewalk experience:

Understanding assesses and challenges

<b>GRADING [KEY ASPECTS]</b>	<b>CONNECTIVITY</b>		<p><b>Additional observations:</b> Which elements contributed to each of your gradings?</p> <ul style="list-style-type: none"> <li>• Some trash in tree pits</li> <li>• 5 security gates with 75% transparency</li> <li>• Great texture + detailing in facades</li> <li>• Corner store was active, but other stores were closed on site visit</li> <li>• We were on the shady side of the street.</li> <li>• Relatively active sidewalk with steady pedestrian flow</li> <li>• Some bicycle parks.</li> <li>• Rich cornice line.</li> </ul>
	<b>ACCESSIBILITY</b>		
	<b>SAFETY</b>		
	<b>CONTINUOUS VARIETY</b>		
	<b>HUMAN SCALE/ COMPLEXITY</b>		
	<b>SUSTAINABILITY</b>		
<b>GRADING [THE PLANES]</b>	<b>BUILDING WALL</b>		<ul style="list-style-type: none"> <li>• uneven + cracked paving in places.</li> <li>• Grates for basement access</li> <li>• Some deliveries on curbside</li> <li>• Truck route so quite loud.</li> <li>• (not peak hour on site visit)</li> </ul>
	<b>ROADSIDE PLANE</b>		
	<b>CANOPY PLANE</b>		
	<b>GROUND PLANE</b>		
	<b>OVERALL</b>		

# CASE STUDY ATLANTIC AVENUE

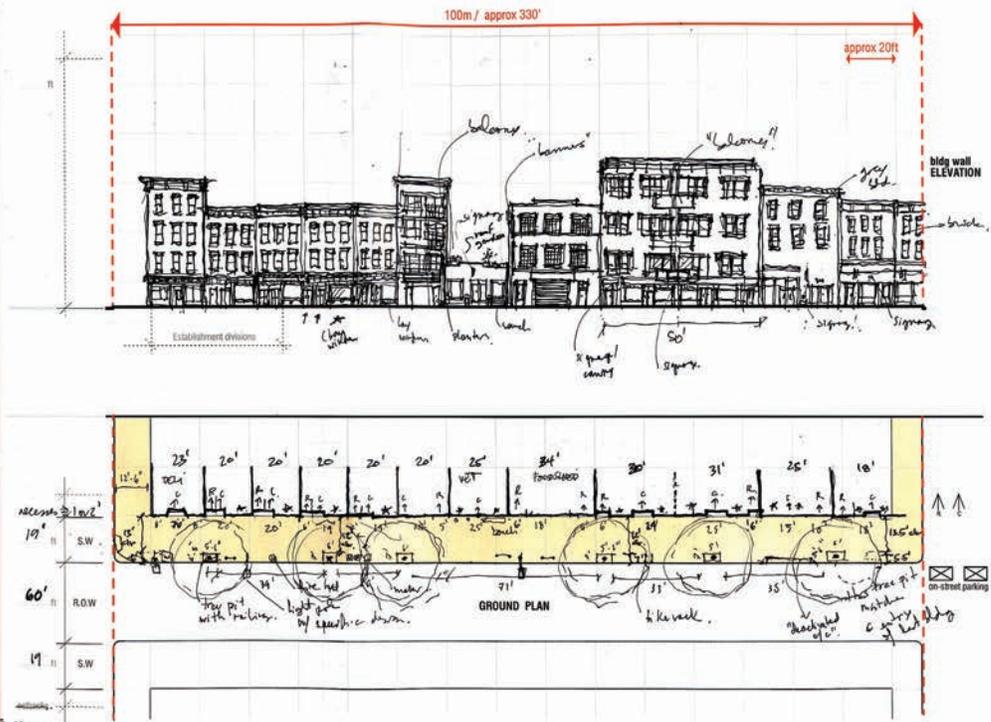
**Instructions**  
 Ground Plan: Measure and draw the key dimensions and elements you observe in plan. Note building and establishment divisions, windows, tree jobs, street furniture, minimum clear path dimensions, etc.  
 Building Wall elevation: This drawing records the vertical rhythm of buildings, focusing on the variations of balconies and window patterns.

**Key Icons**

- ↑ ↑ ↑ ↑ entrance/steps
- ▭ green strips / front yard planting
- ▭ blue job
- ▭ curb cuts
- ▭ parked vehicles
- ⊕ bike racks
- ⋮ transit stops
- ▭ benches / street furniture
- ▭ street vendors
- ▭ waste bins / telephone cubby / newspaper and mail boxes
- tree elevation
- light pole
- signage pole

**Detail Sketch / Notes**

City: BROOKLYN Street: ATLANTIC AVE.  
 Date: 03-07-12 Time: 10:00 AM.  
 Drawings: Ground Plan and Building Elevation



Quantitative Drawing: Ground Plane and Building Elevation

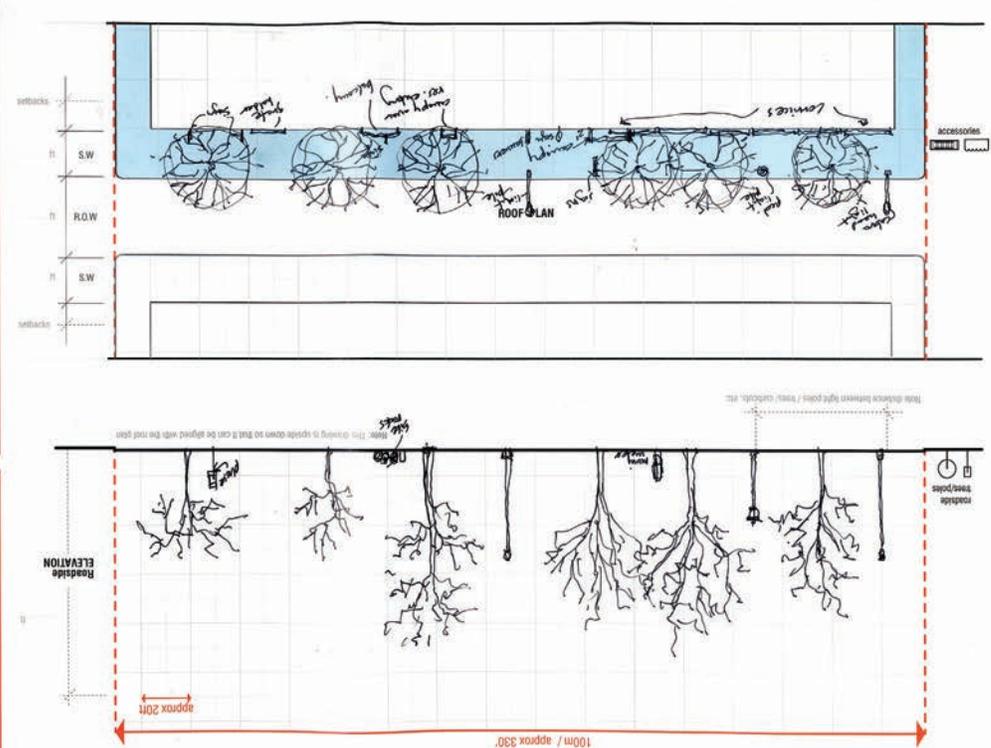
**Instructions**  
 Roof Plan: Think about this like the layer above your ground plane, and what sits above the pedestrian's head. This might show tree canopies, overhangs, signs and awnings.  
 Roadside elevation: This illustrates what you experience from the center or the sidewalk looking towards the roadway plane. Note what you see in the foreground (trees, parked cars, signage) over what is on the other side of the street.

**Key Icons**

- ↑ ↑ ↑ ↑ entrance/steps
- tree's canopy
- tree elevation
- light pole
- signage pole
- ▭ transit stops
- ▭ street vendors
- ▭ canopy/awning
- ▭ street furniture
- ▭ construction scaffolding
- ▭ balconies

**Detail Sketch / Notes**

City: BROOKLYN Street: ATLANTIC AVE.  
 Date: 03-07-12 Time: 10:00 AM.  
 Drawings: Roof Plan and Roadside elevation



Quantitative Drawing: Canopy Plane and Roadside Elevation Note: this drawing is upside down to align with the canopy plane

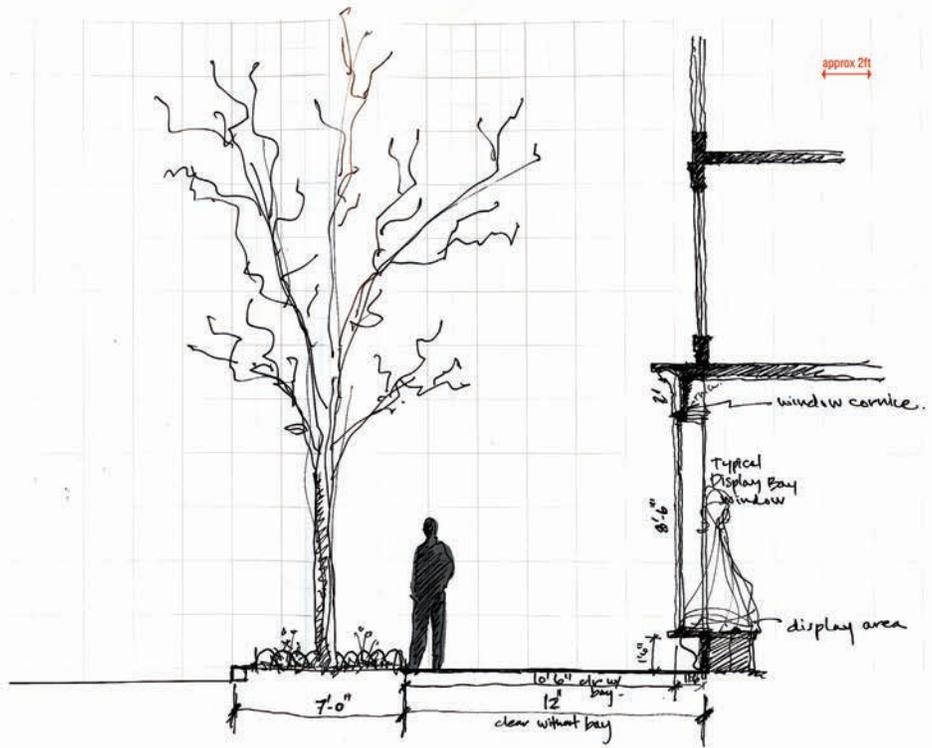
**Instructions**  
Draw the section of the sidewalk room noting key elements. This drawing should take into account what is happening in the outdoor right next to the sidewalk room, as well as what is happening immediately inside the building/ private front yards.

**Things to look for include:**

- Sidewalk width
- Minimum clear path width
- Average setbacks
- Building height
- Trees
- Tree pits/Planters
- Awnings/canopies
- Fences
- Slopes
- Waste bins
- Telephone cabinets
- Mail boxes
- Transit shelters
- On-street parking
- Street vendors
- Building signage
- Signage/traffic poles/light poles
- Property line

**Notes**

City: \_\_\_\_\_ Street: \_\_\_\_\_  
Date: \_\_\_\_\_ Time: \_\_\_\_\_  
Drawings: Sidewalk room section



Quantitative Drawing: Sidewalk Room Section

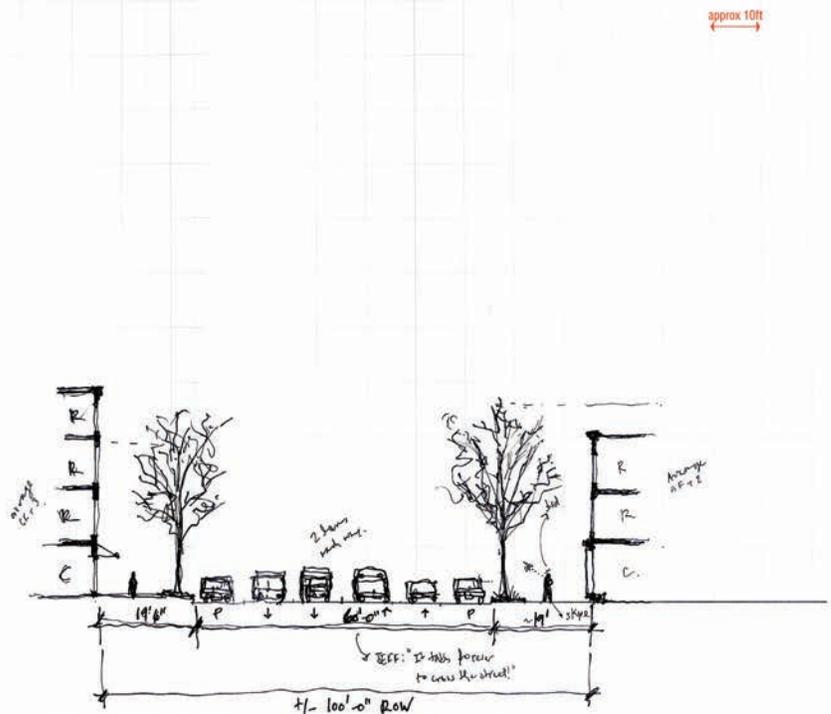
**Instructions**  
Draw and measure key elements within the street right of way (including building heights). This will give a sense of context as to which your sidewalk is sitting.

**Things to look for include:**

- Total width (ROW)
- Sidewalk width
- Land use
- Average setback
- Building height
- Height buildings across street
- Travel Lanes
- Trees
- Light poles
- Signage/traffic poles
- Transit shelters
- On-street parking
- Awnings/canopies/fences

**Notes**

City: \_\_\_\_\_ Street: \_\_\_\_\_  
Date: \_\_\_\_\_ Time: \_\_\_\_\_  
Drawings: Sidewalk ROW section



Quantitative Drawing: Sidewalk ROW (Right-of-way) Section

# CASE STUDY ATLANTIC AVENUE

**Instructions**  
Draw the "Ground" plane as you see it from the corner of the sidewalk. Think about what is most prominent to the plane and how the sidewalk is divided into pieces. Is there an assembly zone with tree pits and street furniture? What is the sleep path of its movement zone? Do elements of the planar realm contribute to the scene (sidewalk color, shape, materials, poles, etc)?

**GROUND PLANE**

**Things to look for include:**

- curbside
- tree pits
- green strips
- benches
- bike racks
- different paving texture/colors
- manholes
- hydrants
- waste bins
- telephone cabins
- newspaper boxes
- mail boxes

*lamp post*

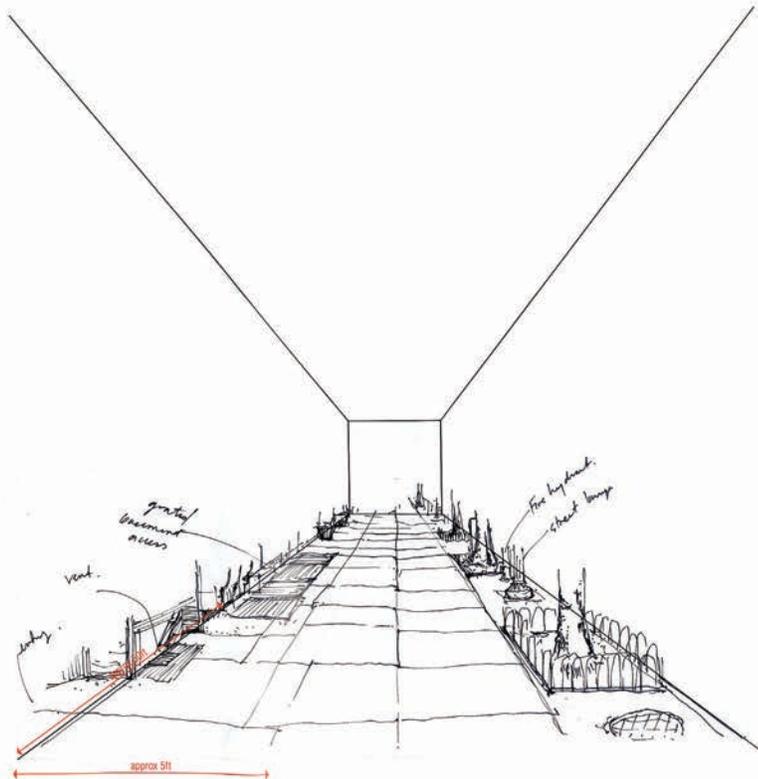
**Notes**

- access to basements to stores.
- nice clear path
- the odd planter at the front of stores.
- paving = not perfect but relatively flat/level.

**Note:**

- 11' wide sidewalk (total)
- tree pits = 6-7' wide.

**City:** NYC **Street:** Atlantic Ave  
**Date:** Mar 7 2012 **Time:** 10am  
**Drawings:** Sidewalk Room - Ground plane



Qualitative Drawing: Ground Plane

**Instructions**  
Think about how much sky you can see, how the height of buildings impacts the plane. Are there any building elements hanging out over the sidewalk, how do the tree canopies affect the plane?

**ROOF PLANE**

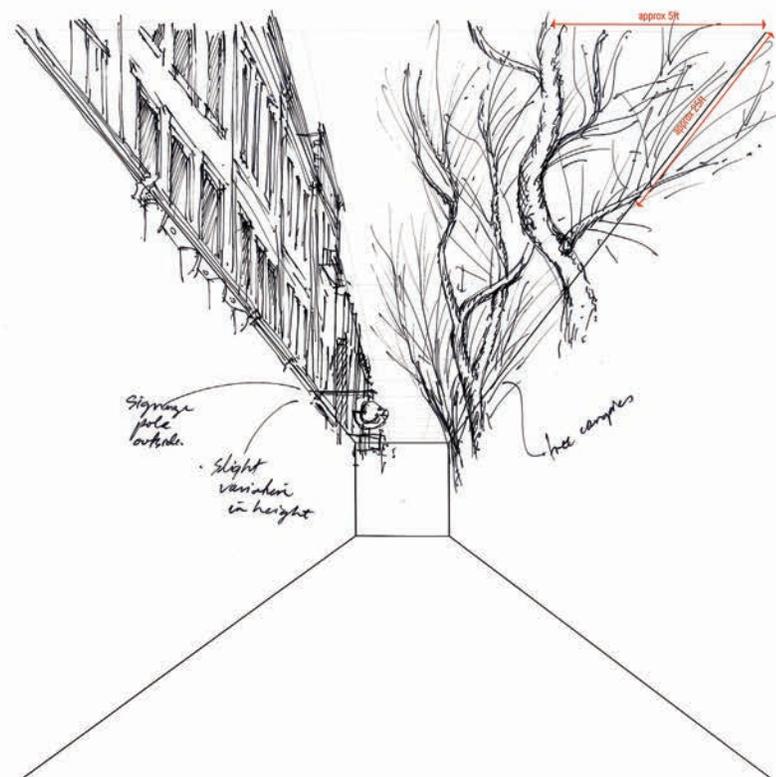
**Things to look for include:**

- signage
- awnings
- canopies
- balconies
- fire escapes
- tree canopies
- light poles
- signage poles
- signs (streets/traffic)
- landmarks visible
- setbacks
- overall building height

**Notes**

- slight variation in bldg heights becomes clear.
- tree canopies are dominant
- lots of blue sky!
- some signage but not too much.
- only a few awnings

**City:** NYC **Street:** Atlantic Ave  
**Date:** Mar 7 2012 **Time:** 10am  
**Drawings:** Sidewalk Room - Roof plane



Qualitative Drawing: Canopy Plane

**Instructions**  
 Draw the "Road Side" plane as you see it from the center of the sidewalk. Think about what is most prominent in the plane and draw this first. (Street trees, parked cars, street furniture). Lightly draw what you see behind (traffic lanes, buildings, trees across the street).

**Things to look for include:**

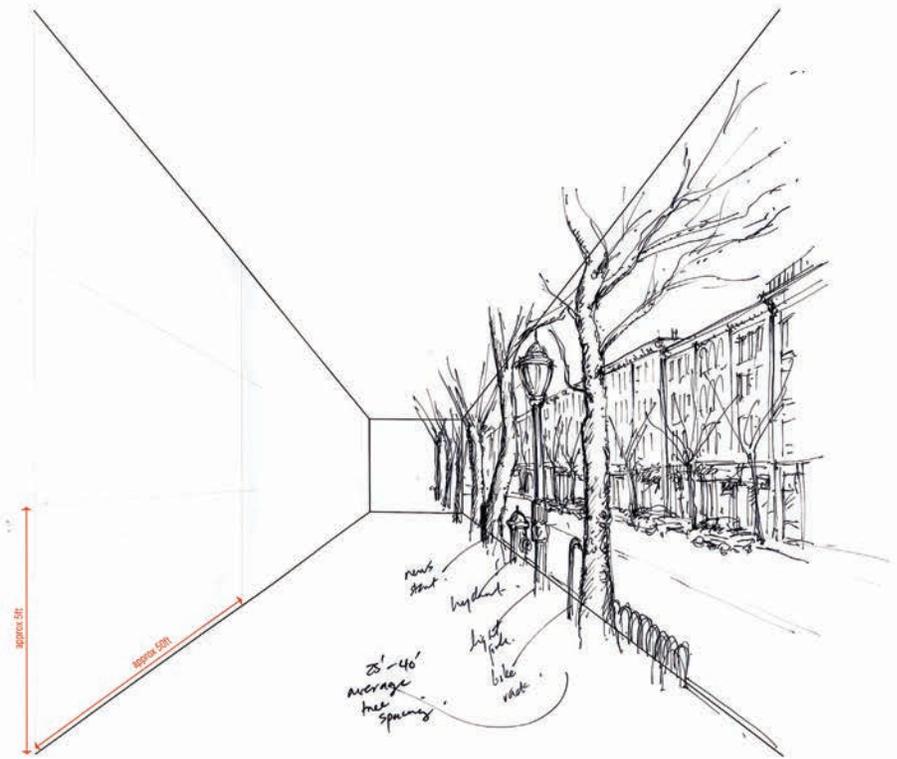
ROAD SIDE	trees	<input type="checkbox"/>
	planters / tree pits	<input type="checkbox"/>
	parking spots	<input type="checkbox"/>
	bike lane	<input type="checkbox"/>
	adjacent traffic lane	<input type="checkbox"/>
	bike racks	<input type="checkbox"/>
	light poles	<input type="checkbox"/>
	signage poles	<input type="checkbox"/>
	signs (streets/traffic)	<input type="checkbox"/>
	street vendors	<input type="checkbox"/>
	waste bins	<input type="checkbox"/>
	telephone cabins	<input type="checkbox"/>
	newspaper / mail boxes	<input type="checkbox"/>
	bus stops	<input type="checkbox"/>

**Notes**

- a bit of leading to local store.
- relatively normal traffic. (no stopping down the road).
- similar height of buildings across the street (not in canopy plane as the street is  $\approx 100'$  wide).



City: NYC Street: Atlantic Ave  
 Date: Mar 7, 2012 Time: 10 AM  
 Drawings: Sidewalk Room - Road side



Qualitative Drawing: Roadside Plane

**Instructions**  
 Draw the "Building Wall" plane as you see it from the center of the sidewalk. Think about what is most prominent in the plane which will differ depending on whether there is a storefront or if the buildings are setback.

**Things to look for include:**

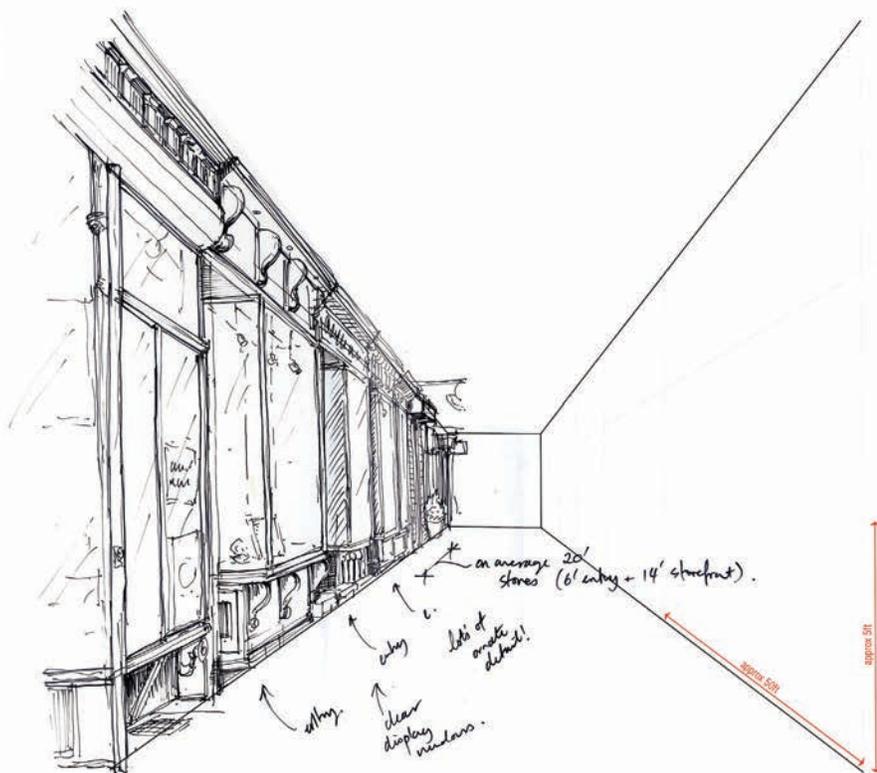
BUILDING WALL	number of entries (commercial/residential)	<input type="checkbox"/>
	transparency (%)	<input type="checkbox"/>
	windows (first and second floor)	<input type="checkbox"/>
	showcase/display windows	<input type="checkbox"/>
	different facade textures/colors	<input type="checkbox"/>
	front yard planting/trees	<input type="checkbox"/>
	front yard car parking	<input type="checkbox"/>
	furniture	<input type="checkbox"/>
	outdoor uses (sidewalk cafes)	<input type="checkbox"/>
	stairs/sloops/fireescapes	<input type="checkbox"/>
	building and establishment divisions	<input type="checkbox"/>
	building signage	<input type="checkbox"/>
	awnings/canopies	<input type="checkbox"/>
	balconies	<input type="checkbox"/>

**Notes**

- great storefronts with technical details - very ornate
- very transparent, great to see in display windows.
- nice mix of res. + commercial entries.



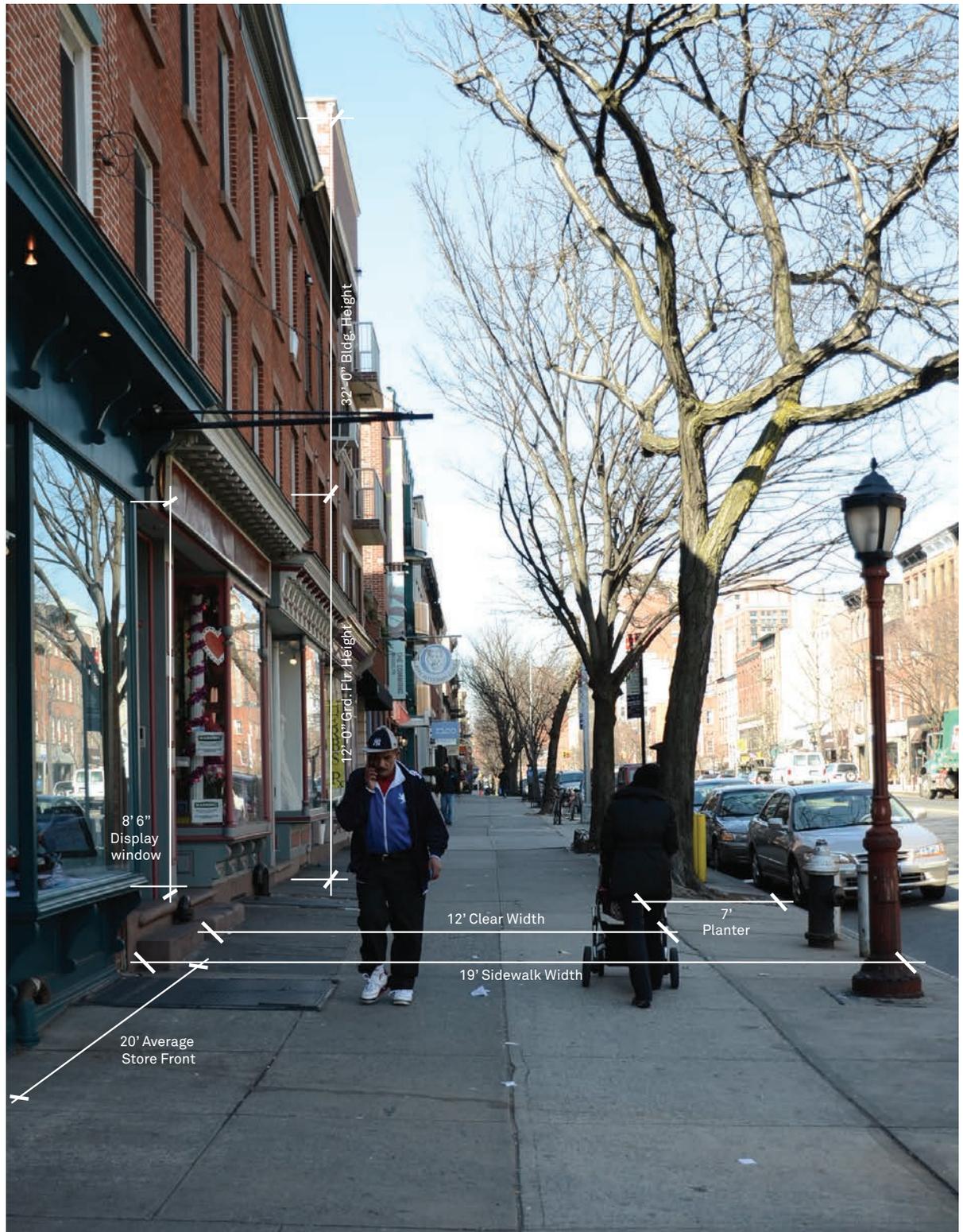
City: NYC Street: Atlantic Ave  
 Date: Mar 7, 2012 Time: 10 AM  
 Drawings: Sidewalk Room - Building Wall



Qualitative Drawing: Building Wall Plane

## CASE STUDY ATLANTIC AVENUE

**Physical Space and Dimensions shaping the sidewalk room:** While some of the metrics below are independent of the zoning policies applied to this specific sidewalk, many of the dimensions that define the building wall, window heights, establishment divisions, and signage projection, are shaped by the application and parameters of specific regulations. The correlating policies are noted on the opposite page.



**Zoning policies shaping the sidewalk room:** Below are some of the specific policies that provide parameters of how this specific sidewalk room is shaped. They primarily address the building wall plane, touching on a range of different physical characteristics of the space including building height and setback, ground floor use, establishment width, transparency, signage; and tree pits and car curb cuts in the ground plane. These policies impact the physical form of the sidewalk room, the specific metrics of which can be seen on the opposite page.

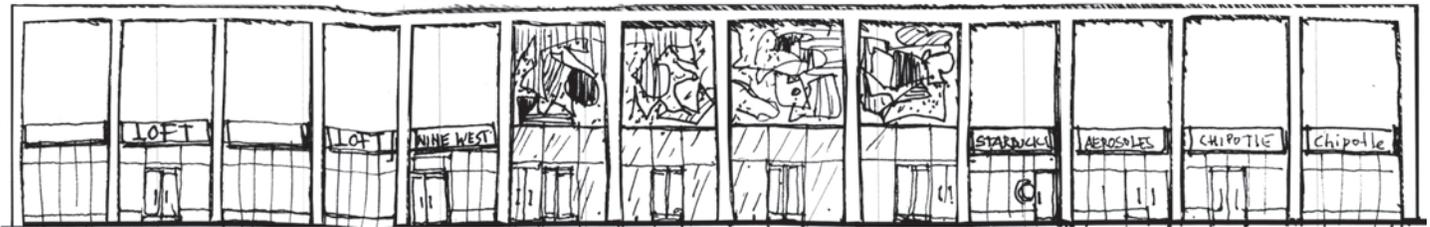


## DOWNTOWN COMMERCIAL SIDEWALK STUDIES

The following pages present a summary of five of the downtown commercial sidewalks that were measured and studied as a part of this project. They each began as a full collection of drawings (an example of which is shown in the Atlantic Avenue case study presented earlier in this chapter); however, they are presented here in summary form, at an identical scale, with the same metrics extracted. This format allows the reader to compare and contrast their characteristics. Each of the elevations (drawn onsite) is provided below. Perspective sketches for some of these examples are provided in Chapter 3 of AD:SSE. While the 330' length of sidewalk measured draws from the methodology discussed in the previous section, some examples present the metrics based on a shorter sample of sidewalk, and so should be compared accordingly. A chart of all sidewalk site visits and their collected metrics is included at the end of this section.

Note that the downtown commercial examples all have strong street walls located on the property line and setbacks generally do not exist. The clear paths are typically wider than in other typologies, and more elements such as signs, awnings, and canopies hang over the sidewalks in the canopy plane. Vertical elements such as lights and trees primarily define the roadside plane when they exist, and in their absence the roadbed and buildings across the street become more prominent. Street furniture is often well coordinated; entrances are primarily commercial, and average building dimensions are generally larger than in the other sidewalk typologies.

The reader is encouraged to use this section as a reference guide to cross check and compare dimensions when reviewing projects, to guide quantitative or qualitative decisions at the outset of design, or in clarifying what to ask for when striving for healthy and active sidewalks.



Bowling Green, Financial District, New York



20th Street N, Downtown, Birmingham



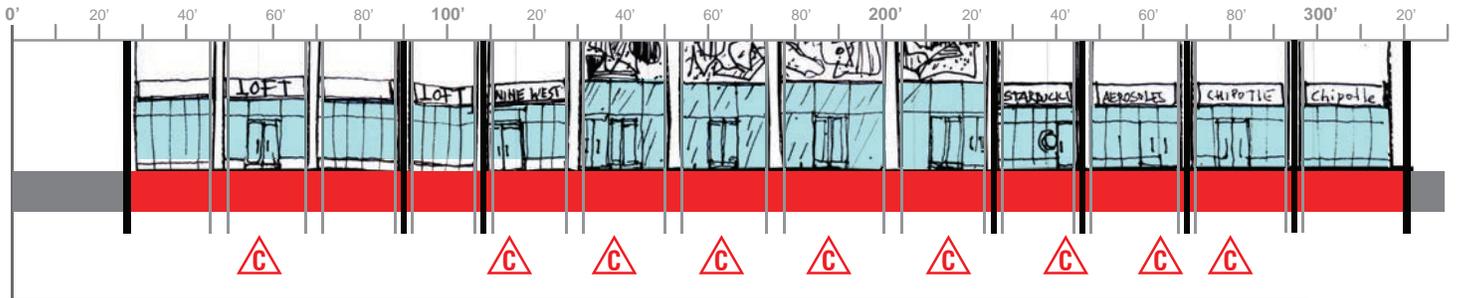
Fourth Street Live, Downtown, Louisville



Lower Broadway, Downtown, Nashville



5th Avenue, Downtown, Seattle



290' Building Dim.

20' Average Unit Dim.

Average Setback

15' Ground Floor Height

420' Overall Building Height

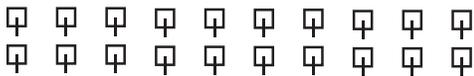
Average Tree Spacing

NUMBER OF ENTRIES [per 330ft]:



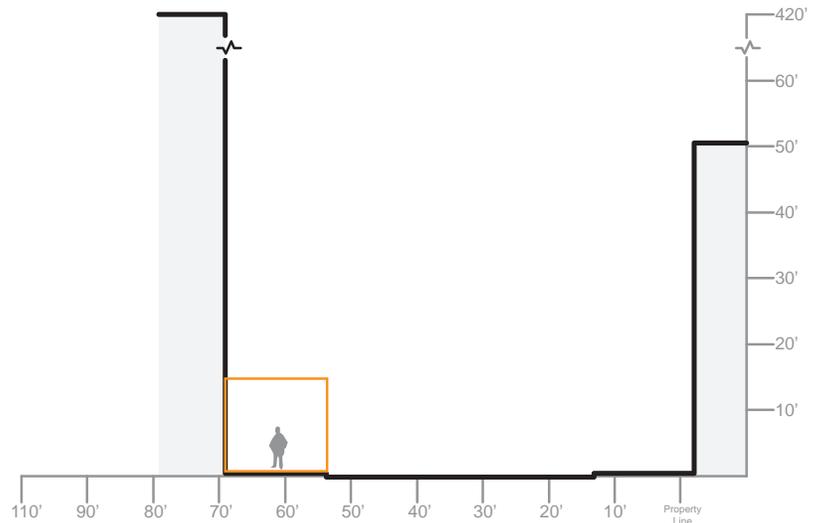
NUMBER OF TREES [per 330ft]:

NUMBER OF ROADSIDE ELEMENTS [per 330ft]:

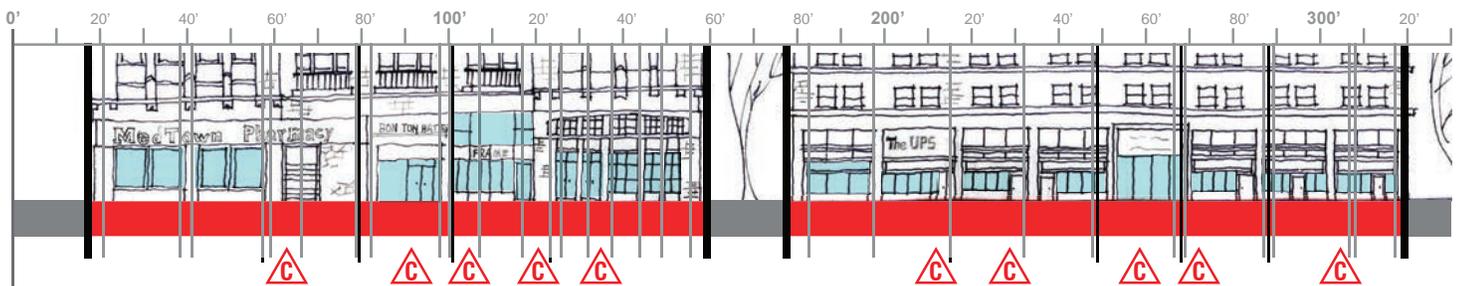
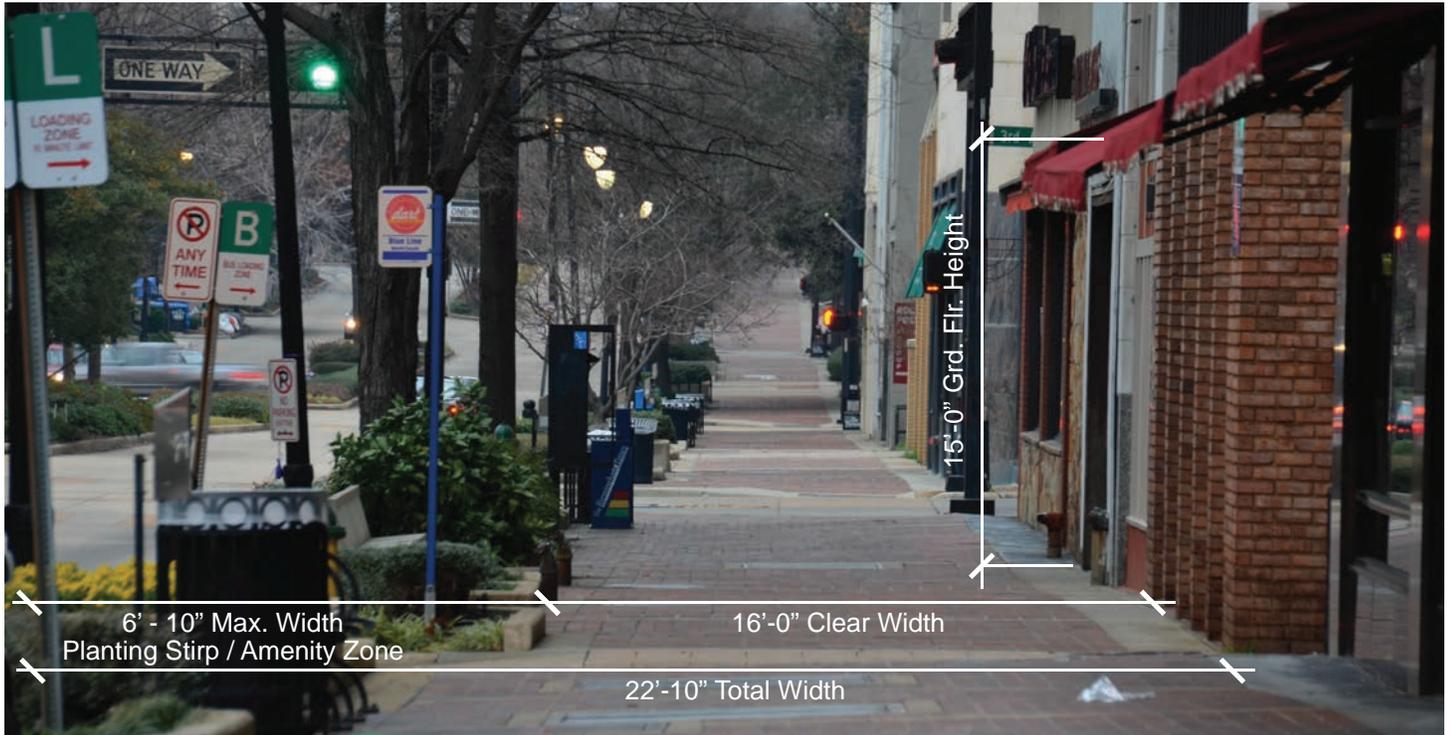


OVERHANG ITEMS [per 330ft]:

- Commercial
- Residential
- Open Space
- Vegetation
- Commercial Entry
- Residential Entry
- Building Division
- Unit Division
- Vertical Articulation



# New York / Bowling Green



140' Average Building Dim.

20' Average Establishment Dim.

Setback

15' Ground Floor Height

96' Overall Building Height

24' Average Tree Spacing

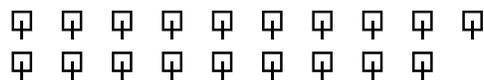
NUMBER OF ENTRIES [per 330ft]:



NUMBER OF TREES [per 330ft]:



NUMBER OF ROADSIDE ELEMENTS [per 330ft]:



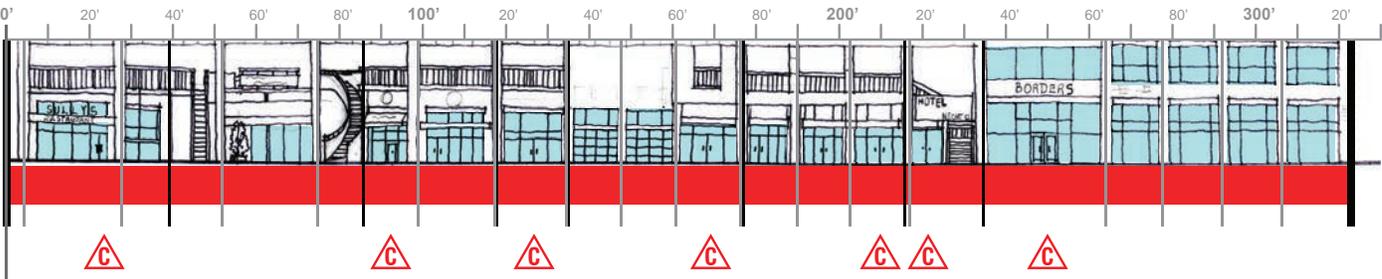
OVERHANG ITEMS [per 330ft]:



- Commercial
- Residential
- Open Space
- Vegetation
- Building Division
- Unit Division
- Vertical Articulation
- Commercial Entry
- Residential Entry



Birmingham, AL / 20th St



- 45'** Average Establishment Dim.
- 15'** Ground Floor Height
- 40'** Overall Building Height
- 100'** Average Tree Spacing

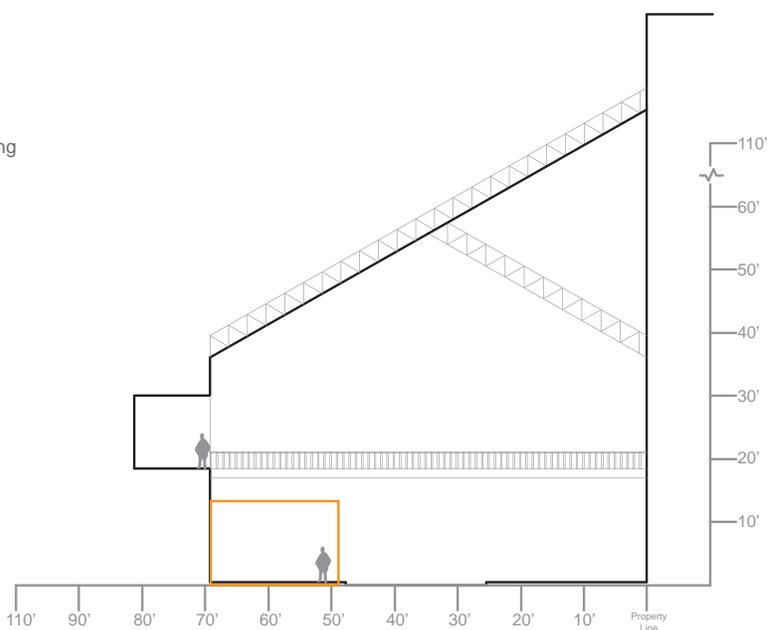
**NUMBER OF ENTRIES [per 330ft]:**

**NUMBER OF TREES [per 330ft]:**

**NUMBER OF ROADSIDE ELEMENTS [per 330ft]:**

**OVERHANG ITEMS [per 330ft]:**

Commercial	Vegetation	Building Division
Residential	Commercial Entry	Unit Division
Open Space	Residential Entry	Vertical Articulation



## Louisville, KY / Fourth Street Live!



- 30' Average Building Dim.
- 30' Average Establishment Dim.
- Setback
- 15' Ground Floor Height
- 48' Overall Building Height
- Average Tree Spacing

NUMBER OF ENTRIES [per 330ft]:

C
C
C
C
C
C
C
C
C

NUMBER OF TREES [per 330ft]:

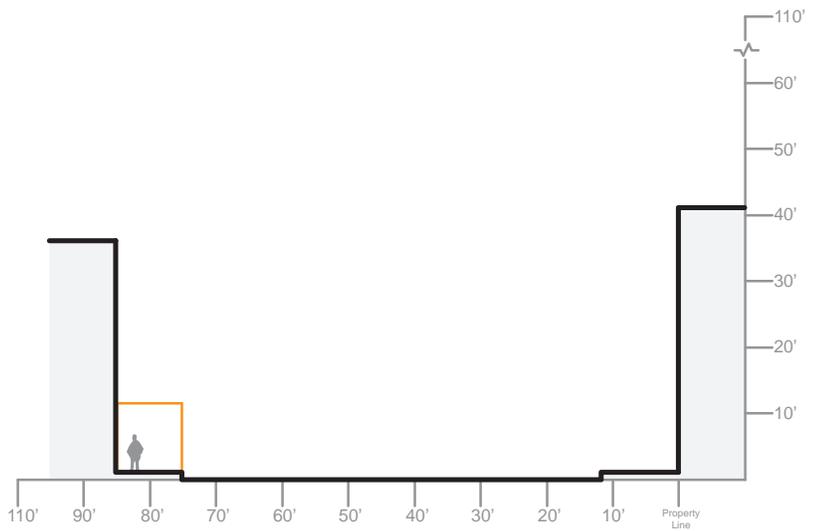
NUMBER OF ROADSIDE ELEMENTS [per 330ft]:

□
□
□
□
□
□
□
□
□

OVERHANG ITEMS [per 330ft]:

□
□
□
□
□
□

<span style="background-color: red; color: white; padding: 2px;">■</span> Commercial	<span style="background-color: green; color: white; padding: 2px;">■</span> Vegetation	<span style="border: 1px solid black; padding: 2px;">■</span> Building Division
<span style="background-color: yellow; color: white; padding: 2px;">■</span> Residential	<span style="border: 1px solid red; color: red; padding: 2px;">C</span> Commercial Entry	<span style="border: 1px solid black; padding: 2px;">■</span> Unit Division
<span style="background-color: gray; color: white; padding: 2px;">■</span> Open Space	<span style="border: 1px solid yellow; color: yellow; padding: 2px;">R</span> Residential Entry	<span style="border: 1px solid black; padding: 2px;"> </span> Vertical Articulation



## Nashville, TN / Lower Broadway





## NEIGHBORHOOD MAIN STREET SIDEWALK STUDIES

The following pages present a summary of eight of the neighborhood main street sidewalks that were measured and studied as a part of this project. They each began as a full collection of drawings (an example of which is shown in the Atlantic Avenue case study presented earlier in this chapter); however, they are presented here in summary form, at an identical scale, with the same metrics extracted. This format allows the reader to compare and contrast their characteristics. Each of the elevations (drawn onsite) is provided below. Perspective sketches for some of these examples are provided in Chapter 3 of AD:SSE. While the 330' length of sidewalk measured draws from the methodology discussed in the previous section, some examples present the metrics based on a shorter sample of sidewalk, and so should be compared accordingly. A chart of all sidewalk site visits and their collected metrics exists at the end of this section.

Note that there is generally still a strong street wall, but the character, materials and detailing of the ground floor storefronts are more unique and diverse. Elements such as signs, awnings and canopies often hang over the sidewalk, and entrances are more evenly distributed between commercial and residential uses. Note the outdoor uses, how much space they need, the more individualized street furniture, and the presence of obstacles that reduce the clear path.

The reader is encouraged to use this section as a reference guide to cross check and compare dimensions when reviewing projects, to guide quantitative or qualitative decisions at the outset of design, or in clarifying what to ask for when striving for healthy and active sidewalks.



MacDougal St, Soho, New York



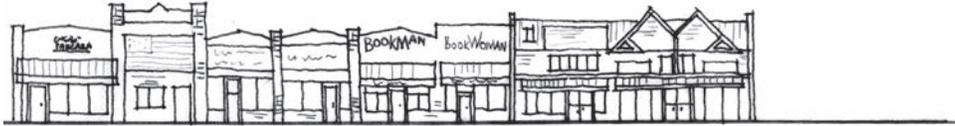
3rd Ave, Upper East Side, New York



20th Street S, Five Points South, Birmingham



Bardstown Ave, Deer Park, Louisville



21st Ave, Hillsboro, Nashville



NW 23rd St, Northwest District, Portland

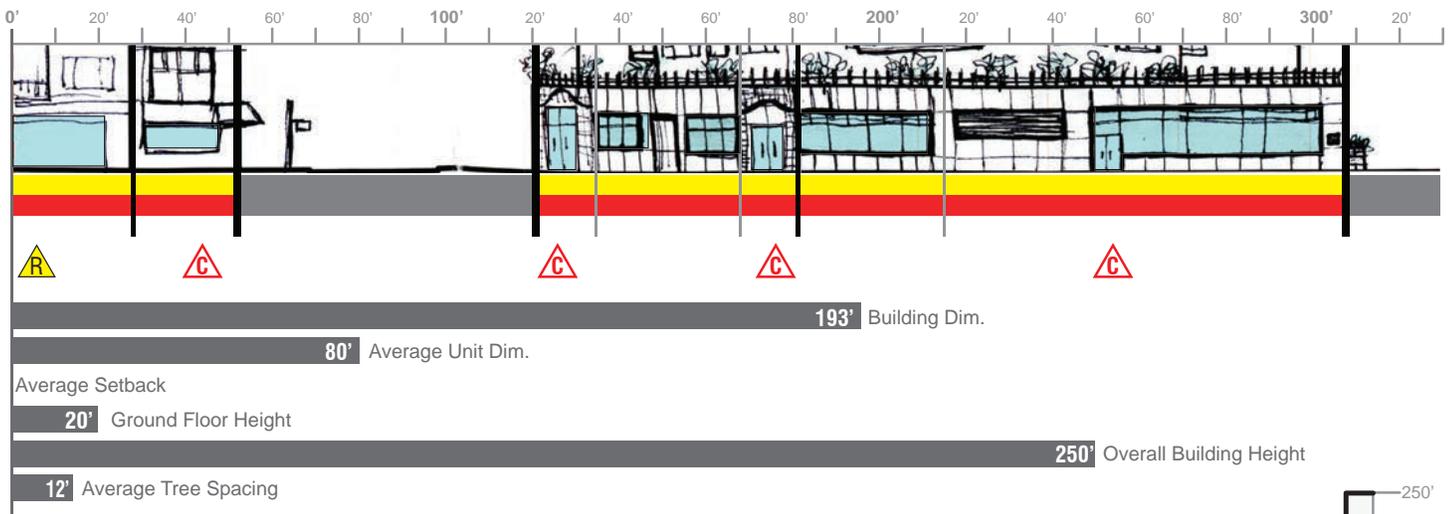
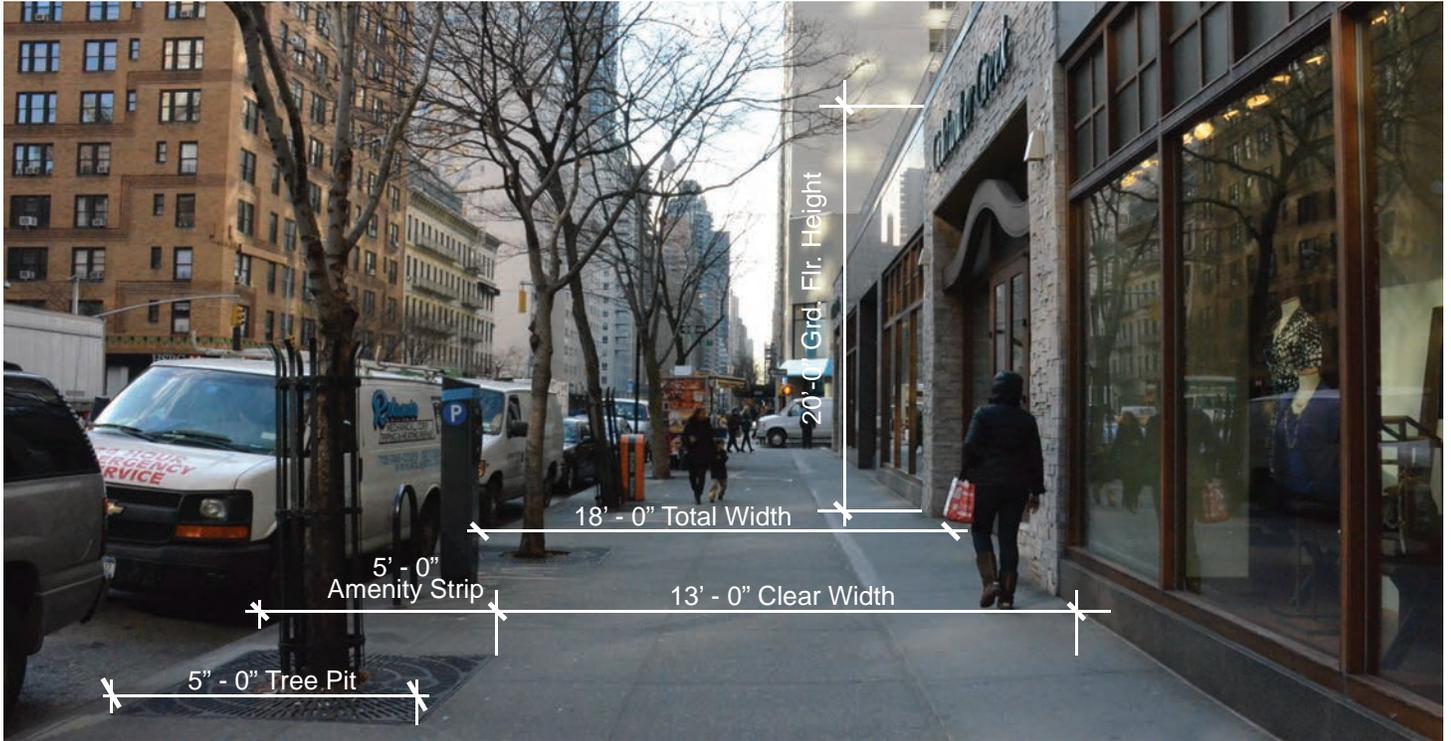


NW Irving St, Pearl District, Portland



Queen Anne Ave N, Queen Anne, Seattle





NUMBER OF ENTRIES [per 330ft]:

▲ ▲ ▲ ▲ ▲

NUMBER OF TREES [per 330ft]:

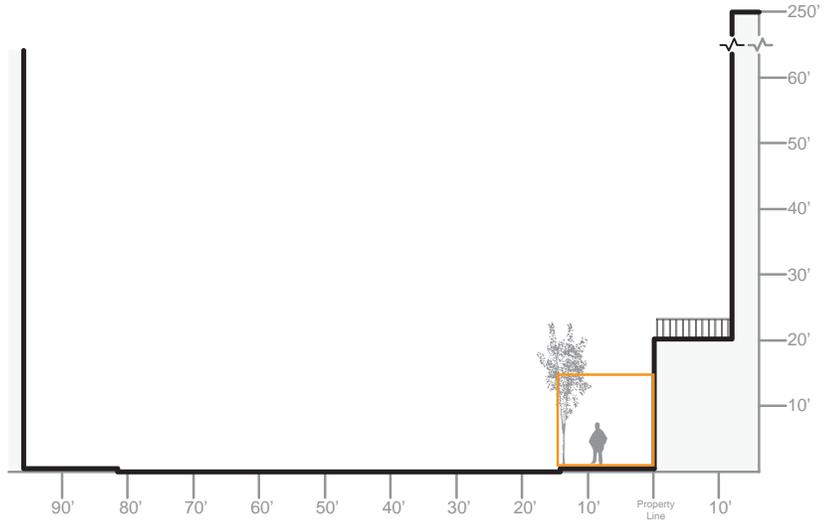
● ● ● ● ● ● ● ●

NUMBER OF ROADSIDE ELEMENTS [per 330ft]:

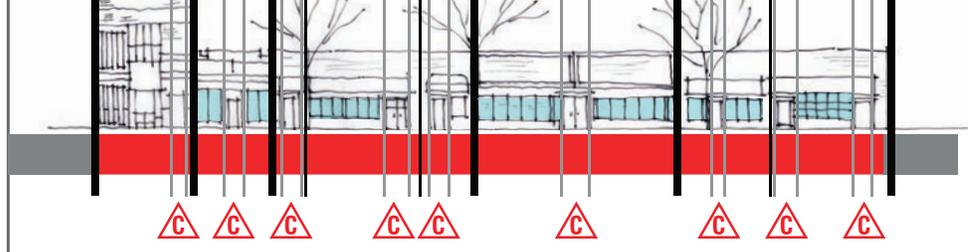
☐ ☐ ☐ ☐ ☐ ☐ ☐

OVERHANG ITEMS [per 330ft]:

<span style="color: red;">■</span> Commercial	<span style="color: green;">■</span> Vegetation	<span style="border: 1px solid black;">■</span> Building Division
<span style="color: yellow;">■</span> Residential	<span style="color: red;">▲</span> Commercial Entry	<span style="border: 1px solid black;">■</span> Unit Division
<span style="color: gray;">■</span> Open Space	<span style="color: yellow;">▲</span> Residential Entry	<span style="border: 1px solid black;"> </span> Vertical Articulation



# New York / Upper East Side-3rd Av



- 50'** Average Building Dim.
- 28'** Average Unit Dim.
- Setback
- 12'** Ground Floor Height
- 22'** Overall Building Height
- 24'** Average Tree Spacing

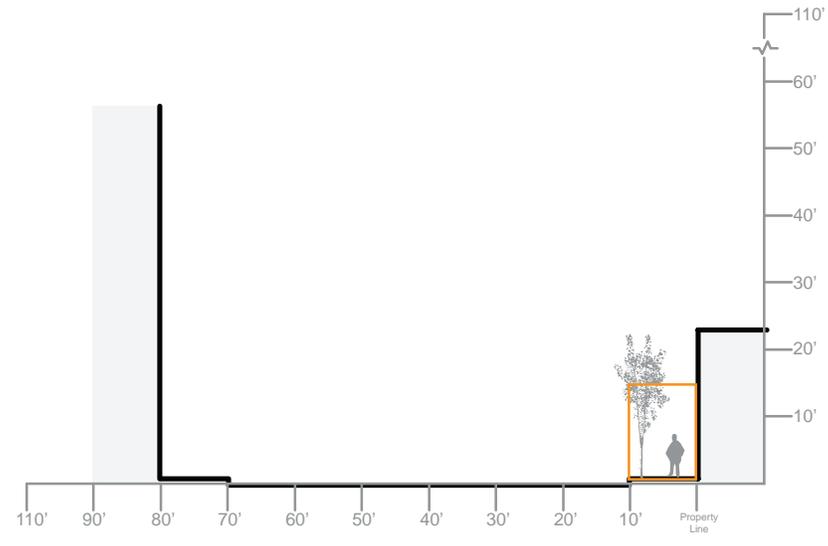
NUMBER OF ENTRIES [per 330ft]:

NUMBER OF TREES [per 330ft]:

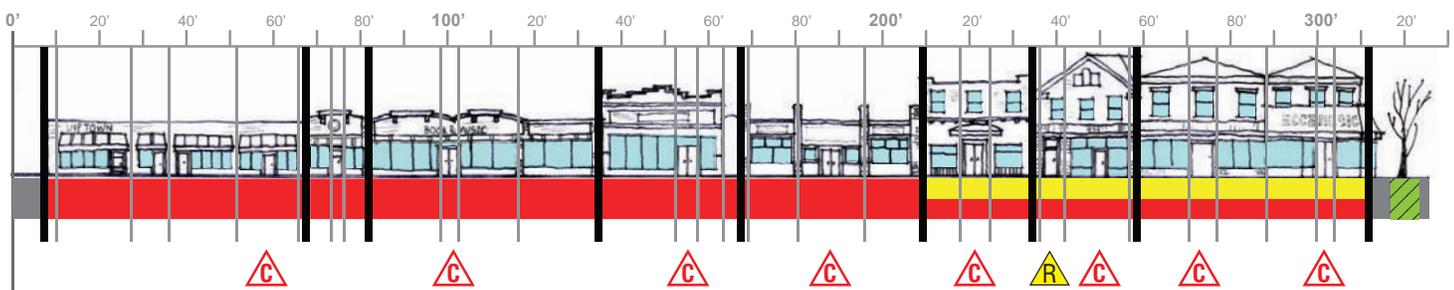
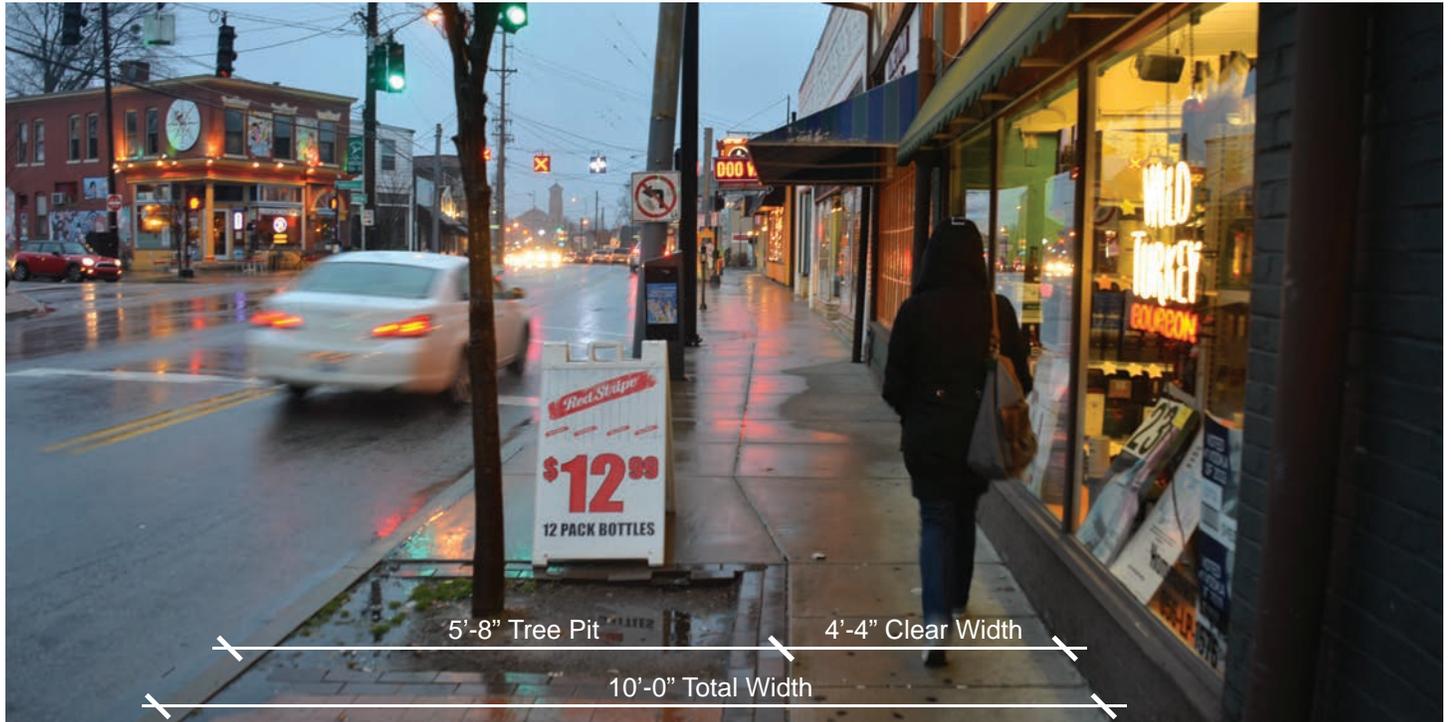
NUMBER OF ROADSIDE ELEMENTS [per 330ft]:

OVERHANG ITEMS [per 330ft]:

Commercial	Vegetation	Building Division
Residential	Commercial Entry	Unit Division
Open Space	Residential Entry	Vertical Articulation



## Birmingham, AL / 20th St / 5 Points



- 40' Average Building Dim.
- 40' Average Unit Dim.
- Setback
- 10' Ground Floor Height
- 29' Overall Building Height
- Average Tree Spacing

NUMBER OF ENTRIES [per 330ft]:

△ △ △ △ △ △ △ △ △

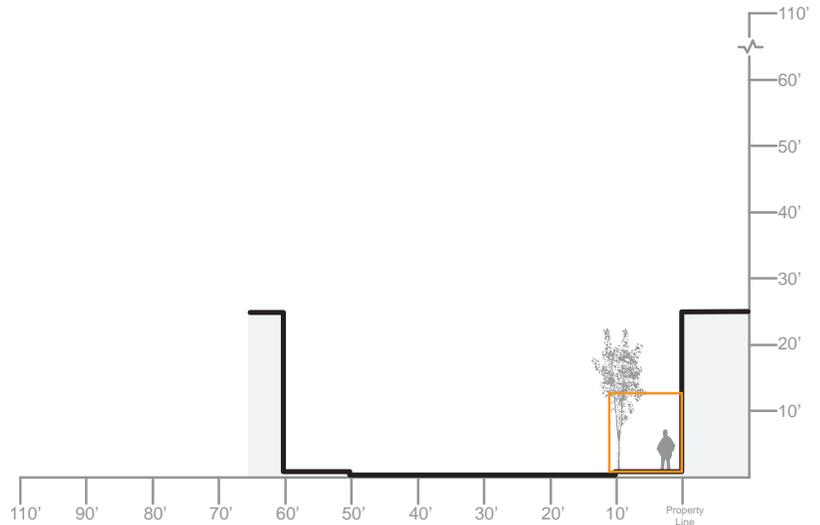
NUMBER OF TREES [per 330ft]:

●

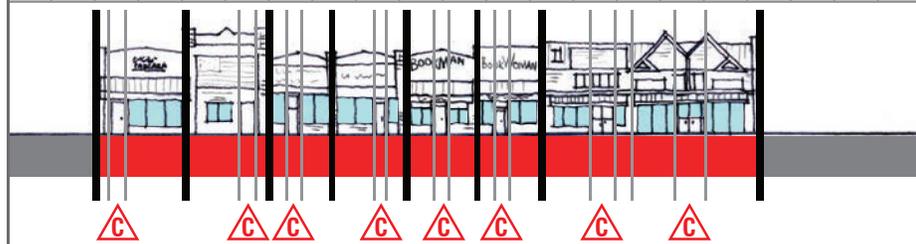
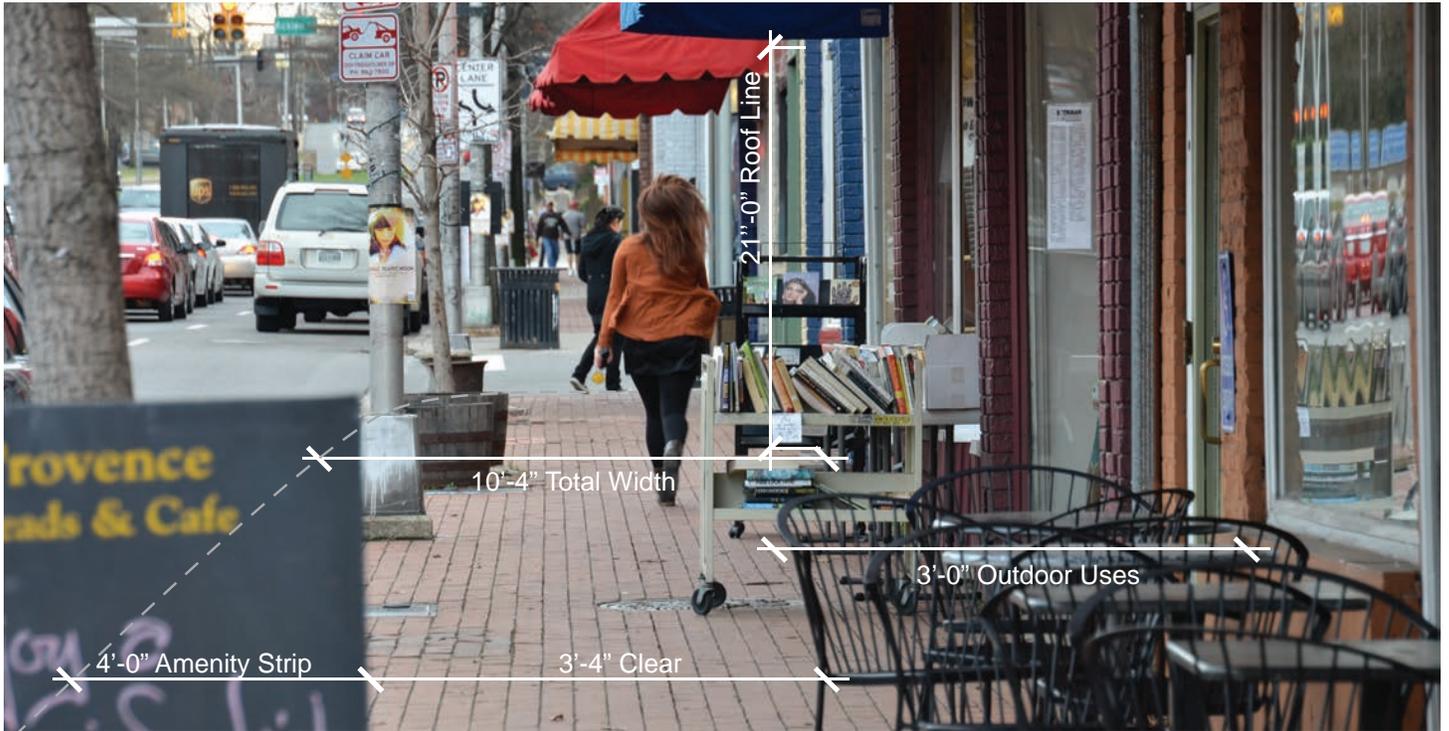
NUMBER OF ROADSIDE ELEMENTS [per 330ft]:

OVERHANG ITEMS [per 330ft]:

<span style="background-color: red; width: 15px; height: 10px; display: inline-block;"></span> Commercial	<span style="background-color: green; width: 15px; height: 10px; display: inline-block;"></span> Vegetation	<span style="border-left: 2px solid black; width: 15px; height: 10px; display: inline-block;"></span> Building Division
<span style="background-color: yellow; width: 15px; height: 10px; display: inline-block;"></span> Residential	<span style="color: red;">△</span> Commercial Entry	<span style="border-left: 1px solid black; width: 15px; height: 10px; display: inline-block;"></span> Unit Division
<span style="background-color: grey; width: 15px; height: 10px; display: inline-block;"></span> Open Space	<span style="color: yellow;">△</span> Residential Entry	<span style="border-left: 1px dashed black; width: 15px; height: 10px; display: inline-block;"></span> Vertical Articulation



## Louisville, KY / Bardstown Rd



- 20'** Average Building Dim.
- 20'** Average Unit Dim.
- Setback
- 10'** Ground Floor Height
- 30'** Overall Building Height
- 56'** Average Tree Spacing

NUMBER OF ENTRIES [per 330ft]:

△ C △ C △ C △ C △ C △ C △ C

NUMBER OF TREES [per 330ft]:

● ● ●

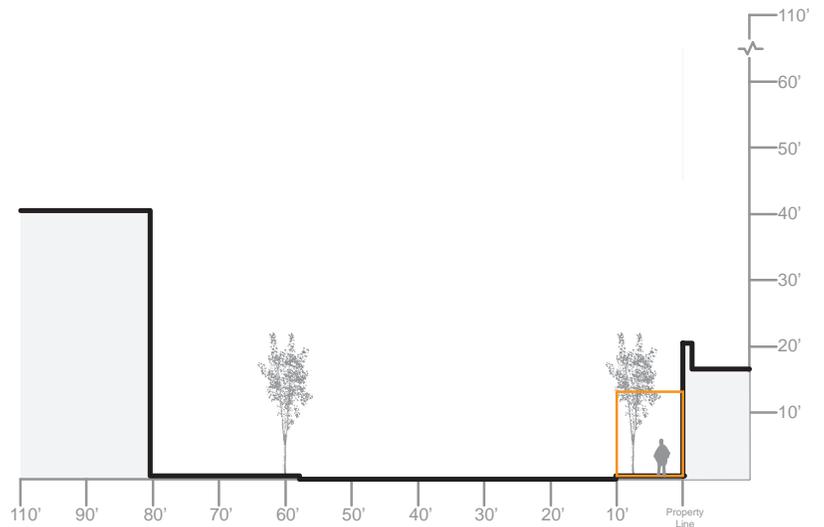
NUMBER OF ROADSIDE ELEMENTS [per 330ft]:

⌘ ⌘ ⌘ ⌘ ⌘ ⌘ ⌘ ⌘ ⌘ ⌘

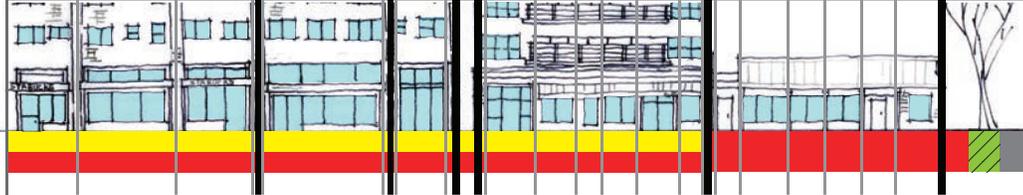
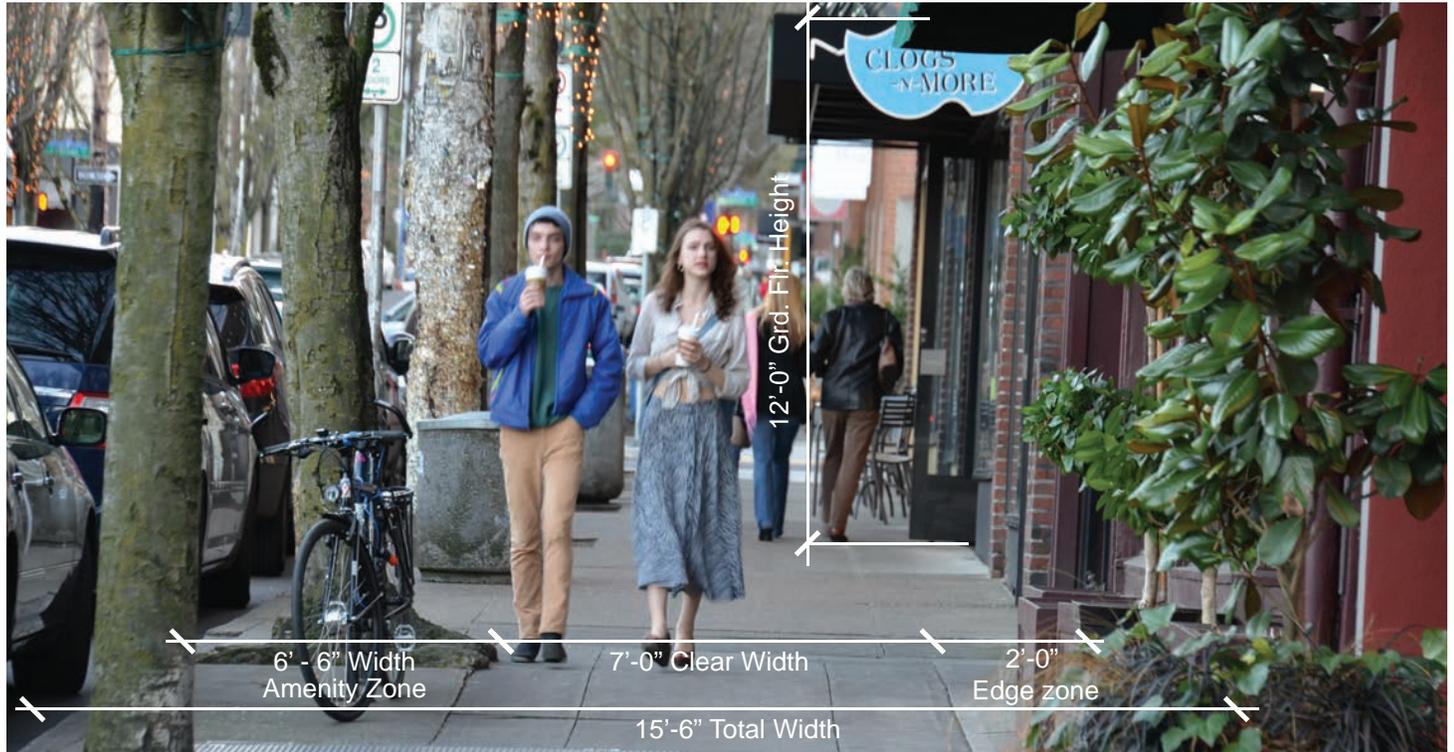
OVERHANG ITEMS [per 330ft]:

□ □ □ □ □ □ □

<span style="color: red;">■</span> Commercial	<span style="color: green;">■</span> Vegetation	<span style="border: 1px solid black; width: 10px; height: 10px; display: inline-block;"></span> Building Division
<span style="background-color: yellow;">■</span> Residential	△ C Commercial Entry	<span style="border: 1px solid black; width: 10px; height: 10px; display: inline-block;"></span> Unit Division
<span style="background-color: gray;">■</span> Open Space	△ R Residential Entry	<span style="border: 1px solid black; width: 10px; height: 10px; display: inline-block;"></span> Vertical Articulation



## Nashville, TN / Hillsboro



- 55' Average Building Dim.
- 20' Average Establishment Dim.
- Setback
- 10' Ground Floor Height
- 40' Overall Building Height
- 35' Average Tree Spacing

NUMBER OF ENTRIES [per 330ft]:

△ C △ C △ C △ C △ C △ C △ R

NUMBER OF TREES [per 330ft]:

● ● ● ● ● ● ● ● ● ●

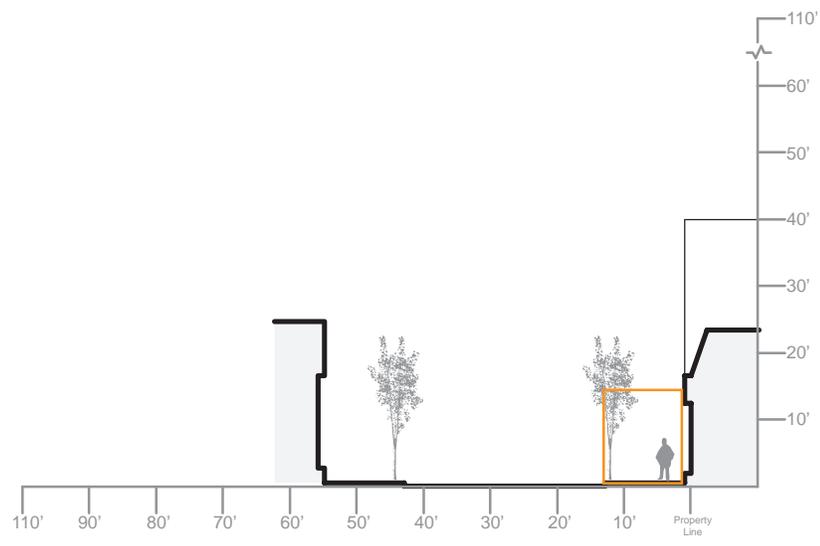
NUMBER OF ROADSIDE ELEMENTS [per 330ft]:

☐ ☐ ☐ ☐ ☐ ☐ ☐ ☐ ☐ ☐ ☐ ☐

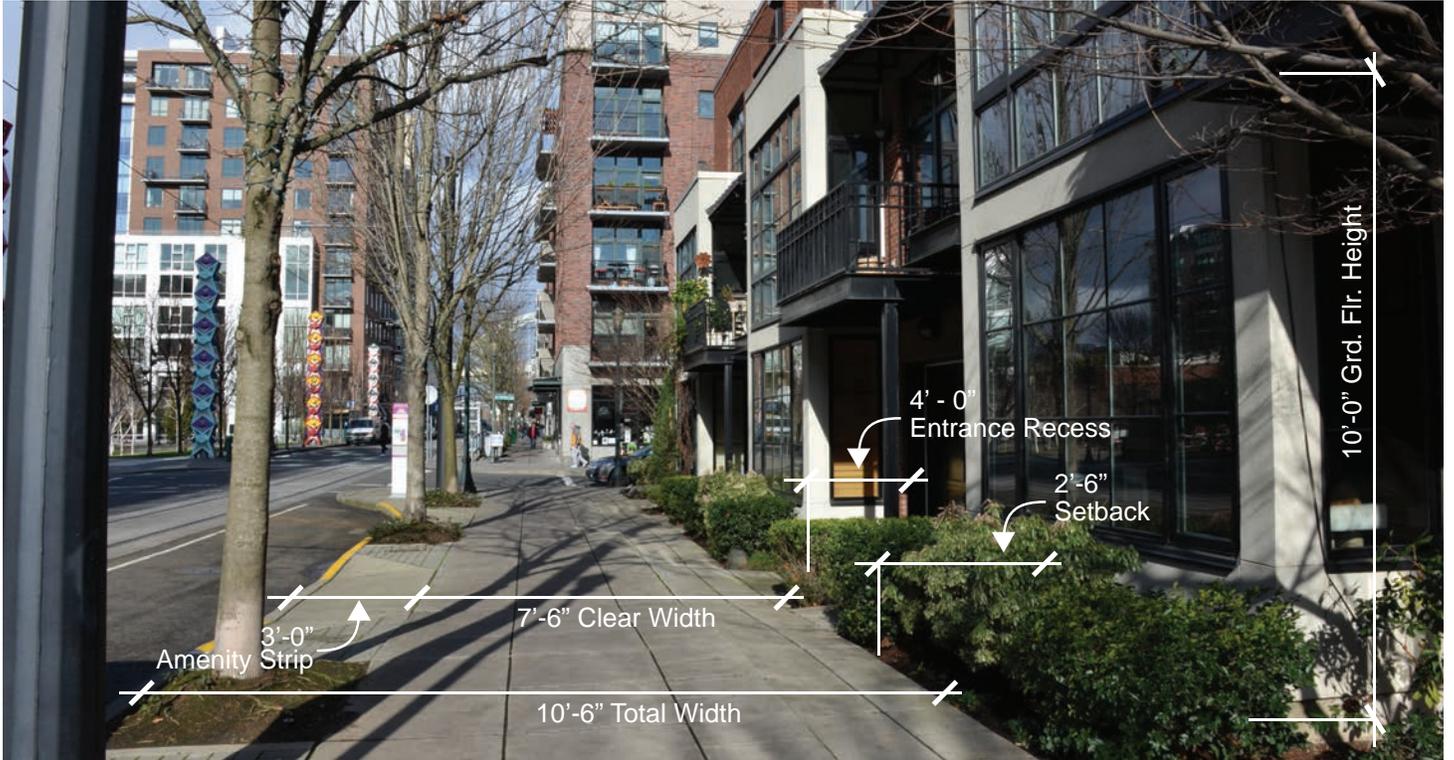
OVERHANG ITEMS [per 330ft]:

□ □ □

■ Commercial	■ Vegetation	■ Building Division
■ Residential	△ C Commercial Entry	■ Unit Division
■ Open Space	△ R Residential Entry	■ Vertical Articulation



# Portland, OR / NW 23rd Street



- 55' Average Building Dim.
- 20' Average Establishment Dim.
- 2' Setback
- 10' Ground Floor Height
- 40' Overall Building Height
- 35' Average Tree Spacing

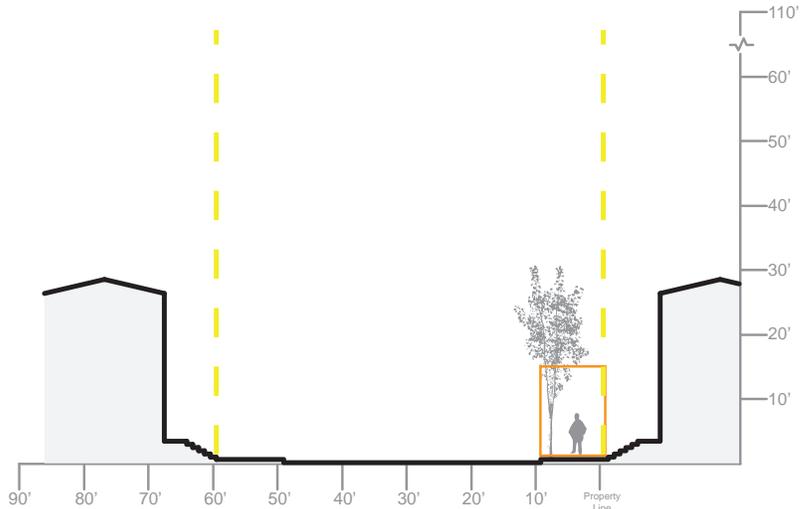
NUMBER OF ENTRIES [per 330ft]:  
 (8 yellow triangles with 'R')  
 (6 red triangles with 'C')

NUMBER OF TREES [per 330ft]:  
 (8 green circles)

NUMBER OF ROADSIDE ELEMENTS [per 330ft]:  
 (7 square icons)

OVERHANG ITEMS [per 330ft]:  
 (6 square icons)

<span style="color: red;">■</span> Commercial	<span style="color: green;">■</span> Vegetation	<span style="border: 1px solid black; display: inline-block; width: 10px; height: 10px;"></span> Building Division
<span style="background-color: yellow;">■</span> Residential	<span style="color: red; border: 1px solid black; padding: 2px;">C</span> Commercial Entry	<span style="border: 1px solid black; display: inline-block; width: 10px; height: 10px;"></span> Unit Division
<span style="background-color: gray;">■</span> Open Space	<span style="color: yellow; border: 1px solid black; padding: 2px;">R</span> Residential Entry	<span style="border: 1px solid black; display: inline-block; width: 10px; height: 10px;"></span> Vertical Articulation



## Portland, OR / NW 11th St



## RESIDENTIAL SIDEWALK STUDIES

The following pages present a summary of eight of the residential sidewalks that were measured and studied as a part of this project. They each began as a full collection of drawings (an example of which is shown in the Atlantic Avenue case study presented earlier in this chapter); however, they are presented here in summary form, at an identical scale, with the same metrics extracted. This format allows the reader to compare and contrast their characteristics. Each of the elevations (drawn onsite) is provided below and perspective sketches for some of the examples are provided in Chapter 3 of AD:SSE. While the 330' length of sidewalk measured draws from the methodology discussed in the previous section, some examples present the metrics based on a shorter sample of sidewalk, and so should be compared accordingly. A chart of all sidewalk site visits and their collected metrics exists at the end of this section.

Note the prominence of the front yard elements and landscaping as the setback distances increase, as well as the larger trees in wider planting strips, and the reduced number of overhang and roadside elements. The overall building dimensions tend to be smaller and only contain one-to-two unit divisions within their width. The clear paths generally do not go below 5', and are more consistent in width without the outdoor uses and commercial activities found in Downtown Commercial sidewalks or along Neighborhood Main Streets.

The reader is encouraged to use this section as a reference guide to cross check and compare dimensions when reviewing projects, to guide quantitative or qualitative decisions at the outset of design, or in clarifying what to ask for when striving for healthy and active sidewalks.



Clinton Ave, Fort Greene, New York



W11th St, West Village, New York



6th Ln North, Park Place, Birmingham



Clairmont St, Forest Park, Birmingham



Eastern PKWY, Germantown, Louisville



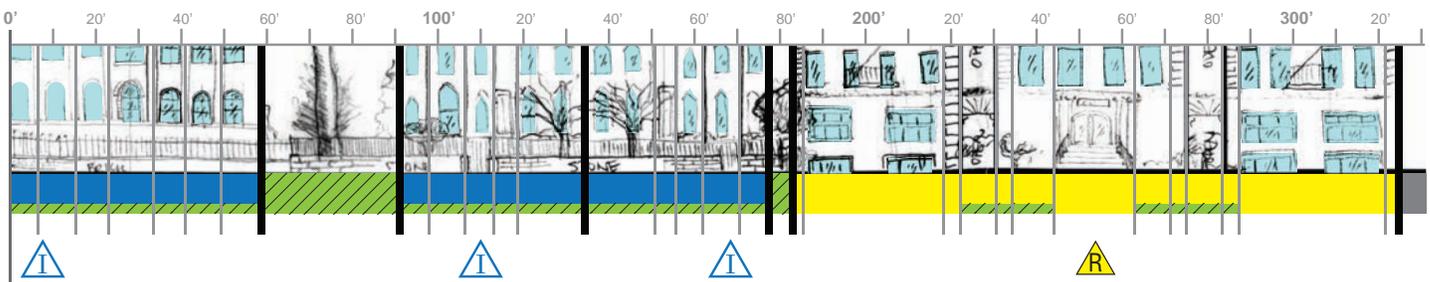
5th Ave N, Germantown, Nashville



SE Ladd Street, SE Division, Portland



1st Ave North, Queen Anne, Seattle



- 50'** Average Building Dim.
- 50'** Average Unit Dim.
- 26'** Average Setback
- 15'** Ground Floor Height
- 60'** Overall Building Height
- 27'** Average Tree Spacing

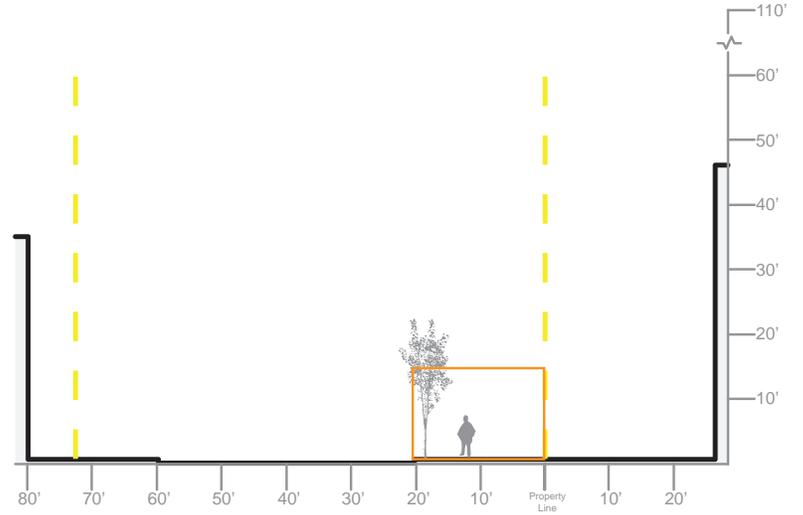
NUMBER OF ENTRIES [per 330ft]:

NUMBER OF TREES [per 330ft]:

NUMBER OF ROADSIDE ELEMENTS [per 330ft]:

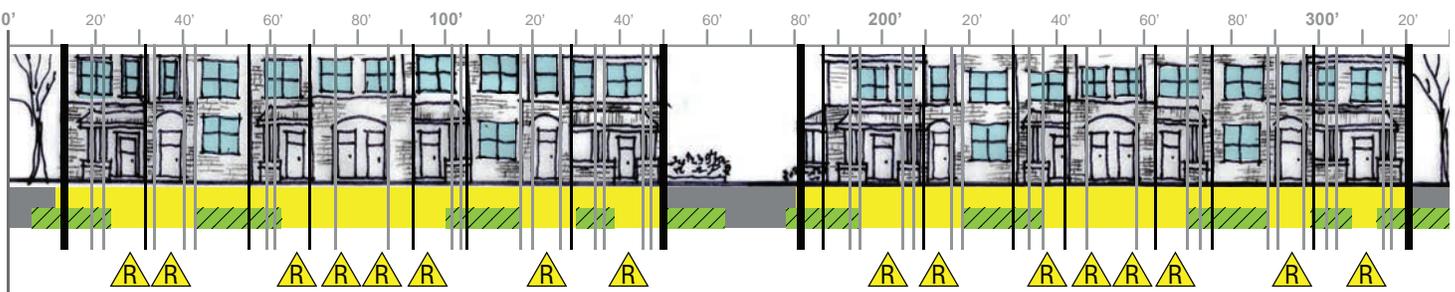
OVERHANG ITEMS [per 330ft]:

Institutional	Vegetation	Building Division
Residential	Institutional Entry	Unit Division
Open Space	Residential Entry	Vertical Articulation



## New York / Clinton Avenue





- 96'** Average Building Dim.
- 15'** Average Unit Dim.
- 5'** Setback
- 12'** Ground Floor Height
- 34'** Overall Building Height
- 44'** Average Tree Spacing

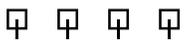
NUMBER OF ENTRIES [per 330ft]:



NUMBER OF TREES [per 330ft]:

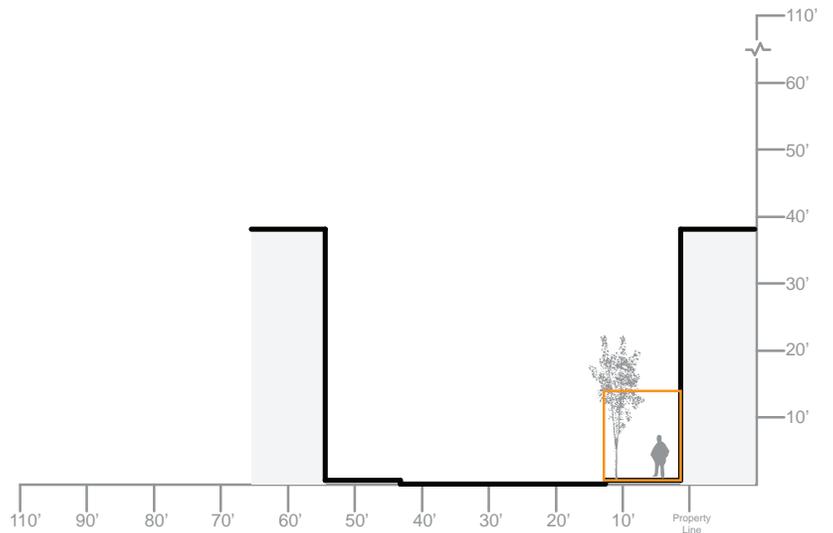


NUMBER OF ROADSIDE ELEMENTS [per 330ft]:

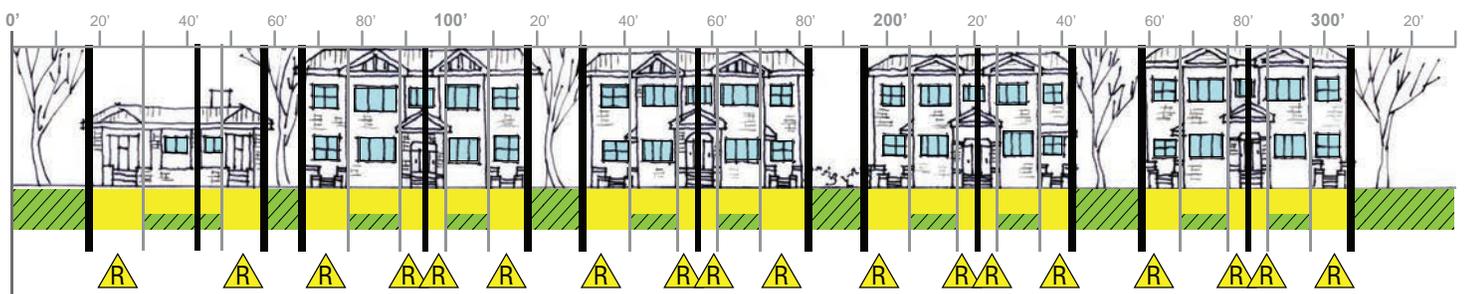


OVERHANG ITEMS [per 330ft]:

- |             |                   |                       |
|-------------|-------------------|-----------------------|
| Commercial  | Vegetation        | Building Division     |
| Residential | Commercial Entry  | Unit Division         |
| Open Space  | Residential Entry | Vertical Articulation |



## Birmingham, AL / Park Place



- 60' Average Building Dim.
- 30' Average Unit Dim.
- 14' Setback
- 12' Ground Floor Height
- 28' Overall Building Height
- 24' Average Tree Spacing

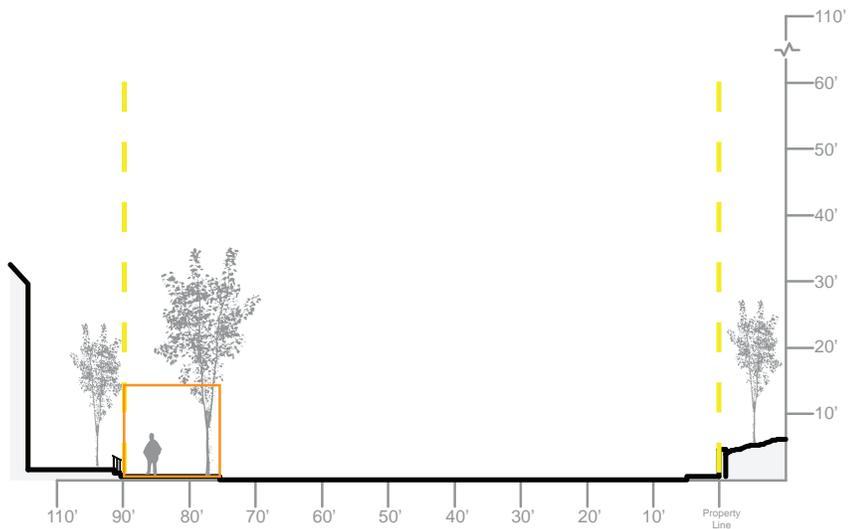
NUMBER OF ENTRIES [per 330ft]:

NUMBER OF TREES [per 330ft]:

NUMBER OF ROADSIDE ELEMENTS [per 330ft]:

OVERHANG ITEMS [per 330ft]:

Commercial	Vegetation	Building Division
Residential	Commercial Entry	Unit Division
Open Space	Residential Entry	Vertical Articulation



# Birmingham, AL / Clairmont St



- 34'** Average Building Dim.
- 34'** Average Unit Dim.
- 28'** Setback
- 10'** Ground Floor Height
- 20'** Overall Building Height
- 40'** Average Tree Spacing

NUMBER OF ENTRIES [per 330ft]:



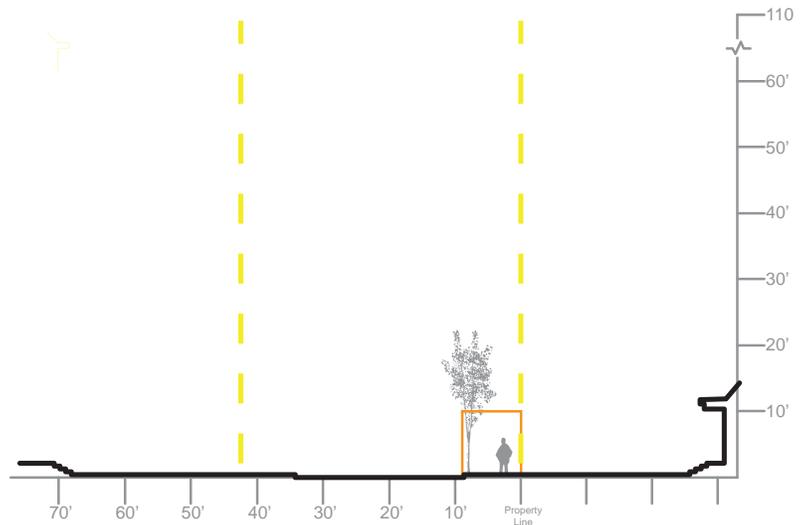
NUMBER OF TREES [per 330ft]:



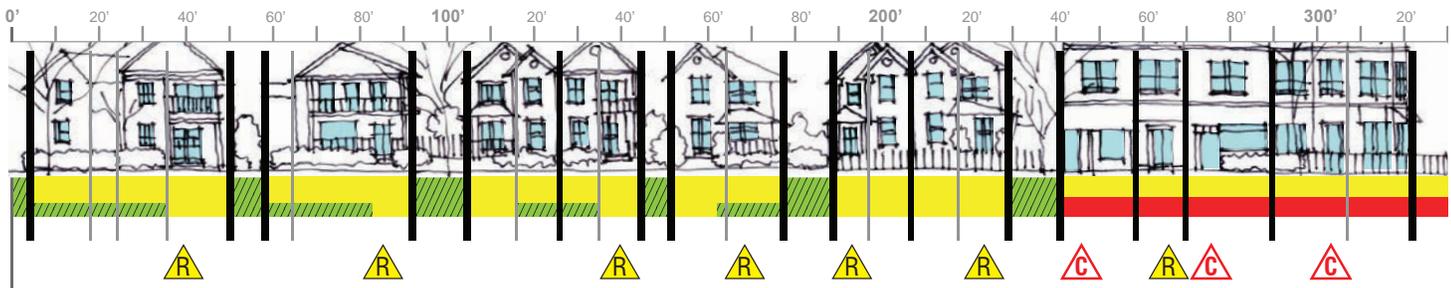
NUMBER OF ROADSIDE ELEMENTS [per 330ft]:

OVERHANG ITEMS [per 330ft]:

- |             |                   |                       |
|-------------|-------------------|-----------------------|
| Commercial  | Vegetation        | Building Division     |
| Residential | Commercial Entry  | Unit Division         |
| Open Space  | Residential Entry | Vertical Articulation |



## Louisville, KY / Germantown



- 55' Average Building Dim.
- 35' Average Unit Dim.
- 11' | 18' Setback [commercial / residential]
- 12' Ground Floor Height
- 30' Overall Building Height
- 36' Average Tree Spacing

NUMBER OF ENTRIES [per 330ft]:

△ △ △  
△ △ △ △ △ △ △

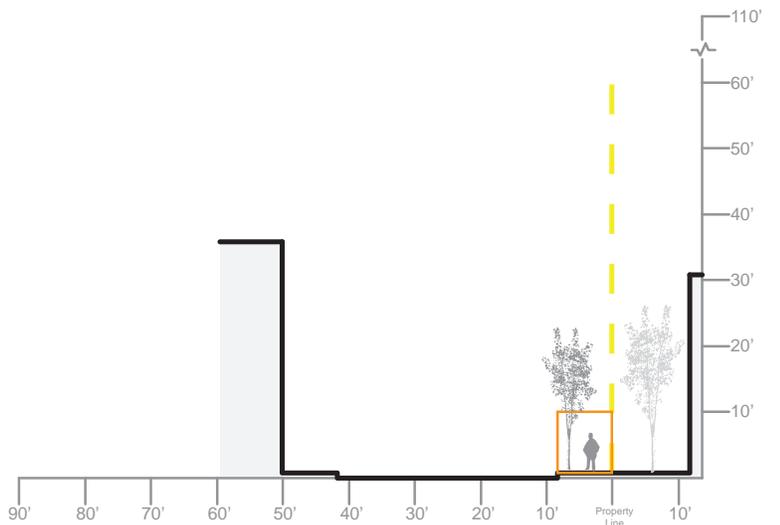
NUMBER OF TREES [per 330ft]:

● ● ● ● ● ● ● ●  
● ● ● ●

NUMBER OF ROADSIDE ELEMENTS [per 330ft]:

OVERHANG ITEMS [per 330ft]:

<span style="color: red;">■</span> Commercial	<span style="color: green;">■</span> Vegetation	<span style="border: 1px solid black;">■</span> Building Division
<span style="color: yellow;">■</span> Residential	<span style="color: red;">△</span> Commercial Entry	<span style="border: 1px solid black;">■</span> Unit Division
<span style="color: gray;">■</span> Open Space	<span style="color: yellow;">△</span> Residential Entry	<span style="border: 1px solid black;"> </span> Vertical Articulation



## Nashville, TN / Germantown



- 28' Average Building Dim.
- 28' Average Establishment Dim.
- 30' Setback
- 10' Ground Floor Height
- 25' Overall Building Height
- 30' Average Tree Spacing

NUMBER OF ENTRIES [per 330ft]:

▲▲▲▲▲▲▲

NUMBER OF TREES [per 330ft]:

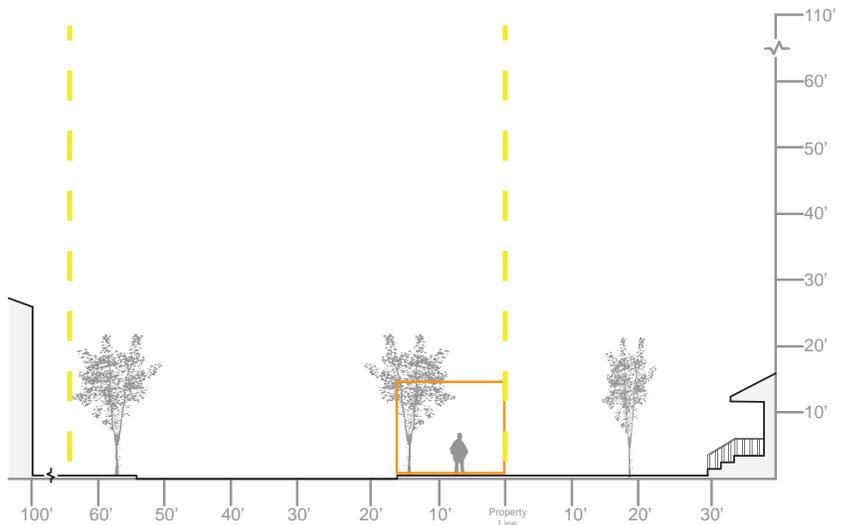
●●●●●●●●●●

NUMBER OF ROADSIDE ELEMENTS [per 330ft]:

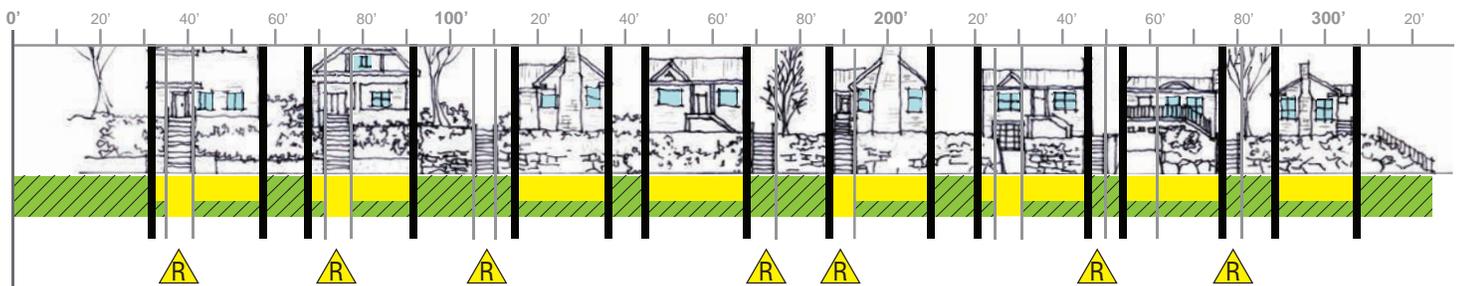
☐☐☐☐

OVERHANG ITEMS [per 330ft]:

<span style="color: red;">■</span> Commercial	<span style="color: green;">■</span> Vegetation	<span style="border-left: 2px solid black; height: 10px; display: inline-block;"></span> Building Division
<span style="background-color: yellow; border: 1px solid black; padding: 2px;">■</span> Residential	<span style="border: 1px solid red; padding: 2px;">▲</span> Commercial Entry	<span style="border-left: 1px solid black; height: 10px; display: inline-block;"></span> Unit Division
<span style="background-color: #cccccc; border: 1px solid black; padding: 2px;">■</span> Open Space	<span style="border: 1px solid yellow; padding: 2px;">▲</span> Residential Entry	<span style="border-left: 1px solid black; height: 10px; display: inline-block;"></span> Vertical Articulation



## Portland, OR / SE Ladd St.



- 30' Average Building Dim.
- 30' Average Unit Dim.
- 20' Setback
- 24' Ground Floor Height
- 30' Overall Building Height
- 30' Average Tree Spacing

NUMBER OF ENTRIES [per 330ft]:

▲ ▲ ▲ ▲ ▲ ▲ ▲ ▲

NUMBER OF TREES [per 330ft]:

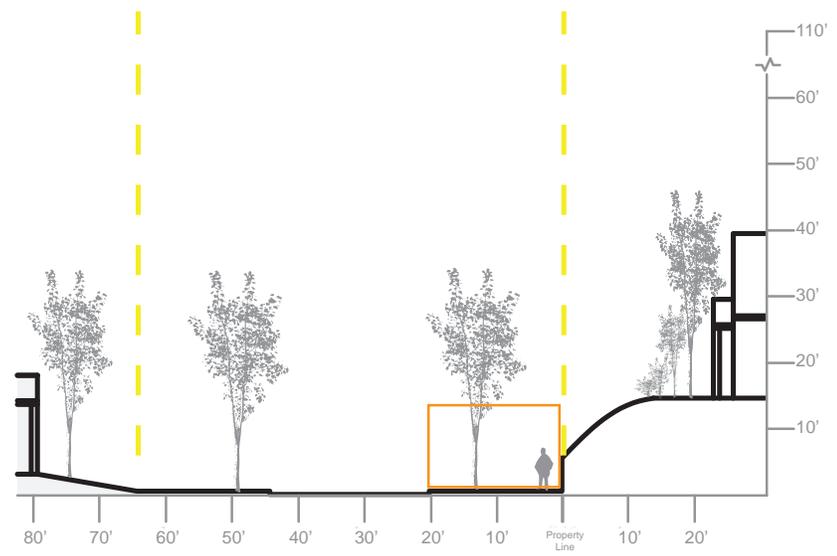
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NUMBER OF ROADSIDE ELEMENTS [per 330ft]:

☐ ☐ ☐ ☐

OVERHANG ITEMS [per 330ft]:

■ Commercial	■ Vegetation	■ Building Division
■ Residential	▲ Commercial Entry	■ Unit Division
■ Open Space	▲ Residential Entry	■ Vertical Articulation



Seattle, WA / 1st Ave North

# KEY METRICS SUMMARY

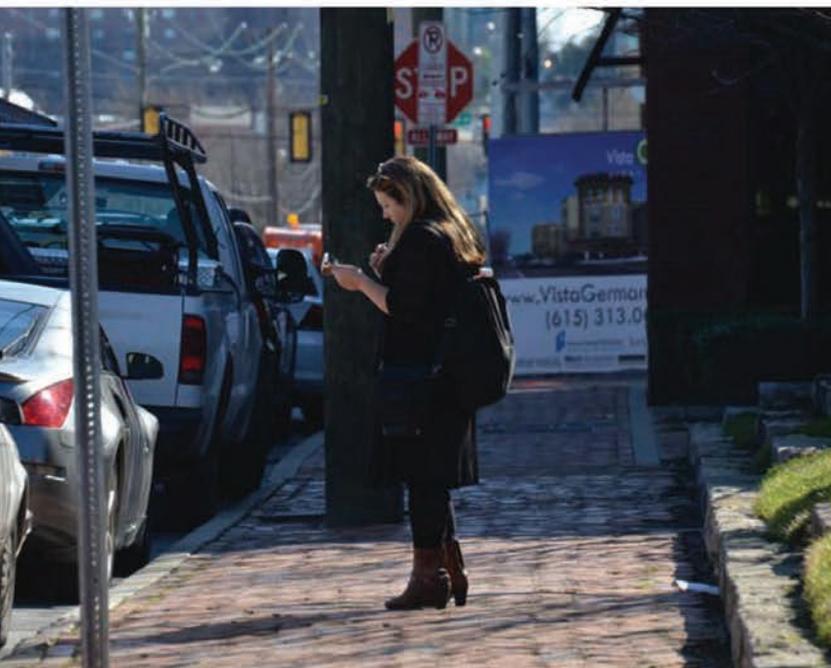
		NYC						
Elements	Metric	BALTIC ST - PARK SLOPE	3rd AVE - UPPER EAST SIDE	W 11th STREET	MC DOUGAL ST - SOHO	BOWLING GREEN	ATLANTIC AVENUE	
		b/w 4th and 5th Ave	b/w 68th and 69th street	and W4th St	b/w Bleeker St. and Minetta St.	Broadway and Beaver St.		
GROUND PLANE	ROW	linear feet	53'	95'-0"	60'-0"	52'-0"	70'-0"	98'-0"
	sidewalk width	linear feet	9'-4"	18'-0"	Varies, Avg 8' - 4"	12'-0"	16'-3"	19'-0"
	clear width	linear feet	5'-0"	13'-0"	Avg 4' - 0"	Avg 6"	10'-0"	12'-0"
	curbcuts	number/ 100m	11	0	0	0	0	0
	green strips / planters	width X length	Avg 4'-4" x 10'	5' X 5'	Varies; Avg 4' x 5'	Avg 3' x 5'	0	6 ea, 7' x 6'
	other elements/ notes		disrepair/need cleaning	Tree pit grates		grates; pavement disrepair due to roots	subway grates	
BUILDING WALL	land use	type	RESIDENTIAL	MIXED USE	RESIDENTIAL (SOME MIXED)	MIXED USE	COMMERCIAL (retail+offices)	MIXED USE
	setbacks	linear feet	23'-6"	0	Varies from 0' - 6'	AVG 2'-0"	1'-3" façade depth, 11'-0" recess	1' - 2' Recessed entries
	length of lots/frontages	linear feet	22' / 22'	193' / 80'	25' / 25'	30' / 30'	290' / Avg 20'	27' / 27'
	entries	number/ 100m	10	5	11 Residential; 3 Commercial	26	10	11 Residential / 11 Commercial
	transparency	average %	10	50	15	30	50	
	stoops / porches	number/ 100m	0	0	11	4	0	0
	front yard greenery	linear feet	24'-0" when existing	0	Varies	0	0	0
	on-site parking	width X length	11'-0" x 24'-0"	0	0	0	0	0
	outdoor uses	type	0	0	0	outdoor seating	0	0
other elements?		low fences by property line; trash cans inside property	various façade textures, façade depth at entries	stoops up and down; arch detail of porches, windows, handrails; some fences	displays	mosaic pannel, displays, flag pole		
CANOPY	base height/building height	linear feet	15' / 38'	20' / 250'	12' / Avg 50'	12' / 65'	around 15' / 420'	15' / 45'
	building signages	type/ projection	0	fixed to façade	0	6 overhang; other fixed/painted to façade/canopy; projection varies	2 ea fixed to façade, flag pole	signs projecting avg 3'
	awnings/canopies	projection	0	0	0	Awnings at retail / Avg 3'	0	awnings projecting avg 3'
	firescapes	projection	0	0	2' - 3'	2' - 3'	0	0
	balconies	projection	0	0	0	0	0	Y
ROADSIDE	on-street parking	Y/N	Y	Y	Y	Y (other side)	Y	Y
	street trees	Y/N and average	Avg 15'	Avg 12'	Y/29'	Y / 47'	N	Y / 55'
	street furniture and other elements	Y/N (type)	Y / street lamps	Y / street lamps, bike racks, meters, newspaper box, newstand, food truck	Y / street lamps and signage]	Y / street lamps and signage & bikes parked next to trees	Y / street lamps, newspaper box, telephone cabin, street vendors	Y / Fire hydrant, bike rack, lamp posts, trash bins, parking meters

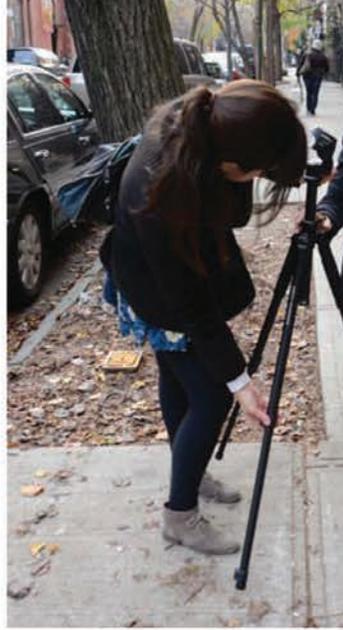
BIRMINGHAM, AL				
FORT GREENE	6th LN N / PARK PLACE	CLAIRMONT ST / FOREST PARK	5 POINTS / 20th Street	20th Street / Downtown
Clinton Avenue and DeKalb Ave	b/w 23rd & 24th Street North	b/w 8th Alley & 42nd St.	b/w Magnolia and 10th Ave	b/w 2nd & 3rd Ave
75'-0"	55'-0"	90'-0"	80'-0"	98'-2"
19'-11"	10'-2"	14'-11"	9'-8"	21'-6"
6'-0"	5'-0"	6'-0"	6'-6"	16'-0"
0	0	0	0	1 at alley b/w buildings
6'-7" wide Amenity Strip / 7'-4" Grass strip along prop. Line	5'-2" continous planting strip	8'-11" continuous	0	Varies from 5'-6" to 6'-10"
			uneven pavement due to tree roots	brick pattern
RESIDENTIAL (and college)	RESIDENTIAL	uneven paving due to roots	COMMERCIAL	COMMERCIAL
varies; 16'-6" to 28'	Varies 0' - 5'	14'-0"	0	0
Avg 50'	96' / 15'	60' / 30'	50' / 28'	140' / 20'
4	16	18	9	10
15	20	15	60	10
1	13	11	0	0
Varies and is equal to setback	Varies but equal to setback	equal to setback	0	0
0		0	0	
0		0	N/A	some café seating
low fences along college property; steps along setback; trees and bushes		steps at property line up to walkway to front door; planting along front of residents	varied entry vestibules	various façade materials
15'	12' / 34'	12' / 28'	12' / 24'	15' / 96'
Fixed to façade	0	N/A	fixed to façade or awnings	fixed to façade
0	0	0	Awnings / Avg 4'	Awnings / Avg 5'
Y	0	0	0	0
0	0	0	0	0
Y	Y	Y	Y	Y / loading zone bulb
Y / 27'	Y / 44'	Y / 24'	Y / 24'	Y / 24'
Y [street signage]	Y / street lamps	0	Y / street lamp, parking meters	Y / benches, street lamp, street sign, stop lights

			NASHVILLE, TN			LOUISVILLE, KY		
Elements	Metric	Lower Broadway	Germantown	Hillsboro	Fourth Street Live!	Bardstown Ave / Deerpark	Eastern PKWY / Germantown	
		b/w 4th & 3rd Ave South	b/w 5th Ave & Madison	b/w Acklen Ave & Wedgewood	b/w W Liberty St & W Muhammad Ali Blvd	b/w Bonnycastle Ave & Ducker Ave	b/w Lydia and Eastern PKWY	
GROUND PLANE	ROW	linear feet	86'-0"	50'-0"	80'-0"	70'-0"	60'-0"	42'-0"
	sidewalk width	linear feet	11'-0"	8'-9"	10'-4"	26'-6"	10'-0"	10'-0"
	clear width	linear feet	8'-0" Avg	5'-4"	3'-0" at narrowest	12'-6"	4'-4" at narrowest at curb cuts	5'-0"
	curbcuts	number/100m	0	0	0	sloping curb 2' wide continuous	0	0
	green strips / planters	width X length	20' raised planter at vacant lot along roadside	3'-5" continuous along roadside	avg 2' x 3' along roadside	0	5' - 8' Tree Pits	5'-0" continuous
	other elements/ notes		varying pavement materials	brick pavers	brick pavers	pavement material varies from concrete to brick		
	land use	type	COMMERCIAL	MIXED-USE	RETAIL	COMMERCIAL	MIXED USE	RESIDENTIAL
BUILDING WALL	setbacks	linear feet	0	11'-6" at Commercial / avg 15' at Residential	0	0	0	29'-6"
	length of lots/frontages	linear feet	30' / 30'	55' / 35'	20' / 20'	235' / 45'	40' / 40'	40' lots include 9'-10" driveway
	entries	number/100m	9	7 Residential / 3 Commercial	8	7	1 Residential / 8 Commercial	7
	transparency	average %	25	10	15	AVG 30	15	5
	sloops / porches	number/100m	0	6	0	0	0	7
	front yard greenery	linear feet	0	equal to setback	0	0	0	equal to setback
	on-site parking	width X length	0	0	0	0	0	50' Driveway
	outdoor uses	type	0	outdoor dining at café and restaurant	café seating & book store display	outdoor dining	0	0
	other elements?		varied entry recesses, some articulated at ground with decorative tile	commercial roof line held at residential roof line. Residential rhythm of single family and two family bldgs varying material only in brick or weatherboard. Color varies	varied entry setback, some articulated at ground with decorative tile patterns. Some entries are slope up to from property line to door	public plaza opens onto street. Street is open to slow traffic and is closed during events.	cornice heights vary; entries setbacks vary	large trees planted in front yard
CANOPY	base height/building height	linear feet	15' / 48'	12' / 30'	10' / 30'	15' / 40'	10' / 29'	10' / 20'
	building signages	type/ projection	wood, lite neon / varies 3' - 6'	fixed to façade	fixed to façade	avg 12' abv grd projecting 6'	avg overhang of 4'; some with lighting	0
	awnings/canopies	projection	Awnings / Avg 3'	0	Awnings / Avg 3'	Awnings / Avg 4'	Awnings / Avg 3'	0
	firescapes	projection	0	0	0	0	0	0
	balconies	projection	0	0	0	0	0	0
ROADSIDE	on-street parking	Y/N	Y / loading & valet bulb	Y	Y	N	Y	Y
	street trees	Y/N and average	0	36'	Y / 56'	Y / 100'	Y / 200'	Y / 40'
	street furniture and other elements	Y/N (type)	Y / street lamp, parking meters	0	Y / street lamp, parking meters, shop signs and shop provided bench and planters	Y / street lamps, luminated bollards, planters	Y / bike rack, street lamps, parking meter	N

SEATTLE, WA			PORTLAND		
5th Avenue	1st Ave	Queen Anne Ave	NW 23rd St	SE Ladd Street	NW Irving Alley
b/w Pine St and Pike St	b/w Garfield and Blane	at West Boston	at NW Hoyt Street		b/w NW 11th & NW Johnson St.
70'-0"	64'-0"	80'-0"	54'-0"	65'-0"	60'-0"
22' - 3"	20'	18'-6"	14'-6"	17'-6"	10' - 6"
17'-0"	5'-0"	5'	7'-0"	5'-6"	7'-6"
0	2	0	0	2	5 at driveway
10 ea / 5'6" x 5'6" tree pits	15' continuous with breaks at driveways	5' wide green stripes at varying lengths	7'-6" wide planting strip	12' continuous but broken at driveways	8ea 3' x 5' tree pits
concrete pavers			newstands, planters on wheels	uneven paving	Green alleyways connecting residential complexes
COMMERCIAL	RESIDENTIAL	COMMERCIAL	MIXED-USE	RESIDENTIAL with Café at corner	MIXED-USE [commercial below with residential above]
0	20'	0	0	Varies 28' - 30'	2'-6"
70' / 50'	30' / 30'	40' / 15'	55' / 20'	28' / 28'	55' / 20'
5	8 / includes stairs leading to residential entry	11	1 Residential / 7 Commercial	8 paths	8 Residential / 6 Commercial
30	5	25	15	5	20
N	0		0	3 at setback	0
N	Front yard and landscaping up to elevated residential		Some planters	28' - 30' frontyards	shrubs planted in setback
N	Y	N	N	Y	Y
0	0	outdoor seating at café	some café seating	0	0
articulated façade detailing	steps at property line up to residential front door			0	Raised residential, residential above office and retail
14' / 40'	24' / 30'	12' / 34'	10' / 40'	25' - 35' roofline	10' / 40'
On awnings and small signs on ground at entry	N	Avg 14' abv. Grd with 4' overhang	hanging signs projecting avg 4'-0"	10' / 25'	On side of Awning
Y / Avg 5'6"	N	Avg 12' abv. Grd with 3' overhang	Awnings / Avg 4'	N	Y / Avg 5'
N	N	N	Y	N	N
N	N	N	Y	N	Y
N	Y	Y	Y	Y	Y
Y / 30'	Y / 30'	Y / 30'	Y / 35'	Y / 30'	Y / 35'
Y / bike racks, bollards, street lights	0	Y / street lighting, planters	Y / planters with wheels, newstands, bike racks,	N	smart car parking, electric car charging station, street car pole

# APPENDICES







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## **APPENDICES**

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### Appendix A – Forms and Toolkits

<b>1. Transparency Guide</b>	<b>75</b>
<b>2. Neighborhood Context Form</b>	<b>76</b>
<b>3. Sidewalk Context Form</b>	<b>78</b>
<b>4. Onsite Measuring Toolkit</b>	<b>80</b>

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### Appendix B – A Collection of National Sidewalk-Related Policies



# APPENDIX A-1: TRANSPARENCY GUIDE



Atlantic Ave, NYC

approx

**39%**



Lower Broadway, NVL

approx

**32%**



Clairemont St, BMH

approx

**25%**



Queen Anne St, STL

approx

**36%**



Fourth St Live, LVL

approx

**33%**

---

# APPENDIX A-2: NEIGHBORHOOD CONTEXT FORM

---

Use the Neighborhood Context Form to help build a profile of the neighborhood scale for the sidewalk you are measuring.

Building on considerations of both connectivity and neighborhood context discussed earlier, consider how the chosen sidewalk works to connect destinations as part of a larger network of great public spaces, or serves as a place to visit in its own right. Learn as much as possible about the subject sidewalk site before making an onsite analysis. GIS data and mapping can be used when available; in their absence, online map searches can give a better sense of the area. How long is the stretch of sidewalk before it reaches an intersection? Are there any dead ends? How is the sidewalk helping to connect key destinations like schools, parks, shops, and transit? What are the different user profiles? What are the characteristics of the surrounding fabric?

Fabric 1: Is the sidewalk part of a tight grid pattern, with short blocks and a dense urban fabric? Is it on a main thoroughfare or a side street within this context? Consider where the sidewalk is located within the hierarchy of streets.

Fabric 2: Is the sidewalk part of a well-connected grid system with medium density buildings, but with longer distances between intersections and lower pedestrian counts? Is it on a main street or side street?

Fabric 3: Is the sidewalk located in a suburban or less urban context with lower 1- to 2-story detached buildings and fewer pedestrians? Is it on an arterial road that connects the residential streets, or within the residential-only area?

Note down other observations, and use the completed version of this form in the Methodologies to Measuring Sidewalks section of this book as a guide. Your analysis of the larger neighborhood context might help some users prioritize the allocation of available funds or identify a new sidewalk site.

# NEIGHBORHOOD CONTEXT FORM

Neighborhood connectivity and profile

Complete this form using maps, data and on-site observations

City: \_\_\_\_\_

Street: \_\_\_\_\_

Date: \_\_\_\_\_

CONTEXT AND PROFILE

## Fabric

Understand density and predominance of land use



Density estimate: low medium high

Residential  Mixed use   
Commercial  Industrial

Other relevant land use notes: \_\_\_\_\_

## User Profile

What kind of people do you see walking in this neighborhood?



Age groups: \_\_\_\_\_

Ethnicities: \_\_\_\_\_

Evident Occupations: \_\_\_\_\_

Average number of people/5 min: \_\_\_\_\_

Health survey (if known):

High percentage of any of the following diseases?

Obesity  Diabetes  Cardiovascular disorders

CONNECTIVITY

## Key Destinations

Check key destinations close to your site



Transit stop   
School   
Hospital   
Park   
Market/ Shops   
Other   
specify: \_\_\_\_\_

## Traffic Characteristics

Understand the type of street next to your sidewalk

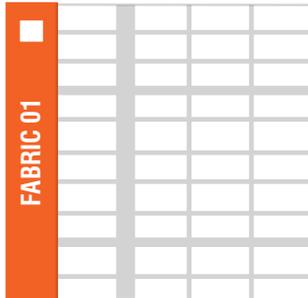


Type of street: \_\_\_\_\_  
Local street   
Neighborhood main St   
Downtown avenue   
Highway   
Bike Lane   
Bus Lane   
# parking lanes: \_\_\_\_\_  
# travel lanes: \_\_\_\_\_

## Describe the sidewalk context:

How is the sidewalk across the street? Similar building type/scale? Or different? In what way?

## WHICH BEST REPRESENTS YOUR SIDEWALK CONTEXT? (Tick and circle)



## DRAW YOUR "CONNECTIVITY PLAN" AND LOCATE KEY DESTINATIONS:

- school
- hospital
- church
- market
- park
- transit stop

2 minute walk

**Connectivity Plan**  
Aprox. Scale: 1"=200'

---

# APPENDIX A-3: SIDEWALK CONTEXT FORM

---

Use the Sidewalk Context Form to help understand the subject sidewalk typology and the key metrics of its immediate context. Use the top diagram as a base to draw over if your subject sidewalk has a strong street wall and no setback, or the bottom diagram if a setback exists. Use the form as a guide for an underlay of your drawings, regardless of whether the buildings are shorter than the dotted lines or spaced differently, draw over the diagram so your drawing is roughly to scale but not completely accurate. Use it to record the building heights, overall right-of-way distribution, setbacks, ground floor uses and heights, and the width of the sidewalk. Consider how the metrics of the surrounding street inform the subject sidewalk room. Is it located within a tall narrow context, or low and wide? This form can be completed before visiting the site if the information is available, or completed on site in conjunction with the Onsite Measuring toolkit.

# SIDEWALK CONTEXT

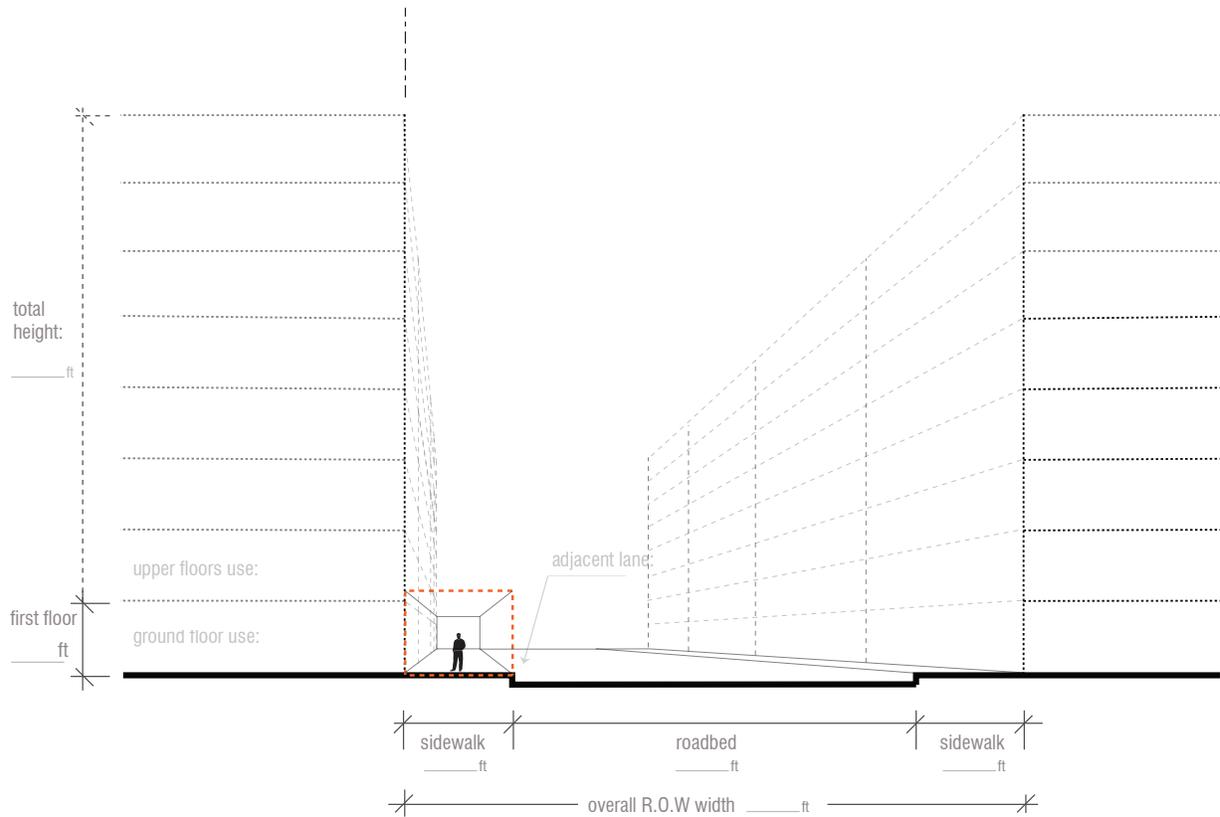
Draw your sidewalk adjacency: ROW dimensions, building setbacks, land use, heights.  
Complete this form using data and/or on-site observations

City:

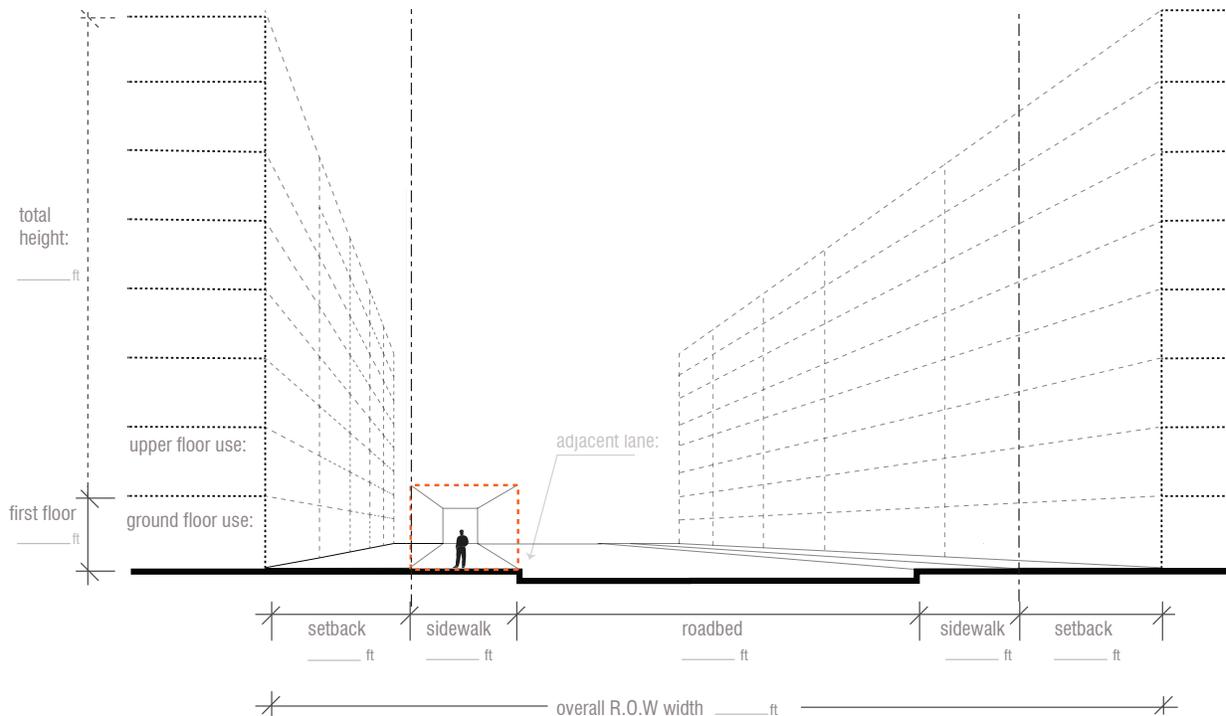
Street:

Date:

SIDEWALK WITH STREET WALL



SIDEWALK WITH SETBACK



---

## APPENDIX A-4:

# ONSITE MEASURING TOOLKIT

---

Use the Onsite Measuring Toolkit forms as a guide to complete your own sidewalk safari, whether on your own, with office colleagues, or a class of students. It can be an effective way to get to know a site in an area of a new project you are involved in, or to document and analyze the characteristics of a sidewalk experience you would like to emulate. Use these pages as a guide to conducting your site visits, and see the Methodology for Measuring Sidewalks section of this book for more details about the role of the different drawings.

The Sidewalks Survey: Task Checklist provides a summary of materials to take and tasks to complete on site. Use the Ground Plan, Building Elevation, Canopy Plane and Roadside Elevation pages to collect quantitative information about each of the four sidewalk planes, referencing the boxes on the left-hand-side to guide the identification of key elements to record.

The four Sidewalk Room Plane forms (Ground Plane, Roadside plane, Building Wall Plane and Canopy Plane) should provide a base for perspective hand sketches of each of the planes individually, standing from the same vantage point at one end of your sidewalk room. These do not need to be perfect drawings, but are more qualitative drawings that register the three-dimensional quality of the sidewalk room, helping to identify the most dominant physical elements as they appear spatially.

The two sections at different scales should be completed to record the quantitative dimensions of the sidewalk room at the smaller scale which can record the more detailed characteristics of the space, as well as the larger section to give the context of the surrounding buildings and right-of-way distribution.

If copying the forms from this document, all of the blank drawings pages should be enlarged to 11" x 17" in size for the correct scale.

# SIDEWALK SURVEY: TASK CHECKLIST

Recording your site visit

City:  
Date:

Street:  
Time:

Use this form to remind you of materials to bring to your site visit and to make sure you completed all tasks for your survey

PACKING YOUR ON-SITE KIT

**Make sure you don't forget...**

- Blank forms printed
- Clip board
- Measuring wheel
- Permanent marker/ pens/ pencil
- Camera/ Video Camera
- Tripod



ON-SITE TASKS

**Drawings**

This is a chance to note down your observations. Identify the most prominent key physical elements and take basic dimensions. More detailed sketches about specific conditions may also be incorporated into your survey.



**PLANS**

- Ground Plane  \*
- Roof Plane

**ELEVATIONS**

- Building Wall Plane  \*
- Roadside Plane

**SECTIONS**

- Sidewalk Room  \*
- Right Of Way  \*

**PERSPECTIVE PLANES**

- Ground
- Roadside
- Roof
- Building Wall

**Photos**

Pictures can help you revisit aspects of the sidewalk during post site visit analysis.



- SIDEWALK ROOM [center of sidewalk]  \*

**ELEVATIONS**

- Building Wall (a)  \*
- Roadside  \*
- Building Wall (b) [from across the street]

- DETAILS [specific materials/textures/elements]

**Videos**

By capturing motion, videos will allow you to understand different speeds and activities happening along the sidewalk; they also highlight the rhythm created by the repetition of a specific element.



- 10 MINUTE STILL [center of sidewalk]

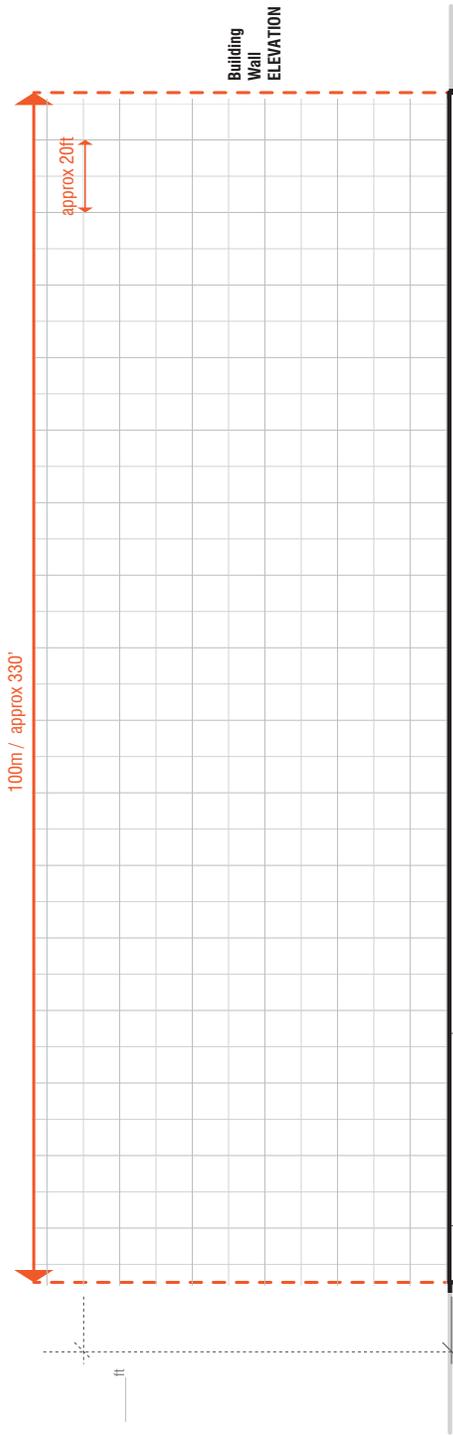
**WALK THROUGH**

- Looking forward
- Ground Plane
- Roadside Plane
- Roof Plane
- Building Wall Plane

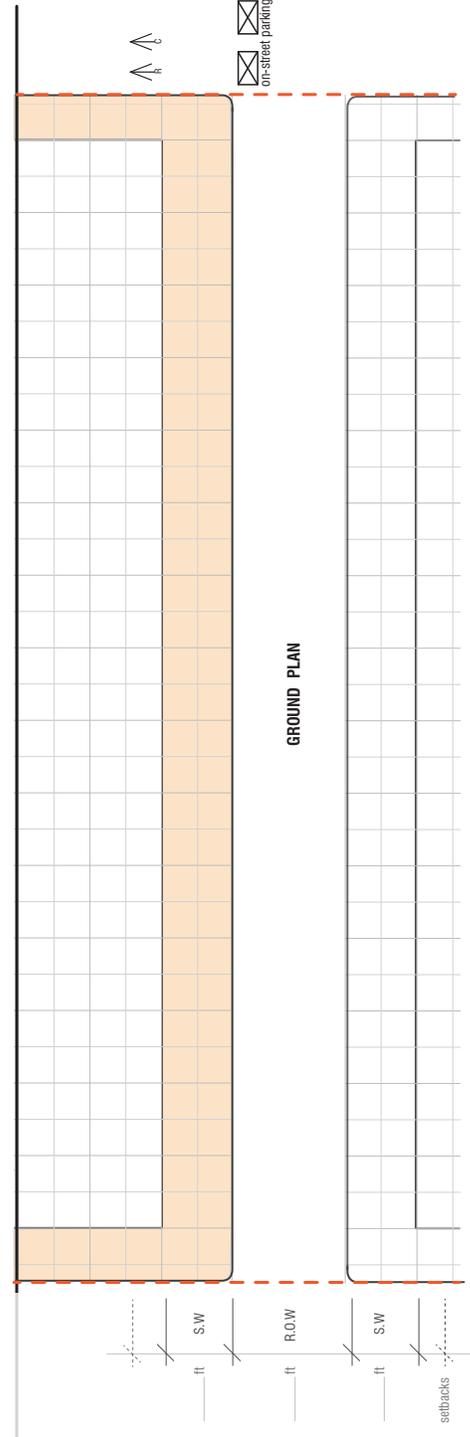
\* Denotes priority drawings if on-site time is limited. Other drawings should be completed later off site.

OTHER OBSERVATIONS

100m / approx 330'



Unit divisions  
establishments/apartments



GROUND PLAN

### Instructions

**GROUND PLAN:** Measure and draw the key dimensions and elements you observe in plan. Note building and establishment divisions, entries, tree pits, street furniture, minimum clear path dimensions, etc.

**BUILDING WALL ELEVATION:** This drawing records the vertical rhythm of buildings, focusing on the variations of textures and window patterns.

### Key Icons

- entries/displays
- green strips / front yard planting
- tree pits
- curb cuts
- parked vehicles
- bike racks
- transit stops
- benches / street furniture
- street vendors
- trash cans / telephone booth / newspaper and mail boxes
- tree elevation
- light pole
- signage pole

### Detail Sketch / Notes

**City:** \_\_\_\_\_ **Street:** \_\_\_\_\_  
**Date:** \_\_\_\_\_ **Time:** \_\_\_\_\_  
**Drawings:** SIDEWALK SURVEY  
 Ground Plan and Building elevation

**Instructions**

**ROOF PLAN:** Think about this like the layer above your ground plane, and what sits above the pedestrian's head. This might show tree canopies, overhangs, signs and awnings.

**ROADSIDE ELEVATION:** This illustrates what you experience from the center of the sidewalk looking towards the roadside plane. Note what you see in the foreground (trees, parked cars, signage) over what is on the other side of the street.

**Key Icons**

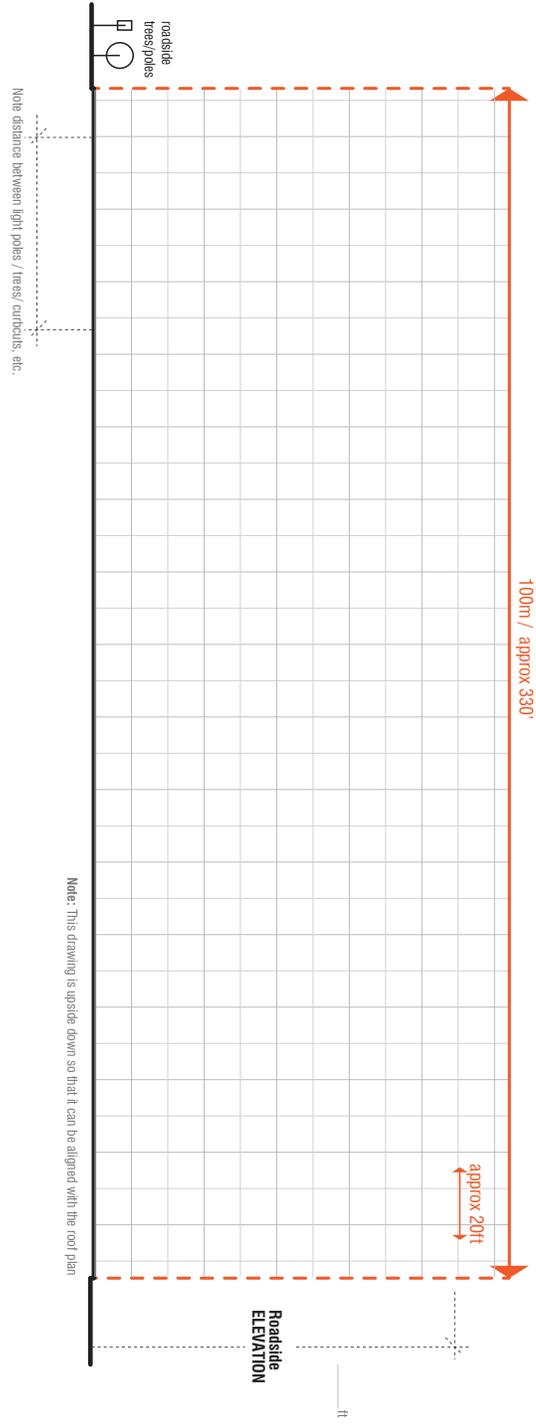
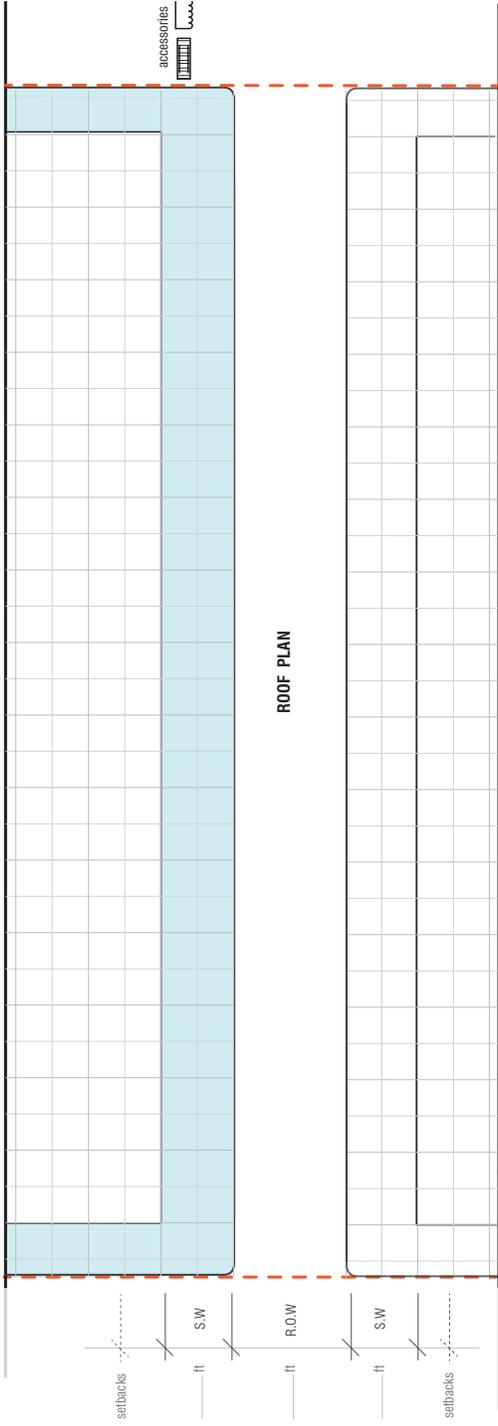
- entrances/displays
- tree's canopy
- tree elevation
- light pole
- signage pole
- transit stops
- street vendors
- canopy/awning
- cab/rin escape
- construction scaffolding
- balconies

**Detail Sketch / Notes**

City: \_\_\_\_\_ Street: \_\_\_\_\_

Date: \_\_\_\_\_ Time: \_\_\_\_\_

Drawings: SIDEWALK SURVEY  
Roof Plane and Roadside elevation



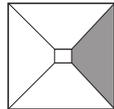
Note: This drawing is upside down so that it can be aligned with the roof plan

Note: distance between light poles / trees / curbs, etc.

**Instructions**  
 Draw the "Ground" plane as you see it from the center of the sidewalk. Consider what is most prominent in this plane and how the sidewalk is divided into zones. Is there an amenity zone with tree pits and street furniture? What is the clear path at its narrowest point? Do elements of the private realm contribute to this plane (Sidewalk cafe, display windows, entries, etc)

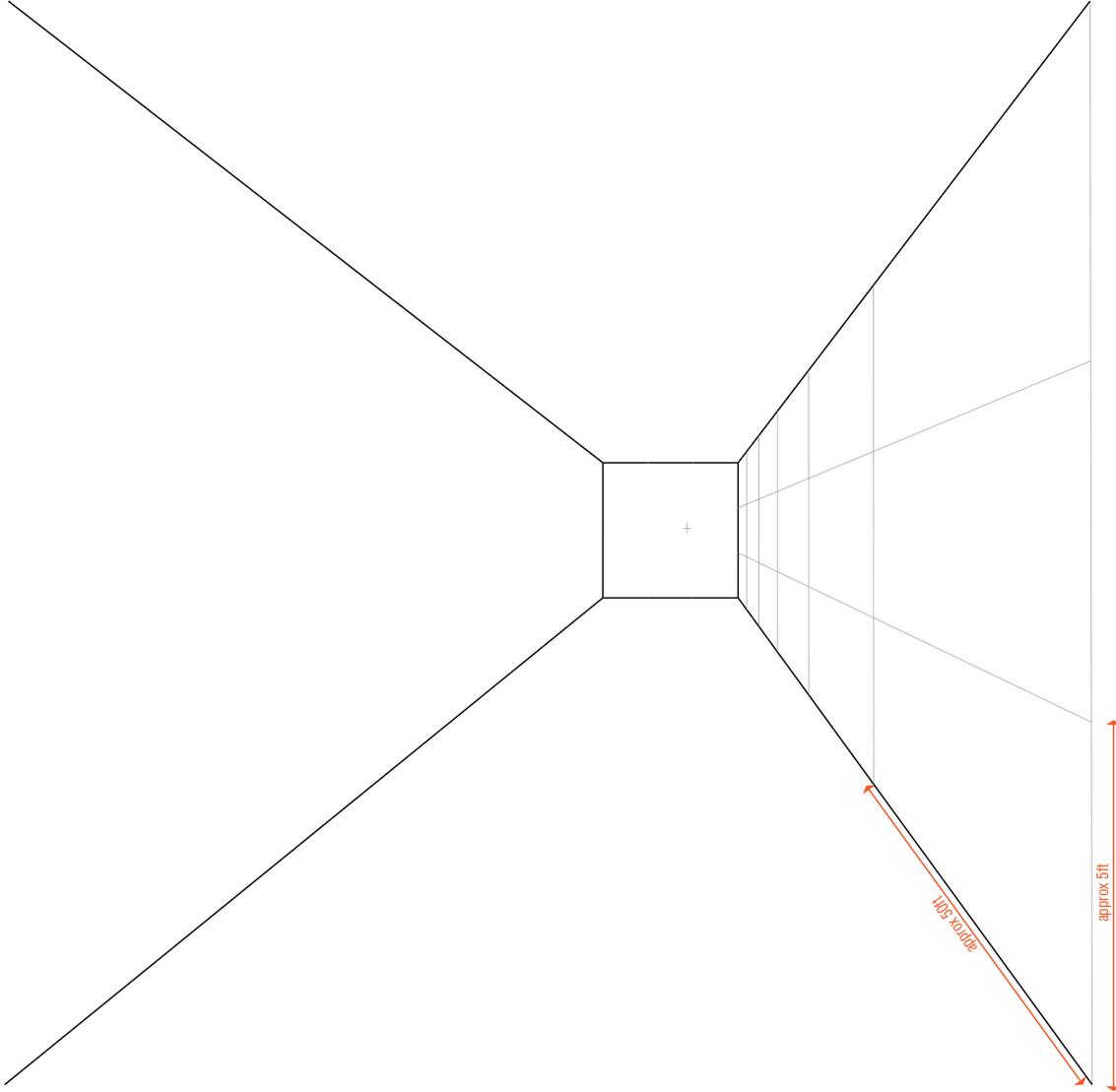
**Things to look for include:**

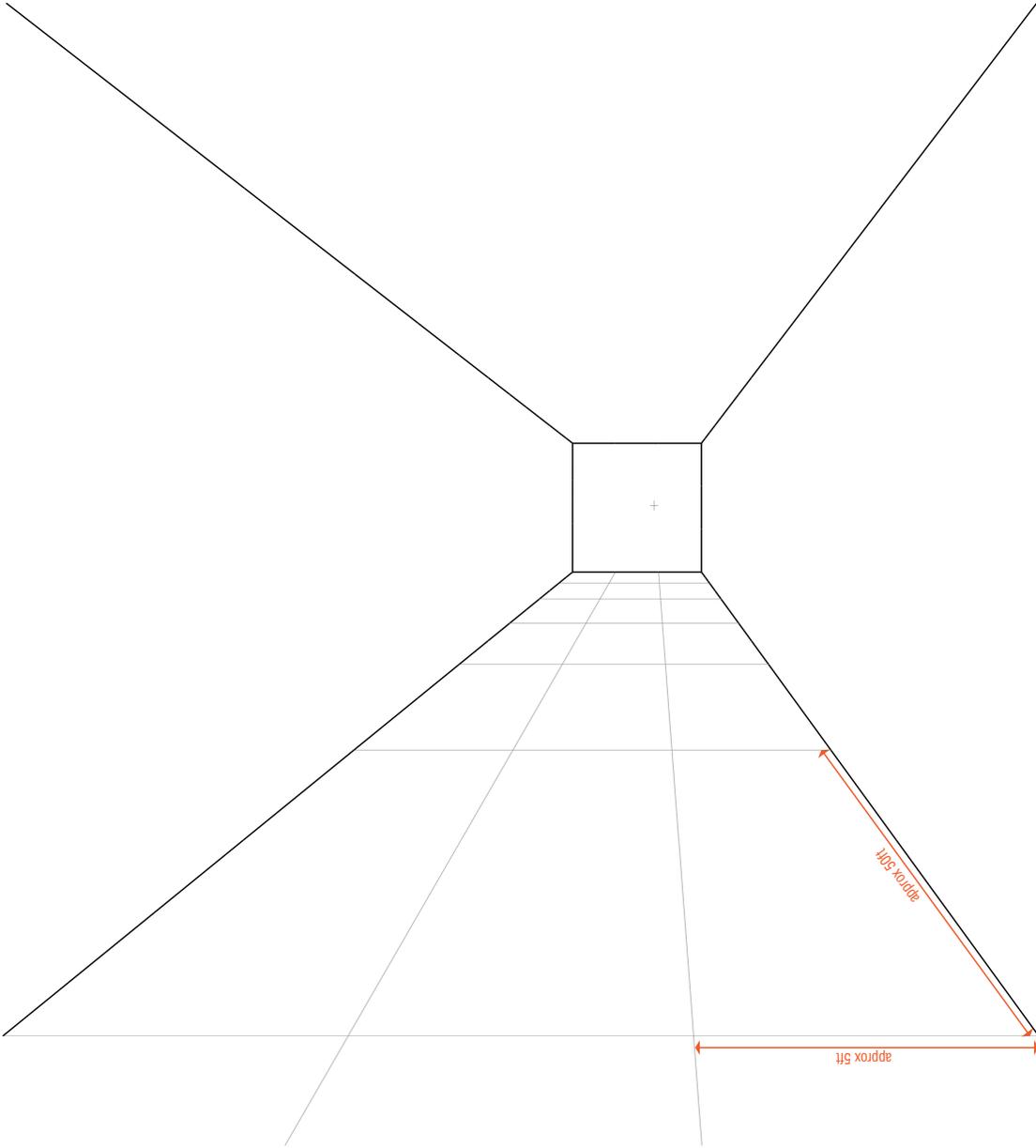
- curbs
- tree pits
- green strips
- benches
- bike racks
- different paving texture/colors
- meters
- manholes
- hydrants
- trash cans
- telephone booths
- newspaper boxes
- mail boxes



**Notes**

**City:**  
**Date:**  
**Street:**  
**Time:**  
**Drawings:** SIDEWALK SURVEY  
 Sidewalk Room - Ground plane



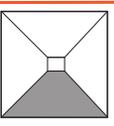


**ROAD SIDE**

**Instructions**  
 Draw the "Road side" plane as you see it from the center of the sidewalk. Consider what is most prominent in the plane and draw this first. (Street trees, parked cars, street furniture) Lightly draw what you see behind (traffic lanes, buildings, trees across the street)

**Things to look for include:**

- trees
- planters / tree pits
- parking spots
- bike lane
- adjacent traffic lane
- bike racks
- light poles
- signage poles
- signs (streets/traffic)
- street vendors
- trash cans
- telephone booths
- newspaper/ mail boxes
- bus stops



**Notes**

Blank space for handwritten notes.

**City:** \_\_\_\_\_

**Date:** \_\_\_\_\_

**Street:** \_\_\_\_\_

**Time:** \_\_\_\_\_

**Drawings:** SIDEWALK SURVEY  
 Sidewalk Room - Road side

**BUILDING WALL**

**Instructions**  
 Draw the "Building Wall" plane as you see it from the center of the sidewalk. Consider what is most prominent in the plane which will differ depending on whether there is a streetwall or if the buildings are set back.

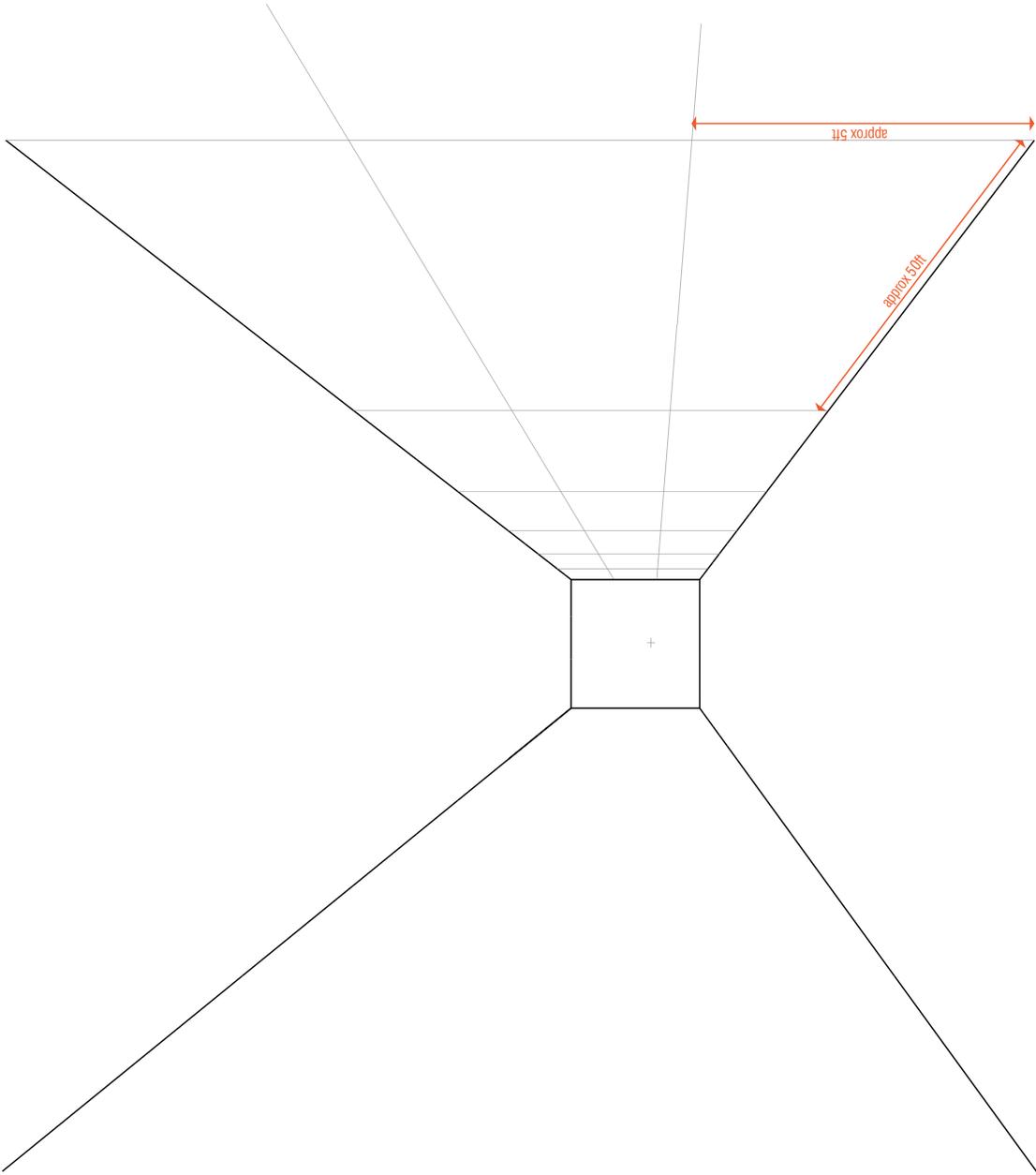
**Things to look for include:**

- number of entries (commercial/residential)
- transparency (%)
- windows (first and second floor)
- showcase/display windows
- different facade textures/colors
- front yard planting/trees
- front yard car parking
- furniture
- outdoor uses (sidewalk cafes)
- stair/stoops/fire escapes
- building and establishment divisions
- building signages
- awnings/canopies
- balconies

**Notes**

+

**City:** \_\_\_\_\_ **Street:** \_\_\_\_\_  
**Date:** \_\_\_\_\_ **Time:** \_\_\_\_\_  
**Drawings:** SIDEWALK SURVEY  
 Sidewalk Room - Building Wall

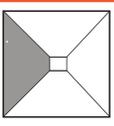


**ROOF PLANE**

**Instructions**  
 Draw the "Roof" plane as you see it from the center of the sidewalk. Consider how much sky you can see, how the height of buildings impacts the plane. Are there any building elements hanging out over the sidewalk, how do the tree canopies affect this plane.

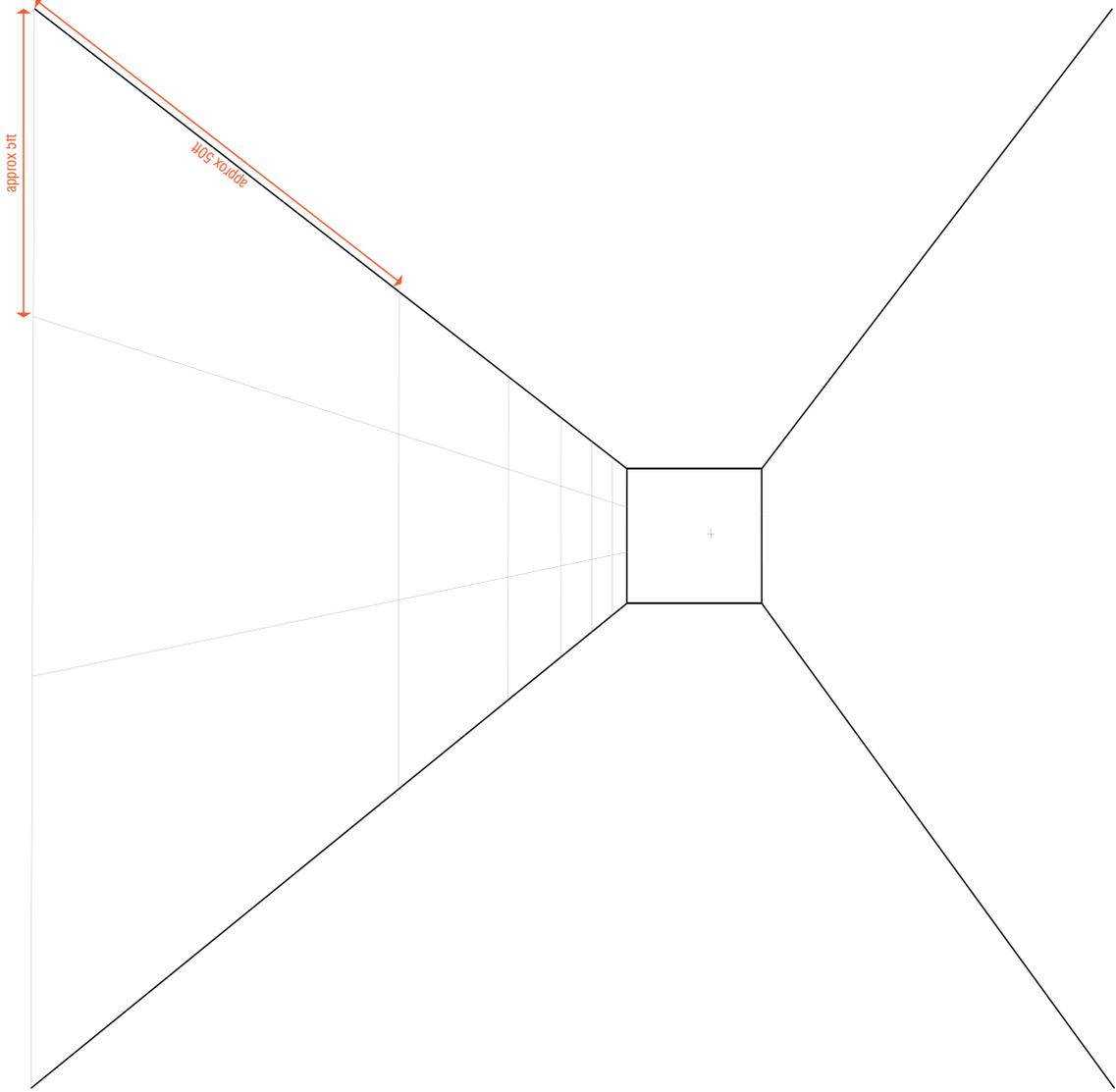
**Things to look for include:**

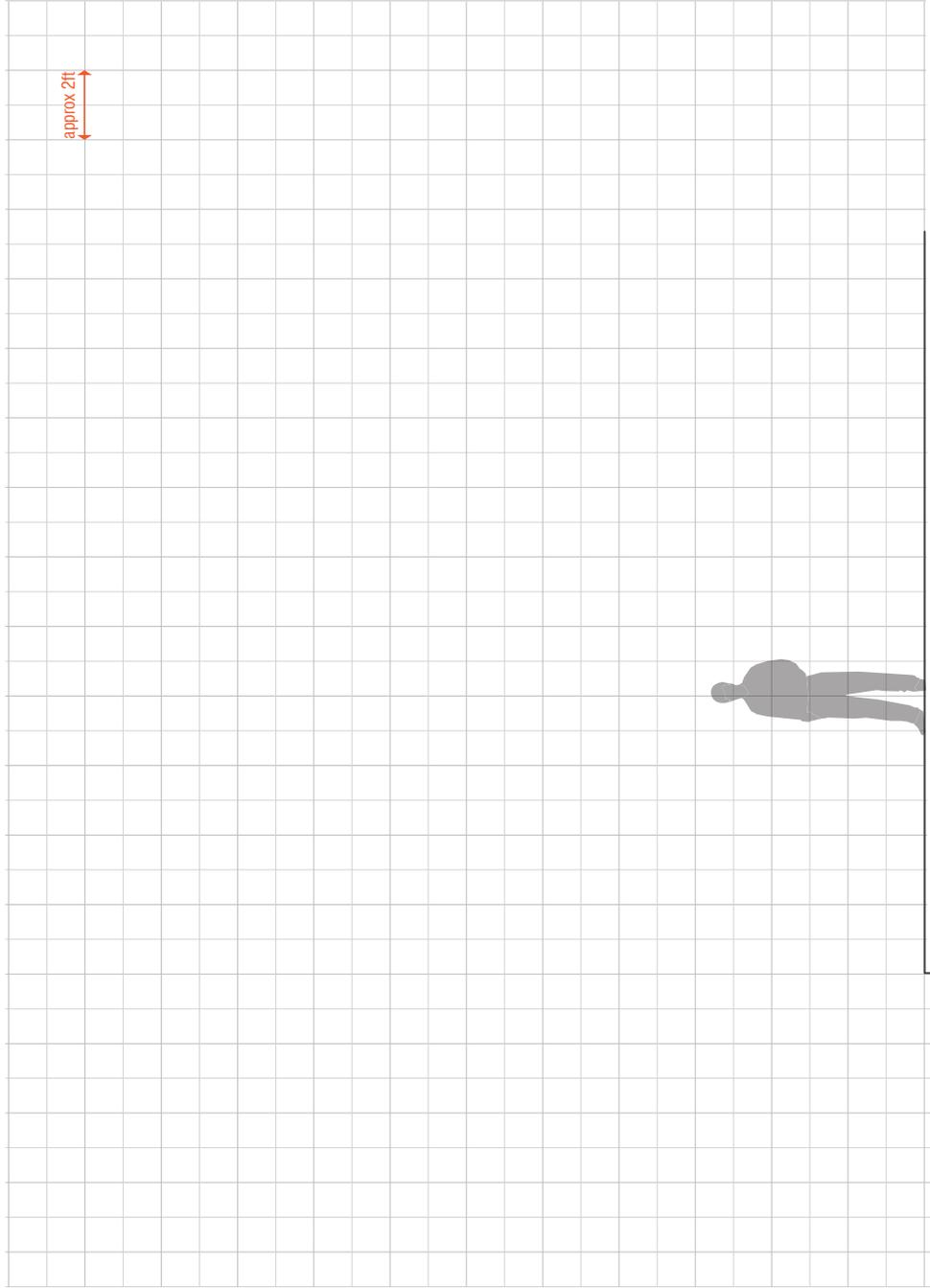
- signage
- awnings
- canopies
- balconies
- fire escapes
- tree canopies
- light poles
- signage poles
- signs (streets/traffic)
- landmarks visible



**Notes**

**City:** \_\_\_\_\_ **Street:** \_\_\_\_\_  
**Date:** \_\_\_\_\_ **Time:** \_\_\_\_\_  
**Drawings:** SIDEWALK SURVEY  
 Sidewalk Room - Roof plane





**Instructions**  
 Draw the section of the sidewalk room noting key elements. This drawing should take into account what is happening in the roadbed right next to the sidewalk room, as well as what is happening immediately inside the building/ private front yards.

**Things to look for include:**

**CHECK ELEMENTS**

Sidewalk Width \_\_\_\_\_ ft

Minimum clear path width \_\_\_\_\_ ft

Average setbacks \_\_\_\_\_ ft

Building height \_\_\_\_\_ ft

Trees \_\_\_\_\_ ft

Tree pits/Planters \_\_\_\_\_ ft

Awnings/canopies projection \_\_\_\_\_ ft, height \_\_\_\_\_ ft

Fire Escapes projection \_\_\_\_\_ ft, height \_\_\_\_\_ ft

Sloops depth \_\_\_\_\_ ft, height \_\_\_\_\_ ft

Trash cans

Telephone booths

Mail boxes

Transit shelters

Off-street parking

Street vendors

Building signage

Signage/traffic poles/light poles

Property line

**Notes**

City: \_\_\_\_\_ Street: \_\_\_\_\_

Date: \_\_\_\_\_ Time: \_\_\_\_\_

Drawings: SIDEWALK SURVEY  
 Sidewalk room section

**CHECK ELEMENTS**

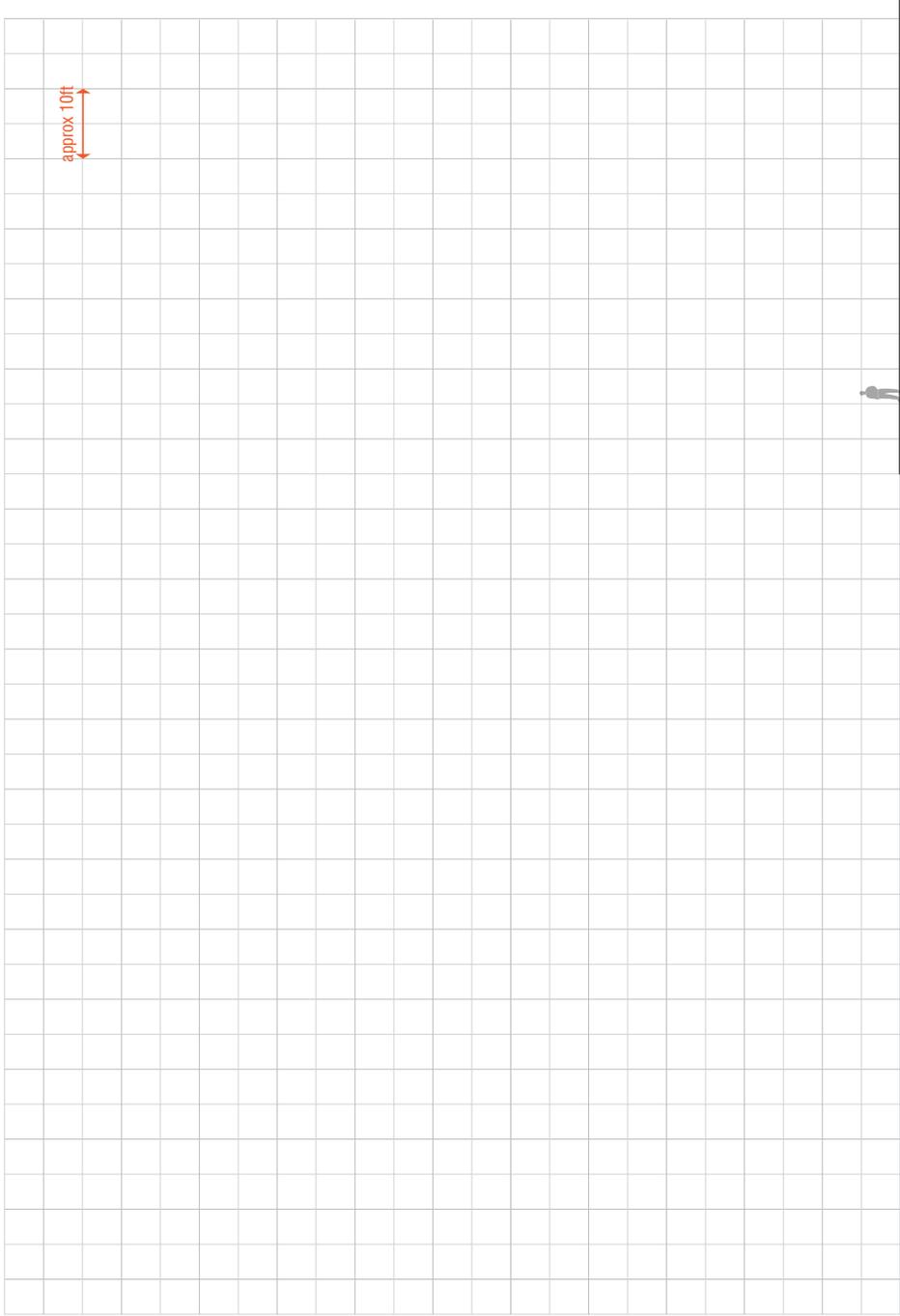
**Instructions**  
 Draw and measure key elements within the overall Right of Way (Width/Building heights) This will give a sense of context in which your sidewalk is sitting

**Things to look for include:**

Total width (ROW)	_____ ft.
Sidewalk width	_____ ft.
Land use	_____ ft.
Average setback	base _____ ft. total _____ ft.
Building height	_____ ft.
Height buildings across street	_____ ft.
Travel Lanes	_____ #
Trees	<input type="checkbox"/>
Light poles	<input type="checkbox"/>
Signage/traffic poles	<input type="checkbox"/>
Transit shelters	<input type="checkbox"/>
Off-street parking	<input type="checkbox"/>
On-street parking	<input type="checkbox"/>
Awnings/canopies/fire escapes	<input type="checkbox"/>

**Notes**

City: \_\_\_\_\_ Street: \_\_\_\_\_  
 Date: \_\_\_\_\_ Time: \_\_\_\_\_  
 Drawings: SIDEWALK SURVEY  
 Sidewalk ROW section



# SIDEWALK SURVEY: SUMMARY

Recording key elements and grading the "sidewalk room"

Complete this form after you are done with the site visit

City: \_\_\_\_\_

Date: \_\_\_\_\_

Street: \_\_\_\_\_

Time: \_\_\_\_\_

KEY ELEMENTS METRICS

<b>Width/Clearance</b>	Total R.O.W width: _____ ft Roadbed width: _____ ft Sidewalk width: _____ ft Clear path: _____ ft
<b>Land Use</b>	Residential <input type="checkbox"/> Commercial <input type="checkbox"/> Mixed use <input type="checkbox"/>
<b>Ground floor setbacks</b>	Street wall <input type="checkbox"/> Setback <input type="checkbox"/> _____ ft Planting <input type="checkbox"/> Parking <input type="checkbox"/>
<b>Length lot/frontage</b>	Average length: _____ ft
<b>Entries</b>	Total number: _____ Average width: _____ ft Recess: _____ ft
<b>Transparency</b>	Average: _____ %

<b>Architectural detailing</b>	Main vertical and horizontal components: _____ _____
<b>Building signage</b>	Type: _____ Dimensions: _____ x _____ <small>min. height projection</small> <small>clearance from wall</small>
<b>Canopy/awning</b>	Type: _____ Dimensions: _____ x _____ <small>min. height projection</small> <small>clearance from wall</small>
<b>Building height</b>	Base: _____ Total: _____
<b>Green strips/ Street trees</b>	Tree type/dimension: _____ Planter dimensions: _____ x _____
<b>Outdoor uses</b>	Type: _____
<b>Curb cuts</b>	Total number: _____ Average width: _____

GRADING [KEY ASPECTS]

**Grading the sidewalk experience:**  
Understanding assets and challenges

CONNECTIVITY				
ACCESSIBILITY				
SAFETY				
CONTINUOUS VARIETY				
HUMAN SCALE/ COMPLEXITY				
SUSTAINABILITY				

**Additional observations:**  
Which elements contributed to each of your gradings?

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GRADING [THE PLANES]

BUILDING WALL					
ROADSIDE PLANE					
CANOPY PLANE					
GROUND PLANE					
<b>OVERALL</b>					

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# APPENDIX B: REGULATING THE PHYSICAL ELEMENTS: A COLLECTION OF NATIONAL SIDEWALK-RELATED POLICIES

Active Design: Shaping the Sidewalk Experience (AD:SSE) uses the conceptual framework of the “sidewalk room” to grapple with the complexities of shaping sidewalk spaces. Addressing both quantitative and qualitative factors, the publication focuses on three parallel investigations that relate to this sidewalk room: The Experience (Chapter 2), The Physical Space (Chapter 3) and The Policies (Chapter 4).

A range of different city codes and policies regulate many of the elements that define the physical space of the sidewalk room. These documents focus primarily on those physical elements that are shaped by zoning codes and the various tools within them.

The following pages present a partial atlas of national zoning policies that can help to inform sidewalk design. They have been collected from over twenty cities, and have been categorized by the topics used in Chapter 4: The Policies of AD:SSE

Sharing policy examples and lessons learned between cities can be highly valuable. This work has been compiled with the intent that each example be used as a starting point for generating further ideas, and is helpful in identifying opportunities or setting priorities. Many regulations included in this section are complex, and should by no means be approached as “quick fix” solutions in isolation.

Zoning is a powerful yet limited tool. The successful development of any zoning policy is achieved through collaboration with other city agencies that govern the built and natural environments. Adopting a zoning policy does not ensure its success. While this section provides a sample of the technical policy language, it does not include a discussion of each policy’s context or an evaluation of its success.

In considering the various ways in which zoning ordinances can regulate or encourage the design of healthy and active sidewalks, it is critical to keep in mind that the appropriate approach may differ vastly depending on location. Regulations can either require or incentivize particular conditions or changes. Zoning can provide guidelines or remove impediments to current and emerging best practices. Regulating aspects of the built environment can be a powerful and meaningful approach, but over-regulating can have unintended consequences: these should be fully explored before choosing a strategy. Careful consideration should be given to determining the best approach for each area’s context, adapting it to suit local social, economic, and environmental conditions.

Readers should use this publication as a reference guide to generate ideas on how to encourage more active and healthy sidewalk designs in urban areas, and to learn how other cities have approached similar topics. Links to the source documents referenced here can be found in the Bibliography section.

## WIDTH OF SIDEWALK / CLEARANCE

Intent	City / Document	Type of policy	Text
Require minimum standards: level and accessibility	New York City, Zoning Resolution	mandate	Article 12 Section 125-41 "...All sidewalk widenings shall be improved to Department of Transportation standards for sidewalks, shall be at the same level as the adjoining public sidewalk, and shall be accessible to the public at all times..."
Require sidewalk widening for new developments	New York City, Zoning Resolution	mandate	Article 10 Section 101-42 - Mandatory Sidewalk Widenings: "Map 4 (Street Wall Continuity and Mandatory Sidewalk Widenings) in Appendix E of this Chapter specifies locations where the sidewalk widening regulations of this Section apply. Such regulations shall apply to all #developments# and to those horizontal #enlargements# where the #enlarged# portion of the #building# contains a #floor area ratio# of 3.0 or more."
Require sidewalk; determine minimum width; minimum clearance; widening and accommodating uses	New York City, Street Design Manual	mandate	2.2.1 Sidewalk: "Sidewalks should anyways be provided on both sides of the street roadway; Sidewalks (and planting strip, if applicable) should be as wide as possible appropriate to foot traffic and available street width; (...) beyond the ADA minimum, provide an unobstructed clear path of 8 feet or one-half of the sidewalk width (whichever is greater)."
			2.2.2b Curb extension with community facility: "In areas with inadequate sidewalk width to accommodate needed functional sidewalk elements for the community, the extra space provided by a curb extension can be used for bike parking, seating, public art, gardens, plantings, or trees, alone or in combination."
Require sidewalk; minimum width	Louisville, Land Development Code	mandate	5.8.1 Streets and Sidewalk Standards "B. Sidewalks - All developments shall provide sidewalks in the abutting right-of-way to serve the development site (same side of street). Sidewalks shall be provided along all road frontages in accordance with Section 6.2.6. The minimum sidewalk width shall be four (4) feet for local level roads, and five (5) feet for collector and arterial level roadways (...) 1. Sidewalks shall be designed in such a manner that a walkway at least 4 feet wide or other dimension as approved by the Director of Works is left unobstructed."
Require minimum width	Nashville, Zoning Code	mandate	17.16.030 Residential uses. (...) "h. Sidewalk. A sidewalk with a minimum width of four feet shall be provided along one side of all private drives within the MHP."
Require minimum width	Philadelphia, Pedestrian and Bicycle Plan	guide	SIDEWALK ZONES AND WIDTH STANDARDS: "(...)Because accommodating pedestrian flow is the primary function of sidewalks, an adequate Walking Zone is the most important design standard for the sidewalk. The average width of a pedestrian is 2 1/2 feet, without encumbrances such as bags and umbrellas. Two people need 5 feet of sidewalk width and, when encountering another person, will need about 8 feet to pass without dropping into single-file. When walking near walls, fixed obstructions or the curb, extra space called 'shy distance' is needed."
Require sidewalk;	San Diego, Street Design Manual,	mandate	Residential Local Streets " Construct sidewalks on both sides of street, including single-loaded streets."
Create "passing space" for sidewalks that do not comply with minimum width	San Diego, Street Design Manual	mandate; guide	Design Standards - Street Element Design "(...)Sidewalks less than 5 ft (1.5m) in continuous width shall provide passing space at reasonable intervals not to exceed 200ft (61 m). Passing space shall provide a 5ft by 10ft (1.5 m by 3.0 m) minimum clear space and may be provided at driveways, at building entrances, and at sidewalk intersections."

**GREEN STRIPS/ STREET TREES**

green strips

Intent	City / Document	Type of policy	Text
Specify type of vegetation	New York City, Street Design Manual	guide	2.2.1b Ribbon sidewalk: "Planting strips adjacent to ribbon sidewalks must be planted with groundcover vegetation for erosion control if a 'street swale' is not used; herbaceous plant material, preferably native or adapted species, should be used rather than grass wherever possible, as turf absorbs water from tree roots, has little benefit to habitat, and requires the use of pesticides, herbicides, fungicides, and lawnmowers that can potentially damage tree roots."
Specify type of vegetation and finishings	Chicago, Streetscape Guidelines	guide	Flush Planters: "Flush planters have no curb and are placed at the same elevation as the surrounding sidewalk. They can be installed with or without railings, with turf, or with more intense plantings including groundcover, annuals, perennials, and shrubs. When more intense plantings are used, a railing is recommended to protect the plantings. The best example of a flush planter is a typical residential turf parkway. Pedestrian traffic levels must be taken into account when designing flush planters, as they will be used for additional walking space if adequate space is not allocated. In this scenario, railings may be warranted."
Require planting strip; minimum widths; specify type of vegetation	Louisville, Land Development Code	mandate	5.8.3 Streetscape A. Suburban Form Districts (...) 3. Verge/ Planting Strips: A verge or planting strip shall be provided between the edge of roadway curb and the edge of the sidewalk. Ground cover or low growing vegetation (Less than 2 feet in height at maturity) shall be established within the verge. The width of the verge shall be determined by the Director of Works. Where adequate right-of-way is available, the following widths are recommended: a. Arterial – minimum 15 feet wide b. Collector – minimum 10 feet wide c. Local Road – minimum 6 feet wide; for cul-de-sacs, 3 feet wide "
Minimum dimensions; specify type of vegetation	Miami, SD 27 Overlay District – Guidelines for Urban Design	mandate	C -Tertiary Streets: "Sidewalks on Service Streets should have a minimum 8' walkable area and a 8' landscape verge. The landscape verge should have 8' x 8' planters, flush with the sidewalk, and planted with one shade tree and ground level planting round the base"
Minimum width	San Francisco, Better Streets Plan - Policies and guidelines for the pedestrian realm	mandate	"8' minimum green tree lawn, preferably wider on Green Streets (...and on 'Enhanced Bus Transit Corridors' and 'typical streets') 8' minimum tree lawn, either green or hardscape."

**GREEN STRIPS/ STREET TREES**

street trees

Intent	City / Document	Type of policy	Text
Require minimum street tree planting for specific length of street frontage	New York City, Zoning Resolution	mandate	Article 2, Section 26-41: Street Tree Planting "In accordance with applicability requirements of underlying district regulations, one #street# tree, pre-existing or newly planted, shall be provided for every 25 feet of #street# frontage of the #zoning lot#. Fractions equal to or greater than one-half resulting from this calculation shall be considered to be one tree. Such trees shall be planted at approximately equal intervals along the entire length of the curb of the #street# adjacent to the #zoning lot#."
Require street tree planting for developments and enlargements	New York City, Zoning Resolution	mandate	Article 3, Section 33-03: Street Tree Planting in Commercial Districts "In all districts, as indicated, the following shall provide #street# trees in accordance with Section 26-41 (Street Tree Planting): (a) #developments#, or #enlargements# that increase the #floor area# on a #zoning lot# by 20 percent or more. However, #street# trees shall not be required for #enlargements# of #single-# or #two-family residences#, except as provided in paragraphs (b) and (c) of this Section; (b) #enlargements# of #single-# or #two-family residences# by 20 percent or more within the following special purpose districts: "
Planting standards: dimensions and types of vegetation	Miami - SD 27 Overlay District – Guidelines for Urban Design	guide	A - Primary Streets: "Shade trees should be planted 30' on center, in a square open tree pit. The tree pit should be between 8.5' and 12' long with a 1' wide x 6" high curb and a continuous bed of shrubs.(...)Royal palms (Roystonea elata) should be planted in at least 7' x 5' landscape areas that are flush with the sidewalk. Palms must be setback 3.5' from the curb as per County mandates and be planted at least every two on-street parking spaces. Additionally, a bed of shrubs should be planted in the area between the palm and the back of curb."
Require street tree planting for developments and enlargements	Portland, OR - Portland Municipal Code - Title 20	mandate	20.40.070 Planting of Trees "(...) B. The owner of any property upon which there is new residential or commercial construction or improvements to existing development, which exceed \$25,000 in value, as determined by the Bureau of Development Services, shall be required to plant street trees, in accordance with the requirements of this Chapter."
Establish minimum spacing between trees and light poles	Portland, Design Guide for Public Street Improvements	mandate	"Street Light Clearance - Provide a minimum separation of 25 feet between trees and tree light poles. With some tree species, a decrease in the minimum tree/pole separation distance may be allowed. Obtain approvals from the City Forester and the Street Lighting Division before design."

**GREEN STRIPS/ STREET TREES**

stormwater management strategies

Intent	City / Document	Type of policy	Text
Allow the implementation of street swales and other stormwater management strategies along sidewalks; guide on dimensions and management approach	New York City, Street Design Manual	allow; guide	2.0 General Guidelines - Vegetation, BMPs & Drainage: "All modifications to street geometry should consider and avoid unintended changes in direction and deposition of stormwater runoff. Designs for planted areas, stormwater sources controls, and BMPs within the public right-of-way are still evolving and being tested. Because the treatments may ultimately revert to city agencies for ongoing maintenance, the appropriate agencies (e.g., NYC DOT, NYC DPR and/or NYC DEP) should be consulted early in the design process(...)."
			2.4.1c Stormwater - Capturing Tree Pit(s): "(...) Use connected stormwater-capturing tree pits as an alternative do individual stormwater-capturing tree pits wherever feasible."
			2.4.3 Street Swale: "The function of a street swale is both to detain stormwater - allowing it to infiltrate the soil - and to convey any overflow into the sewer system. As long as plant species are chosen that can tolerate periodic flooding and salt, street swales can also beautify the street. They typically require a maintenance entity to clean and occasionally unclog the swale and drains (...) Should be at least 10 feet from building foundations; Should be between 5- and 10-feet wide with a 2-foot flat bottom where possible(...)."
Require stormwater management strategies in the right of way for all public developments	Portland, Green Streets Policy	mandate	1. Infrastructure Projects in the Right of Way: "a. Incorporate green street facilities into all City of Portland funded development, redevelopment or enhancement projects as required by the City's September 2004 (or updated) Stormwater Management Manual. Maintain these facilities according to the May 2006 (or updated) Green Streets Maintenance Policy. If a green street facility (infiltrating or flow through) is not incorporated into the Infrastructure Project, or only partial management is achieved, then an off site project or off site management fee will be required."
Require stormwater management strategies for private developers	Portland, Stormwater Management manual	mandate	Chapter 1: Requirements and Policies - Sidewalks and Driveways: "Applicants are required to size stormwater facilities in the right-of-way to manage stormwater from all the impervious area within the right-of-way, including sidewalks and driveway aprons. Where it is not feasible for sidewalks to drain into a stormwater facility in the right-of-way, applicants are encouraged to use street trees as an impervious area reduction technique (see Section 2.3.3 for specifications)."
Allow and guide the implementation of stormwater management strategies	San Francisco Better Streets Plan -Policies and guidelines for the pedestrian realm	allow; guide	8.1 - Maximize opportunities in the streetscape for on-site stormwater retention and infiltration: "(...) Use plantings in the public right-of-way that emphasize water conservation."

**CAR CURBCUTS**

Intent	City / Document	Type of policy	Text
Prohibit curbcuts for zoning lots with less than minimum width	New York City, Zoning Resolution	mandate	Article 2, Section 25-631 "...For #zoning lots# with less than 40 feet of #street# frontage and existing on the effective date of establishing such districts on the #zoning maps#, curb cuts shall be prohibited..."
Limit width of curbcuts; specify location (narrow street)	New York City, Zoning Resolution	mandate	Article 3, Section 32-434 - Ground floor use in C4-5D and C6-3D Districts and in certain C2 Districts: "(...)loading berths serving any permitted #use# in the #building# may occupy up to 40 feet of such #street# frontage and, if such #building# fronts on both a #wide street# and a #narrow street#, such loading berth shall be located only on a #narrow street#."
Ensure surface treatment (paving and level)	Boston Complete Streets Guidelines	guide	Chapter 2 - Sidewalks: "Vehicular Access Across Sidewalks - (...) The pedestrian zone should be continuous and clearly delineated across driveway to encourage drivers to yield to pedestrians (e.g., if the sidewalk is composed of concrete, the concrete surface treatment should be continuous across the driveway). (...) Where space permits, aprons with fully raised sidewalks should be provided on 'downtown commercial', 'downtown mixed-use', and 'neighborhood main street' types."
Delineate walkway by contrasting materials	Louisville, Land Development Code	mandate	5.8.1 Streets and Sidewalk Standards "2. Where the sidewalk along a public street is interrupted by a curbcut, the walkway across the driveway shall be delineated, to enhance pedestrian safety. The walkway may be delineated by striping or by use of contrasting pavement materials that meet ADA standards."
Prohibit continuous curbcut	Miami - Dr. Martin Luther King, Jr. Boulevard - Streetscape Beautification Master Plan and Façade Standards	mandate	Facade Standards - Parking: "Continuous curb cuts shall not be permitted"
Limit minimum distance between curbcuts; specify maximum number of curbcuts per amount of lot frontage	Nashville - Zoning Code	mandate	17.20.160 Access from nonarterial streets." 3. A driveway other than for a single-family or twofamily dwelling shall be located at least thirty feet from another driveway.."
		mandate	17.20.170 Access from arterial streets. "A. Number of Driveways. Table 17.20.170 sets forth the maximum number of driveways based on the amount of lot frontage along an arterial classification of street. Driveways shall be a minimum of thirty feet apart."
Limit width and number of curbcuts; ensure surface treatment (paving)	Philadelphia - Design Guidelines for Off-Street Parking	guide	Parking Garages in C-4 and C-5: "Curb cuts should be limited in width and number to ensure continuity of the streetscape and are best located on service streets or southbound streets whenever possible. Where a driveway crosses a public sidewalk, the driveway must be a different color, texture, or paving material, in accordance with the standards of the Streets Department. A change in sidewalk paving between the building line and the curb line, equal to the width of the curb cut will warn pedestrians of the existence of a driveway."

LAND USE

Intent	City / Document	Type of policy	Text
Allow for commercial overlay on residential districts	New York City, Zoning Resolution	allow; remove impediment	Article 3, Section 31-11: "C1 Local Retail Districts - These districts are designed to provide for local shopping and include a wide range of retail stores and personal service establishments which cater to frequently recurring needs. Since these establishments are required in convenient locations near all residential areas, and since they are relatively unobjectionable to nearby residences, these districts are widely mapped. The district regulations are designed to promote convenient shopping and the stability of retail development by encouraging continuous retail frontage and by prohibiting local service and manufacturing establishments which tend to break such continuity."
Minimum percentage of frontage with specific land use	New York City, Zoning Resolution	mandate; incentivize	Article 13, Section 131-131: "b) Bowery and Wonder Wheel Way - At least 50 percent of Bowery and Wonder Wheel Way #street# frontage of any #zoning lot# shall be occupied by Use Group A1 #uses# at the ground floor level, and not more than 50 percent of the Bowery and Wonder Wheel Way #street# frontage of any #zoning lot# shall be occupied by Use Group C #uses# at the ground floor level."
Allow for mixed use (manufacture and residential) in specific districts	New York City, Zoning Resolution	allow; remove impediment	Article 12, Chapter 3 (Special Mixed Use Districts), Section 123-00 - GENERAL PURPOSES: "The 'Special Mixed Use District' regulations established in this Chapter of the Resolution are designed to promote and protect public health, safety and general welfare. These general goals include, among others, the following specific purposes: (a) to encourage investment in mixed residential and industrial neighborhoods by permitting expansion and new development of a wide variety of uses in a manner ensuring the health and safety of people using the area; (...) In #Special Mixed Use Districts#, an M1 District is paired with a #Residence District#, as indicated on the #zoning maps#."
Specify uses for ground level ("active accessory uses")	New York City, Zoning Resolution	mandate; incentivize	Article 13, Section 131-131: "(d) #Transient hotels# (...) (4) The #street wall# of the ground floor level of a #transient hotel# shall be occupied by active #accessory uses# including, but not limited to, lobbies, retail establishments, eating and drinking establishments and amusements."
Incentivize arts related uses in specific neighborhood	New York City, Zoning Resolution	incentivize	Article 9, Chapter 7 - Special 125th Street District, Section 97-12 "Arts and Entertainment Use Requirement - Within the Core Subdistrict, as shown on Map 1 in Appendix A of this Chapter, or for that portion of a #zoning lot# located within the Core Subdistrict, for #buildings# or portions of #buildings developed# or #enlarged# after April 30, 2008, that contain at least 60,000 square feet of #floor area# and are located on #zoning lots# with frontage on 125th Street, an amount of space equivalent to a minimum of five percent of the #floor area# of the #development# or #enlargement# shall be occupied by one or more of the #uses# designated in Section 97-11 (Special Arts and Entertainment Uses) (...) 97-422 Floor area bonus for visual or performing arts uses In C4-4D, C4-7 or C6-3 Districts within the #Special 125th Street District#, for a development# or #enlargement# with frontage on 125th Street, the maximum #floor area ratio# otherwise permitted for #residential# or #commercial uses# listed in Section 97-411 may be increased up to the maximum #floor area ratio# specified in the table in this Section, provided that for every four square feet of bonused #floor area#, an amount of space equivalent to one square foot of such bonused #floor area# shall be used for those visual or performing arts #uses# designated in paragraph (b) (...)"

**LAND USE**

Intent	City / Document	Type of policy	Text
Incentivize fresh food stores in specific neighborhoods	New York City, Zoning Resolution	incentivize	Article 6; Chapter 3 - Special Regulations Applying FRESH Food Stores Section 63-00 : "GENERAL PURPOSES The provisions of this Chapter establish special regulations that guide the development of FRESH food stores to promote and protect public health, safety and general welfare. These general goals include, among others, the following purposes: (a) encourage a healthy lifestyle by facilitating the development of FRESH food stores that sell a healthy selection of food products; (b) provide greater incentives for FRESH food stores to locate in neighborhoods underserved by such establishments; (c) encourage FRESH food stores to locate in locations that are easily accessible to nearby residents; (...)"
Defines percentage of floor area / use groups	Birmingham, Zoning Ordinance	mandate	Article IV - Sec 3 MXD - Mixed Use - C. Use Percentages "c. Sites over forty (40) net acres i. Allowed uses and proportions: Residential Use Group 1 - maximum 80% Residential Use Group 2 - maximum 25% Residential Use Group 3 - maximum 5% Commercial Use Group 1 - maximum 5% Commercial Use Group 2 - maximum 2%"
Allow for mix of uses - support pedestrian friendly streets	Denver, Pedestrian Master Plan	incentivize	"Policy 6.1 - Promote land use and site design that makes walking convenient and enjoyable (...) 6.1.2 - Use building and zoning codes to encourage a mix of uses." (Responsibility: PW- Public Works , CPD - Community Planning and Development, and PR - Parks and Recreation)
Define type of uses in specific floors	Miami, (...)Master Plan and Façade Standards	mandate	Facade Standards- Frontage: "For multi-story buildings, the first three(3) stories shall engage the street with their uses."
Require "active use" on ground floor	Nashville - Downtown Code	mandate	Section IV: General Standards - "Active Use • An active ground floor use requirement shall mean a habitable space occupied by retail, office, residential, institutional or recreational uses, specifically excluding parking and mechanical uses. • An active use is required on the ground floor of all Primary streets, Secondary streets, Open Space and pedestrian passages. An active use is encouraged on Tertiary streets, particularly if the Tertiary street is the only street frontage, but is not required."
Allow for mix of uses - support pedestrian friendly streets; allow for increased development on specific streets	Portland, OR - Zoning Code	allow; remove impediment	Chapter 33.130 - 4/24/10 Commercial Zones "(...) E. Mixed Commercial/Residential zone. The Mixed Commercial/Residential (CM) zone promotes development that combines commercial and housing uses on a single site. This zone allows increased development on busier streets without fostering a strip commercial appearance. (...)Development is intended to consist primarily of businesses on the ground floor with housing on upper stories. Development is intended to be pedestrian-oriented with buildings close to and oriented to the sidewalk, especially at corners."
Allow for mix of uses - support pedestrian friendly streets	Seattle, Pedestrian Master Plan	guide	" Strategy 5.1: Create an appropriate mix of uses and destinations within neighborhoods - a. Use land use and zoning tools to encourage and support pedestrian-friendly growth and development."

## GROUND FLOOR SETBACKS

	Intent	City / Document	Type of policy	Text
setback dimensions	Allow for recesses on ground level on specific conditions; set maximum dimensions of recesses	New York City, Zoning Resolution	allow	Article 11, Section 118-30: "#Street wall# recesses are permitted below the level of the second #story# ceiling for subway stair entrances required under Section 118-60 (OFF STREET RELOCATION OF A SUBWAY STAIR WITHIN THE SPECIAL UNION SQUARE DISTRICT). Such recesses shall be no longer than 15 feet and no deeper than 8 feet or the width or length of the relocated subway stair, whichever is greater. #Street wall# recesses are also permitted below the level of the second #story# ceiling for #building# or store entrances only."
	Define maximum setback (distance from street line)	New York City, Zoning Resolution	mandate	CONEY ISLAND "#Street wall# location: The #street wall# of a #development# or #enlargement# shall be located within five feet of the #street line# and extend along the entire frontage of the #zoning lot#, except that: (...)"
	Suggest setbacks in relation to context (downtown Xsuburbia)	Handersonville, Complete Streets' guide inside "Land Use and Transportation Plan	guide	"(...)buildings should be located close enough to the street that they are able to frame the public space enjoyed by pedestrians. In more urban areas, these buildings should be located directly behind the sidewalk (...) Suburban environments that must incorporate setbacks for adjacent buildings should limit this distance to 20 feet or less and avoid off-street parking between buildings and the pedestrian realm."
	Define maximum setback; minimum percentage of frontage respecting setback	Louisville, Land Development Code	mandate	5.1.8 Maximum Setback: "A. Maximum setback standards are established for various form districts in Chapter 5 Parts 2 and 3. Maximum setbacks shall apply to all street frontages. B. The maximum setback requirement shall be satisfied when 60% of the lot frontage adjacent to the street(s) is occupied by building(s) between the maximum setback line and minimum setback line (...)"
	Define importance of 'street wall'	Los Angeles, Model for Living Streets Design Manual	guide	Chapter 13. Designing Land Use Along Living Streets - Appropriate Building Forms: "(...)In most mixed-use districts and neighborhood centers, it is more important to provide a relatively steady 'street wall' to define a simple 'street as an outdoor room' than to provide varied setback and stepbacks to 'break up the mass' (...) in urban districts and centers the primary placemaking role of buildings is to calmly define the space of the place rather than to 'express themselves' as unique objects."
	Define minimum setback in relation to zoning and street classification; setbacks consistent between similar building types	Nashville, Zoning Code	mandate	17.12.030 Street setbacks.(...) "C. Street Setbacks. 1. The minimum setback of a structure from an adjacent street shall be established by the following tables according to the zoning of the property and the classification of the street."
			mandate	17.12.035 Street setbacks within the urban zoning overlay district. (...) "a. Use of buildings and site features as context: i. Consistency with like building type. Lots with buildings of the same building type as proposed are to be used as the contextual basis for street setbacks."
	Establish maximum setback	Nashville, Downtown Code	mandate	Section II: Subdistrict Standards - Gulch South: Building Regulations: "Allowed Frontage Types with Required Build-to Zone Primary Street • Storefront Frontage 0'-10' • Stoop Frontage 5'-10' "

**GROUND FLOOR SETBACKS**

	<b>Intent</b>	<b>City / Document</b>	<b>Type of policy</b>	<b>Text</b>
<b>setback dimensions</b>	Establishe maximum setback; minimum percentage of frontage respecting setback	Portland, OR - Zoning Code	mandate	Chapter 33.130 - 4/24/10 Commercial Zones "C. Maximum building setbacks. (...) b. Standard. The maximum building setback is 10 feet. At least 50 percent of the length of the ground level street-facing façade of buildings must be within 10 feet of the street lot line. If the site has three or more block frontages, this standard only applies to two frontages."
	Require minimum percentage of frontage with street wall (setback=0)	Seattle, Municipal Code	mandate	23.48.014 General facade requirements."C. All facades on Class 1 Pedestrian Streets, as shown on Map B, shall be built to the street property line along a minimum of seventy (70) percent of the facade length."
<b>setback uses: front yard greenery</b>	Require minimum width in addition to front yard as "buffer yard"	Portland, Indiana - Zoning Ordinance	mandate	4.6-1 Buffering Standards "Buffer Yard Type 1: Buffer yard type 1 shall be a minimum width of 10 feet in addition to the yard setback required by this Ordinance. In addition, 1 deciduous canopy tree must be planted in the buffer yard for every 30 feet of contiguous boundary between the subject and adjoining properties. Buffer Yard Type 2: Buffer yard type 2 shall be a minimum width of 20 feet in addition to the yard setback required by this Ordinance. In addition, 1 deciduous canopy tree and 2 evergreen trees shall be planted in the buffer yard for every 35 feet of contiguous boundary between the subject and adjoining properties."
	Require minimum tree diameter per sq.ft. of site	Portland, OR - Zoning Code	mandate	Chapter 33.248 Landscaping and Screening "H. T1, trees.(...) b. Tree planting. At least 2 inches of tree diameter per 1,000 square feet of site area must be planted. On lots that are 3,000 square feet or smaller, at least 3 inches of tree diameter must be planted per lot."
	Maximum paved /vehicular areas on front yard	Portland, OR - Zoning Code	mandate	Chapter 33.266 Title 33, Parking And Loading " 3. Front yard restrictions. a. No more than 40 percent of the land area between the front lot line and the front building line may be paved or used for vehicle areas. In addition, on corner lots, no more than 20 percent of the land area between the side street lot line and the side street building line may be paved or used for vehicle areas."

**GROUND FLOOR SETBACKS**

Intent	City / Document	Type of policy	Text
Allow for fewest number of parking spaces and curb cuts - more restrictive provisions should be considered;	New York City, Zoning Resolution	remove impediment	Article 13, Section 13-01 " In Manhattan Community Districts 1, 2, 3, 4, 5, 6, 7 and 8, and (...) #accessory# off-street parking spaces, #public parking lots# and #public parking garages# shall be #used#, #developed# or #enlarged# in accordance with the provisions of this Chapter, except as otherwise provided in Section 13-011 (Exceptions).(...) For the purpose herein, the more restrictive provisions shall be considered those which permit the:(a) fewest number of parking spaces;(b) most exclusive use of parking spaces; and (c) most limited location of curb cuts."
Require screening for parking areas	New York City, Zoning Resolution	mandate	Article 3, Section 37-920 - Parking Lots: "Perimeter landscaping - All open parking areas with 18 spaces or more or 6,000 square feet or more in area that front upon a #street# shall be screened at the #street line# by a perimeter landscaped area at least seven feet in width measured perpendicular to the #street line#. (...) (2) Sidewalk frontage - The remainder of the perimeter landscaped area shall be densely planted with shrubs at a distance of 24 inches on center and maintained at a maximum height of three feet above the surface of the adjoining public sidewalk. All required shrubs shall be selected from the list in Section 37-963. (...) 37-922 Interior landscaping - All open parking areas of 36 or more parking spaces or at least 12,000 square feet in area shall provide at least one tree for every eight parking spaces."
Not require off-street parking	Boston, Zoning Code	remove impediment	ARTICLE 47A – CAMBRIDGE STREET NORTH DISTRICT: "SECTION 47A-13. Off-Street Parking Not Required. Within the Cambridge Street North District, off-street parking facilities are not required in any Proposed Project."
Avoid blank walls; wall/buffer treatment for parking; suggest location for parking	Los Angeles, Model for Living Streets Design Manual	guide	Chapter 13. Designing Land Use Along Living Streets - Urban Centers: "(...)Above-grade structured parking should be lined with ground floor active uses that front the streets, not exposed or hidden with blank walls. (...) Where surface parking lots are unavoidable, they should be behind a building that fronts the sidewalk and public street, or at a minimum screened with attractive landscape or public art to provide a comfortable street edge for passing pedestrians." Chapter 13. Designing Land Use Along Living Streets - Appropriate Building Forms: "(...) Parking should be integrated into the site and building design; ideally parking would be (i) underground, or (ii) tucked behind the building fronting the sidewalk and accessible from an alley or side street, or (iii) sited internally to the project or block so buildings "wrap it" to the greatest degree possible."

setback uses:off-street parking

**GROUND FLOOR SETBACKS**

setback uses: off-street parking

Specify off-street parking location; require screening	Miami, Dr. Martin Luther King, Jr. Boulevard - Streetscape Beautification Master Plan and Façade Standards	mandate; guide	<p>Facade Standards - Parking: "Parking shall be placed out of view and allow for minimum visual impact to the area. This can be accomplished using the following criteria:</p> <ul style="list-style-type: none"> <li>• All new parking shall be located on the side or rear of the property;</li> <li>• Off-street parking shall be screened on both the side and rear with a non-transparent material, such as stucco finish wall, decorative or iron picket fence, with landscape hedge or wall covering the bottom 30 inches to a minimum height of 6'. No chain-link fences shall be allowed; (...)</li> <li>• Where parking areas abut side or rear streets, landscape shall be planted to eliminate any visibility into the parking area by pedestrians or drivers. Planting shall be 3' at the time of planting."</li> </ul>
Prohibit parking between building and front lot line	Miami, Dr. Martin Luther King, Jr. Boulevard - Streetscape Beautification Master Plan and Façade Standards	mandate	"Facade Standards- Frontage: "No parking shall be permitted between the building and the private property fronting a street."
Require retail uses at ground level of garages	Philadelphia - Design Guidelines for Off-Street Parking	mandate	Parking Garages in C-4 and C-5: "Retail uses must be provided at the ground level of garages in C-4 and C-5 commercial districts where they abut a sidewalk or a public space. Retail uses add to the vitality of the street. They should have direct access to the street, be well lit, and designed to reflect the traditional storefront rhythms and scale of the street."
Prohibit parking spaces within front setback	Portland, OR - Zoning Code	mandate	<p>Chapter 33.266 Title 33, Parking And Loading " C. Parking area locations.</p> <p>1. Required parking.</p> <p>a. Generally. Required parking spaces are not allowed within the first 10 feet from a front lot line or in a required front setback, whichever is greater."</p>

**BASE HEIGHT/ BUILDING HEIGHT**

Define wall height	New York City, Zoning Resolution	mandate	Article 3 (Commercial District), Section 33-43 - Maximum Height of Walls and Required Setbacks: "In all districts, as indicated, if the front wall or other portion of a #building or other structure# is located at the #street line# or within the #initial setback distance# set forth in this Section, the height of such front wall or other portion of a #building or other structure# shall not exceed the maximum height above #curb level# set forth in this Section. Above such specified maximum height and beyond the #initial setback distance#, the #building or other structure# shall not penetrate the #sky exposure plane# set forth in this Section."
Allow dormers as obstructions	New York City, Zoning Resolution	allow	Article 2 (Residential Districts), Section 23-651: "(3) Dormer - For the purposes of this Section, a dormer shall be a vertical extension of the #street wall# of a base allowed as a permitted obstruction within a required front setback area. A dormer may be located anywhere on a #wide street#, and on a #narrow street# within 70 feet of its intersection with a #wide street#. On any #street# frontage, the aggregate width of all dormers at the required initial setback level shall not exceed 60 percent of the width of the #street wall# of the highest #story# of the base. For each foot of height above the base, the aggregate width of all dormers at that height shall be decreased by one percent of the #street wall# width of the highest #story# of the base. Such dormer shall count as #floor area# but not as tower #lot coverage#."
Define maximum building height	Chicago - Zoning Ordinance	mandate	CH.17-3 BUSINESS AND COMMERCIAL DISTRICTS - 17-3-0408 Building Height. "17-3-0408-A Standards. Maximum building height limits in B and C districts vary by building type and lot frontage, as follows:(...)"
Define minimum building height	Nashville, Downtown Code	mandate	Section IV: General Standards "Measurement of Height (...) The minimum building height shall be 25 feet. This applies to all buildings except those designed for single-family use, two-family use, or multi-family use with residential on the ground floor."
Define maximum building height	Portland, OR - Zoning Code	mandate	Chapter 33.130 - 4/24/10 Commercial Zones "33.130.210 Height - A. Purpose. The height limits are intended to control the overall scale of buildings. The height limits in the CN1, CN2, and CO1 discourage buildings which visually dominate adjacent residential areas. The height limits in the CO2, CM, CS, and CG zones allow for a greater building height at a scale that generally reflects Portland's commercial areas."
Define minimum building height (based on type of street)	Seattle, Municipal Code	mandate	SMC 23.48.014 General facade requirements. "1. On Class 1 Pedestrian Streets, as shown on Map B, Pedestrian Street Classifications, located at the end of this Chapter, all facades shall have a minimum height of forty-five (45) feet.; 2. On Class 2 Pedestrian Streets, as shown on Map B, all facades shall have a minimum height of twenty-five (25) feet. 3. On all other streets, all facades shall have a minimum height of fifteen (15) feet."

**LENGTH OF LOTS/FRONTAGES**

Intent	City / Document	Type of policy	Text
Define maximum width of street wall; allow for wider 'street walls' if articulating design features	New York City, Zoning Resolution	mandate	Article 2, Section 23-463: "In the districts indicated, except R4B, R5B or R5D Districts, the #aggregate width of street walls# of a #building# containing #residences# or, for #abutting buildings# the combined #aggregate width of street walls# of all such #abutting buildings# on a #zoning lot#, shall not exceed the width set forth in the following table (...) However, the City Planning Commission may authorize, in R4 and R5 Districts, #aggregate width of street walls# in excess of 185 feet, provided the Commission finds that: (1) the #street wall# is adequately articulated by such design features as variable setbacks, stoops, bay windows or changes in the heights of the #buildings#; (...)"
Define maximum width of street wall	New York City, Zoning Resolution	mandate	Article 13, Section 131-131: " Use Group C #uses# shall be limited to 2,500 square feet of #floor area# and 30 feet of #street# frontage, except that on #corner lots# one #street# frontage may extend up to 100 feet."
Require minimum number of establishments per width of street frontage	New York City, Zoning Resolution	mandate	Article 13, Section 132-23: "For #zoning lots# with a #lot width# of 50 feet or more, as measured along the #street line# of the #designated commercial street#, a minimum of two non-#residential# establishments shall be required for every 50 feet of #street# frontage."
Prohibit "ininterrupted façade" larger than 100 feet	Louisville, Land Development Code	mandate	5.6.1 Non-Residential and Mixed Use Building Design Standards B. Building Façade Treatment for buildings within the Suburban Form Districts: "No uninterrupted length of any façade shall exceed 100 horizontal feet."
Establish maximum building width	Philadelphia, Code - Title 14. Zoning and Planning.	mandate	14-305. "C-4" Commercial and "C-5" Commercial Districts: "2. Maximum Building Width. The maximum width of any newly erected building or existing building to which an addition is added which increases the building's frontage along Spruce street after the effective date of this Section shall comply with the following building width requirements: (.a) North Side and South Side of Spruce Street. Buildings or portions of buildings with frontage on the south side of Spruce street which also have frontage on Front street, (...) shall be built so that the total frontage of the building along Spruce street (measured on a line parallel to Spruce street) does not exceed one hundred feet. All other buildings shall be built so that the total frontage of the building along Spruce street (measured on a line parallel to Spruce street) does not exceed sixty feet;"
Maximum width related to building height	Seattle, Municipal Code	mandate	SMC 23.49.164 Downtown Mixed Residential, maximum width, depth and separation requirements: "D. Façade Width Limits and Separation Requirements in South Downtown. On a lot in a DMR/C zone in South Downtown, the following standards apply: 1. For the portion of a structure 65 feet in height or less, the maximum width of a street-facing façade is 250 feet."

**ENTRIES**

Intent	City / Document	Type of policy	Text
Entry location (street type X location of use inside the building); maximum width of entrances in aggregate	New York City, Zoning Resolution	mandate	Article 11, Section 118-41: "Each permitted #use# that is located on the ground floor or within five feet of #curb level# in #developments# or #enlargements# with frontage on 14th Street shall be entered directly from 14th Street. Entrances to #uses# located above or below the ground floor in #developments# or #enlargements# fronting on 14th Street are permitted, provided that such entrances in aggregate shall not exceed 30 linear feet of #street wall# frontage on 14th Street."
Allow for entry recesses	New York City, Zoning Resolution	allow	Article 3 (Commercial District), Section 35-24 - Special Street Wall Location and Height and Setback Regulations in Certain Districts: "(ii) Recesses, not to exceed three feet in depth from the #street line#, shall be permitted on the ground floor where required to provide access to the #building#."
Allow for architectural details to project above the sidewalk	New York City, Building Code	allow	Chapter 32 - Encroachments into the public right-of-way "3202.2.1.1 Entrance details. Entrance details, including steps, and doors when fully open, may be constructed to project beyond the street line not more than 18 inches (457 mm). Entrance steps that project beyond the street line shall be guarded at each end by railings or check pieces at least 3 feet (914 mm) high or by other members of the entrance detail providing equivalent protection."
Distance between entrances	Boston Complete Streets Guidelines	guide	Chapter 2 - Sidewalks: "Vibrant Street Wall - (...) The desired distance between ground-level pedestrian entrances in new development projects along these street types is 75'-0" or one entrance every 10-15 seconds as a person walks along a street."
Orient entrances to sidewalks; minimize blank walls; encourage filling in gaps	Denver, Pedestrian Master Plan	guide	6.1.3 - Connect entrances and exits to sidewalks, and minimize 'blank walls' to promote street level activity (...) 6.2. Encourage filling in gaps along corridors and in neighborhood centers to support a lively pedestrian environment; 6.2.1 - Orient retail, services and entrances to the street to encourage pedestrian activity."
Design openings to enhance architectural interest; minimum recess for entrances	Miami, Dr. Martin Luther King, Jr. Boulevard - Streetscape Beautification Master Plan and Façade Standards	guide	Façade Standards - Doors and Windows: "Openings are critical to the façade's architecture and its ability to engage the street. These standards focus on articulating window and door openings to enhance the architectural interest of the building. (...) • Entrances shall be articulated with different building materials and changes of massing. • Entrances shall be recessed a minimum of 6" from the building façade."
Minimum percentage of ground floor linear frontage with entrances	Miami, Dr. Martin Luther King, Jr. Boulevard - Streetscape Beautification Master Plan and Façade Standards	mandate	Façade Standards - Storefront: "For MLK Boulevard, (...)doors occupying a minimum of 70% of the ground floor linear frontage in the first 15' of the façade (...)"

**ENTRIES**

Intent	City / Document	Type of policy	Text
Define design standards for openings; allow for opening recesses	Philadelphia, Code - Title 14. Zoning and Planning.	allow; mandate	<p>14-305. "C-4" Commercial and "C-5" Commercial Districts: " (e) Openings and Entranceways. A major goal of the area regulations of these districts is to create a system of land use controls that protect the public interest and historic context (...) Recognizing that the way a building meets the sidewalk is of critical importance to the ambiance (...)Therefore, entrances, windows and architectural recesses in building facades need not conform to the above listed set-back regulations, but shall comply with the following requirements for all buildings or portions of buildings with frontage on Chestnut street, Walnut street, Locust street and Spruce street.(...)</p> <p>(.2) Windows, Doors and Architectural Recesses. Windows, doors and architectural recesses that do not comply with the set-back requirements set forth in § 14-305(5)(a) through (d) above may be incorporated into a building facade, provided, that no individual or group of windows, doors or recesses shall exceed, in width (measured on a line parallel to the street it abuts), thirty percent (30%) of the street frontage of the facade, further provided, that the combination of all windows, doors and architectural recesses shall not exceed, in width (measured on a line parallel to the street it abuts), fifty percent (50%) of the street frontage of the facade in which they are placed;</p> <p>(.3) Openings and Entrances to Public Space. Openings and entrances to public space that do not comply with the set-back requirements set forth in § 14-305(5)(a) through (d) above may be incorporated into a building facade, provided, that no individual or combinations of openings or entrances exceed, in width (measured on a line parallel to the street it abuts), thirty percent (30%) of the street frontage of the facade in which they are placed."</p>
Define design standards for entrances	Philadelphia, Design Guidelines for Commercial Façade Improvements	guide	Entrance: Doors - "Objective: Make entrances obvious and welcoming. - Use doors that contain a lot of glass so the shopper can see the items inside; - Choose a door that is compatible in scale, material and shape with the overall façade."
Regulate loading	San Francisco Better Streets Plan - Policies and guidelines for the pedestrian realm	guide	"3.2 - In commercial districts, balance the need for short-term parking for shoppers and loading for businesses with the need for pedestrian-oriented design (...) Minimize the impact of loading on pedestrian-oriented design through the use of service alleys (where available), marked loading zones, restricted loading hours, and other loading management strategies."
Minimum number of entrances / linear feet of building façade	Seattle, Municipal Code	mandate	SMC 23.49.163 Downtown Mixed Residential, standards for facades along mid-block corridors "A. The facade shall include at least one entrance to the predominant use in the structure or an entrance to a use listed in Section 23.49.009 for every 100 lineal feet of building facade facing the corridor. If the facade is less than 100 feet in width, then at least one entrance shall be provided."

**TRANSPARENCY**

Intent	City / Document	Type of policy	Text
Require minimum % of transparency below specific height on facades fronting public plazas	New York City, Zoning Resolution	mandate	Article 3 (Commercial Districts), Section 37-76 "...All new #building# walls fronting on the major and minor portions of the #public plaza# shall be treated with clear, untinted transparent material for 50 percent of the surface area below 14 feet above the #public plaza# level, or the ceiling level of the ground floor of the #building#, whichever is lower..."
Require minimum % of transparency below 10 feet; define % for transparent and translucent materials	New York City, Zoning Resolution	mandate	Article 13 (Coney Island Special District), Section 131-15: "Each ground floor level #street wall# of a commercial# or #community facility use# other than a #use# listed in Use Group A, as set forth in Section 131-121, shall be glazed with materials which may include show windows, glazed transoms or glazed portions of doors. Such glazing shall occupy at least 70 percent of the area of each such ground floor level #street wall#, measured to a height of 10 feet above the level of the adjoining sidewalk, public access area or #base plane#, whichever is higher. Not less than 50 percent of the area of each such ground floor level #street wall# shall be glazed with transparent materials and up to 20 percent of such area may be glazed with translucent materials."
Require minimum transparency for security gates	New York City, Building Code	mandate	NYC Building Code §1008.1.3.5 and NYC Administrative Code §28-101.4.3. - Reminder, Feb 2012 - "Roll-down Security Gates: Visibility Standards: The New York City Administrative Code includes new standards that will make it easier to view a storefront or building through security gates. These roll-down gates must now provide at least 70% visibility. New and Replacement Security Gates: For buildings in occupancy groups B and M, new or replacement gates must allow at least 70% visibility from the sidewalk when the gates are closed. This applies to new and existing buildings."
Define "undifferentiated panes of glass" as not appropriate; require divisions	Boston, Zoning Code	guide	ARTICLE 47A – CAMBRIDGE STREET NORTH DISTRICT: "(c) Windows. In Street Walls facing Cambridge Street, large, undifferentiated panes of glass generally are not appropriate. Accordingly, windows in such Street Walls should be set in from the face of the building and accented by lintels and sills."
Require minimum % of transparency on ground floor	Boston, Complete Streets Guidelines	guide	Chapter 2 - Sidewalks: "Vibrant Street Wall - (...) Windows visible from the sidewalk expose the human activity and use within building to the passerby. This transparency is most important along 'downtown commercial', 'downtown mixed-use' and 'neighborhood main street' street types. On these corridors there should be a minimum of 50% transparency of the ground-floor street wall."
Require minimum % of doors and windows	Chicago, Zoning Ordinance	mandate	Ch. 17 - Residential Districts. 17-2-0400 Character standards. "Blank Walls: -A To avoid the appearance of blank walls and ensure "eyes on the street", windows and/or main entrance doors must comprise at least 17.5% of the area of each building façade that faces a street. (...) -C Windows used to meet this standard must allow views from the building to the street. -D Glass block, windows in garages and doors that do not provide pedestrian entrances to the building do not count toward meeting this standard."

**TRANSPARENCY**

Intent	City / Document	Type of policy	Text
Suggest need for windows for variety of ground floor uses	Los Angeles, Model for Living Streets Design Manual	guide	Chapter 13. Designing Land Use Along Living Streets - Urban Centers:"(...)Commercial uses generally front the sidewalk with large, transparent shopfronts, but some institutional and office uses commonly connect to the sidewalk environment with lobbies and foyers instead. In such cases, it is important that windows from the offices and other interior spaces overlook the street to support an environment that feels safe."
			Chapter 13. Designing Land Use Along Living Streets -Buildings' Relationship to Sidewalk: "(...)Along residential streets, building frontages should include windows overlooking the street with a layering of landscape, porch, patio, or semi-public space that buffers appropriately."
Require minimum % of doors and windows; maximum % of garage wall; prohibit garages on facades less than X wide	Portland, OR - Zoning Code	mandate	Chapter 33.110 Single-Dwelling Zones: "33.110.232 Street-Facing Facades in R10 through R2.5 Zones A. Purpose. This standard: Together with the main entrance and garage standards, ensures that there is a visual connection between the living area of the residence and the street; Enhances public safety by allowing people to survey their neighborhood from inside their residences; and Provides a more pleasant pedestrian environment by preventing large expanses of blank facades along streets. (...) C. The standard. At least 15 percent of the area of each façade that faces a street lot line must be windows or main entrance doors. Windows used to meet this standard must allow views from the building to the street. Glass block does not meet this standard. Windows in garage doors do not count toward meeting this standard, but windows in garage walls do count toward meeting this standard. To count toward meeting this standard, a door must be at the main entrance and facing a street lot line."
		mandate	Chapter 33.110 Single-Dwelling Zones: "333.110.253 Garages 3. Standards. a. The length of the garage wall facing the street may be up to 50 percent of the length of the street-facing building façade. (...) b. Where the street-facing façade of a unit is less than 22 feet long, an attached garage is not allowed as part of that façade."
Establish maximum width for blank façade; maximum width for garage doors	Seattle, Municipal Code	mandate	SMC 23.48.018 Transparency and blank façade requirements. "2. Blank Facade Limits for Class 1 and 2 Pedestrian Streets. a. Blank facades shall be limited to segments fifteen (15) feet wide, except for garage doors which may be wider than fifteen (15) feet. Blank facade width may be increased to thirty (30) feet if the Director determines that the facade is enhanced by architectural detailing, artwork, landscaping, or other similar features that have visual interest. The width of garage doors shall be limited to the width of the driveway plus five (5) feet. b. Any blank segments of the facade shall be separated by transparent areas at least two (2) feet wide. c. The total of all blank facade segments, including garage doors, shall not exceed forty (40) percent of the street facade of the structure on each street frontage; or fifty-five (55) percent if the slope of the street frontage of the facade exceeds seven and one-half (7 1/2) percent."

**ARCHITECTURAL DETAILING**

Intent	City / Document	Type of policy	Text
Allow for architectural details to project above the sidewalk	New York City, Building Code	allow	Chapter 32 - Encroachments into the public right-of-way "3202.2.1.2 Architectural details. Details such as cornices, eaves, bases, sills, headers, band course, opening frames, sun control devices, rustications, applied ornament or sculpture, grilles, windows when fully open, air conditioning units, and other similar elements may be constructed: 1. To project not more than 4 inches (102 mm) beyond the street line when less than 10 feet (3048 mm) above the ground or sidewalk level. 2. To project not more than 10 inches (254 mm) beyond the street line when more than 10 feet (3048 mm) above the ground or sidewalk level."
Specify building material	Boston, Zoning Code	guide	ARTICLE 47A – CAMBRIDGE STREET NORTH DISTRICT: "(j) Building Materials. Primary building materials for Street Walls facing Cambridge Street should be masonry, including brick, limestone, sandstone, and granite. When used for such Street Walls, materials such as architectural precast concrete should be empathetic in surface texture and color with the exterior building materials used on the south side of Cambridge Street."
Require architectural elements along minimum of width of façade; minimum spacing for "vertical elements"; maximum height variation of horizontal lines between buildings	Louisville, Land Development Code	mandate; guide	5.6.1 Non-Residential and Mixed Use Building Design Standards B. Building Façade Treatment for buildings within the Suburban Form Districts: "There shall be no blank walls facing public streets. Ground floor facades at these locations shall be articulated to provide visual interest and a human scale that are representative of the form district. Such facades shall employ the use of windows, columns, pilasters, piers, variation of material, entrances, storefront windows, and other animating features along no less than 60 percent of their length. In addition, façades greater than 100 feet in length, measured horizontally, shall incorporate any combination of the following features: wall plane projections having a depth of at least 18 inches or recesses having a depth of at least 3 feet, or building entrances/glassed in areas extending at least 20 percent of the length of the facade."  5.6.2 Downtown Form District Building Design Standards (...) "1. Vertical rhythm – Building facades shall use columns, piers, and window design/placement or similar architectural features spaced no less than every 20 feet and no greater than 40 feet to create vertical breaks at regular intervals. 2. Horizontal rhythm – A clear visual division between the ground floor and upper level floors shall be established using cornice lines, windows or similar architectural elements. The horizontal line established through the use of such architectural elements shall vary in elevation by no more than 36" from one building to the next."
Specify building material; require minimum of different building materials	Miami, Dr. Martin Luther King, Jr. Boulevard - Streetscape Beautification Master Plan and Façade Standards	guide	Façade Standards - Materials: "At least two(2) different materials shall be used in each building elevation. When used for windows, glass shall not be counted as one of the materials. (...)All buildings shall use one(1) of the following base colors(or approved equal). Said color shall constitute no less than 30% of the building facade along MLK boulevard. In addition to the base color, each building shall be allowed up to three(3) complementary colors for a total possible color variation of four(4) colors. This can be accomplished using the following criteria: • Minimum of two(2) colors (including base color) shall be required per building."

## ARCHITECTURAL DETAILING

Intent	City / Document	Type of policy	Text
Define horizontal segments; require use of vertical and horizontal elements	Miami, SD 27 Overlay District – Guidelines for Urban Design	guide	2. Building Façade: "Facades on major streets should be divided into three horizontal segments: a base, middle and top. Horizontal elements should dominate the ground floor level to be pedestrian friendly. Repeating elements on the horizontal plane such as pilasters, vertical reveals, and other three dimensional details are encouraged at the street level. At least one vertical or horizontal elements should be repeated to break down the facade's scale. This could be a material module change, a change in facade plane of at least 6", architectural ornament, recessed glazing, vertical banding, groupings of windows. (...) Avoid repetitive scaling elements that are monotonous and oppressive."
Defines architectural features and projections over the street	Philadelphia, Code - Title 11. Streets	allow	11-603. Projections Over the Street: "(5)Architectural Embellishments. (...) (c) Columns, pilasters and ornamental projections, including their moulding and bases, erected solely for the decorative enhancement of the building, shall not project beyond the street line more than 2 1/2% of the width of the street, nor more than 18 inches in any case. (d) Mouldings, belt courses, lintels, sills, pediments, pents, and similar projections of a decorative character, shall not project beyond the street line more than 1 1/4% of the width of the street, nor more than 10 inches in any case. (e) Rustications and quoins shall not project beyond the street line more than 4 inches. (f) Balustrades of an ornamental character, including the sills and brackets on which they rest, shall not project beyond the street line more than 5% of the width of the street, nor more than 22 inches in any case; and no part of the balustrade shall be less than 10 feet above the sidewalk. (g) Main cornices shall not project beyond the street line more than 5% of the width of the street nor more than 5 feet in any case; and no part of a main cornice may be less than 12 feet above the sidewalk."
Define architectural features	Philadelphia, Design Guidelines for Commercial Façade Improvements	guide	Upper Façade & Building Cornice - "Objective: Use the architectural features of the entire building to provide guidelines for the design of the storefront - incorporate upper floors in façade improvement Plans. - Maintain existing architectural elements around the shop windows; - Preserve and restore historical features (...); - Use lighting to accentuate the architectural features of the building; - Respect the entire commercial corridor by assesing the context of your building in the surrounding streetscape - ask, 'how does my particular building work in the street?'"

**AWNINGS, CANOPIES, BALCONIES AND FIRE ESCAPES**

Intent	City / Document	Type of policy	Text
Allow for obstructions	New York City, Zoning Resolution	allow	Article 2, Section 23-44: Permitted Obstructions in Required Yards or Rear Yard Equivalents "(...)Awnings or canopies(...)"
Allow for projection of balconies; establish maximum projections, recesses, height, aggregate width	New York City, Zoning Resolution	allow	Article 2, Section 23-132: Balconies in R6 through R10 Districts "In the districts indicated, balconies may project into or over any required open area within a #publicly accessible open area#, a #rear yard#, an #initial setback distance#, any open areas not occupied by towers, any required side or rear setbacks, or any required #open space#, provided that such balcony shall: (a) not project by a distance greater than seven feet as measured from the plane surface of the #building# wall from which it projects; (...)(d) be unenclosed except for a parapet not exceeding 3 feet, 8 inches in height or a railing not less than 50 percent open and not exceeding 4 feet, 6 inches in height. However, such balconies may be recessed into a #building# wall up to a maximum depth of six feet provided that at least 33 percent of the perimeter of such balcony is unenclosed except for a parapet or railing; (e) be located at or higher than the floor level of the third #story# of a #building# or at least 20 feet above #curb level#, except that for #buildings# containing #residences# not more than 32 feet in height, such balcony may be located at or higher than the floor level of the second #story# provided that such balcony is located not lower than seven feet above #curb level# or seven feet above natural grade, whichever is higher; and (f) have an aggregate width, at the level of any #story#, not exceeding 50 percent of the width at that level of the plane surface of the #building# wall from which it projects."
Allow for obstructions in open areas	New York City, Zoning Resolution	allow	Article 2, Section 23-461 "...Only chimneys, eaves, gutters, downspouts, steps, and ramps for access by people with disabilities shall be permitted obstructions in open areas..."
Allow projection of fire escapes	New York City, Zoning Resolution	allow	Article 2, Section 23-44: Permitted Obstructions in Required Yards or Rear Yard Equivalents "(...)Fire escapes, projecting into a #front yard#, only in such cases where the fire escape is required for the #conversion# of a #building# in existence before December 15, 1961"
Allow for projection of balconies, firescapes and marquees; establish maximum projections, height	New York City, Building Code	allow	Chapter 32 - Encroachments into the public right-of-way, Section 3202.2.1.3: "Balconies, including railings and supporting brackets, no parts of which are less than 10 feet (3048 mm) above the ground or sidewalk level, may be constructed to project not more than 22 inches (559 mm) beyond the street line(...)"
		allow	Chapter 32 - Encroachments into the public right-of-way, Section 3202.2.1.4 : "Marquees. Marquees may be constructed to project beyond the street line provided that they comply with Section 3106 and Sections through 3202.2.1.4.5. - Height. Marquees shall receive structural support only from the building, and shall be at least 10 feet (3048 mm) above the ground level or -sidewalk. - Projection. Marquees shall project no closer to the curb line than 2 feet (610 mm). - Thickness. Marquees shall be no thicker nor shall the fascia be higher than 3 feet (914 mm) when measured from top to bottom. - Dimensions. Dimensions shall include all decoration"

## AWNINGS, CANOPIES, BALCONIES AND FIRE ESCAPES

Intent	City / Document	Type of policy	Text
Give general guides on awnings	Boston Complete Streets Guidelines	guide	Chapter 2 - Sidewalks: "Vibrant Street Wall - (...) Awnings and signs should be scaled between car speed and pedestrian speed. Awnings can provide shelter from the elements for pedestrians, in addition to demarcating stores and entrances. Architectural awnings that provide no additional shelter should be avoided."
Establish minimum height, maximum width and maximum projection	Louisville, Land Development Code	mandate	5.6.2 Downtown Form District Building Design Standards "D. Awnings/Canopies 1. Awnings, when used, shall be installed so that the valance is at least 7'-6" above the sidewalk. 2. The width of a single awning shall extend the full width of the window and shall not exceed 40 feet 3. Canopies shall be at least 18" from the face of curb. Awnings shall not extend into the Streetscape Zone."
Give general guides on awnings	Philadelphia - Design Guidelines for Commercial Façade Improvements	guide	Awnings - "Objective: Add an exterior building element that serves as a practical purpose and enhances a store's appearance, if appropriate for your buildings. (...) - The size of the awning must be scaled to the size of the building and its context in the commercial corridor; - Use awnings that have a simple shape; (...) - Use awning to create pleasant shaded spaces in front of a building; (...) - Use awnings as signs; - Use larger awnings for shading a store's interior or to provide a covered place for outdoor merchandise display and sales on the sidewalk."
Allow for projection of porches; establish maximum height; require % for "solid" roof	Portland, OR - Zoning Code	mandate	Chapter 33.130 - 4/24/10 Commercial Zones "(...) The porch must have at least one entrance facing the street; and The porch must have a roof that is: – No more than 12 feet above the floor of the porch; and – At least 30 percent solid. This standard may be met by having 30 percent of the porch area covered with a solid roof, or by having the entire area covered with a trellis or other open material if no more than 70 percent of the area of the material is open."
Establish maximum projection and minimum height for marquees, awnings and canopies; require minimum standard materials; establish maximum "vertical depth"	Seattle Municipal Code	mandate	Chapter 15.10 - Marquees, Awnings, Canopies, and Decorative Elements: "SMC 15.10.010 - Extension -- Approval and compliance: No marquee, awning, canopy, or other decorative element shall extend over any public place closer than to within two feet (2') of the curbline. Marquees, awnings and canopies shall be approved as to structural strength and quality of materials, and shall be checked for conformance to all applicable codes by the Director of Design, Construction and Land Use; SMC 15.10.020 - Lowest point:The lowest point of any part of any marquee, awning, canopy, or other decorative element shall be not less than eight (8) feet, or sixteen (16) feet if in an alley, from the surface over which it is constructed, unless (...); SMC 15.10.030 - Vertical depth:No marquee shall exceed thirty (30) inches in vertical depth, unless (...)"

**BUILDING SIGNAGES**

Intent	City / Document	Type of policy	Text
Define minimum height	New York City, Zoning Resolution	mandate	Article 11, Section 118-12: "On #street walls# fronting on 14th Street, no #sign# may be located more than 25 feet above #curb level#. #Signs# on #street walls# fronting on all other #streets# within the Special District shall be subject to the provisions of Section 37-36 (Sign Regulations).#Flashing signs# are not permitted within the Special District."
Signage standards for special district	New York City, Zoning Resolution	mandate	Section 81-732 - Special Times Square signage requirements: "(a) All #developments# located on #zoning lots# between 43rd and 50th Streets with #street# frontage on Seventh Avenue and/or Broadway shall provide #signs# meeting all of the following requirements: (1) At least one #illuminated sign# shall be provided for each ground floor establishment with a #street# frontage on Seventh Avenue, Broadway or a #narrow street# for the full length of the #zoning lot# frontage or the first 100 feet from Seventh Avenue or Broadway, whichever is less.(...) (2) In addition, #illuminated signs# shall be provided with a minimum aggregate #surface area# of 12 square feet for each linear foot of #street# frontage of the #zoning lot# on Seventh Avenue, Broadway and intersecting #narrow streets# up to the first 40 linear feet of #street# frontage from either Seventh Avenue or Broadway.(...)"
Define maximum height	New York City, Zoning Resolution	mandate	Article 13, Section 131-20: "(a) In the Coney East Subdistrict, the underlying C7 #sign# regulations shall apply, except that: (1) no #advertising signs# shall be permitted above a height of 40 feet; and (2) the provisions of Sections 32-66 (Additional Regulations for Signs Near Certain Parks and Designated Arterial Highways), inclusive, and 32-67 (Special Provisions Applying along District Boundaries) shall not apply. (b) In the Coney North and Coney West Subdistricts, the underlying C2-4 #sign# regulations shall apply, except that the height restrictions of Section 32-655 shall be modified to allow permitted #signs# at the level of any #story# occupied by a #commercial use#."
Define maximum projection; define minimum height; define size for "free standing signage"	Boston, Zoning Code	mandate	ARTICLE 11 - SIGNS "On-Premise Signs in all Other Districts: (...) ^(b) A wall sign attached parallel to a building which projects no more than fifteen inches from the building surface, provided that the top of such sign is no higher than whichever of the following is lowest: (i) twenty-five feet above grade; (ii) the top of the sills of the first level of windows above the first story; or (iii) the lowest point if the roof surface, except in the case of a one-story building with a continuous horizontal parapet, the top of said parapet. (...) ^(e) One free standing sign, except in a (...) district, or the Harborpark District, provided that such sign has no more than two faces and (i) if there is one use, as defined by Article 8, on the lot, the area of each face does not exceed sixty-five square feet and the top of such sign is no higher than twenty-five feet above grade; (...)"
Suggest materials	Boston Complete Streets Guidelines	guide	Chapter 2 - Sidewalks: "Vibrant Street Wall - (...)Signs should be unique but made of appropriate materials for the urban context."

## OUTDOOR USES

Intent	City / Document	Type of policy	Text
Allow sidewalk cafes "where appropriate"	New York City, Zoning Resolution	allow	Article 1, Section 14-10 "...The sidewalk cafe regulations as established in this Resolution are city-wide regulations, designed to encourage sidewalk cafes in locations where they are appropriate, discourage them in locations where they are inappropriate..."
Encourage outdoor seating; maintain clear path	Boston, Complete Streets Guidelines	allow; guide	Chapter 2 - Sidewalks: "Sidewalk Cafes - Sidewalks cafes are encouraged for all street types (...) The extension of restaurant businesses into the public way brings activity and energy to the public realm. The renting of this space by private businesses can also result in a higher level of maintenance and cleanliness. (...) Cafes can be as little as 6'-0" and must be continuous with the dining establishment (...) A clear pedestrian zone of at least 4'-0" and preferably 5'-0" must be maintained on the sidewalk."
Encourage outdoor seating	Denver, Pedestrian Master Plan	guide	6.1.4 - Promote an active street life, encourage outdoor seating for restaurants, cafes, and other dining establishments, along with other pedestrian oriented accessory uses, while maintaining a minimum 5' unobstructed through-area all times; 6.1.5 - Promote attractive street frontages and streetscape design in industrial areas"
Allow for outdoor seating; require minimum clear path; minimum distance from curb; prohibit fixed seating	Miami , Dr. Martin Luther King, Jr. Boulevard - Streetscape Beautification Master Plan and Façade Standards	mandate	Facade Standards - Transition Zone: "The transition zone shall be defined as the horizontal space located between the right-of-way and the building facade.(...) <ul style="list-style-type: none"> <li>• For seating areas: A decorative hardscape treatment shall be placed along the transition zone. (...)</li> <li>• No fixed seating or tables shall be permitted.</li> <li>• Seating may encroach into public sidewalk with the provision that a minimum 5' clear zone is provided for pedestrian movement.</li> <li>• Seating shall be set back a minimum of 3' from face of curb."</li> </ul>



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# GLOSSARY

The following terms are provided for your reference. Those marked with an (\*) have been extracted directly from the New York City Zoning glossary (<http://www.nyc.gov/html/dcp/html/zone/glossary.shtml>).

**Articulation (architecture):** The method of styling and physical manifestation of a building. In this document, it refers to the façade detail, which adds visual interest, depth, and character. These elements contribute to the walking experience and help maintain the pedestrian's interest.

**Awnings:** Roof-like covers extending over or in front of an establishment to shade a portion of the sidewalk. These should be integrated with the building design to successfully provide shade, add visual interest, and attract passersby.

**Balconies:** Unenclosed platform extensions that project from the wall of a building, with a railing along their outer edges, often with access from a door or window. Activities on these upper level balconies can contribute to an animated, lively façade.

**Bike Lanes:** Portions of the roadway designated for bicyclists. They are usually demarcated by different colored striping or signage. Bike lanes often lie between the car lanes and the sidewalks.

**Bike Racks:** Also known as bicycle stands. These are stationary fixtures to which bicycles can be securely attached. They can help encourage active transportation and transit use. Their placement should not impede pedestrian movement along the sidewalk.

**Bioswale\*:** A landscape element designed to capture storm water runoff from adjacent surface areas. It has inverted, sloped sides that allow rainwater to drain into it, and contains vegetation and mulch designed to remove pollutants before the water infiltrates the soil. Bioswales are required in certain parking lots accessory to commercial and community facility uses.

**Block\*:** A tract of land bounded on all sides by streets or by a combination of streets, public parks, railroad rights-of-way, pierhead lines, or airport boundaries.

**Bollards:** Temporary or permanent objects used as a traffic-calming measure and boundary between different modes of transportation and the pedestrian realm.

**Building\*:** A structure that has one or more floors and a roof, is permanently affixed to the land, and is bounded by open areas or the lot lines of a zoning lot.

**Building Height\*:** A building's elevation as measured from the curb level or base plane to the roof of the building (excluding permitted obstructions like elevator bulkheads). Strong building edges can help define the street. A building's sense of enclosure varies according to its bulk and height.

**Clearance:** The width of a clear path of paved passageway that pedestrians can walk comfortably, without hindrances from obstacles.

**Commercial Building\*:** Any building occupied by commercial uses only.

**Commercial Use\*:** Any retail, service, office, or other use allowed by special permit.

**Curb:** The step where the roadbed meets the sidewalk. Attention to curb detail helps facilitate ease of movement. For example, curb extensions can enhance pedestrian safety and provide spaces for functional elements.

**Curb Cut\*:** An angled cut in the edge of a curb that permits vehicular access from a street to a driveway, garage, parking lot, or loading dock. In residential districts, width and spacing rules for curb cuts ensure adequate curbside parking.

**Density\*:** The maximum number of dwelling units permitted on a zoning lot. The factors for each district are approximations of average unit size plus allowances for any common areas. Special density regulations apply to mixed-use buildings that contain both residential and community facility uses.

**Display Window:** The window of a store that faces the street and is used to showcase merchandise for sale inside the store. Attractive window displays are inviting and enhance the walking experience.

**Dormer\*:** A permitted obstruction within a required setback area that may exceed the height of a building. In lower-density districts, it is often a window protruding from a sloped roof to provide light and air to the top floors of homes. A dormer can also be the portion of a building allowed to penetrate a required setback above the maximum base height in order to provide variety to the base heights of buildings along the street. Both types of dormers are subject to size limitations.

**Entrance:** Place of ingress or entrance to an establishment. Both residential and commercial entries define the number of points at which a building is activated through access between the inside and outside.

**Fence:** A barrier that encloses or borders a field, or front yard, and usually indicates the line between private and public property. They can be made of various materials, to different levels of transparency, and typically range between 4–6 feet in height. In some cases fences are considered permitted obstructions and given maximum allowable heights.

**Fire Escapes:** Structures used to escape from a building in case of an emergency. They are usually metal stairways located along the outside walls. Beyond their functional purpose, fire escapes add a sense of rhythm and texture to the building façades.

**Floor Area\*:** The sum of the gross area of each floor of the building, excluding mechanical space, cellar space, floor space in open balconies, elevators or stair bulkheads and, in most zoning districts, floor space used for accessory parking that is located less than 23 feet above curb level.

**FRESH Food Store\*:** A full-line grocery store, established in underserved neighborhoods through zoning incentives, that promotes the sale of fresh food products.

**Floor Area Ratio (FAR)\*:** The ratio of total building floor area to the area of its zoning lot. FAR is the principal bulk regulation controlling the size of buildings. Each zoning district has an FAR that, when multiplied by the lot area of the zoning lot, produces the maximum amount of floor area allowable on that zoning lot. For example, on a 10,000-square-foot zoning lot in a district with a maximum FAR of 1.0, the floor area of the zoning lot cannot exceed 10,000 square feet.

**Mixed Building\*:** A building in a commercial district used partly for residential use and partly for community facility or commercial use.

**Mixed-Use District\*:** A special-purpose district where one set of regulations applies to many different areas shown on the zoning maps as “MX” with a numerical suffix (such as “MX-8”). In MX districts, an M1 district is paired with a residential district (M1-2/R6, for example) and new residential and non-residential uses are permitted as-of-right within the same building. In this district, a building that contains a residential use and any other use is a mixed-use building.

**Open Space\*:** The part of a residential zoning lot (which may include courts or yards) that is open and unobstructed from its lowest level to the sky, except for specific permitted obstructions, and accessible to and usable by all persons occupying dwelling units on the zoning lot. Depending upon the district, the amount of required open space is determined by the open space ratio, minimum yard regulations, or maximum lot coverage.

**Overlay District\*:** A district superimposed upon another district that supersedes, modifies, or supplements the underlying regulations. Limited height districts and commercial overlay districts are examples of overlay districts.

**Pavement:** Refers to the material and ground texture. Different colors and paving patterns can influence walking patterns and contribute to a place’s distinctive character. Types of texture include tinted or porous concrete, pavers, asphalt, granite, and cobblestones.

**Permitted Obstruction\*:** A structure or object that may be located in a required yard or open space or penetrate a height limit, setback area, or sky exposure plane. A balcony, trellis, air conditioner, gutter, or fence is a permitted obstruction in required yards or open space. Certain structures on a roof, such as elevator bulkheads, water towers, and parapets, are permitted obstructions that may penetrate height limits, setback areas, or sky exposure planes.

**Planters:** Decorative pots or stands along the sidewalk or within private property. Planters add color and seasonal variety to sidewalks.

**Planting Strips\*:** Grassy areas that extend along the edge of the curb within which street trees are planted. Planting strips are a required streetscape improvement in certain districts. They provide sufficient width and soil depth for trees.

**Privately-Owned Public Space (POPS)\*:** An amenity provided and maintained by the property owner for public use, usually in exchange for additional floor area. Located mainly in the high-density central business districts of Manhattan, these spaces typically appear in the form of arcades or public plazas with seating and landscaping, and may be located within or outside a building.

**Security Gate:** A movable barrier, usually on hinges, that prevents entry to an establishment.

**Service Access:** An entrance intended for the delivery of goods and removal of refuse. It allows service vehicles to reach utility areas and garages within the buildings.

**Setback, Building\*:** The portion of a building that is set back above the base height (or street wall or perimeter wall) before the total height of the building is achieved. The position of a building setback is controlled by sky exposure planes in height factor districts and, in contextual districts, by specified distances from street walls. When a building is not built up to its property line, the building setback becomes part of the extended sidewalk.

**Setback, Front Yard or Ground Level:** The portion of open area at ground level between the front of a building wall and the street line. Front yards are required in certain districts (usually residential); often with rules governing the depth of the space, minimum levels of planting, permeable surface coverage, and allowable permitted obstructions. When occurring in commercial areas, these spaces can be designed as public plazas, or privately-owned-public-spaces (POPS).

**Sidewalk:** A path for pedestrians alongside but higher than a road. A sidewalk includes both hard-paved and soft, landscaped areas. The width of a comfortable sidewalk ranges from 8 to 20 feet, depending on the site context and volume, speed, and frequency of pedestrian usage. Other considerations include desired clear path, plantings, and street furniture.

**Sidewalk café\*:** A portion of an eating or drinking establishment located on a public sidewalk. Sidewalk café regulations are administered by the Department of Consumer Affairs.

**An enclosed sidewalk café\*** is contained within a structure.

**An unenclosed sidewalk café\*** contains readily removable tables and chairs.

**A small sidewalk café\*** is unenclosed and contains no more than a single row of tables against the street line, extending no more than 4½ feet from the street line, with no barrier between the café and the sidewalk.

**Signage\*:** Any graphics—whether words, pictures, or symbols—on or attached to a building or other structure. Signage should be of appropriate sizes, location, and materials to fit its urban context. Well-placed signage can provide a visual guide that enhances pedestrians' sense of orientation.

**An accessory sign\*** directs attention to a business, profession, commodity, service, or entertainment conducted, sold, or offered on the same zoning lot.

**An advertising sign\*** directs attention to a business, profession, commodity, service, or entertainment conducted, sold, or offered on a different zoning lot.

**A flashing sign\*** is any illuminated sign, whether stationary, revolving, or rotating, that changes light or color.

**An illuminated sign\*** uses artificial light or reflected light from an artificial source.

**Slope:** Refers to a sidewalk's inclination or slant. The sidewalk gradient should typically follow the roadway gradient. According to the Americans with Disabilities Act (ADA), sidewalks must have a slope of less than 1:20; otherwise they are considered ramps and subject to a different set of ADA standards.

**Stoop:** A platform with steps leading up to it at the building entrance that connects the sidewalk and the private entrance of a building or establishment.

**Story\*:** The part of a building between the surface of one floor and the ceiling immediately above. A cellar does not count as a story.

**Street\*:** Any road (other than a private road), highway, parkway, avenue, alley, or other way shown on the City Map, or a way at least 50 feet wide and intended for public use connecting a way shown on the City Map to another such way or to a building or structure. "Street" refers to the entire public right-of-way, including public sidewalks.

**A narrow street\*** is a street that is less than 75 feet wide.

**A wide street\*** is a street that is 75 feet or more in width. Most bulk regulations applicable to wide streets are also applicable to buildings on intersecting streets within 100 feet of a wide street.

**Street Furniture:** Refers to objects and pieces of equipment installed on streets and sidewalks for various purposes. The placement of street furniture like benches, telephone kiosks, and post boxes influences the ways pedestrians use the sidewalk.

**Street Line\*:** A front lot line separating the zoning lot from the street.

**Street Vendors:** Vendors who sell their goods usually on the sidewalk rather than in a shop or store. Street vending structures like newsstands, mobile food pushcarts, and retail kiosks provide transient gathering spots for pedestrians. Care should be given to the location of these structures so that they do not impede main pedestrian flow.

**Street Wall\*:** A wall or portion of a wall of a building facing a street.

**Subway Grates:** Ventilation shafts for subway tunnels that pass below the sidewalk.

**Transparency:** The quality or state of being transparent. It usually refers to the proportion of the light passed through a glazed surface that allows objects to be visible. Transparency is usually articulated by windows that reveal activities and uses within the building to the passerby, thereby producing a sense of animation and visual interest. Evaluation of transparency should not include garage entrances or utility and service areas.

**Trash Cans:** Containers for temporarily storing refuse and waste. Trash cans should be placed in such a way that they do not impede pedestrian movement. Curbside trash cans are often made of tin, steel, or plastic.

**Tree Canopy:** The layer of leaves, branches, and stems of trees that provides shade and a sense of enclosure.

**Tree Pits:** An underground structure and system of aboveground plantings that collects and treats stormwater using bioretention. Tree pits allow water and air to get to the roots of the street trees. Maintenance to adjust for tree growth and prevent any settlement that may be a trip-ping hazard is required.

**Visual Corridors:** Open areas that provide an unobstructed view from upland streets through a waterfront zoning lot to the shoreline. Where visual corridors serve as extensions of streets, they must be as wide as the streets; elsewhere, visual corridors must be at least 50 feet wide.

**Yard\*:** A required open area along the lot lines of a zoning lot that must be unobstructed from the lowest level to the sky, except for certain permitted obstructions. Yard regulations ensure light and air between structures.

**A front yard\*** extends along the full width of a front lot line. In the case of a corner lot, any yard extending along the full length of a street line is considered a front yard.

**A rear yard\*** extends along the full width of a rear lot line. In residential districts, the minimum depth of a rear yard is 30 feet, except in R2X districts. In commercial, manufacturing, and R2X districts, the minimum depth of a rear yard is 20 feet. A corner lot is not required to have a rear yard.

In commercial and manufacturing districts, and for some community facility buildings in residence districts, the rear yard may be occupied entirely by a single-story building up to a height of 23 feet.

**A rear yard equivalent\*** is an open area on a through lot required to comply with rear yard regulations.

**A side yard\*** extends along a side lot line from the required front yard, or from the front lot line if no front yard is required, to the required rear yard, or to the rear lot line if no rear yard is required. In the case of a corner lot, any yard that is not a front yard is considered a side yard.

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## **PHOTOGRAPHY/ IMAGE CREDITS**

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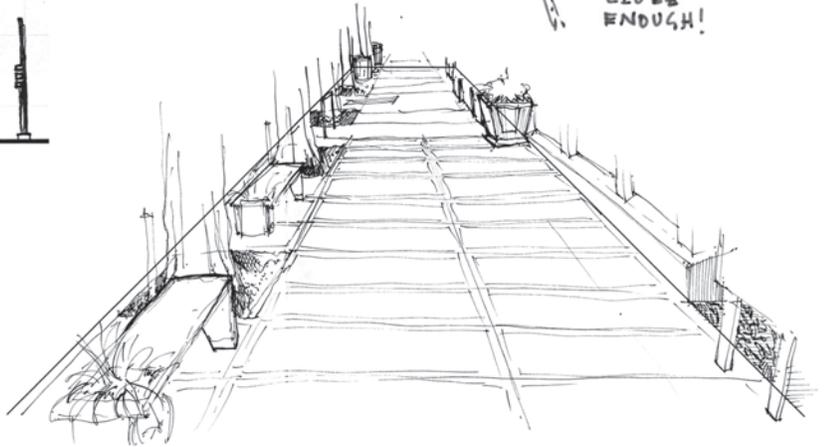
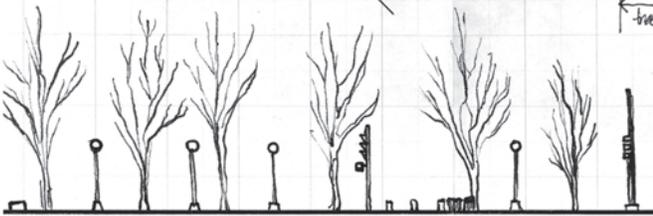
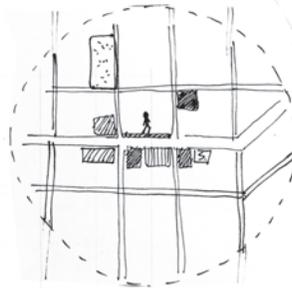
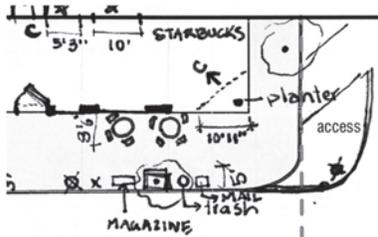
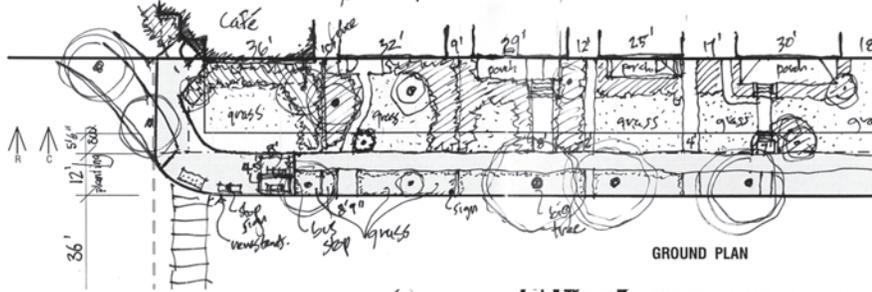
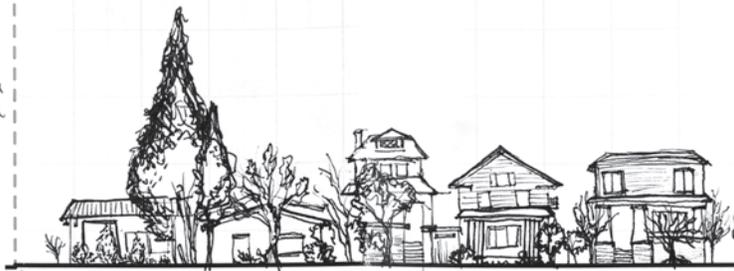
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Great walking neighborhood



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