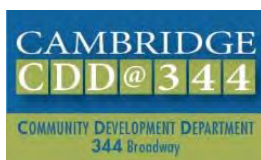


PUD-KS (Volpe Site) Rezoning Proposal

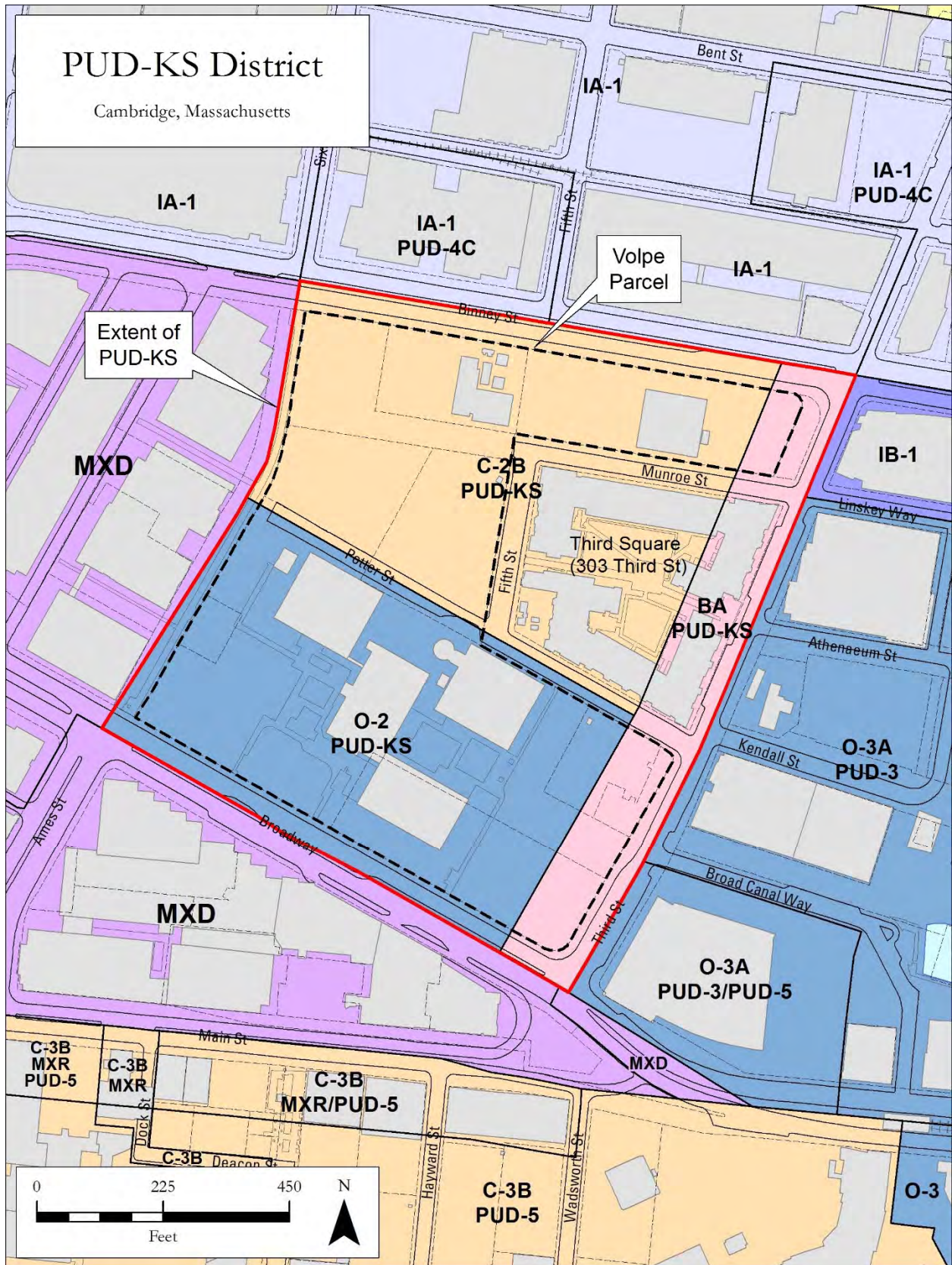
Background Materials for City Council Ordinance
Committee and Planning Board



Supplement to PUD-KS Rezoning Petition, submitted by
Planning Board to City Council on May 27, 2015



City of Cambridge, MA
Community Development Department
June, 2015





CITY OF CAMBRIDGE
COMMUNITY DEVELOPMENT DEPARTMENT

IRAM FAROOQ
Acting Assistant City
Manager for Community
Development

To: City Council Ordinance Committee and Planning Board
From: CDD Staff
Date: **June 24, 2015**
Re: **PUD-KS (Volpe Site) Rezoning Proposal**

Volpe Site Overview

The Volpe site, which occupies the majority of the PUD-KS district, is a 14-acre parcel of land owned by the Federal government and home to the U.S. Department of Transportation's John A. Volpe National Transportation Systems Center. While the Volpe Center is one of Cambridge's largest employers and has been an important fixture within Kendall Square for 45 years, its "superblock" site has for many years served as a barrier to connections within the area and a hole in the urban fabric of the neighborhood. Redevelopment of the Volpe site presents an opportunity to reimagine a part of Kendall Square that has been unchanged for over 45 years.

Overview of Process

Last year, the U.S. General Services Administration (GSA) announced a plan to redevelop the site using an "exchange transaction" (info at www.gsa.gov/volpecenter). Through a competitive bidding process, GSA will select a development partner, or "exchange partner," to construct a new building for the Volpe Center, which will both serve Volpe's research needs and improve its connection to the surrounding community. In exchange, the developer will work directly with the city to build private commercial and residential uses on the remainder of the site according to the City's zoning and review processes for large projects. GSA is aiming to select an exchange partner by the end of 2016.

The Kendall Square ("K2") Planning Study, conducted in 2011-2012, recommended changes to the zoning for the Volpe area. Enacting new zoning prior to the GSA's exchange partner selection process would provide clarity for competing bidders about the expected scale, form and character of development as well as additional desired benefits for the City (discussed on the following pages). The allowed scale of private development would need to enable the private market to support the construction of a new Federal facility along with all other site improvements and public benefits, which involve many unknown costs.

The Planning Board, after working with staff over the past several months, has submitted a rezoning proposal for the PUD-KS district. The proposal mainly follows the recommendations of the K2 study, while some issues such as building height and affordable housing have been given additional thought.

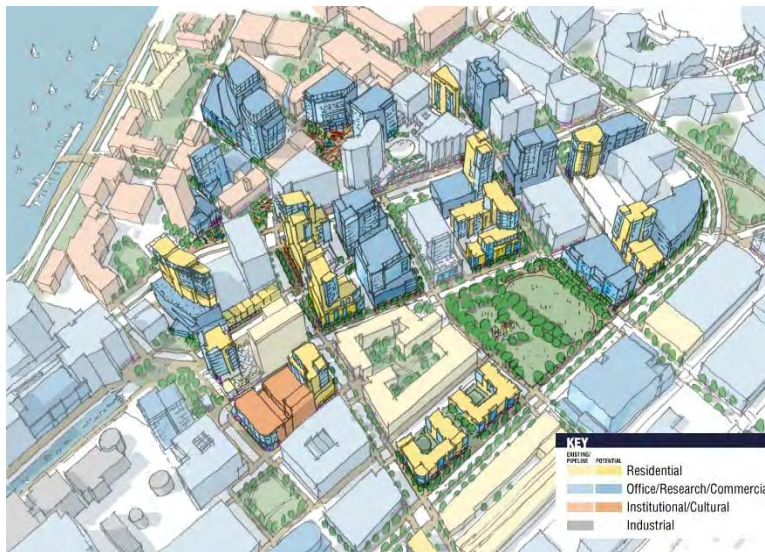
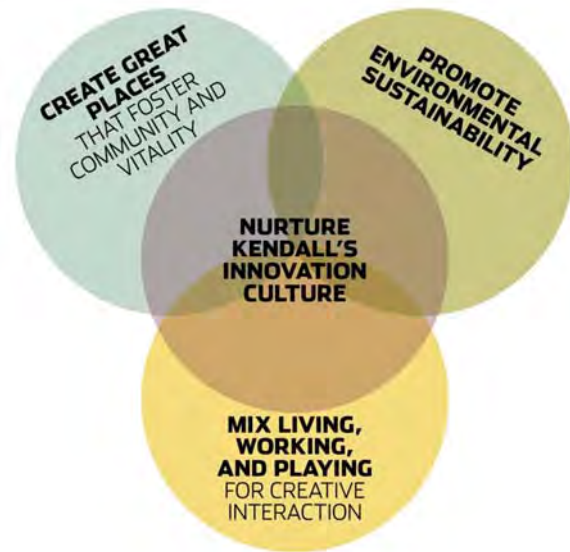
We look forward to continuing to discuss this proposal over the coming months with the City Council and within the community at large.

KENDALL SQUARE PLAN

The K2 study looked at the potential for future growth in the heart of Kendall Square, building off of past planning work including the Cambridge Growth Policy (1993) and Eastern Cambridge Planning Study (ECaPS, 2001). Kendall has historically been a key economic and employment center for Cambridge, and given its transit access and proximity to institutions like MIT, it is expected to continue to play a strong role in the Cambridge economy in the future, provided that it has the capacity to grow and adapt to change.

The K2 plan suggested ways to harness economic growth in Kendall Square to build a better, more mixed-use neighborhood with high-quality urban design and benefits for the surrounding neighborhood and the City at large, including:

- **Housing**, both market-rate and affordable
- **Active ground floor space**, including food stores, retail, cultural space
- **Innovation space** for start-ups, small companies and individuals
- **Sustainability standards** to enhance energy efficiency and environmental stewardship
- **Transportation enhancements**, with less reliance on automobiles
- **Public open space** and better walking and biking connections throughout
- **Community fund** contributions (expected to total about \$16 million under proposed zoning) directed to open space, transit and workforce development programs



Kendall Square Final Report, K2C2 Planning Study, 2013

Following the Council’s adoption of the MIT-Kendall rezoning in 2013, the Volpe site is the next area for which the K2 study recommendations are proposed to be implemented.

Along with the benefits listed above (and described in more detail on the following pages), the proposed PUD-KS zoning would enable the Volpe Center to remain as a public institution in Kendall Square that provides jobs and serves the community at large.

VOLPE SITE

The current 14-acre Volpe site (see image below in outline) emerged during the “urban renewal” period of the 1960s, when Federal programs assisted in consolidating and clearing large areas of formerly industrial land in order to develop more modern types of buildings and uses.

At the time, a substantial portion of the area was set aside for a NASA Electronics Research Center. Construction of a complex of Federal buildings was started, but halted when NASA relocated out of Cambridge in 1969. The U.S. Department of Transportation took over the remaining buildings in 1970, and since that time the Volpe Center has been operating in those buildings with virtually no other changes to the site.

From the 1980s to the present, private activity has converted most of the surrounding developable land into commercial buildings, housing, open space and other uses, while the Volpe area remains largely surface parking lots. Moreover, the current site design makes it impenetrable, serving as a barrier between the neighborhoods and Kendall Square.

It has taken many decades to reach a point where the interests of the Federal government, the City and the private real estate market might be aligned to enable a redevelopment plan that can benefit all parties. Enacting new zoning is one key step in that process.



PUBLIC BENEFITS OF THE REZONING PROPOSAL

The proposed rezoning is key to enable redevelopment of the Volpe parcel and its positive transformation into an active, mixed-use precinct that knits together the urban fabric. This proposal would enable the following public benefits:

- approximately 1,000 new housing units, including approximately 150 affordable units
- over \$20,000,000 in incentive zoning payments for affordable housing (assuming adoption of incentive zoning changes)
- room for the Kendall Square innovation economy to grow including approximately 84,000 square feet of innovation space
- active ground floors including retail along street edges that are currently inactive
- new public open space
- roads and pathways through the block, creating new and improved connections between the neighborhoods of eastern Cambridge, Kendall Station and the Charles River
- over \$16,000,000 in public benefit contributions dedicated to open space programming, transit improvements and workforce readiness
- sustainability improvements including green/cool roofs, steam feasibility, on-site energy and cogeneration, stormwater and heat island mitigation
- improved urban design and site master plan review



Housing

One of the City’s key planning goals, reflected in both the ECaPS (2001) and K2 plans (2013), is to bring more housing into the Kendall Square area. This would bring more life and activity to the streets on evenings and weekends, foster connections with surrounding neighborhoods, and provide support for retail and other community-serving amenities. Kendall Square can also accommodate housing at a higher density than most other areas, which helps alleviate pressure on the housing market overall as well as providing dedicated affordable units to the City.

If the Volpe site were redeveloped according to the proposed zoning, it would bring approximately 1,000 units of housing into the heart of Kendall Square, including about 150 units set aside for low, moderate and middle income households through the City’s affordable housing programs.

Total units	1,000 (approx.)
Low-moderate income affordable units	100 (approx.)
Middle income affordable units	50 (approx.)
3-bedroom units (all incomes)	50 (approx.)
Contributions to Affordable Housing Trust*	\$20 million +

** Assuming adoption of proposed Incentive Zoning Amendments*

Active Ground Floors

The proposed zoning goes beyond the current zoning by requiring retail and other active uses on at least 75% of the ground floor frontage on major streets. Incentives would encourage smaller retailers of 5,000 square feet or less, which tend to be locally owned and operated.

- Food stores, restaurants and retail to serve area residents, workers and visitors
- Community and cultural spaces
- Activation of major streets and park edges



Open Space and Public Realm

It is a city goal to create great spaces that build community, encourage social interaction and public life, provide for recreation, reflection and sensory experiences, invite people of a wide range of ages and abilities, and support play and relaxation throughout the day and year. Past planning for Kendall Square has required new spaces to be created through redevelopment, over time resulting in public amenities such as the walkways and parks on the Broad Canal.

The 2001 ECaPS study recommended the creation of public open space on the Volpe site, which is still a goal of the proposed zoning. However, the current zoning requirement for a 7.5-acre park on the 14-acre site is very inflexible and makes the envisioned redevelopment much less feasible. If the redevelopment cannot proceed then the desired open space will not come to fruition.

The current proposal would require a minimum of 25% of the site to be public open space, still the highest open space requirement for any redevelopment area and comparable to the open space ratio achieved in large projects such as North Point and Alexandria. Open space in a large project typically exceeds the minimum requirement, but flexibility is required to achieve the right urban design balance.



Photos: Gretchen Ertl



Richard Burck Associates, *Connect Kendall Square Proposal*

The City's *Connect Kendall Square* design and planning competition revealed the importance of not just creating new open space but connecting spaces to each other and surrounding neighborhoods as a network. Recognizing the central location of the Volpe site, this process showed different ideas for how public space might be configured to better connect to the areas around it. The

principles developed through *Connect Kendall Square* will be a key part of the City's urban design review of an eventual redevelopment plan. The process also provided ideas for activating open space through programming, which would be supported by required fund contributions in the proposed zoning.

- **Expected community fund contributions for open space programming: \$5.4 million (approx.)**

Innovation Space

As the Kendall Square economy has grown to include many more large companies, it has become critical to ensure that space remains to serve smaller companies and particularly the start-up entrepreneurs that form the base of the innovation economy and provide job opportunities for much of the younger workforce. The proposed zoning includes the same requirements to set aside space for such companies as in the 2013 MIT-Kendall zoning.

- 84,000 square feet (approx.) of innovation space expected from proposed zoning
- Month-to-month leases
- Shared workspaces and resources
- Limits on space occupied by a single company



Sustainability

Building on the recently created Kendall Square Ecodistrict, new development has the potential to lead the way in sustainable development standards. The proposed zoning recommends holding new buildings to the City’s highest standards for sustainable design (which would be further enhanced through implementation of the Net Zero Task Force recommendations), and also encourages large development plans to incorporate more holistic strategies such as district-wide energy systems and area solutions for mitigation of climate change impacts.



Photo: Gretchen Ertl

- LEED Gold minimum requirement
- Stormwater and urban heat island mitigation
- Energy use monitoring
- On-site energy and cogeneration
- District steam
- Cool roofs

Transportation

Related to the City’s sustainability goals, new development in Kendall Square has been shown to rely increasingly less on driving and more on alternative modes of transportation. Direct counts show that total car traffic in Kendall Square has remained stable or lowered over the past decade despite commercial and residential growth, with decreasing percentages of workers who drive alone to work.

The proposed zoning sets a “hard limit” on the number of parking spaces that can be built to serve new development. Limiting the supply of parking means that employees and residents will be even more likely to use non-auto modes of transportation. Further reductions will be achieved through the City’s ongoing programs, including “PTDM” requirements for employers to implement programs to encourage walking, bicycling and public transportation.

Use	Proposed Parking Requirements
Office	0.9 space/1000 sq. ft. <u>maximum</u>
Lab/R&D	0.8 space/1000 sq. ft. <u>maximum</u>
Retail	0.5 space/1000 sq. ft. <u>maximum</u>
Residential	0.5 space/unit <u>minimum</u> 0.75 space/unit <u>maximum</u>



Public improvements in transit will be supported by Kendall Square Fund contributions required by the proposed zoning. These funds could be used to support MBTA service or complementary services such as the EZRide Shuttle.

- Expected community fund contributions for transit: **\$5.4 million (approx.)**

Workforce Development

Connecting Cambridge residents to the Kendall Square economy is another important goal, and while much of this will be achieved not through zoning but by forging relationships between the City’s current workforce development programs and the companies that eventually locate in the area, the zoning does provide for funding contributions to go toward workforce development programs.

- Expected community fund contributions for workforce development: **\$5.4 million (approx.)**

SUMMARY OF PROPOSED ZONING CHANGES

The table below summarizes key proposed changes to the PUD-KS development controls. Further below is a chart that summarizes the expected development that would result from applying the proposed zoning on the 620,000 square-foot Volpe parcel.

	Current Zoning	Proposed Zoning
Allowed FAR	3.0 / 3.36 ¹	4.5 ¹
Minimum Housing	40%	40%
Affordable Housing (as % of total housing)	11.5% low-moderate ¹	10% low-moderate 5% middle income 15% total
Public Open Space (as % of parcel area)	42% / 53% ²	25% minimum
Parking	Minimum requirements	Maximum limitations
Ground Floor Retail	Incentivized	Required on major streets
Innovation Space	N/A	Minimum 5% of office/lab
Sustainability and Environmental Mitigation	Section 22.20 applies (LEED Silver)	LEED Gold, noise monitoring, other requirements
Funds for Open Space, Transit, Workforce Development	N/A	Required
Government Facility	Flexibility allowed	Encouraged as part of PUD ³

¹ Current zoning allows “bonus” residential development in accordance with inclusionary housing requirements. Application of the bonus results in an overall FAR of 3.36 and affordable housing at 11.5% of total housing. The “bonus” is eliminated in the proposed zoning.

² Current zoning requires 42% of parcel area to be open space, but also requires a public park of at least 7.5 acres on a large site. On the Volpe site, that results in a higher ratio of 53% open space.

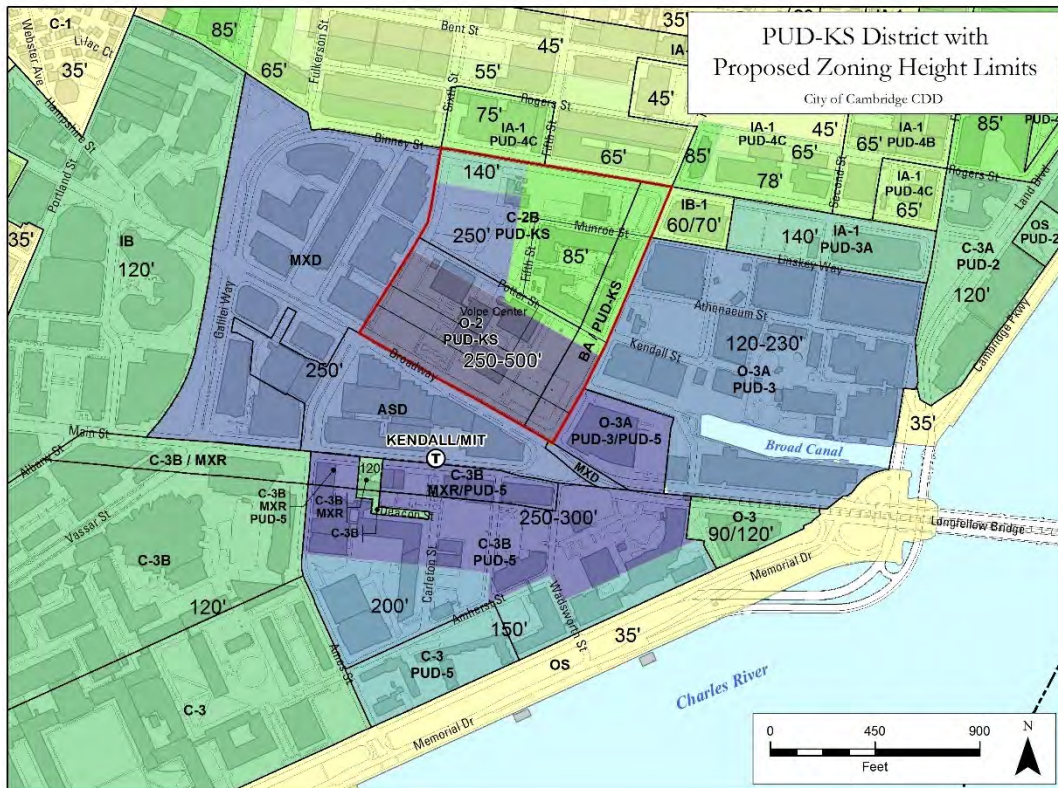
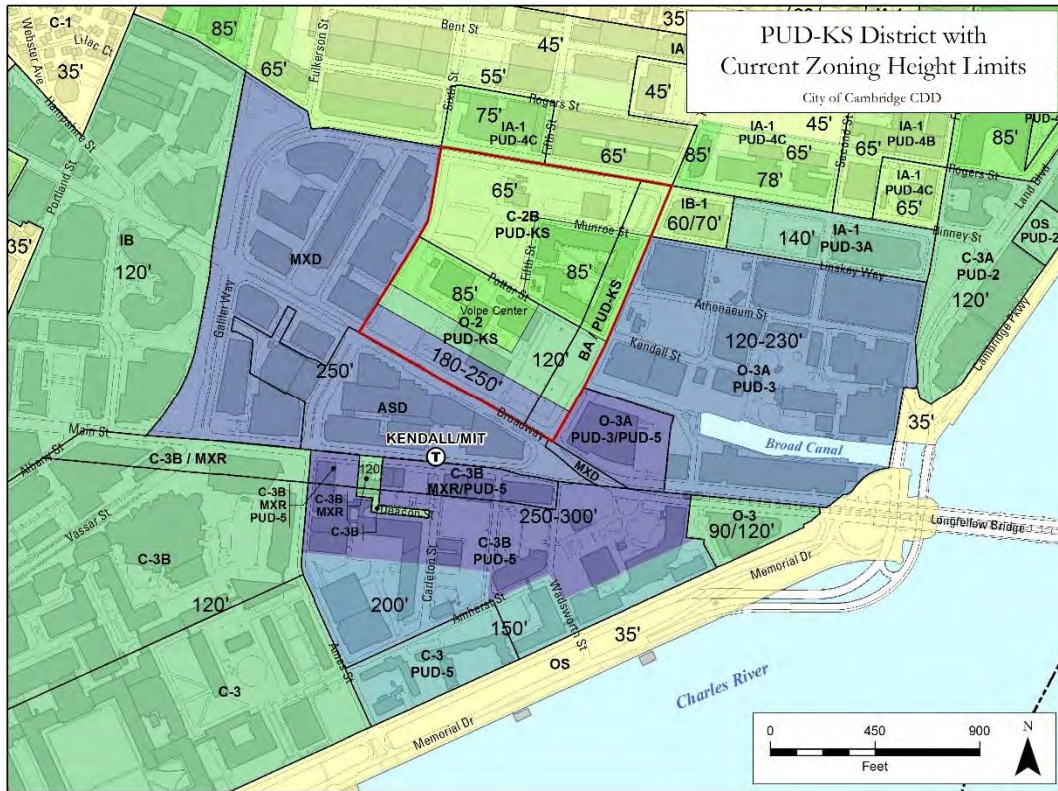
³ A Federal facility would not be subject to zoning limitations. However, the proposed zoning includes provisions meant to encourage the inclusion of Government uses within a development plan.

Allowed Private Development Summary (Gross Floor Area in Square Feet)

<i>ALL FIGURES APPROXIMATE</i>	Current Zoning	Proposed Zoning
Residential	967,000	1,116,000
Office / Lab	1,086,000	1,632,000
Retail	50,000	140,000
Innovation Space (min)	0	84,000
Total	2,103,000	2,972,000

Proposed Height Changes

The proposed zoning increases allowed building heights, subject to Planning Board review and approval. In general, proposed heights are more consistent with existing and allowed heights in surrounding areas. However, in the section closest to Broadway, the proposed zoning would allow some buildings at a maximum of 350 feet and potentially one singular building to reach a maximum of 500 feet.



Urban Design Guidelines

The *Kendall Square Design Guidelines, 2013* (see attachment) were prepared during the K2 Study process to inform property owners, business owners, developers, and the general public about the desired form and character of development in Kendall Square. The Design Guidelines are to be used by the Planning Board in their review of all projects requiring approval in the Kendall Square area, including PUD-KS.

The Design Guidelines articulate the design and site planning goals for Kendall Square, and measures to achieve these goals. The guidelines aim to:

- Create a **positive mixed-use district** where tall buildings with large floor plates can be good neighbors to public spaces, smaller existing buildings, and adjacent residential neighborhoods.
- Create **high-quality public environments**, and ensure development contributes to the **character** and **vitality** of the surrounding community.
- Sensitively **manage the impacts of bulk and height** and **animate the major streets and public spaces** through encouraging active ground floor.

The following urban design matters are covered in the Design Guidelines:

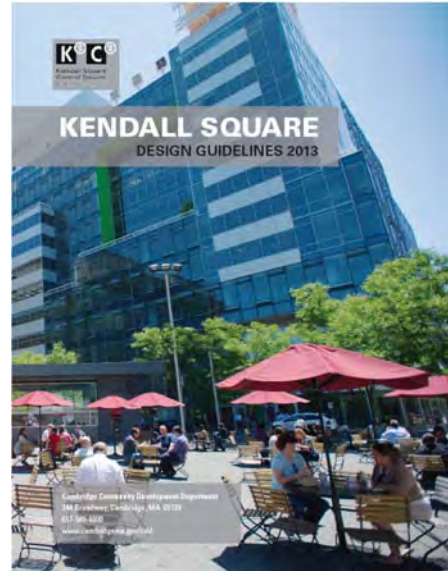
- Environmental Quality
- Walkability
- Universal Access
- Built form
- Ground Floor Design Guidelines
- Academic Buildings

While the guidelines are detailed and establish clear urban design expectations, they are not intended to impose strict controls on building form and style. At the discretion of the Planning Board, the guidelines provide flexibility to consider creative design solutions, innovative design approaches, and unforeseen circumstances.

PUD-KS Supplementary Site Planning and Design Guidelines

Following further study associated with preparing the rezoning petition and direction from the Planning Board, staff recommended that a supplementary section be appended to the Kendall Square Design Guidelines specific to the PUD-KS district (see attachment). This approach recognizes the unique potential of the PUD-KS district and its prime location in the heart of Kendall Square. The supplementary section would provide further guidance in the Planning Board's review of a PUD master plan, as well as site planning and design matters pertaining to open space and circulation.

The supplementary section sets out the following urban design vision for the district:



- An **accessible, diverse and unique** place that **integrates** the PUD-KS district seamlessly into the surrounding urban fabric of Kendall Square and the Eastern Cambridge neighborhoods.
- A place that is defined by **high quality sustainable architecture, urban design and open space** with an enduring sense of place that celebrates Kendall Square’s spirit of innovation and creativity.



Further, the section elaborates upon the review criteria in the zoning, and advances the connectivity and open space zoning requirements with specific goals and measures. It also incorporates the broad open space and public realm concepts and ideas expressed through the Connect Kendall Square process.

It is noted that both the Kendall Square Design Guidelines and the supplementary PUD-KS Site Planning and Design Guidelines may be further refined during the rezoning process. Notably, consideration is being given to clarifying the urban design outcomes for buildings above 250’ in height as those increased heights are being considered.

Conceptual Scenario Models

During the preparation of this rezoning proposal, staff began to test a series of conceptual site layout scenarios for the Volpe parcel with the proposed PUD-KS zoning changes. These studies considered how different urban design options might be developed on the site given different arrangements of buildings, open space and connections. These studies are helpful in understanding and visualizing possible site planning and building massing outcomes, but do not represent any actual development plans. These studies also informed the preparation of the supplemental PUD-KS Site Planning and Design Guidelines.

Staff has continued to work on these conceptual scenarios as changes to the zoning proposal have been contemplated by the Planning Board. Current conceptual site layout and massing scenarios are presented in an appendix to this report.

Of the conceptual scenarios shown, massing studies 1, 2 and 3 reflect different arrangements that would conform to the PUD-KS zoning requirements in the Planning Board petition currently before the Council. Massing study 4 reflects a scenario that could be allowed if one building was permitted to reach a maximum of 1,000 feet, as has been suggested in prior City Council discussions on this topic.

COMMUNITY OUTREACH

Over the coming months, staff is planning a community outreach effort in order to improve public awareness of this rezoning proposal and the potential Volpe site redevelopment, and hear community concerns and questions. An outreach plan will be implemented to organize community outreach activities during the rezoning process.

Outreach Materials

We will create user friendly informational material to be made available in hard copy and digital formats.

A project webpage will be created to serve as a central access point for project information. All project documents will be uploaded to the webpage, including presentations, information about upcoming conversations, and point of contact information for questions and comments.

Conversations and meetings

A series of community conversations are proposed to take place between July and early September within public spaces and parks in Kendall Square and surrounding neighborhoods. Information materials about the site and the rezoning proposal will be displayed and CDD staff will be available to discuss the proposal.

These sessions are intended to be convenient for those who might not attend the formal hearings and prefer to drop by briefly for informal discussions and may engage with others who are visiting the display at the same time. The conversations will be scheduled for afternoons, evenings and possibly weekends. Potential locations for these conversations include:

- Clement Morgan Park
- Green-Rose Park
- Rogers Street Park
- Volpe Center
- Donnelly Field
- Kendall Square Farmers Market / T Station
- Broad Canal
- Lafayette Square

Sessions will be advertised and information provided using flyers, neighborhood email lists, the CDD website and social media. Refreshments will be provided.

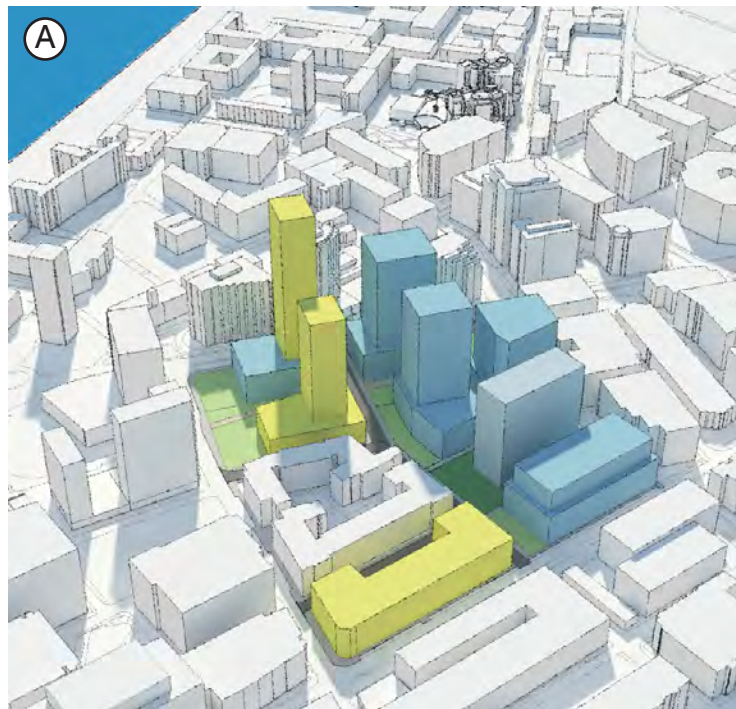
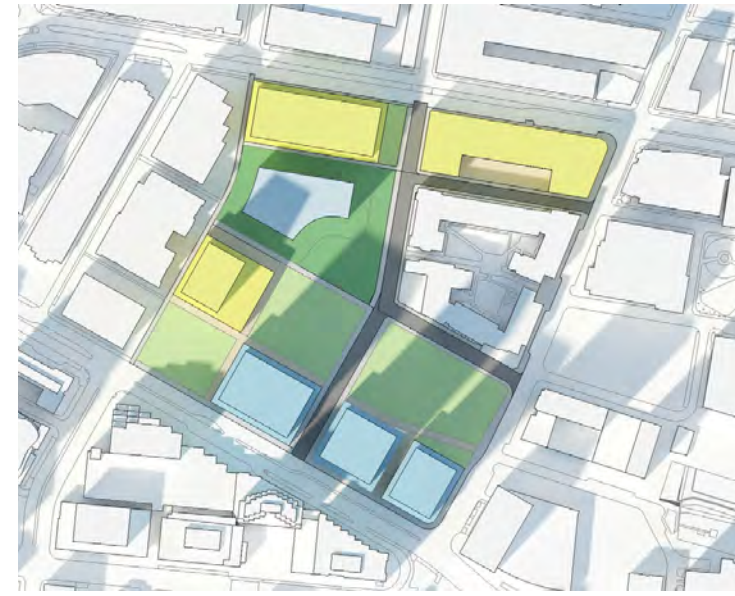
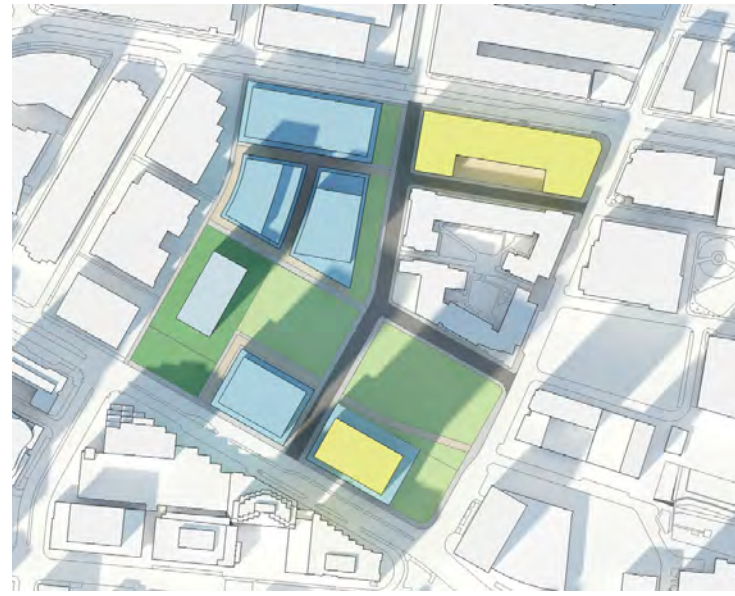
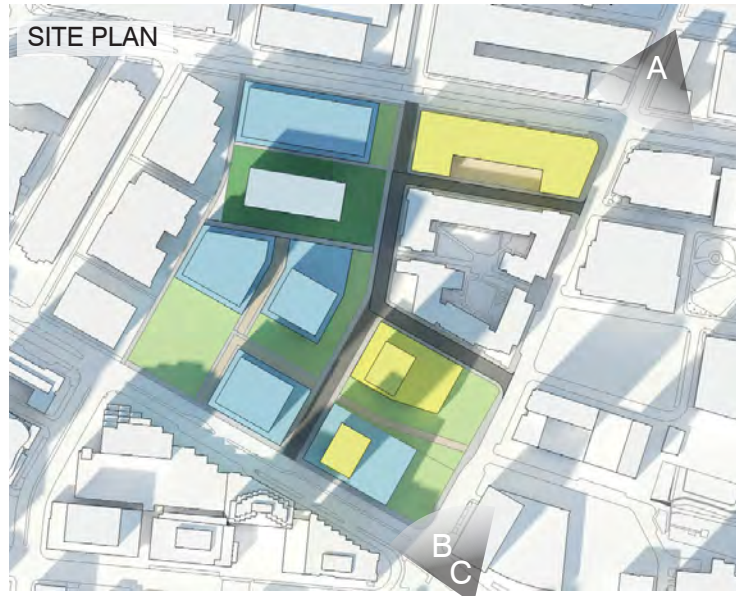
During the development of the zoning petition, CDD staff attended meetings of the East Cambridge Planning Team, Area Four/Port Coalition, and the East Cambridge Business Association to discuss the proposal. We also plan to reach out to neighborhood and business associations to schedule time for this proposal on their upcoming meetings. Groups include, but are not necessarily limited to, the East Cambridge Planning Team, Area 4 Neighborhood Coalition, Kendall Square Association, and East Cambridge Business Association

CONCEPTUAL MASSING STUDY 1

CONCEPTUAL MASSING STUDY 2

CONCEPTUAL MASSING STUDY 3

CONCEPTUAL MASSING STUDY 4



Two slender residential towers, one at 500 ft and another at 350 ft with small floor plates (10,000 sq ft)

One large residential tower at 500 ft with larger floor plate (23,000 sq ft)

Three large commercial towers, one at 500 ft and two at 350 ft. Floor plates vary from 17,000 sq ft to 30,000 sq ft.

One large commercial tower at 1,000 ft with large floor plate (33,000 sq ft)

* Consistent with the proposed zoning

* 1,000 ft building height deviates from the proposed zoning
 * The dashed line indicates FAA 1,000 ft height restriction.

GENERAL ASSUMPTIONS:

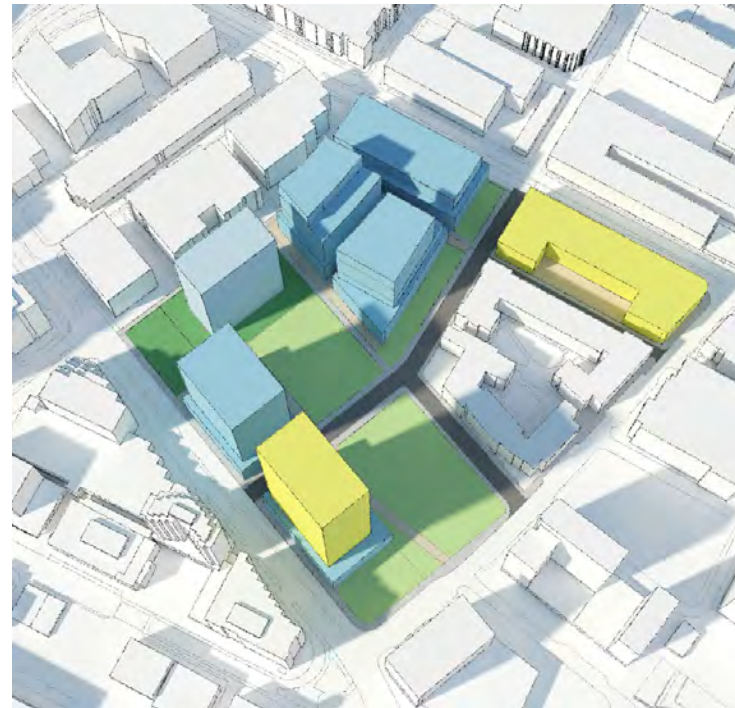
- Floor-to-floor heights are: 12 ft for residential use, 15 ft for general office use, and 20 ft for lab spaces. 50% of the total commercial space is assumed to be office, the other 50% is assumed as lab spaces.
- Volpe facility is assumed to have a gross floor area of 400,000 sq ft with a 50 ft buffer around the building.
- All parking is considered as underground.
- The shadows are depicted at 2pm, March 21st.

CONCEPTUAL MASSING STUDY 1

CONCEPTUAL MASSING STUDY 2

CONCEPTUAL MASSING STUDY 3

CONCEPTUAL MASSING STUDY 4



GENERAL ASSUMPTIONS:

- Floor-to-floor heights are: 12 ft for residential use, 15 ft for general office use, and 20 ft for lab spaces. 50% of the total commercial space is assumed to be office, the other 50% is assumed as lab spaces.
- Volpe facility is assumed to have a gross floor area of 400,000 sq ft with a 50 ft buffer around the building.
- All parking is considered as underground.
- The shadows are depicted at 2pm, March 21st.

View looking down 3rd St near Rogers Park



View looking down Broadway at the intersection of Broadway and Galileo Galilei Way



View from across the Charles River, MIT campus in the foreground

