

Cambridge Urban Design Guidelines



Public Space Public Life
Snapshot Findings
2022-2023

Contents

1

Introduction

Background on the Public Space
Public Life Snapshot Study

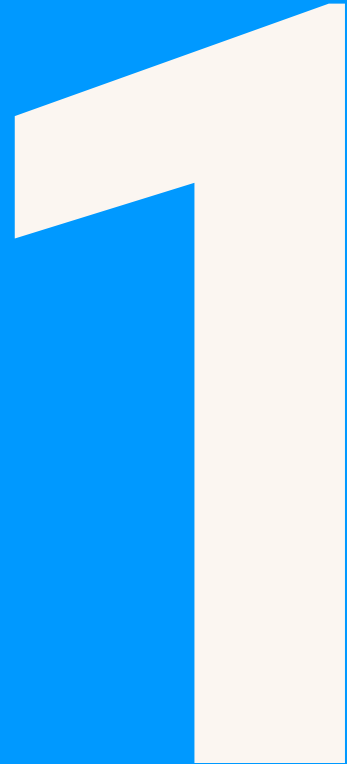
2

Findings

Public Space and Public Life Insights
For Cambridge Urban Design Guidelines

Introduction

Background on the
Public Space Public Life
Snapshot Study



Gehl conducted a snapshot study of Cambridge public spaces and public life — with a threefold goal.

01



Gather insights around **how people move through and spend time** in Cambridge's public realm today

02



Reveal **opportunities to update the guidelines** based on people's lived experience of the built environment

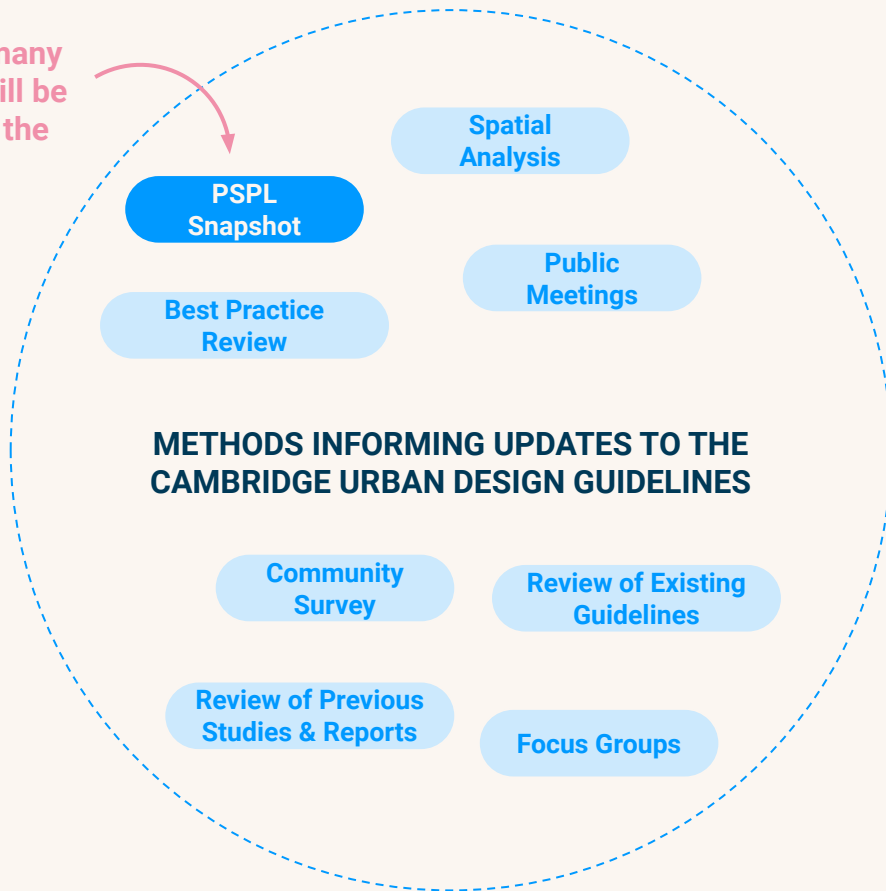
03



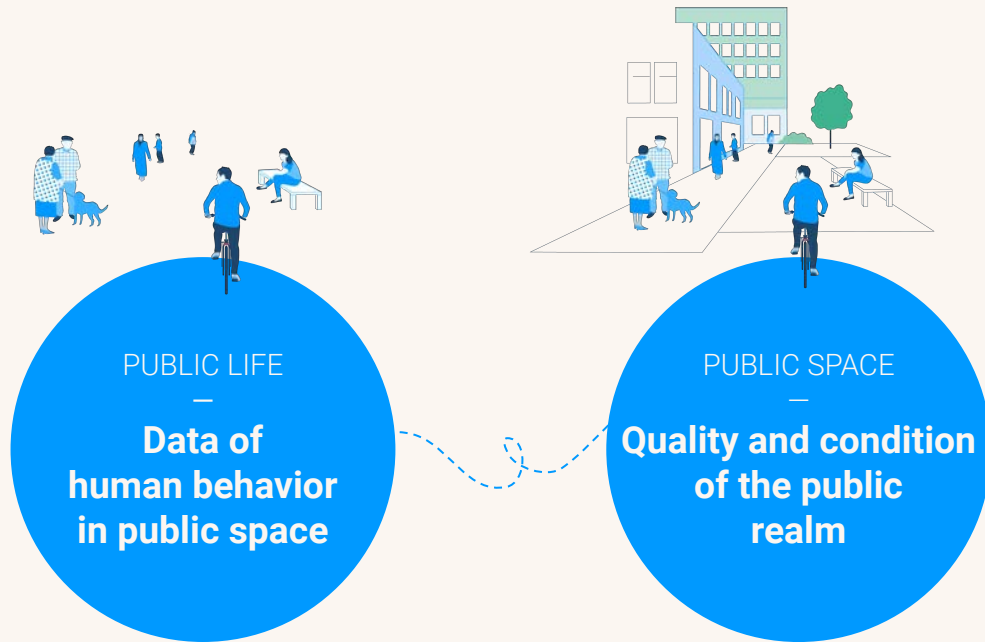
Serve as a **future reference point** on public space and public life quality after the guidelines are updated and implemented

This is just one input in a larger process to develop the city's urban design guidelines.

This is one of many methods that will be used to shape the guidelines.



The study was designed to uncover the connections between life and form in the public realm.



A mix of methods helped uncover these connections between public life and public space.

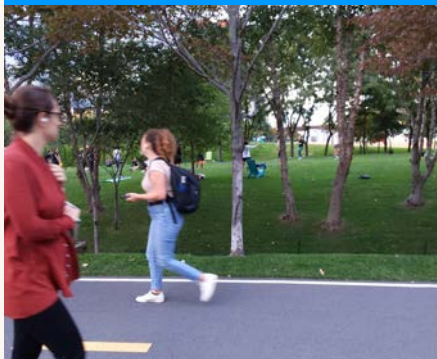


Study Areas

Alewife



Cambridge Crossing



Central Square



Kendall Square



Harvard Square / Brattle Plaza



Harvard Square / Winthrop Sq



Harvard Square / Smith Center



Mass Ave b/w HSQ + PSW



Study areas were selected based on their maturity of development, level of study to date, and typological diversity.

Prioritization of sites for the snapshot was an iterative process with City Staff

AREA	MATURITY OF DEVELOPMENT			LEVEL OF STUDY TO DATE			TYPOLOGIES COVERED				
The general area of study*	Mature	Transitional	Low	Lots	Some	None	Plazas & Open Space	Commercial Corridor	Neighborhood Street	Expanded Sidewalk	Bike Lanes
Alewife											
Cambridge Crossing											
Central Square											
Harvard Square*											
Kendall Square											
Massachusetts Ave. b/w Harvard & Porter Squares											

* Exact site of study within each area is detailed in the appendix
** This site included multiple, small sites of study — Brattle Square, Winthrop Square, and Smith Campus Center Plaza

Public space and public life observation took place on typical weekdays

Analysis on typical weekdays enabled a snapshot of public life and allowed for comparability across sites.

DATES

Wednesday / Sep 28 2022

- Cambridge Crossing
- Central Square
- Kendall Square

Thursday / Sep 29 2022

- Alewife
- Harvard Square
- Massachusetts Ave.
Between Harvard and
Porter Squares

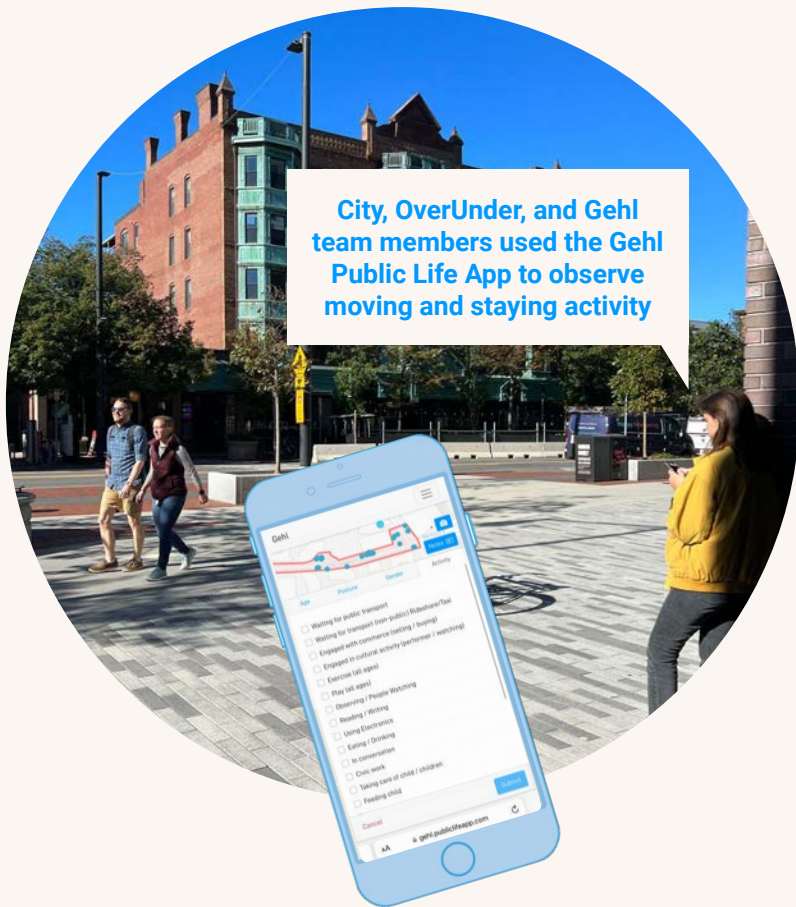
TIMES

Shifts occurred every 3 hours

- 9am
- 12pm
- 3pm
- 6pm

WEATHER

Sunny and ~60° F



Findings

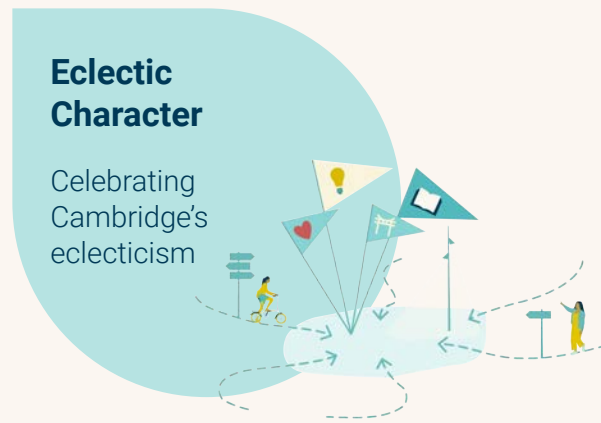
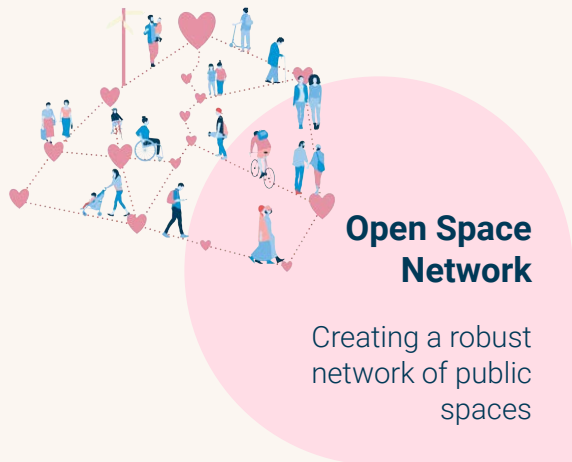
Public Space & Public Life
Insights for Cambridge
Urban Design Guidelines



Focus Areas

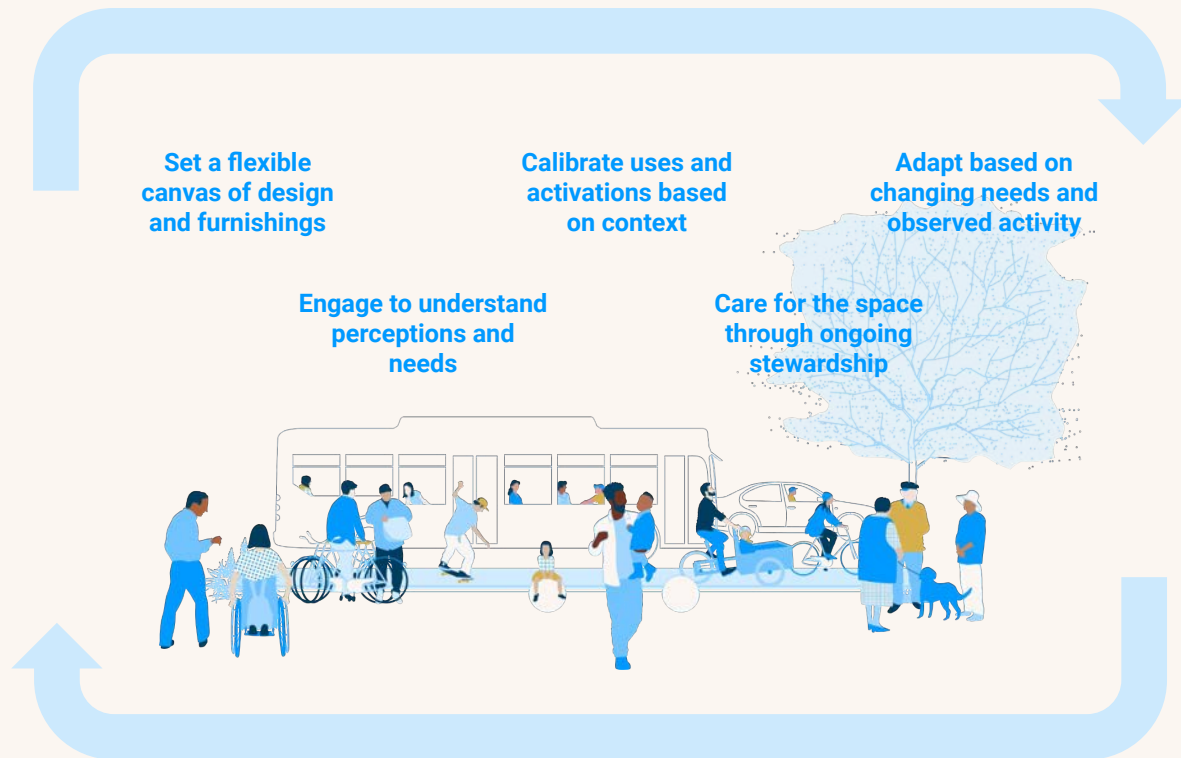
Drawing from the public life snapshot, the insights fall into four categories of urban design that will be essential to the future urban design guidelines.

Note: Throughout the findings document, Cambridge data is referenced alongside Gehl studies and global cases from other cities. Citations from other projects serve as a reference point — rather than authoritative rules of thumb about public space and life.



Great design is never finished!

Built form can set a canvas, but public spaces need to be responsive to local needs, tailored to context, cared for consistently, and adapted over time.



Open Space Network

Creating a robust network of public spaces



Principles & Tactics — Open Space Network

1

Type

Foster a mix of open spaces that vary in their public life profile based on context and program.

- Maintain a mix of space types — plazas, main streets, and green spaces — within a ~15-minute radius to account for different types of use

2

Intensity

Anticipate the intensity and capacity of public life for different open space types.

- Design spaces with their optimal activity levels in mind — through choices regarding circulation, types of edge uses, and furnishings

3

Connectivity

Create a seamless walking, biking, and transit experience to move between open spaces.

- Make connections between open spaces legible and comfortable, encouraging a 'lily pad' effect between open spaces within the network



Foster a mix of open spaces that vary in their public life profiles.

Open spaces should include clear invitations that vary and respond to surrounding context — with key destinations and points of interest clustered around these spaces.

To support a diversity of public life, cities need a diversity of spaces that respond to the rhythms and patterns of the city.

Plaza

Gather in the heart of it all



Peak Hours

Smith Center Plaza



Smith Center Plaza was **active all day with the most diverse activity mix of all sites** — from coffee chats to chess.



Highest observed cultural activity (24%) of all sites

Main Streets

Linger on the go



Peak Hours

Massachusetts Ave



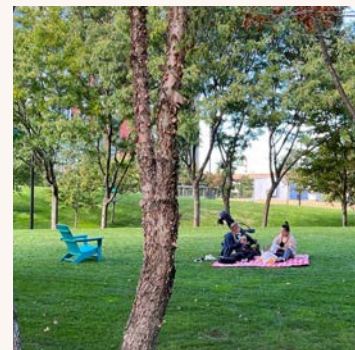
Massachusetts Ave between Harvard and Porter Squares had **a surge of outdoor dining in the evening.**



Highest observed commercial activity (20%) of all sites

Green Space

Take a moment of respite



Peak Hours

Cambridge Crossing Common



The Common was **active by day** with **recreation** on the lawn, supported by strong residential and commercial edges.



Highest observed exercise activity (14%) of all sites

Anticipate the intensity and capacity of public life for different open space types.

The optimal capacity of a public space can vary based on area density, activity of edges, level of programming, and size. The benchmarks at right stem from Gehl research on public life — design can respond to this capacity through factors like circulation and furnishing.

Plaza High Intensity



~40 People Per 10,000 SF
Comparison: Harvard Square
Smith Center Plaza: 46 (peak)

Plazas should be designed for **greater density of people than a park or green space** — they are places to meet near active edges occupied by retail, food / drink, or civic uses.

Main Streets Medium Intensity



~30 People Per 10,000 SF
Comparison: Mass. Ave Between
Harvard & Porter Sq: 16 (peak)

Corridors like Massachusetts Avenue should be prepared to **accommodate a medium level of staying activity, but for more ephemeral moments** as people stop to eat / drink or take a break from errands.

Green Space Low Intensity



~20 People Per 10,000 SF
Comparison: Cambridge Crossing
Common: 3 (peak)

Green spaces can offer more **breathing room for people in search of respite, recreation, or relaxation** — and may be less dense with activity as a result.

Cambridge in Context

The Square - 43 per 10ksf (event)



The Square (Plaza)
West Palm Beach

Kunsthalle -29 per 10ksf



Kunsthalle Wien Plaza
Vienna

Bryant Park - 23 per 10ksf



Bryant Park
New York City

Rittenhouse Square - 20 per 10ksf



Rittenhouse Square
Philadelphia

Patricia's Green - 18 per 10ksf



Patricia's Green
San Francisco

Smith Center Plaza - 46 per 10ksf (3pm)



Smith Center Plaza (HSQ)
Cambridge

Brattle Square - 26 per 10ksf (12pm)



Brattle Square (HSQ)
Cambridge

Winthrop Square - 20 per 10ksf (12pm, 6pm)



Winthrop Square (HSQ)
Cambridge

Central Square - 19 per 10ksf (6pm)



Central Square
Cambridge

Mass Ave (HSQ-PSQ) - 16 per 10ksf (6pm)



Massachusetts Avenue
Cambridge

Cambridge in Context

The Square - 43 per 10ksf (event)



The Square (Plaza)
West Palm Beach

Kunsthalle -29 per 10ksf



Kunsthalle Wien Plaza
Vienna

Bryant Park - 23 per 10ksf



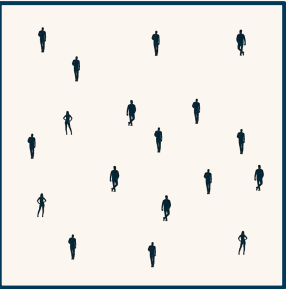
Bryant Park
New York City

Rittenhouse Square - 20 per 10ksf



Rittenhouse Square
Philadelphia

Patricia's Green - 18 per 10ksf



Patricia's Green
San Francisco

Smith Center Plaza - 46 per 10ksf (3pm)



Smith Center Plaza (HSQ)
Cambridge

Brattle Square - 26 per 10ksf (12pm)



Brattle Square (HSQ)
Cambridge

Winthrop Square - 20 per 10ksf (12pm, 6pm)



Winthrop Square (HSQ)
Cambridge

Central Square - 19 per 10ksf (6pm)



Central Square
Cambridge

Mass Ave (HSQ-PSQ) - 16 per 10ksf (6pm)



Massachusetts Avenue
Cambridge

Create a seamless walking, biking, and transit experience to link open spaces.

Comfortable, shaded sidewalks and dedicated lanes for biking and micromobility create a 'lily pad effect' for an open space network — where people feel encouraged to wander from one open space to the next.



Case — Open Space Network Nørrebro — Copenhagen



A mix of open spaces in a neighborhood setting.

Copenhagen's Nørrebro neighborhood stitches together a mix of open spaces with active edges, natural elements, and multi-modal mobility that connect people to one another.

1 Recreational Area
Nørrebroparken



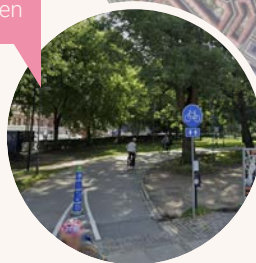
2 Plaza
Superkilen Park



3 Main Street
Stefansgade



5 Greenway
Nørrebroparken



4 Green Space
Assistens Cemetery



Open Space Design

Ensuring comfortable
design quality



Principles & Tactics — Open Space Design

1

Protection

Design for basic protection — from traffic, from natural elements, and to invite all-day use.

- Protection against traffic and accidents (safe crossings, separated bike lanes)
- Lively, well-lit public realm with a diversity of functions 18/7/365
- Protection from weather, noise, air, etc.

2

Comfort

Create flexible invitations to linger within open spaces for a mix of activities and uses.

- Room for moving without obstacles and with good surfaces
- Defined spots for staying and sitting, with a mix of seating options
- Opportunities for play, exercise, and cultural activity (e.g., markets)



3

Delight

Make the experience of open space unexpected, playful, and enjoyable for all.

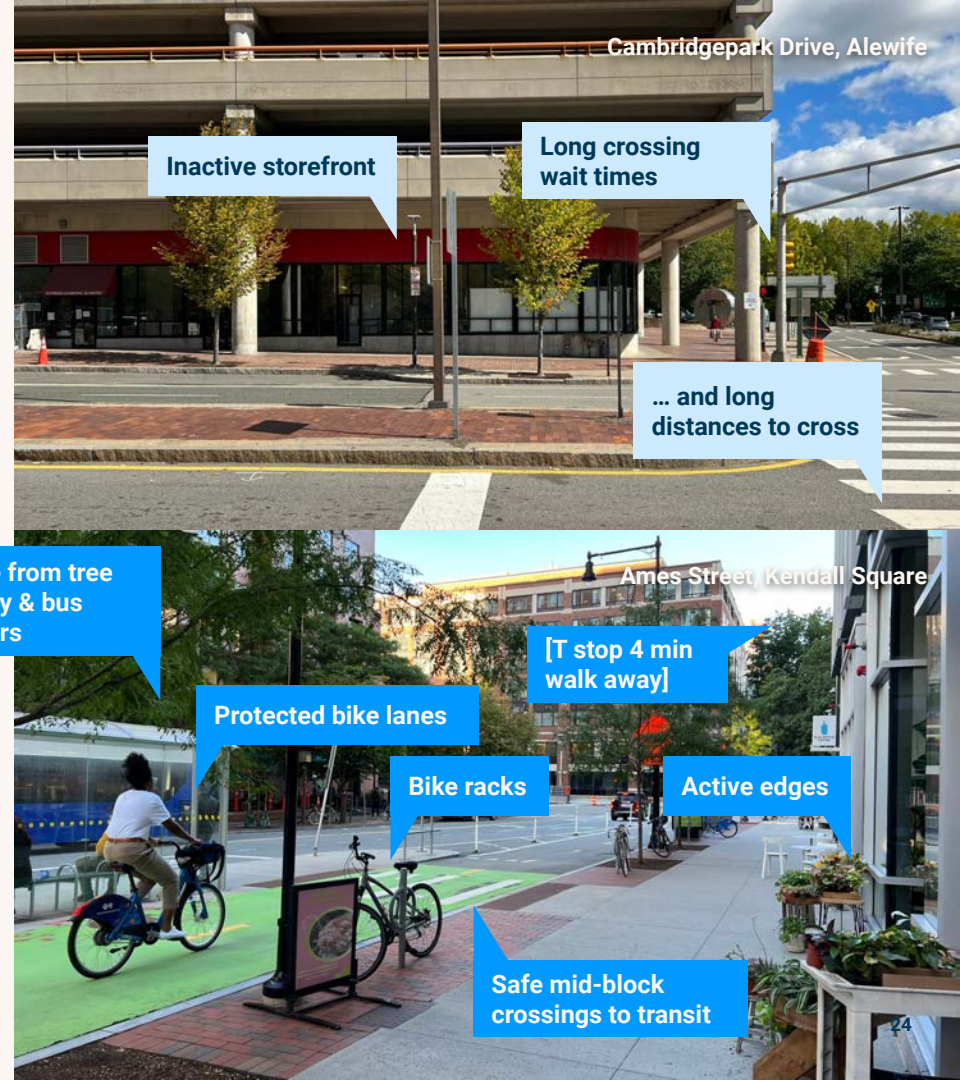
- Good design, detailing, and materials with positive aesthetic qualities
- Rich sensory experiences (e.g., trees, plants, water)
- Art or cultural elements that relate to local identity and/or history

Create basic protection in open spaces designed for active mobility.

Open spaces near transit should have safe crossings and lanes for people on foot or on wheels, active edges that invite all-day activity, and storage for bikes / scooters.

RESEARCH IN FOCUS

A NACTO study found that implementation of protected bike lanes in Washington, D.C. correlated with a major spike in biking activity, and decline in perceived risk



Create basic protection in open spaces designed for lingering.

Basic design features — shade, human-scale lighting, active edges to invite human activity — encourage people to stop and stay in an open space.

RESEARCH IN FOCUS

Tree canopy can cool an area by as much as 10 degrees.¹



PROTECTION FROM THE ELEMENTS

Winthrop Square, with ample seating under a lush tree canopy provided a **comfortable microclimate** and had one of the highest **densities of people** lingering and one of the highest percentages of **seniors lingering**.

RESEARCH IN FOCUS

Lack of lighting has been found to correlate with lower rates of women in public spaces after dark.²



PROTECTION FROM DARKNESS

The **soft, human-scale lighting** in Lafayette Square, along with edges that invite foot traffic, creates a **sense of safety** that invites people to linger after dark.

1. Einhorn, Catrin. "What Technology Could Reduce Heat Deaths? Trees" *The New York Times*, July 2, 2021. [Link](#)

2. Gehl, Flatiron District Public Life Study. July 2021.

Create flexible, mostly public invitations to linger.

While outdoor restaurant and cafe seating is essential in a bustling commercial corridor, open spaces should include a healthy amount of public seating to invite a diversity of activities. Private seating may also become a multipurpose space — activated outside of business hours for public use.



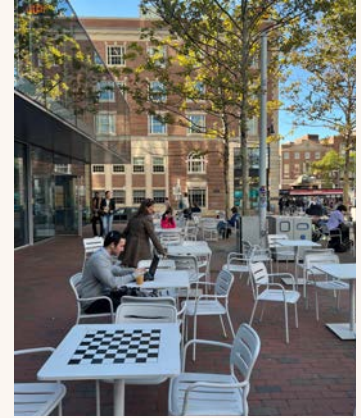
On Massachusetts Avenue, the site with the highest private:public seating ratio, **activity centered on patronizing businesses** — though people did flock to the select public seating options (left).



Private seating
Massachusetts Av
(1:8 public-to-private ratio)



Mixed seating
Cambridge Crossing
(3:2 public-to-private ratio)



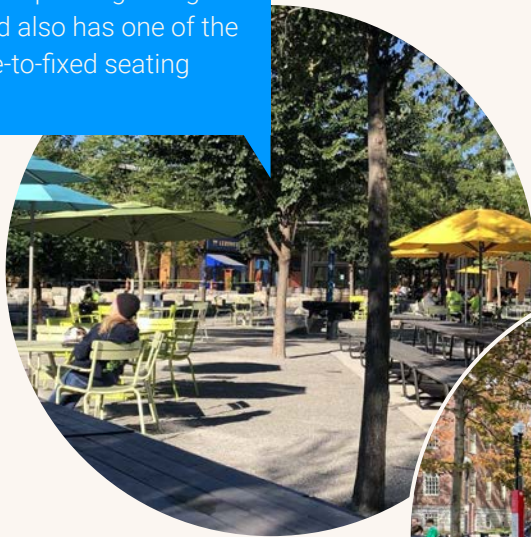
Public seating
Daytime emphasis
(All public seating)

In contrast, Harvard Square's Smith Center, where all seating is public, and Cambridge Crossing, where there is more public than private seating, the **mix of activities is more varied and less related to commerce.**

Design seating to be flexible, social, and shaded.

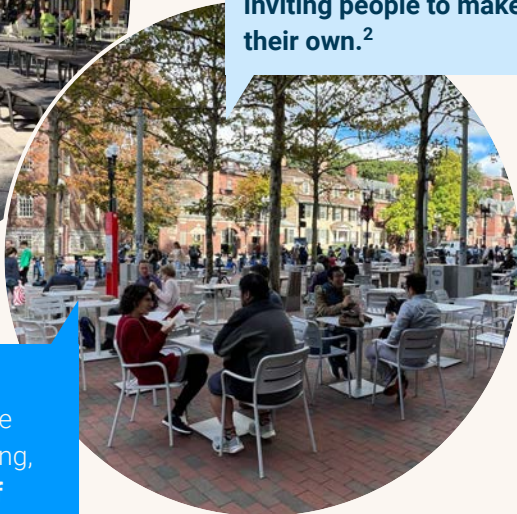
Social seating arrangements help encourage conversation within and across groups — movable furniture (both tables and chairs) is often tied to a higher incidence of staying activity.

Cambridge Crossing is the **“stickiest” place** (1 of 5 people passing though stay to linger), and also has one of the highest moveable-to-fixed seating ratios (1:1).



RESEARCH IN FOCUS

Public spaces that provide seating and are close to bus stops tend to have more people stick around.¹ Greater variety and flexibility in seating also supports inclusion in the space by inviting people to make it their own.²



The Smith Center Plaza at Harvard Square, with active edges and moveable seating, had the **highest density of people staying during its peak hour** (46 per 10K SF).

1. Gehl Studio & J Max Bond Center on Design for the Just City. “Public Life & Urban Justice in NYC’s Plazas.” [Link](#).

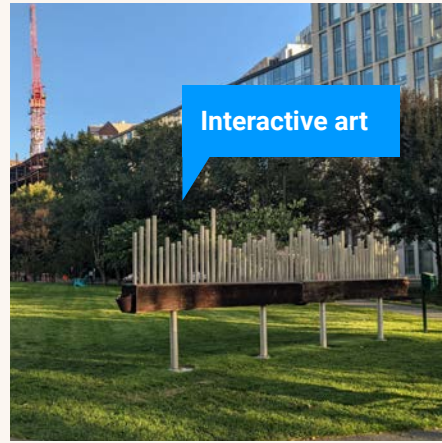
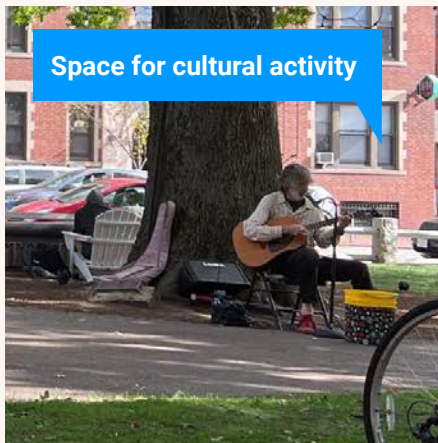
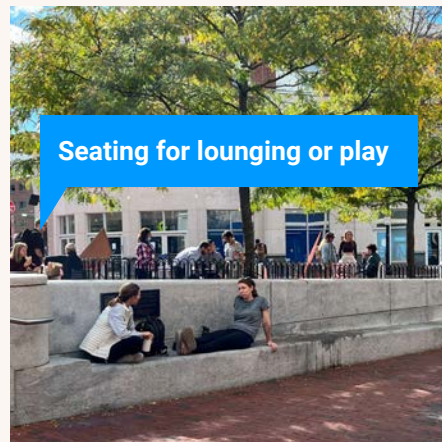
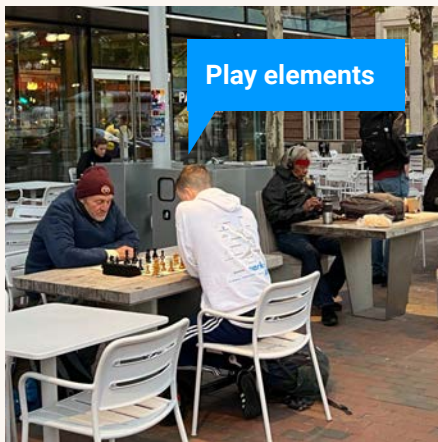
2. Robinson, Nicolai. “How To: 4 Steps to Creating Inclusive, Anti-Racist Third Spaces.” Planning Magazine, December 2020. [Link](#).

Make a space delightful through extra touches.

Small features — from chess boards to interactive art to playable furniture — can entice people to stay, and keep them coming back for more.

RESEARCH IN FOCUS

A Gehl study in West Palm Beach's Rosemary Square found a 3x increase in foot traffic following the installation of an interactive fountain in the area's central plaza.



Case — Open Space Design

NYC Plaza Program — New York



Fostering safety, social connection, and sense of belonging.

A basic toolkit for plaza design helped create over 70 new public spaces over six years as part of the New York City Plaza Program. In 2015, Gehl and the J. Max Bond Center on Design for the Just City evaluated 7 plazas to understand the emergent equitable outcomes of the program.



Scaling access to quality open space citywide



Across the seven plazas:

- 75% recognized more people since the plaza opened
- 66% felt the plazas had increased sense of safety
- 64% said they would pick up a piece of trash in the plaza

Case — Open Space Design Downtown — Pittsburgh



Calibrating the right mix of seating, with active edges. A

Gehl public life study in downtown Pittsburgh found that universally public seating does not necessarily equate to public life. Siting open spaces near active edges — with a mix of clearly defined public and private seating — can lead to a more vibrant and diverse mix of activity.



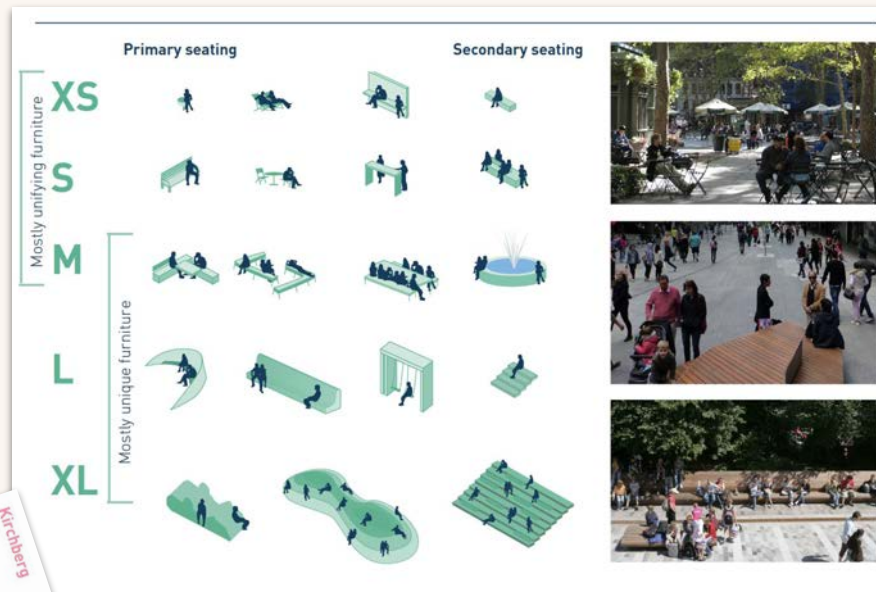
Read more in Gehl's **Downtown Pittsburgh Public Realm Action Plan** [at this link](#).

Case — Open Space Design

Urban Furniture Toolbox — Kirchberg



Developing a mix of scales and types of furniture to cater to diverse staying activities. Gehl's urban furniture toolbox for the city of Kirchberg, Luxembourg, delineates a mix of primary and secondary furniture that can cater to different uses, users, and scales of space.



Read more in Gehl's Kirchberg Urban Furniture Toolbox [at this link](#).

Facades & Ground Floors

Making facades enticing and human-scale

Massachusetts Avenue Between
Harvard and Porter Squares



Principles & Tactics — Facades & Ground Floors



1

Scale

Create human-scale facades that don't feel imposing at eye level

- Facade height/size designed in response to the sidewalk and roadway width, building height, and the volume of activity at ground level
- Short facade widths where possible, or larger facades broken up visually (e.g., plantings, detailing)

2

Details

Design for visual interest and create opportunities to engage with the interior

- Transparency into the building interior
- Depth and dimension in facade design
- Variation in materials and colors

3

Meeting the street

Think beyond the edge to create a truly inviting ground floor experience

- Gestures at the building edge or supplemental zone (e.g., planters, signboards, cafe seating)
- Activation in the furnishing zone and/or flex lane (e.g., shading, seating)

4

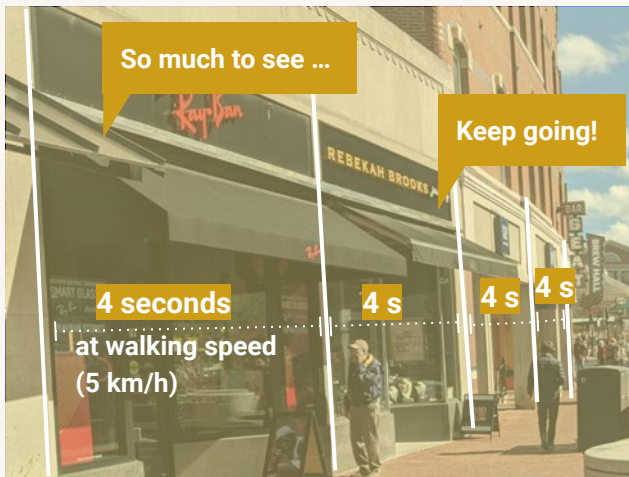
Diverse uses

Establish a mix of invitations to spur diverse activities

- Variety in program at the ground level
- Calibrate the right mix of dining, retail and other uses to local character

Create human-scale facades that don't feel imposing at eye level.

Human-scale facade widths and heights don't just feel more approachable, they shorten perceived distance to the next facade or the next block — encouraging people to walk and explore more.



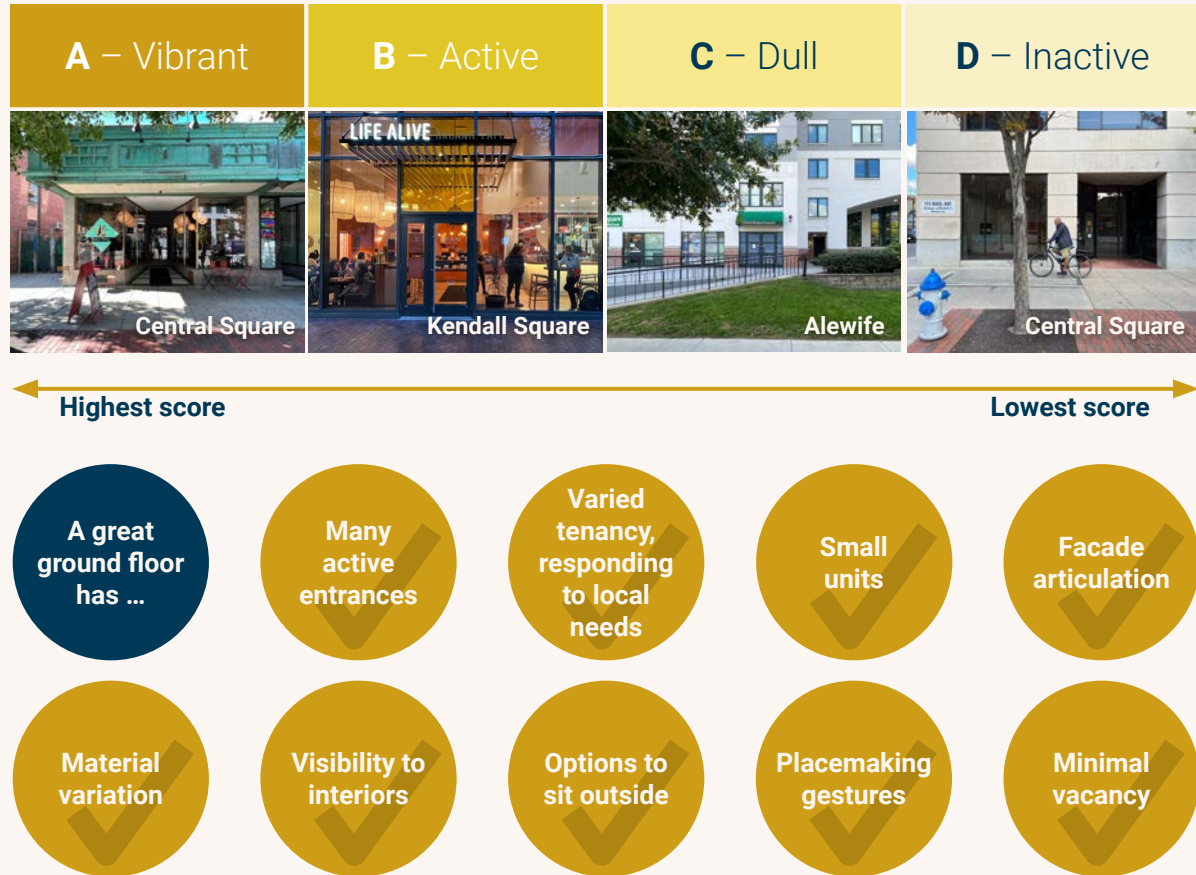
Need for Stimuli

RESEARCH IN FOCUS

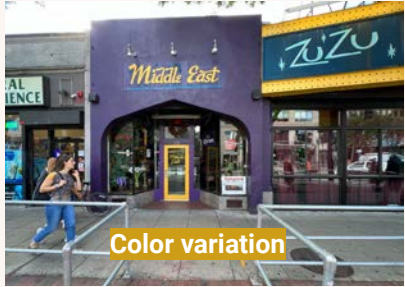
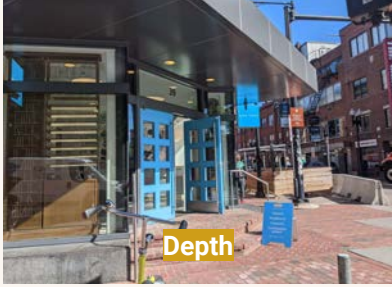
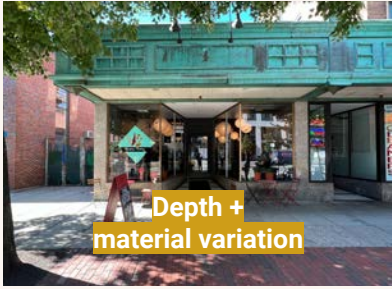
In this 2006 study by Jan Gehl, smaller-scaled facades were found to encourage people to stroll and walk more slowly, compared to large, blank facades that feel imposing or even unsafe to pass by.

Design for visual interest and create opportunities to engage with the interior.

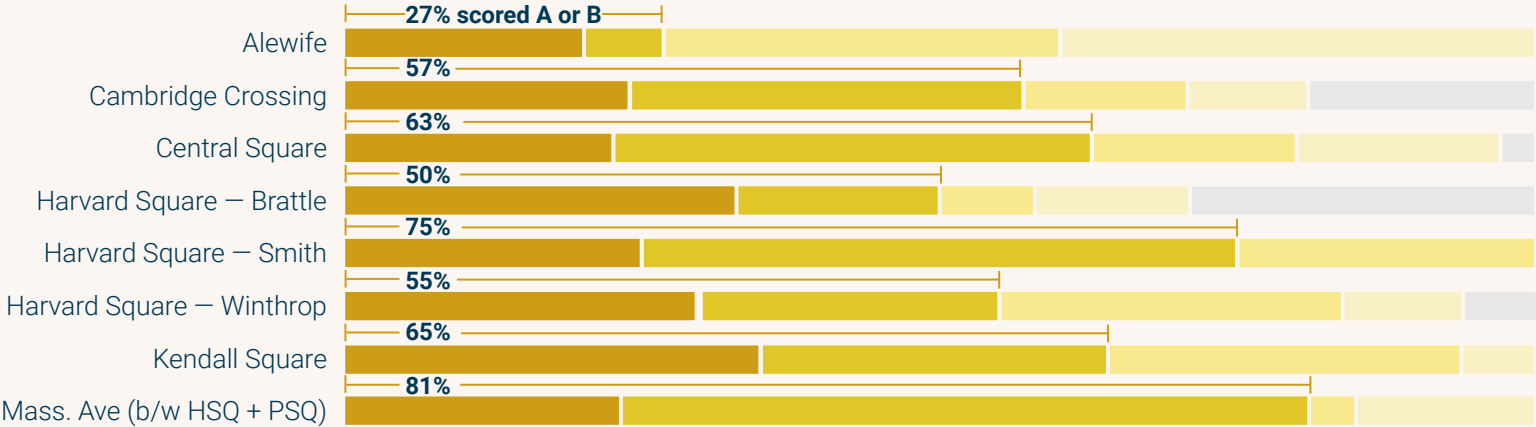
Factors like facade transparency, depth and articulation can be used to evaluate existing facades and design new ones.



Ground floor best practices in action in Cambridge.



Cambridge facades rate highly overall based on the snapshot.



Think beyond the edge to create a truly inviting ground floor experience

The facade may technically end at the building edge, but the experience of the ground floor extends to the curb. Facades that made gestures in the entirety of the edge zone fared better in creating an inviting experience.



Mass. Ave.'s (b/w HSQ + PSQ) high ratings on facade quality did not **translate into high levels of walking activity.**

Areas like Harvard Square and Central Square provide a **pleasant experience** buffered from car traffic.

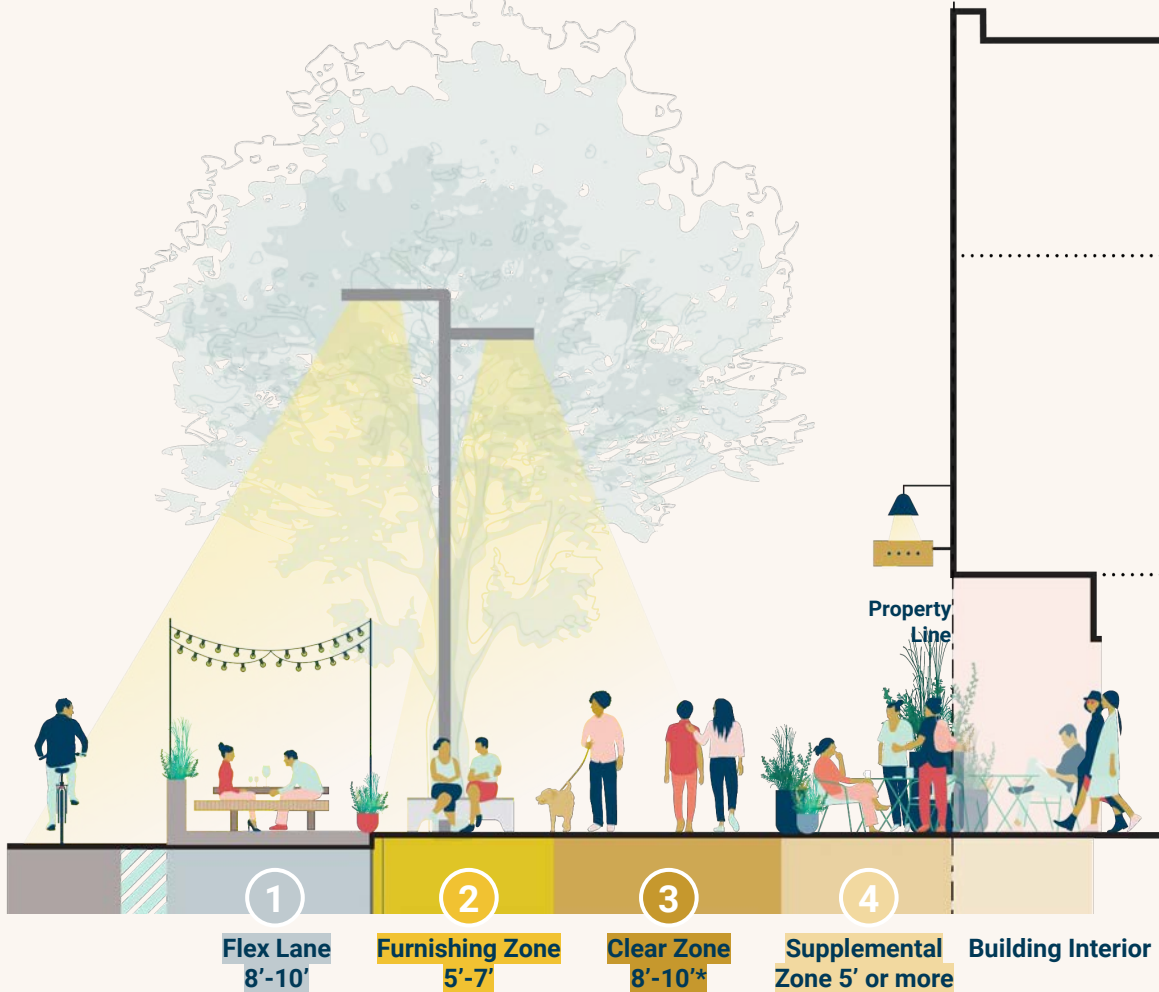


Seating and shade

Plantings

Defining the ground floor experience

More than a building's surface, the ground floor is a layered urban experience. It's a responsibility that starts — but doesn't end — at the property line. Together, the indoor program and floor plate size; the details of the facade; and the activation of the sidewalk or street edge contribute to a buzzing ground floor — a vibrant urban edge.



Establish a mix of invitations to spur diverse activities

Variety in program at the ground level encourages a steady hum of activity throughout the day — in Cambridge, areas with a more diverse mix of activities were also associated with higher volumes of people staying, and a greater diversity of activities among these people.

31

people per 10k
sq.ft. observed
staying (average)



Strong volumes of people and a **variety of activities** were observed at the Smith Center, which combines **retail and public space with university uses**.



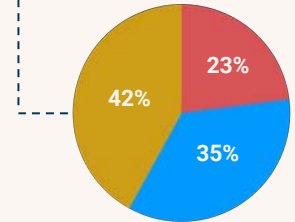
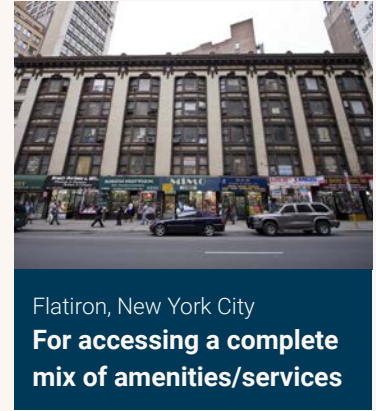
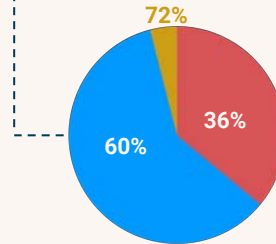
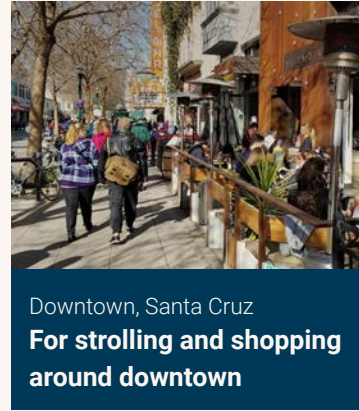
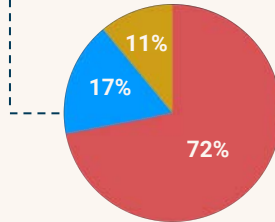
1

person per 10k
sq.ft. observed
staying (average)

Office-oriented spaces rated as less enjoyable and comfortable, even when aesthetically pleasing privately-owned public space was present. Alewife has **empty spaces for most of the day** with a **smaller, more homogenous group of people moving through**.

Calibrate the right mix of dining, retail and other ground floor uses to local needs and character.

Gehl studied the ground floor block-level amenity mix — based on facade length — across three active streets and squares: Enghave Plads in Copenhagen; Downtown Santa Cruz; and Flatiron in New York City.



LEGEND

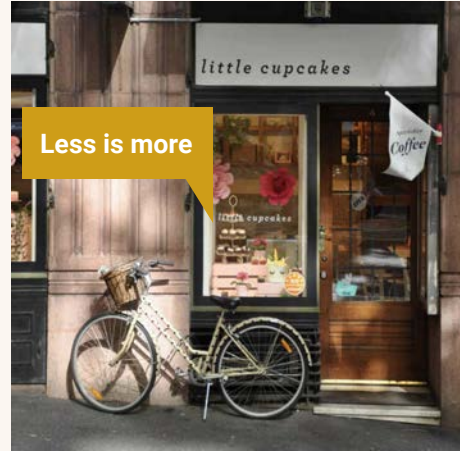


Case — Facades & Ground Floors Downtown — Melbourne



Making big feel small.

Through a mix of historic preservation, adaptive reuse, and strong guidelines for new development, Central Melbourne maintains a human-scale ground-floor experience — from its iconic laneway network to its small, approachable storefront sizes.



Local Character

Celebrating Cambridge's
eclecticism



Principles & Tactics — Local Character

1

Historic Character

Elevate age-old character by highlighting historic assets

- Integration of historical objects into open space design
- Context-appropriate materials and furnishings
- Viewsheds and lighting to highlight historic character

2

Contemporary Design

Ensure new design maintains a human scale and strong details to create lasting character

- Small units and active ground floor facades
- Integration of natural materials to soften harsh steel / glass / concrete
- Use of public art to create a stronger connection to place and community

3

Hybrid Approaches

Bring contemporary design in conversation with historic fabric

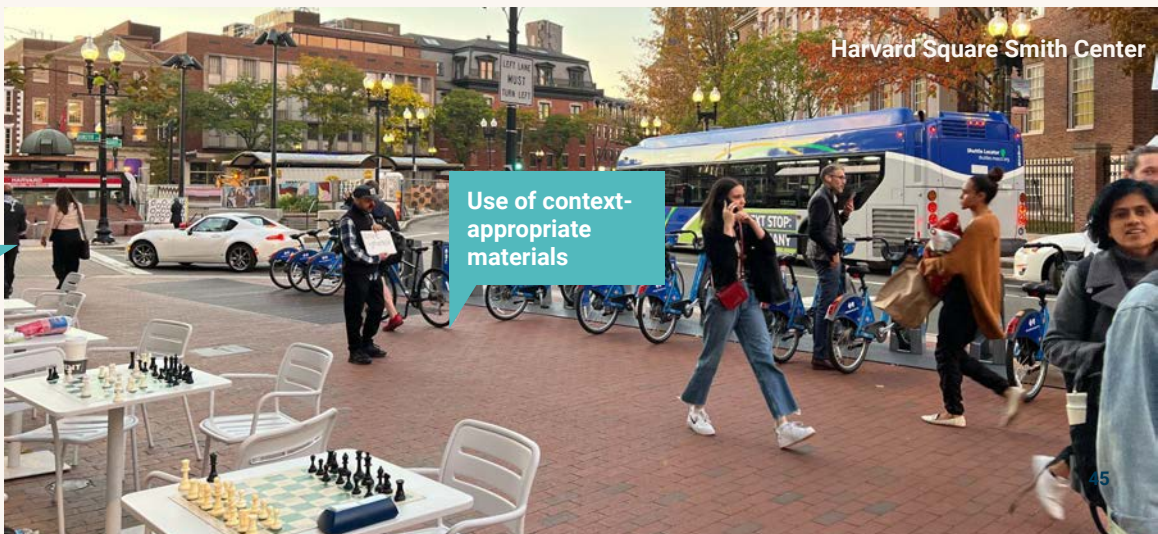
- Context-appropriate ground floors that respond to the scale of the existing historic fabric
- Opt for adaptive reuse/restoration to breathe new life into historic spaces
- Create contrast between contemporary architecture that riffs on (rather than imitates) historic architecture



Elevate age-old character by highlighting historic assets

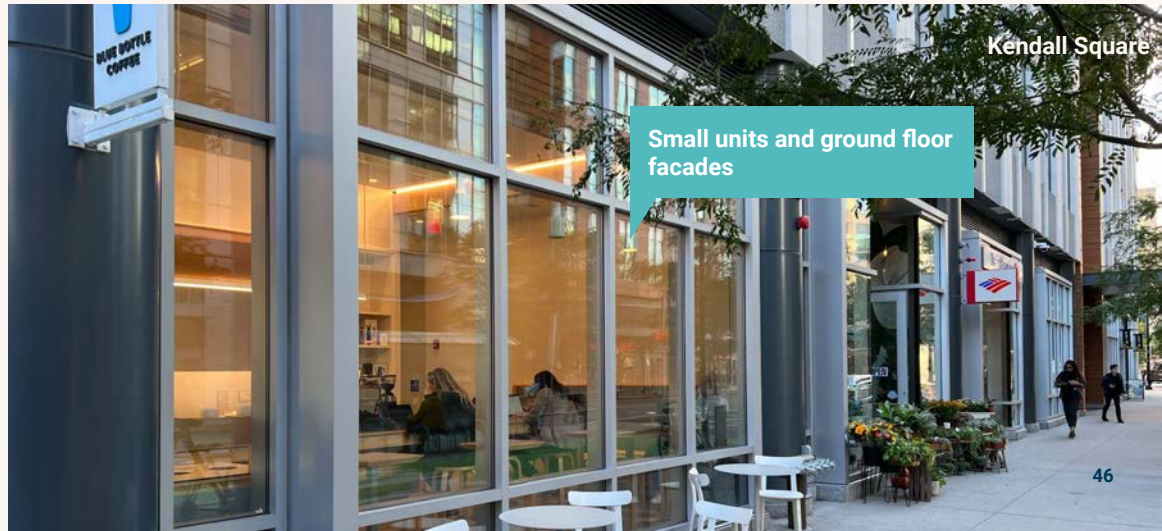
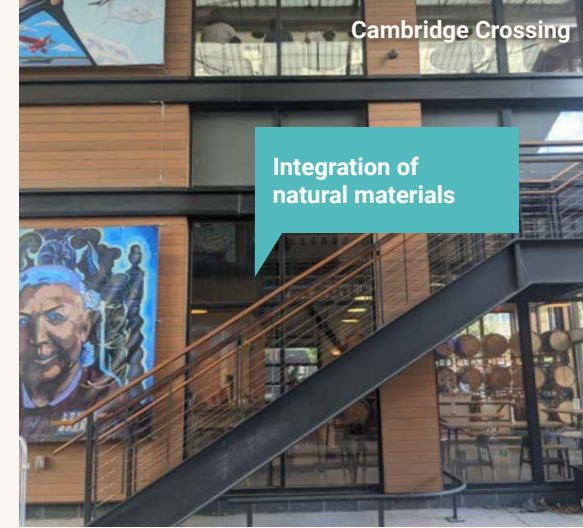
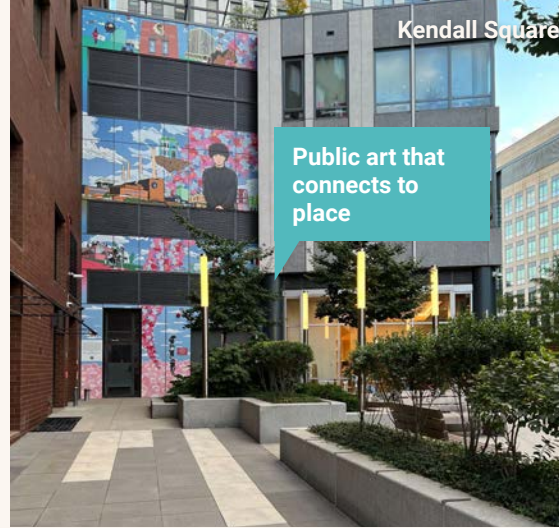
A mix of design moves can invite people to appreciate and engage with historic character and design — from the arrangement of seating to the integration of historical objects.

Public life researchers observed **strong foot traffic and staying activity** in Harvard Square and Central Square, areas that have a **strong historic fabric and density of activity**.



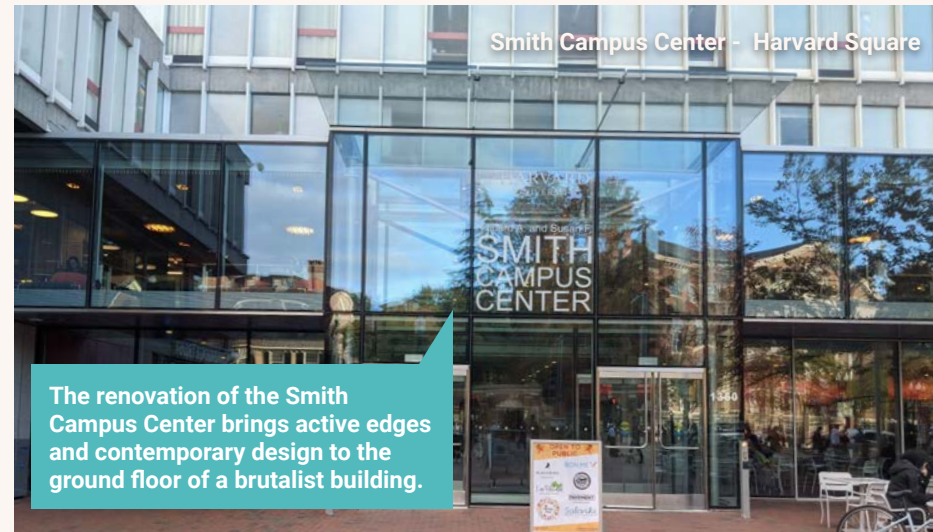
Ensure new design maintains a human scale and strong details to create lasting character

Newer developments can become historically significant in their own right, assuming they lay a strong foundation that makes them memorable places that people love to spend time in.



Bring contemporary design in conversation with historic fabric

In areas where infill development is taking place, seize opportunities to blend the old and new — from facade details to building massing to introduction of new open spaces. Moreover, when new open spaces are introduced, ensure they are set up for success with active edges and amenities, as well as regular activation and/or programming.



Case — Local Character

Brush Park — Detroit



Eclectic character by design.

Detroit's Brush Park neighborhood underwent a masterplanning process that set out to foster diverse architectural styles in a historic context. What results is an area that feels true to place while contemporary in its design quality.



For more information related to this engagement, see:

- [Memo of Best Practices for Urban Design Guidelines](#)
- [Initial Summary of Public Life Snapshot Findings](#)

The work to define the City's Urban Design Guidelines continues.

Stay tuned for the updated guidelines to be shared at future public meetings in 2023 and 2024.

Gehl

Gehl – New York
395 Hudson St, 8th Floor
New York
NY 10014 - USA