Reinventing Kendall Square for the 21st Century
Draft Vision

KENDALL SQUARE ADVISORY COMMITTEE
FEBRUARY 9, 2012
Agenda

• Vision goals
• Vision framework
  – Public places
  – Building form
• Discussion
Toward a vision: Priorities we heard

- Enhancing neighborhood identity and sense of place
- Creating a more active and extensive public realm
- Attaining the right mix of land use/activities
- Sustaining Kendall’s strong innovation culture
- Expanding the amount and range of housing
- Expanding retail choices
- Making Kendall a global leader in sustainability innovation and practice
- Improving transportation choices
- Ensuring plan implementation delivers effective results
Plan framework: four perspectives

- Nurturing Kendall’s innovation culture
- Demonstrating leadership in environmental sustainability for the world
- Creating places that foster community and vitality
- Integrating activities that support creative interaction
<table>
<thead>
<tr>
<th>Framework elements</th>
<th>Nurturing Kendall’s innovation culture</th>
<th>Demonstrating leadership in environmental sustainability</th>
<th>Creating places that foster community and vitality</th>
<th>Integrating complementary activities for creative interaction</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Vision priorities</strong></td>
<td><strong>Identity/sense of place</strong></td>
<td>Demonstrate innovation through architecture, use</td>
<td>Highlight sustainable infrastructure/practices, especially those in development locally</td>
<td>Create memorable, lively destinations</td>
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<tr>
<td><strong>public realm</strong></td>
<td>Display innovation in public areas</td>
<td>Highlight sustainable infrastructure/practices</td>
<td>Enhance/create top quality public environments</td>
<td>Serve multiple uses, users</td>
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<tr>
<td><strong>mix of land use/activities</strong></td>
<td>Support innovation with amplified housing and retail</td>
<td>Reduce transportation, energy and water demands by co-locating workplaces, housing, retail</td>
<td>Foster an 18/7 neighborhood by adding housing and retail</td>
<td>Connect mixed uses with walkable streets, diverse gathering places</td>
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<tr>
<td><strong>strong innovation culture</strong></td>
<td>Provide what innovation needs tomorrow: amenities, workforce, collaboration, flexibility</td>
<td>Attract the right people and create the right conditions to support sustainability breakthroughs</td>
<td>Gather great minds together, formally and informally, to spark new ideas</td>
<td>Inspire innovation outside of the lab</td>
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<td><strong>housing choices</strong></td>
<td>Offer the diverse, convenient housing choices innovators need</td>
<td>Minimize sprawl and transportation energy use by adding green housing locally</td>
<td>Turn Kendall into a neighborhood</td>
<td>Provide public spaces and retail enhancing residential quality of life</td>
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<tr>
<td><strong>retail choices</strong></td>
<td>Offer the retail options innovators seek</td>
<td>Minimize sprawl and transportation energy use by adding green retail locally</td>
<td>Support/add dining and retail that serve as centers of community</td>
<td>Support retail businesses by offering a mix of workforce and residential customers</td>
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<td><strong>global leader in sustainability</strong></td>
<td>Apply Kendall’s innovation power to the greatest environmental challenges</td>
<td>Publicize challenges and opportunities through experiential, interpretive displays</td>
<td>Bring people together on walkable streets and lush parks</td>
<td>Demonstrate the premium quality of life achievable in a lively urban setting</td>
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<td><strong>transportation choices</strong></td>
<td>Make Kendall more accessible with improved access choices – emphasizing walking, biking, transit</td>
<td>Reduce energy use with a more balanced, less auto dependent mode share. Promote public health through walking</td>
<td>Build community with people-scaled transportation: walking, biking, transit</td>
<td>Enable more local trips on foot by locating diverse activities near one another</td>
</tr>
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<td><strong>effective results</strong></td>
<td>Enable continued growth of research, commercialization and education enterprises</td>
<td>Monitor reductions in Kendall’s carbon footprint and water usage</td>
<td>Invest in quality public places</td>
<td>Achieve visible growth in housing and retail</td>
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Symbiosis: Land use framework and intensity...

All areas should include a mix of uses
...with active outdoor spaces...
...creating a network of diverse places building community, vitality, innovation

- Gardens and Courtyards
- Roof Gardens
- Parks
- Plazas
- Promenades
...connected, energized and augmented by
- Active sidewalks and interiors

PUBLIC PLACES
- Existing parks / greenways
- Potential parks
- Existing gardens and courtyards
- Potential gardens and courtyards
- Existing roof gardens
- Potential roof gardens
- Existing plazas
- Potential plazas
- Existing Active interiors
- Potential Active interiors
- Exterior pedestrian realm
Gardens, courtyards, roof gardens, parks, plazas: Existing and Pipeline*

In the study area:
- Existing/pipeline: Approx. 15 ac

Near the study area in this diagram:
- Existing/pipeline: Approx. 38 ac
Gardens, courtyards, roof gardens, parks, plazas: with potential new spaces

In the study area:
- Existing/pipeline: Approx. 15 ac
- Potential: Approx. 10+ ac
- Total: Approx. 26 ac

Near the study area in this diagram:
- Existing/pipeline: Approx. 38 ac
- Potential: Approx. 2 ac
- Total: Approx. 40 ac
• Intimate sense of scale
• Distinctive landscape design and plantings
• Typical activities:
  – Sitting: alone, groups
  – Childrens’ play
  – Group events
• Primarily serve occupants of adjacent building/block
• Within one block of any housing

• Existing: approx. 6 ac.
• Potential: approx. 1 ac.
Gardens and Courtyards

Significant plantings, comfortable microclimates (South End)

Spaces for group gatherings (University Park)

Semi-public character, access (Malmo)
Roof Gardens

- Connected to adjacent interior space
- Visible from above
- Overlooking public space below
- Distinctive landscape design and plantings
- Typical activities:
  - Sitting: alone, groups
  - Group events
- Primarily serve occupants of adjacent building/block

- Existing: approx. 1 ac.
- Potential: approx. 4 ac.
Roof Gardens

- Quality plantings & furniture (West End)
- Promoting views, gathering (NYC High Line)
- Connected to buildings (Back Bay)
- Interior gardens on upper floors (Dana Farber’s Stoneman Healing Garden)
- Existing: approx. 1 ac.
- Potential: approx. 4 ac.
Parks

- Larger scale, prominence
- Significant presence of lawn/field and/or water
- Typical activities:
  - Sitting: alone, groups
  - Informal sports
  - Children’s play
  - Dogs
  - Community gardens
  - Festivals, concerts
- Serve the general public, especially the immediate neighborhood

- Existing: approx. 6 ac.
- Potential: approx. 4 ac.

Broad Canal
Parks

- Mix of lawn, trees, sun, shade (SF)
- Water elements (Copley Square)
- Seating and walking areas
- Pocket parks (Velluci, Inman Sq.)
- Host events

- Existing: approx. 6 ac.
- Potential: approx. 4 ac.
Parks
**Plazas**

- Larger scale, prominence. Mixed-use context.
- Significant pedestrian hardscape, complementary plantings; winter garden?
- Typical activities:
  - Walking to destinations including transit, bike
  - Sitting: alone, groups
  - Engaging public art/media
  - Outdoor dining, retail
  - Outdoor markets, buskers

- Existing: approx. 3 ac.
- Potential: approx. 2 ac.

**PUBLIC PLACES**

- Existing parks / greenways
- Potential parks
- Existing gardens and courtyards
- Potential gardens and courtyards
- Existing roof gardens
- Potential roof gardens

- Existing plazas
- Potential plazas
- Existing Active interiors
- Potential Active interiors
- Exterior pedestrian realm
Plazas

Places to see and be seen; cultural anchors (Montreal Place Des Arts)

Engaging media, water (Chicago)

Experiential public art (Ottawa)

- Existing: approx. 3 ac.
- Potential: approx. 2 ac.
Plazas

Spaces for arts programming (Rose Kennedy Greenway)

Mixed hardscape, plantings (MGH)

• Distinctive nighttime lighting (Rose Kennedy Greenway)

• Retail, seating (New York)

• Existing: approx. 3 ac.
• Potential: approx. 2 ac.
Plazas

- Canopies adding scale, weather protection

- Existing: approx. 3 ac.
- Potential: approx. 2 ac.
6th Street Promenade

- Linear walking and view corridor; traffic
- Significant tree and shrub/flower plantings, potentially rain gardens
- Typical roles:
  - Walking: destinations, exercise
  - River park connections
  - Storytelling pathways
  - Stormwater mgmt.
- Serve the general public

- Existing: approx. 5,600’
- Potential: approx. 7,900’
Promenades

Landscapes

Street, walk or woonerf formats (Kassel, Germany)

Rain gardens (Portland)

Quality design (Malmo)

Pocket gathering spaces

- Existing: approx. 5,600’
- Potential: approx. 7,900’
Promenades
Storytelling

Convey history, future

Experiential art (Kennedy Greenway)

High quality interpretive signage

- Existing: approx. 5,600’
- Potential: approx. 7,900’
Active sidewalks/interiors

- Continuous network linked to surrounding corridors, neighborhoods
- Welcoming streetscapes, ample space for walking, trees, dining/retail, art
- Typical activities:
  - Walking
  - Engaging in art/media
  - Outdoor dining, retail
  - Public interior activities: dining, culture, education...
- Serve general public

- Existing: over 350K+ sf
- Potential: over 350K+ sf
Active sidewalks/interiors

- Retail/info kiosks (Darmstadt)
- Traffic separation, interior connection (Seattle)
- Public art/activity at challenging edges (Charlottesville)
- Interior/exterior transparency (Rome)
- Interior/exterior transparency (Portland)

- Existing: over 350K+ sf
- Potential: over 350K+ sf
Wayfinding and character areas

Central Square

University Park

“Transition” Area

Area 4

One Kendall Square

MIT Core Campus

Main/Broadway

MIT Gateway

Broad Canal

Point Park

Directional and identification signage/cues at gateway

Signage at decision point or visual barrier

East Cambridge
FRAMEWORK: Building form

Heights Limits Under Existing Zoning

Not: Heights listed for individual buildings are taken from 2003 or 2010 planimetric data and indicate the highest point of the structure, which can include rooftop mechanicals.

urban design/planning study for the central and kendall square area
Balancing complementary goals through building form

- Enhance walkability with sun, views and development intensity
- Locate greatest intensity in a compact walkable area near transit – to minimize traffic impacts, maximize mixed-use benefit
- Consider shadow impacts on open space and housing, especially during shoulder months
- Encourage housing production
- Mark Kendall Square’s core with attractive, distinctive architecture having a variety of heights and massing
Transit, mixed use enable greater intensity

GUIDING PRINCIPLES

- Leverage community and innovation benefits of mixed-use environment
- Focus intensity around transit
- Prevent development pressures on traditional neighborhoods
- Support city and state economic development
Vertical land use and building form framework

- Height thresholds vary in different areas per context

**Tallest and Intermediate height bands**
(vary per context as appropriate) –
Required: smaller floorplates, reasonable impacts (shadow, view, sky, traffic etc.), outstanding design.
Housing required in Tallest band (above 250’)

**Streetwall height band**

**Active, pedestrian-oriented ground floor use**

**Any new off-street parking below-grade**
Streetwalls frame the street as a place for people
Streetwall : Broadway concept

Broadway at 6th Street Promenade/Ames
Shadow and sky criteria

GUIDING PRINCIPLES

• Ensure significant direct solar access to public parks/plazas to encourage more use throughout the year and day
• Maintain pedestrian comfort
• Maintain landmark view corridors to enhance sense of place

Shadows:
• Consider shadow impacts on open space and housing, especially during shoulder months
• North Plaza ice rink winter sun corridor

Sky: Kendall building sky corridor

Sample buildout scenario
Three height thresholds: Streetwall...

GUARDING PRINCIPLES

- Frame streets as outdoor rooms to support their perception and use as public spaces
- Create an appropriate pedestrian scale
- Relate new development to scale of context buildings

Streetwall: up to 75’/85’
- 16’ step-back at datum height
- Main, Broadway, Third, Volpe park: 75’ datum
- Binney: 85’ datum
Three height thresholds: Intermediate...

**GUIDING PRINCIPLES**

- Accommodate significant additional research and housing development
- Leverage future development to provide community benefits such as enhanced parks and plazas, local retail, affordable housing
- Produce variety of building height and massing to enhance aesthetics, place-identity

**Intermediate: Streetwall to 250’**

- Floorplate limits
  - Streetwall to 150’ tall: up to 25,000sf (accommodates prevailing research configurations)
  - 150’ to 250’ tall: up to 15,000sf, 150’ wide
- Blocks south of Binney: existing zoning
- Volpe, MIT: up to 250’-300’ as appropriate
- Comparable to tallest existing buildings

Sample buildout scenario
Three height thresholds: Tallest

GUIDING PRINCIPLES

- Locate added intensity where infrastructure and mixed-use concentrations best support it – and vice-versa
- Physically define the center of Kendall Square to improve place identity
- Leverage future development to provide community benefits
- Produce variety of building height and massing to enhance aesthetics, place-identity

Tallest: 250’-300’ +

- Within 2 blocks or 800’ of Red Line
- Space above 250’ must be housing
- Floorplate limit: 6,500sf

Sample buildout scenario
Use mix: existing

Sample buildout scenario
Use mix: pipeline

- Housing
- Office/research
- Retail/active ground floor

Sample buildout scenario
Use mix: potential

Approximate floor areas (beyond pipeline):

- **Housing**: 2,500 units
- **Office/research**: 2.8 million sf
- **Retail/active ground floor**: 200,000sf
Concepts: Point Park
Concepts: Main/Ames
DISCUSSION