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## CITY OF CAMBRIDGE

Community Development Department

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To: Planning Board

From: Jeff Roberts, Director of Zoning and Development

Date: January 24, 2019

Re: **Alexandria Grand Junction Pathway Overlay Zoning Petition**

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### Overview

Alexandria Real Estate Equities, Inc., has proposed amending the provisions of the Zoning Ordinance to establish a new "Grand Junction Pathway Overlay District" (Section 20.1000). The district would encompass two non-contiguous areas. One area, referred to in the petition as "Grand Junction Land," encompasses an approximately 14-foot wide strip of land at the western edge of the Grand Junction rail corridor and an approximately 2,600 square-foot parcel at 686 Cambridge Street. The other, referred to as "Development Land," encompasses most of the former Metropolitan Pipe company site at 345 Binney Street (at the corner with Fulkerson), and a portion of an adjacent site at 135 Fulkerson Street. *See attached maps.*

In concept, the petition would enable an exchange of development rights for public benefits. It proposes conveying the "Grand Junction Land" to the City for use as a public bicycle/pedestrian pathway, and in return allowing an increase in the scale of private development on the "Development Land."

Planning for a pedestrian/bicycle path along the Grand Junction corridor has been an open space and transportation priority of the City for many years. The concept of an overlay zoning mechanism that would enable and incentivize such a path has been considered by the City and discussed with community members and property owners, although no specific proposal has been considered thus far.

The purpose of this memo is to provide background information on various topics related to this petition. It includes three major parts:

- A description of the area of proposed rezoning, its current zoning, and the changes that are proposed by the petition (supplemented by attached maps).
- Information about the "Grand Junction Greenway" initiative.
- A summary of past planning work that is relevant to this area.

Staff will be available to discuss this information and respond to questions at the hearings.

**Current and Proposed Zoning**

The following is a summary of the specific changes proposed. Please refer to the attached maps for reference.

*Zoning Districts*

The proposed overlay district encompasses about 215,453 square feet of land area (nearly 5 acres), of which the petition designates 29,542 square feet as “Grand Junction Land” and 185,911 square feet as “Development Land.” The proposed overlay district intersects with three base zoning districts – Industry A-1 (IA-1), Residence C-1 (C-1), and Business A (BA). The following table gives the approximate portion of each area contained in each base district. Some of the IA-1 and C-1 portions are also within the Eastern Cambridge Housing Overlay (ECHO) District, as noted below and on the maps.

District	Portion of “Grand Junction Land”	Portion of “Development Land”
IA-1	About 31% (also in ECHO)	About 71% (also in ECHO)
C-1	About 56% (not in ECHO)	About 29% (also in ECHO)
BA	About 13%	None

The table below summarizes the current use and dimensional limitations in those districts.

District	General range of allowed uses	Maximum Floor Area Ratio (FAR)	Maximum Height (see map)	Required Yards (Setbacks)	Minimum Open Space Ratio
IA-1 / ECHO	residential, institutional, offices and laboratories, retail, light industrial	1.25 non-residential 2.50 residential (ECHO)	45’ non-residential 45-85’ residential (ECHO)	Non-residential: None Residential: Formula side and rear yards, may be reduced to 10’	None
C-1	Residential and limited institutional	0.75	35’	Formula; at least 10’ front, 7.5’ sides, 20’ rear	30%
BA	residential, institutional, offices and laboratories, retail	1.00 non-residential 1.75 residential	35’ non-residential 45’ residential	Non-residential: No front or side; rear yard by formula, at least 20’ Residential: Formula; at least 10’ front, 5’ sides, 20’ rear	Non-residential: None Residential: 15%

*Ownership*

The Petitioner presently controls the area of the proposed zoning, except for the 135 Fulkerson Street site currently controlled by Eversource and a portion of the “Grand Junction Land” owned by the Roman Catholic Archdiocese of Boston (St. Anthony Church).

*Proposed Changes*

The overall effect of the proposed overlay zoning would be to limit development on the “Grand Junction Land” to public open space uses, and in exchange for conveyance of that land to the city, to relax some of the zoning limitations and enable increased scale and density of development on the “Development Land.” The table on the following page summarizes these effects.

Zoning Limitations	Grand Junction Land		Development Land	
	Current Zoning	Proposed Zoning	Current Zoning	Proposed Zoning
Allowed Uses	By district (see above)	Public Open Space	By district (see above)	As allowed in IA-1 (see above)
Maximum total Gross Floor Area (GFA), based on FAR and land area	28,000 SF non-res. 42,000 SF res. (approx.)	73,855 SF (only to be built on Development Land)	205,000 SF non-res. 370,000 SF res. (approx.)	464,777 SF
Maximum height	35-85' by use and district	N/A	35-65' by use and district	120'
Setbacks	By use and district (see above)	N/A	By use and district (see above)	25' adjacent to rail corridor
Open Space	By use and district (see above)	All	By use and district (see above)	None required

*Use and Density*

The petition area primarily consists of vacant industrial or transportation-related land – the largest pre-existing use, the Metropolitan Pipe facility, was recently demolished after the operation was moved to a different site. Uses adjacent to the Development Land include several commercial labs and the One Kendall Square parking garage. To the northwest is the residential “Linden Park” section of the Wellington-Harrington neighborhood, and to the northeast is the public Kennedy-Longfellow School / Ahern Field complex in the East Cambridge neighborhood. The proposed changes would limit the allowed uses in the Grand Junction Land to public open space, but would not significantly change the allowed uses in the Development Land, except that the northern residentially-zoned portion (which currently contains parts of the former Metropolitan Pipe yard and a single-story commercial garage) would allow uses consistent with the adjacent IA-1 district.

The petition proposes a maximum FAR of 2.5 for all uses, to be calculated in the aggregate across the district but buildable only on the Development Land. In the aggregate, the total allowed GFA under the proposed rezoning would increase by approximately 305,000 square feet for non-residential uses or by approximately 126,000 square feet for residential uses. Given development trends in Kendall Square, it is expected that commercial office/laboratory would be the owner’s preferred use of the site, though the proposed zoning would continue to allow residential, retail, or light industrial uses as currently allowed in the IA-1 district.

*Height and Setbacks*

The attached map shows the maximum existing height limits within and surrounding the Development Land, which range from 35-85 feet directly north of Binney Street (mainly for residential uses under the ECHO zoning) to 120-200 feet directly south of Binney Street. The map also shows the approximate heights of existing surrounding buildings (measured to the highest point, which may include mechanical penthouses or other equipment carried above the roofline). The buildings adjacent to the proposed rezoning area north of Binney Street reach a highest point of around 90 feet. The “Amgen building”

directly to the southwest of the proposed Development Land, an 8-story commercial laboratory building, has a zoning height of 120 feet but a tallest point of 148 feet due to its mechanical penthouse.

Current zoning for the Development Land contains few setback requirements, particularly for non-residential uses. The proposed zoning would require a 25-foot setback along the rail corridor. The setback appears intended to avoid construction too close to the rail line, so that it would not preclude the future use of the corridor for passenger rail service (described further below in this memo).

#### *Open Space*

There are different types of open space requirements contained in the Zoning Ordinance. Minimum open space ratios generally are applied to residential uses and intended to provide private open space for residents of the project. Commercial uses are typically not required to provide open space under current base zoning. In larger mixed-use development districts, a ratio of publicly accessible or beneficial open space is often required.

This petition does not include an open space percentage, but by requiring the conveyance of the Grand Junction Land for open space purposes, at least 14% (approximately) of the rezoning area would be required to be public open space. The actual percentage could increase if additional open space is provided on the Development Land.

#### *Parking*

The proposed zoning would limit parking to a ratio of 0.8 space per 1,000 square feet of technical office (i.e., commercial laboratory) use, which is less than current parking requirements in the IA-1 district (about 0.95 space per 1,000 square feet minimum, 1.9 spaces per 1,000 square feet maximum). It is not specified whether base zoning or other parking requirements are intended to apply to other uses. The proposed ratio is generally consistent with limitations recommended through the Kendall Square (“K2”) study process, discussed further in the planning section below.

#### *Other Zoning Provisions*

The petition proposes that areas under building canopies and roof projections, along with building atriums, could be excluded from GFA calculations for zoning purposes. The rationale and intended outcome of this provision should be explained further.

Another proposed provision would allow any residual development rights that are not constructed on the Development Land to be transferred to another site. This provision somewhat follows the transfer of development rights (TDR) mechanism that already exists in the zoning for this district. However, the current provisions identify specific “receiving districts” where development could be sited, while no receiving districts are specified in the petition.

Finally, the petition proposes some variation in the typical project review procedures by allowing the Planning Board to approve a proposal “in conceptual form, subject to later design review and approval by the Planning Board and a finding that final design of such building(s) is consistent with Section 19.30, as applicable.” This appears similar to the provision for ongoing design review approval for Planned Unit Development (PUD) projects, but would need to be reviewed further.

## Planning for the Grand Junction Greenway

### *Overview*

The creation of a multi-use “rail-with-trail” path along the Grand Junction rail corridor has been a planning priority of the City for many years. The path is proposed to run in a shared-use corridor alongside the existing rail tracks from the Boston University Bridge to the Somerville City line, where it would connect to the regional path network at both ends. Such a path would provide an off-road option connecting Cambridge residents to schools, after-school programs, recreational facilities, and the Charles River, and would facilitate connections to Boston, Somerville, and towns further west.

The vision of the Grand Junction corridor with a multi-use path alongside the existing tracks was identified as a top priority in the 2000 Green Ribbon Open Space study of possible new parks and open space in the city. The implementation of the multi-use path was also a key recommendation in the August 2017 final report of the Kendall Square Mobility Task Force, which included representatives from MassDOT, MBTA, the City, Cambridge Redevelopment Authority (CRA), MIT, Kendall Square Association, Volpe Transportation Center, East Cambridge Planning Team, East Cambridge Business Association, Friends of the Grand Junction Path, Charles River TMA, and Kendall Square businesses.

### *Zoning Strategy*

The creation of a zoning overlay district for the corridor was identified as a key implementation strategy in the City’s 2007 feasibility study for the Grand Junction multi-use path. It was recognized at the time that much of the land adjacent to the corridor was under private ownership, so the zoning strategy was intended as a long-term approach to creating the conditions that would enable such a path. The actual creation of the path would ultimately require cooperation from multiple private owners.

As it has been discussed conceptually, the zoning overlay strategy has three main parts:

- Designate a corridor that would accommodate a future multi-use (pedestrian/bicycle) path, providing for its safe operation alongside an active rail line. Based on industry standards for multi-use path design, the desired width for the path would be an unobstructed width of 18 feet, including 14 feet for the two-way path and two-foot shoulders on either side, though narrower widths could be accommodated in some areas.
- Apply dimensional standards for development that would not preclude the future creation and functioning of a pathway, while still allowing property owners to utilize development rights elsewhere on parcels.
- Provide development incentives to encourage property owners to dedicate portions of the corridor to the City for use as a pathway.

Over the past few years, CDD staff reached out to and met with major stakeholder groups and property owners along the corridor to discuss this zoning approach at a conceptual level and to address questions and potential concerns. So far, there have been discussions with the East Cambridge Planning Team, East Cambridge Business Association, Cambridge Housing Authority, Draper Laboratory, Amgen, Alexandria, and MIT. In general, participants have largely agreed that a pedestrian/bicycle greenway

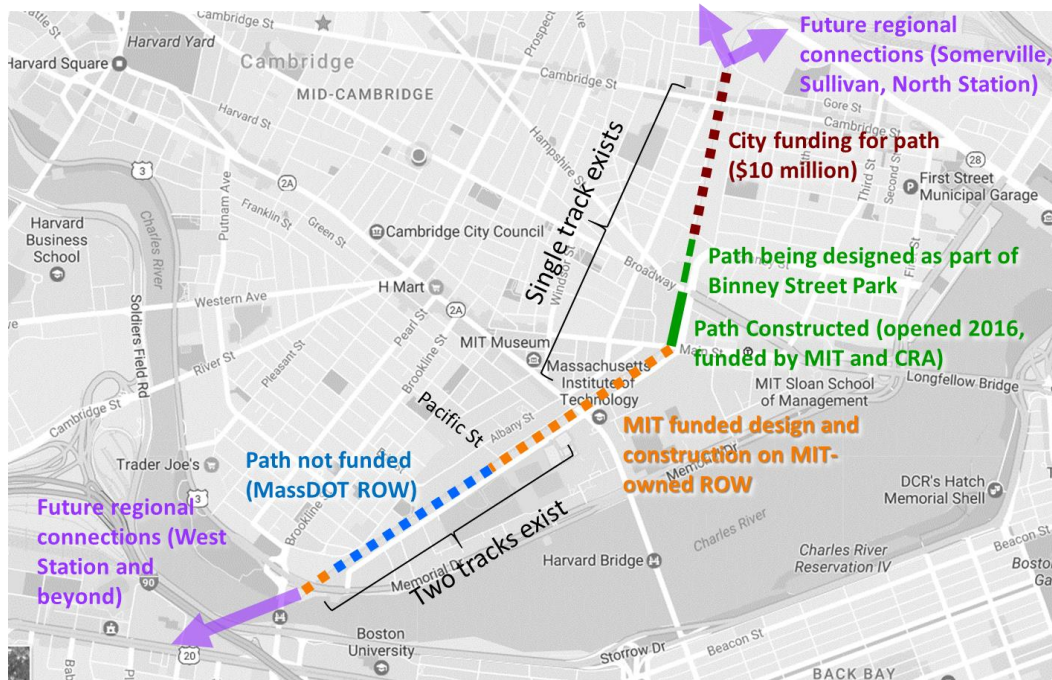
would be a positive addition to the area, and the response to the zoning approach was supportive in concept, though a detailed proposal was not discussed.

*Progress and Status To-Date*

Recent years have seen significant process in the advancement of the Grand Junction Pathway project:

- The first segment of the multi-use path, between Main Street and Broadway, opened in 2016 as part of the Grand Junction Park, which was funded jointly by the CRA and by MIT as part of their commitments related to the rezoning of PUD-5 along Main Street.
- The second section, between Broadway and Binney Street, is currently under design as the new Binney Street Park by Stoss Landscape Urbanism as part of the City's Eastern Cambridge/Kendall Square Open Space planning. This segment has been transferred from CRA to the City as a part of a 2012 agreement with Boston Properties related to modifying the open space covenants applicable in the Kendall Square/Cambridge Center area. The design and construction of the park is funded by a \$2,000,000 commitment by Boston Properties as part of the same agreement. The City is in discussion with Amgen regarding their participation in creating this path segment, which is required by the special permit for their building adjacent to the corridor. Stormwater utility improvements planned to precede park construction are currently underway at the site. Construction of the path and park are expected to begin in summer 2019.
- The City has allocated \$10 million for the design and construction of the multi-use path from Binney Street north to the Somerville line. However, this section of the path is not controlled by the City, but by a collection of entities including MassDOT, the MBTA, Cambridge Housing Authority, and private owners (see further discussion below).
- As part of its petition to amend the zoning for the Volpe site, MIT has committed funding of up to \$8.5 million and a commitment to provide right-of-way for the path to be developed on land owned by MIT. As MIT is the largest private landowner along the corridor, this commitment accounts for the longest privately-owned portion of the path right-of-way through Cambridge.
- In August 2018, the City issued a *Grand Junction Multi-Use Path and Conceptual Transit Design* RFP for the full design of the multi-use path as well as conceptual design for transit along the entire corridor. The first phase consists of development of a conceptual design for the multi-use path and two-track transit service in the corridor to confirm that the multi-use path can be designed and constructed without precluding potential future two-track transit service. This phase will inform MassDOT's determination to allow all or portions of the multi-use pathway to be constructed within the MassDOT right-of-way. The second phase consists of development of full design documents for the multi-use path.
- In December 2018, the City and the Cambridge Housing Authority (CHA) agreed upon a plan that would allow the CHA's redevelopment and modernization of 300 units of housing for elderly and disabled residents at Miller's River Apartments, to include the creation of a brand new building that will house a community room, while allowing the City to acquire and maintain a 10-foot wide easement of 4,820 square feet to accommodate a public multi-use path for the Grand Junction Greenway.

- The City has just launched a design process, which includes establishing a working group. In parallel, the City is continuing to have conversations with regional stakeholders about regional connections for the multi-use path and possible future transit service.



### *Binney-to-Cambridge Streets Segment*

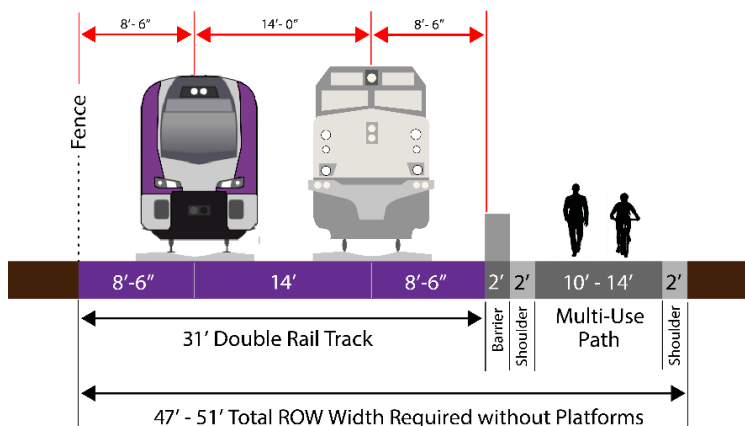
This segment of the pathway, which constitutes one of the longest stretches between two public streets, is one of the last remaining segments where there has not been a commitment to create the pathway. From Pacific Street to Binney Street, and from Cambridge Street to the Somerville line, commitments of land (and in some cases funding) have been secured as part of agreements that would also enable the property owner to advance particular development projects. Although these agreements have taken different forms depending on their unique circumstances, they have followed the overall zoning strategy described above by providing an incentive for owners to participate in the creation of the path on their land.

The Binney-to-Cambridge Streets segment may also be one of the most difficult to implement, because land along this segment has more varied ownership than other parts of the corridor. Although the City has allocated \$10 million for design and construction, the underlying land assembly required would likely be costly and time-consuming if undertaken by the City. The ability of the Petitioner to assemble and convey this land more quickly thus provides value in advancing the pathway.

### *Transit Considerations*

The potential for future transit service along the Grand Junction Corridor has been raised in the work of the Kendall Square Mobility Task Force and recent discussions with MassDOT. This is still an idea in the early planning stages, and there is no commitment to create such a service.

The option that has been discussed most recently would be a two-track passenger rail service, as depicted (along with a future path) in the diagram below that was developed for the Kendall Square Mobility Task Force in 2017 in collaboration with MassDOT. Though this plan may not be final, it is nonetheless in the interest of the City and MassDOT to plan for the pathway and other development along the corridor so that it does not preclude such a future two-track transit service.



From a zoning standpoint, this means that development should be set back to allow for necessary widening of the rail corridor without constraining the path so much that it could not be safely accommodated. It also means that any zoning or other regulatory limitations on the pathway should be flexible enough to allow for potential future transit stations or other necessary transit functions that might be needed to accommodate the rail service alongside the pathway. There may be a concern if the uses along the corridor are limited to public open space, which may prohibit stations or other structures or uses that are ancillary to the transit service.

### Planning for Development in Eastern Cambridge / Kendall Square

This area of Cambridge has been the subject of different planning efforts in recent decades, which inform the review of this petition in various ways. Some of the past planning efforts for the area are summarized below.

#### *ECaPS*

In 2001, the [Eastern Cambridge Planning Study \(ECaPS\)](#) identified this area north of Binney Street as a “Transition Area,” referring to the physical transition from Kendall Square to the traditional East Cambridge neighborhood, as well as the area’s transition over time from light industrial land use patterns to a mix of more modern commercial and residential uses. The zoning that resulted from this study created height and density incentives for housing (through the ECHO district) while continuing to allow commercial, retail, and industrial uses. The adopted zoning also introduced transfer of development rights (TDR) provisions, particularly to facilitate the creation of public open space and housing; however, the current TDR zoning has not been utilized thus far. The ECaPS process also resulted in the [Eastern Cambridge Design Guidelines](#), which translate the goals of the study into more specific objectives that are considered when projects are reviewed by the Planning Board.



### *Alexandria Rezoning*

In 2007, Alexandria proposed a rezoning of several sites along Binney Street that were intended to increase the allowed density and height for commercial lab uses (which were already a common development pattern in the surrounding area) in exchange for public benefits, including the conveyance of land and funding for new public parks. This proposal initiated a working process involving Alexandria, residents, planners, and the City Council to consider the proposal and discuss planning priorities. In 2009, the City Council adopted a zoning petition that enabled Alexandria to construct about 1.5 million square feet of commercial space while requiring land and funding for about 2.5 acres of public open space on two sites, a full reconstruction of the streetscape along Binney Street, construction of 220,000 square feet of mixed-income housing, and conveyance of the Foundry Building to the city. This plan is now in its last phases of construction.

### *K2 Study*

In 2011-2013, the City conducted the [“K2C2” Planning Study](#) for Kendall Square and Central Square, producing separate plans and design guidelines for each area. The area of the current rezoning proposal is just outside the formal boundaries of the “K2” study area, and therefore the K2 study did not model additional development on this particular site. However, the plan did include the Grand Junction pathway as a desired open space and transportation improvement.

Though the K2 study does not discuss this site specifically, it does provide a set of general principles meant to guide future development in the Kendall Square area. These principles have been incorporated into the new zoning for districts within the study area, and some may be relevant to the consideration of this site. Some of these principles have also been reinforced or enhanced by more recent planning work, including the recently completed Envision Cambridge comprehensive study. The summary below provides an overview of key issues:

- **Active Ground Floors:** As the area evolves from an office district to a more urban mixed-use downtown, the K2 plan emphasizes ground floors that are welcoming to the broader public and foster a sense of activity at all times of day. Priority areas for active ground-floor retail include Main Street, Broadway, Third Street, and Ames Street. Binney Street is not necessarily a priority, and there may be concerns about spreading retail in the area too thin. However, there may still be potential for activity along key pedestrian routes between the neighborhood and Kendall Square, or connecting to the retail at the adjacent One Kendall Square complex. Activating ground floors adjacent to public open space is also a key consideration in the K2 plan.
- **Open Space:** Publicly accessible open space within development sites has been a component of Cambridge’s planning for many years, but the K2 plan suggested that open space planning in the Kendall Square should focus on creating an interconnected public space system rather than a collection of stand-alone spaces within large parcels. This means prioritizing not just the amount of open space created but connections to other public spaces. After the K2 study, the City launched another process called “Connect Kendall Square,” completed in 2015, in which planning and design teams competed to produce an [open space framework plan](#) for the area. The K2 plan and the Connect Kendall Square framework also emphasized the importance of programming to activate open spaces, which might require creative mechanisms for ongoing funding.

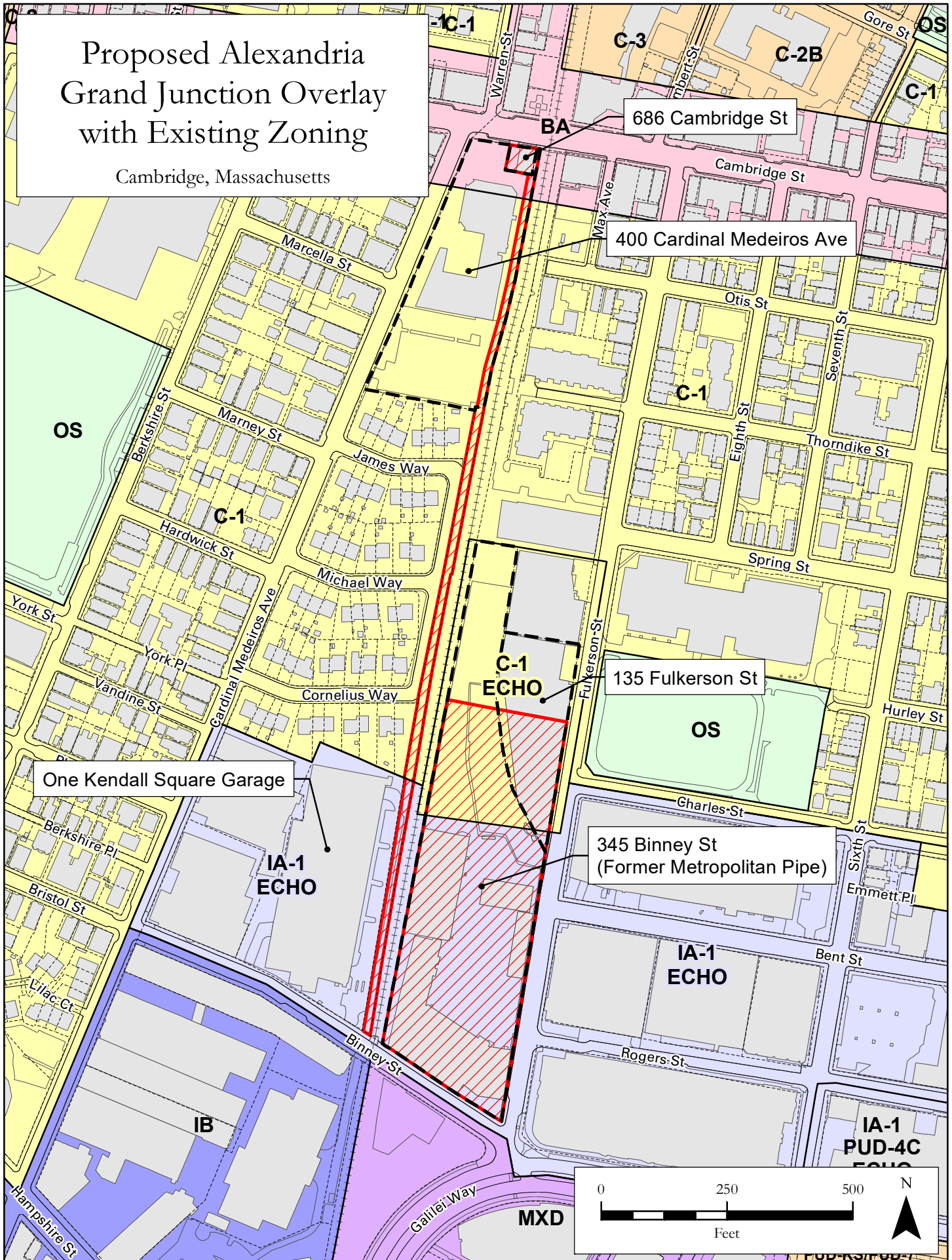
- **Urban Design:** Designing sites and buildings to fit the desired urban patterns of Kendall Square, while also accommodating the market desire to maximize commercial floor space, was a major challenge of the K2 study. The resulting [Kendall Square Design Guidelines](#) call for an approach to urban design that prioritizes the “streetwall,” with the base portion of buildings (up to about 85’ on major streets, 45’ on secondary streets) meeting the street in a way that provides intimacy but also allows enough setback for comfortable sidewalk widths, plantings, street furniture, and in some cases active outdoor seating or transportation amenities. Taller portions of buildings are meant to be articulated and set back from the streetwall to minimize the appearance of bulk, mitigate shadow and wind impacts, and complement surrounding buildings. The guidelines also discuss creating an attractive and welcoming environment along park edges, as well as design objectives for ground floor façades and rooftop mechanical enclosures.
- **Transportation:** As Kendall Square grows as a destination, the capacity of the road network becomes an increasing concern, and it is important to prioritize alternatives to driving. The recommended tools to address this in the K2 plan include tighter parking controls to reduce the potential for new auto trips, requiring more aggressive transportation demand management (TDM) programs to disincentivize driving and incentivize alternatives, and investments in transit to support a robust set of alternatives to choose from. These investments would support improvements not just to the Red Line but to other services such as buses, shuttles, and bicycle sharing (Bluebikes). The [Kendall Square Mobility Task Force](#) studied this issue in more detail and recommended several priority initiatives, including the Grand Junction as a future transportation corridor.
- **Sustainability:** Kendall Square was identified as an area that should incorporate the highest standards for sustainable design. This principle has been supplemented by the additional work of the [Net Zero Action Plan](#), which sets a target of neutralizing greenhouse gas emissions by 2050. For new buildings, this plan recommends a minimum standard of LEED Gold for new construction with a priority of maximizing energy efficiency and renewable energy, and designing systems to be convertible to renewable energy sources as they become more economical in the future. The plan also recommends incentives for new buildings to be designed to “net zero” standards, with the expectation for all new commercial lab buildings to be net zero by 2030, and recommends pursuing district-wide shared energy initiatives. Another major sustainability initiative is the ongoing [Climate Change Preparedness and Resilience \(CCPR\)](#) plan, which is developing recommendations for how the community can respond to the anticipated impacts of climate change. For new buildings, these include protecting buildings against higher predicted flood elevations and designing sites to mitigate urban heat island effects with cooling features such as vegetation and low-albedo materials.
- **Housing and Residential Character:** The K2 plan recognized Kendall Square’s unique position as a powerful commercial center that cannot be replicated elsewhere in the city, and acknowledged that some sites have qualities that make them particularly well suited for commercial use. However, the plan also recommended balancing commercial growth with residential growth throughout the area, both to absorb the growing demand for housing and to bring a greater number of residents into the area and support more mixed-use activity. The more recent work of the [Volpe Working Group](#) expanded on the notion of residential character to support “inclusiveness,” which is partly accomplished through programs such as inclusionary housing and incentive zoning contributions

(providing funding to the Affordable Housing Trust), but also by making places that feel welcoming to diverse parts of the community by way of public space and amenities, economic opportunities, and services.

- **Innovation Space:** Redevelopment in Kendall Square has often involved the replacement of older commercial buildings, which might be more affordable to smaller and less well-funded enterprises, with new “Class A” space that is only affordable to larger companies. The K2 plan recognized the need to preserve some space for smaller companies with more flexible lease terms, and recommended requirements and standards for “innovation space” to meet this need. The recommendation was to set aside the equivalent of at least 5% of new commercial square footage as “innovation space” (possibly in an existing building), with zoning incentives that might encourage higher amounts.
- **Workforce Development:** While Kendall Square’s role as the city’s major employment center has been growing, the new jobs created tend to be for educated and highly skilled workers. The K2 plan emphasized the importance of creating opportunities for residents from diverse backgrounds to participate and benefit from the economic development generated by the area. Since this cannot be accomplished easily by individual property owners, the plan recommended contributions to a shared fund to support workforce development programs.

# Proposed Alexandria Grand Junction Overlay with Existing Zoning

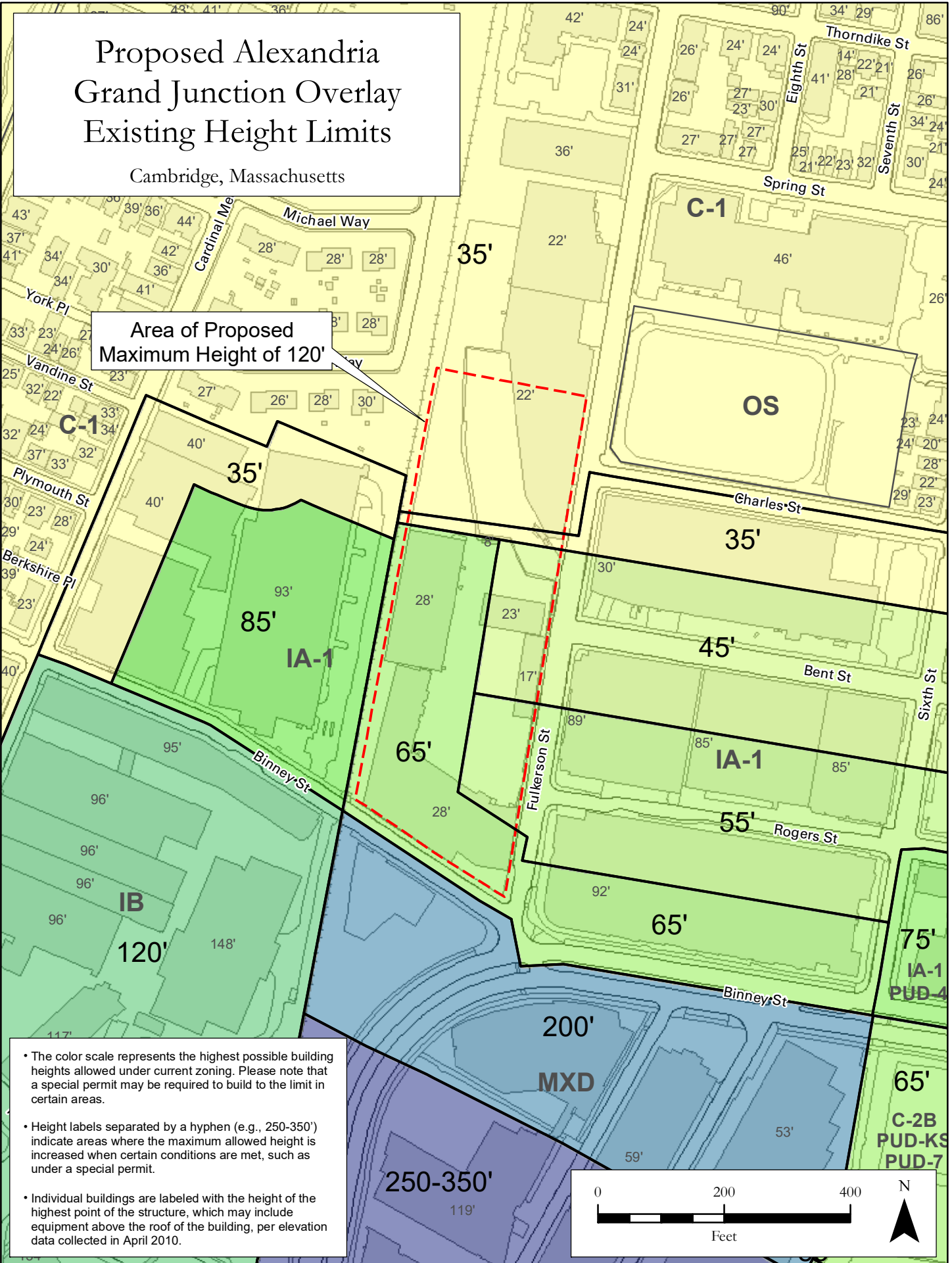
Cambridge, Massachusetts



# Proposed Alexandria Grand Junction Overlay Existing Height Limits

Cambridge, Massachusetts

Area of Proposed Maximum Height of 120'



- The color scale represents the highest possible building heights allowed under current zoning. Please note that a special permit may be required to build to the limit in certain areas.
- Height labels separated by a hyphen (e.g., 250-350') indicate areas where the maximum allowed height is increased when certain conditions are met, such as under a special permit.
- Individual buildings are labeled with the height of the highest point of the structure, which may include equipment above the roof of the building, per elevation data collected in April 2010.

# Proposed Alexandria Grand Junction Overlay Area Designations

Cambridge, Massachusetts

