Envision Cambridge Advisory Committee
March 1, 2017
Agenda

Introduction

Cambridge in the Regional Context
• Regional and local projections
• Discussion of regional pressures

Cambridge and its Corridors
• Historic role of corridors
• Corridor considerations
• Initial corridor development analysis
• Discussion of corridor tradeoffs

Next Steps
What is the regional context for growth in Cambridge?
Regional Population Projections

MAPC projects that the region will add more than 400,000 residents over the next 20 years, and an additional 130,000 in the following decade under its **Stronger Region** scenario.

Source: 2014 MAPC Population Growth Projections
Regional Population Projections

MAPC projections include two scenarios for regional growth -

- The “Status Quo” scenario is based on the continuation of existing rates of births, deaths, migration, and housing occupancy.

- The “Stronger Region” scenario explores how changing migration trends could result in higher population growth, greater housing demand, and a substantially larger workforce.

Source: 2014 MAPC Population Growth Projections
Regional Population Projections

Overall, the aging and retirement of the Baby Boomers will have profound implications for the region. More than 400,000 new housing units will be needed by the year 2040 if the region is to keep growing its economic base.

- Household Size:
  - 2010: 29%, 48%, 29%
  - 2020: 30%, 49%, 30%
  - 2030: 32%, 48%, 32%
  - 2040: 32%, 48%, 32%

- Percentage of total population in labor force:
  - 2010: 20%, 69%
  - 2020: 20%, 67%
  - 2030: 20%, 64%
  - 2040: 20%, 63%

- Labor force size:
  - 2010: 2,515,509
  - 2020: 2,616,337
  - 2030: 2,642,502
  - 2040: 2,690,308

Source: 2014 MAPC Population Growth Projections
Citywide Population Projections

Cambridge’s population was 13% smaller than its peak 1950 population at the last US Census in 2010, and 10% larger than its lowest population (1980).

Citywide Population Growth

MAPC “Stronger Region” projections show Cambridge approaching its peak population by 2030.

Source: 2014 MAPC Population Growth Projections; US Census, 1950–2010. Projections based on historical births, deaths, migratory patterns of different age cohorts, and steps forward by applying variations on those historical patterns to each age cohort as they age over time.
Citywide Population Growth

The Census Bureau estimates Cambridge has already overtaken its projected 2030 population under the “Status Quo” scenario, and is outpacing the “Stronger Region” scenario.

Citywide Population Growth

Cambridge is possibly on track for growth exceeding MAPC projections.

Citywide Household Projections

MAPC projects total number of households will continue to increase. Over time, the number of people per household decreased as the number of Cambridge’s family households decreased.

Source: 2014 MAPC Population Growth Projections; City of Cambridge Statistical Profile
Housing Affordability

Home prices increased faster in Cambridge than in neighboring communities between 2005 and 2015.

Surrounding Communities: Median Home Prices (2005=1)

Asking Rents

Rents for 2-bedroom apartments exceeded $2500 across most of Cambridge as of 2015

Source: Padmapper listings, October 2015. Data is normalized to reflect 2-bedroom prices.
Housing Production

Housing production fluctuates according to real estate and macroeconomic cycles. Developers built more than 2000 new units in 2014 and 2015.

Housing units by year built, 1997-2015

Source: City of Cambridge Development Log. Spikes in completed housing units occur at recessions as construction of projects initiated during the preceding bubble is completed.
Housing affordability

From 2000–2013, the proportion of households that are housing cost-burdened grew the most for households with moderate incomes.

Housing Cost Burden, 2000–2013

A household is “housing cost-burdened” when residents pay more than 30% of their household income toward the cost of housing. Moderate incomes here means household incomes that are 30% to 80% of the regional median household income for families (Area Median Family Income or AMFI)—between $28,300 and $75,500.

Employment and Residents

Not only a home to many, Cambridge is a jobs center within the region.

*More people work in Cambridge than live in the city.*

The city plays a critical role in regional employment, and residents benefit from Cambridge’s economic centrality through high commercial tax revenues and daytime demand for local businesses.

Source: Massachusetts Executive Office of Labor and Workforce Development, 2015. Based on population estimate for 2015, ACS.
Kendall Square Commuter-shed

Cambridge is the largest origin for workers in Kendall Square, but the most workers in Kendall commute from beyond the city’s borders.

12% of people working in Cambridge for their primary job also live in Cambridge

28% of people living in Cambridge also work in Cambridge for their primary job

Source: US Census Bureau, Longitudinal Employer-Household Dynamics data, 2014; MassGIS.
Tax Rates and Revenues

Commercial taxes fund city services and reduce residential taxes.

Property Tax Rate by Municipality
($ per $1000 assessed value)

- Residential
- Commercial

Cambridge Property Tax Levy by Property Type

- $223m
- $118m

Source: City of Cambridge Budget, Fiscal Year 2016. Rates do not include residential exception.
• Are there aspects of the projection data that surprised you? Why?

• Of the issues we’ve presented, which require regional coordination more than local Cambridge policy responses?
How will corridors play a role in Cambridge’s future?
Existing Land use

Source: Cambridge CDD
Nonresidential and noninstitutional land uses

Not including parcels with buildings built after 1995 and parcels with projects in the development pipeline

Source: Cambridge CDD and Assessing Department. Pipeline as of December 2016.
Commercial and mixed use: FAR < 1.5 or height < 40 ft.

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Not including parcels with buildings built after 1995 and parcels with projects in the development pipeline.

Source: Cambridge CDD and Assessing Department. Pipeline as of December 2016.
Historic development

The corridors developed as some of the first and most important streets in Cambridge

C. 1830
Historic development
In the last century, the City has pushed development toward the corridors through regulations.

1924: Cambridge’s first zoning plan. Shaded areas represent a height limit of 100 ft.
Historic development

Commercial corridors grew as centers of public life connecting residential neighborhoods.
Historic development

In the last century, the City has pushed development toward the corridors through regulations

1962: Height limits abolished in shaded areas.
Growth Policy Report

The 1993 Growth Policy Report emphasized –

- Preservation of urban built character in residential neighborhoods
- The importance of retail clusters to the vitality of the city
- Role of urban design standards to ensure appropriate transitions between diversity of scales among neighborhoods
- Optimal location for highest density commercial uses near transit

Source: Toward a Sustainable Future, City of Cambridge, 1993
Growth Policy Report update

- **The 2007 Growth Policy Report update** recognized the need to adapt the pace of development to maintain the City's tax base so long as it does not overburden the City's infrastructure systems or disrupt the neighborhoods.

- It maintains that new retail should be directed towards Cambridge's existing squares and corridors.

- It also recognizes the role of urban design review to ensure that infill development is consistent with the character and scale of the existing neighborhood.

Source: Towards a Sustainable Future, City of Cambridge, 2007
Development projects, 2011–2017

In addition to formerly industrial districts, the corridors absorb much of the new development in Cambridge.

Source: CDD Development Log, 2011–2017
Development projects, 2011-2017

In addition to formerly industrial districts, the corridors absorb much of the new development in Cambridge.

### Current Development Log

- **Inman Square**
- **Harvard Square**
- **Kendall Square**
- **Lechmere**
- **Porter Square**
- **Central Square**

### Proposed Study Areas
- **Alewive**

Source: CDD Development Log, 2011–2017
Public realm

Commercial corridors structure patterns of community interaction and everyday life through intersection of jobs, housing, transportation nodes, retail, institutions and public spaces.
Retail cluster walkshed

The majority of retail clusters and nearby buildings are along the commercial corridors.

Source: City of Cambridge CDD, Envision Cambridge Analysis. Retail clusters are any group of five or more buildings with retail space without a distance of 400 ft. or greater between those buildings. List of land use codes used to determine retail space available upon request.
Street Wall

Street wall helps define the public realm and creates a cohesive urban form.

Buildings on Church Street in Harvard Square frame the street like a wall.

Buildings along Alewife Brook Parkway sit along the street, but do not form a cohesive form enclosing the street.
Street Wall

Commercial corridors have well-defined street wall (except northern Mass Ave).

Source: CDD GIS data, Envision Cambridge Analysis.
Public transit

Mass transit lines and stops in Cambridge are oriented toward the corridors.
What role could the corridors play in...

- Providing public civic spaces for the community to gather
- Helping people choose sustainable transportation modes
- Supporting local, independent retail
- Creating employment and entrepreneurship opportunities
- Helping meet the City’s housing needs
How might corridors respond to growth pressures?
Study Areas

Initial analysis of potential development given current market and regulatory conditions at Porter and Inman squares.

- **Porter Square Quadrangle Development**: Log: ~90 units, Quadrangle baseline: ~1,800 units*
- **K2C2 area Development**: Log: ~1550 units
- **North Point Development Log**: ~1800 units
- **Inman Square Development Log**: ~1800 units

Rest of Development Log across the city: ~1760 units
Total Development Log Units: ~5200

Source: City of Cambridge CDD Development Log; Envision Cambridge Analysis; Quadrangle baseline is based on the existing zoning and estimated 60% buildout by 2030, and is not included in total. Total number reflects permitted projects in specified areas and all development log projects in unspecified as of December 2016.
Porter Square: Representative Parcels

Least Likely to Be Developed

Likely to be Developed

Most Likely to be Developed
Corridor building types and capacity

Buildings Under 40’

Typical Upper Floor   Ground Floor

40’ x 90’ Residential
2 Units per Floor

50’ x 60’ Retail w/Residential
1-2 Units per Floor

30’ x 70’ Retail w/Residential
1-2 Units per Floor

Buildings 40’–70’

Typical Upper Floor   Ground Floor

35’ x 90’ Retail w/Residential
2 Units per Floor

35’ x 120’ Retail w/Residential
3 Units per Floor

35’ x 180’ Retail w/Residential
5 Units per Floor

65’ x 120’ Retail w/Residential
7 Units per Floor

65’ x 165’ Retail w/Residential
9 Units per Floor

65’ x 210’ L Residential
16 Units per Floor

95’ x 105’ Retail w/Residential
5 Units per Floor

4-1 Floors / 10 Parking Spots
8 Units / 2,310sf Retail

4-1 Floors / 15 Parking Spots
12 Units / 3,465sf Retail

4-1 Floors / 26 Parking Spots
20 Units / 5,993sf Retail

Three Floors / 22 Parking Spots
3 Units / 7,740sf Retail

Three Floors / 42 Parking Spots
3 Units / 9,855sf Retail

135’ x 215’ L Residential
80 Units / 82 Parking Spots
Porter Square Corridor

Approximately 270 units and 98,000 SF of retail generated by optimal stick-built construction
Inman Representative Parcels

Least Likely to Be Developed

Likely to be Developed

Most Likely to be Developed
Inman Square Corridor

Approximately 160 units and 79,800 SF of retail generated by optimal stick-built construction
Study Areas

Initial analysis of potential development given current market and regulatory conditions at Porter and Inman squares.

Source: City of Cambridge CDD Development Log; Envision Cambridge Analysis; Quadrangle baseline is based on the existing zoning and estimated 60% buildout by 2030. Porter and Inman estimates based on optimal stick-build construction on parcels that are likely to be developed. Total number reflects permitted projects in specified areas and all development log projects in unspecified as of December 2016.
Citywide Population Growth

Cambridge is possibly on track for growth exceeding MAPC projections.

## Housing deficit based on projections

Keeping up with projected population growth is not the main driver of development on the corridors

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<tbody>
<tr>
<td>Total population</td>
<td>105,162</td>
<td>110,623</td>
<td>118,625</td>
<td>123,000</td>
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<td>Pop change 2010 - 2030</td>
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<td>5,461</td>
<td>13,463</td>
<td>18,208</td>
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| Residential forecast               |                          |                               |                                   |                                                       |
| New Housing Demand (A)             |                          | 3,121                         | 7,693                             | 10,405                                                |
| Housing stock added since 2010 and in development pipeline (B) | 8,486                      | 8,486                         | 8,486                             |                                                       |
| Housing Deficit (C = A – B)       |                          | 0                             | 0                                 | 1,919                                                 |
| Total housing GSF needed (C x 1,000) |                          |                               |                                   | 1,096,571 SF                                         |

• If the amount of new housing that can be developed along the corridors is a relatively small percentage of the City’s potential supply, what are the other advantages well-designed infill development?

• What are the attributes of successful infill development?

• What issues within the public right-of-way along the corridors should be addressed?