



CITY OF CAMBRIDGE

Community Development Department

To: Planning Board

From: Community Development Department (CDD) Staff

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Re: **Alewife Quadrangle Northwest Overlay District Zoning Petition**

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Overview

This zoning petition by David Navia, et al., would amend Section 20.90 to create a new section that modifies the existing Alewife Overlay District 1 (AOD-1), also referred to as the Quadrangle Northwest. This new Section 20.95.5 "Additional Quadrangle Northwest District modifications" would allow, upon granting of a special permit from the Planning Board, increased building height to a maximum of 85 feet and exemption of certain building floor area from Gross Floor Area (GFA) calculations provided that certain conditions are met. The stated intent of the new section is "to encourage landowners to retain existing Alewife Overlay District tenants, to attract similar tenants and other Amenity Uses to the Alewife area, to encourage the creation of space for Collaboration Uses, and to facilitate the provision of Local Government facilities."

The petition is being presented by representatives of the development company Cabot, Cabot and Forbes ("CCF"), which controls a large area of land in the district on both sides of Mooney Street. However, CCF is not the only property owner within the affected area. CCF has told CDD staff that the petitioners are Cambridge residents who use recreational facilities in AOD-1.

Current Zoning

The Alewife Quadrangle Northwest District (AOD-1) is one of six Alewife Overlay Districts (see map). The underlying base zoning in AOD-1 is Industry B-2 (IB-2), which generally allows light manufacturing, office, and some institutional uses as-of-right, and residential and educational uses by special permit from the Board of Zoning Appeal (BZA). The dimensional standards in IB-2 promote low-density development, with a maximum FAR of 0.75 and a maximum height of 35 feet. While there is a required 15-foot front yard setback, there is no open space requirement.

The Alewife Overlay Districts are intended to allow a greater range of uses, with higher development densities and building heights, by special permit from the Planning Board if the development is found to be consistent with the planning and urban design objectives for the area. The special permit process allows greater flexibility in some development standards, such as setbacks, but requires greater amounts of open space and permeable area. There are also provisions for transfer of development rights (TDR) and incentives for public improvements such as roadways and pedestrian/bicycle connections. The planning and urban design objectives underlying the AOD zoning were established in the 2006 *Concord Alewife Planning Study*, described further below.

Proposed Zoning

The petition proposes adding a new section that modifies the dimensional regulations for non-residential buildings in AOD-1 by increasing the allowed height and exempting certain uses from the calculation of gross floor area (GFA) limitations. The table below summarizes the current overlay district limitations and the changes proposed by the petition. Maps are attached for reference, along with the full Alewife Overlay Districts zoning text.

Zoning Limitations	Current AOD-1	Proposed AOD-1
Maximum FAR	<ul style="list-style-type: none"> • 1.50 for all uses • 1.75 with construction of a publicly accessible pedestrian bridge connection across the railroad (+ additional FAR for conveyance of roadway segments, pedestrian paths, public parks or other public space) 	<ul style="list-style-type: none"> • 1.50 for all uses • 1.75 with construction of a publicly accessible pedestrian bridge connection across the railroad (+ additional FAR for conveyance of roadway segments, pedestrian paths, public parks or other public space)
Uses Eligible for GFA Exemption	<ul style="list-style-type: none"> • Above-ground structured parking 	<ul style="list-style-type: none"> • Above-ground structured parking • Local government uses • Range of ground-floor non-residential uses including existing AOD tenants, “Amenity Uses” (such as day care, retail and recreation use types), “Collaboration Uses” (such as co-working office, product development, fabrication and testing, artist studios and maker spaces), uses providing low-barrier-to-entry jobs, and community spaces
Maximum Height (see map)	<ul style="list-style-type: none"> • 55’ – non-residential uses • 65’ – residential or local government • Up to 80’ – residential use with additional FAR for public improvements • Reduced to 35’ within 100’ of Residence or Open Space district • Reduced to 45’ from 100-200’ of Residence or Open Space district 	<ul style="list-style-type: none"> • 55’ – non-residential uses • 65’ – residential or local government • Up to 80’ – residential use with additional FAR for public improvement • Up to 85’ – non-residential use with additional FAR for public improvements, criteria for ground floors, and flood resilience <p><i>(Unclear if petition would maintain height buffers from Residence and Open Space districts; CCF has indicated that the intent is to maintain those buffers)</i></p>
Minimum Open Space	<ul style="list-style-type: none"> • 15% Open Space • 25% Permeable Area (can be reduced by meeting stormwater performance standard) 	<ul style="list-style-type: none"> • 15% Open Space • 25% Permeable Area (can be reduced by meeting stormwater performance standard)

Area Planning

The area of the petition has been the subject of multiple planning efforts. The current zoning was informed by and makes reference to the [Concord Alewife Planning Study](#) completed in 2005. However, a more recent study process for Alewife conducted as part of the [Envision Cambridge](#) comprehensive plan has refined some of the thinking for the future of this area.

Concord-Alewife Planning Study

The Concord-Alewife study divided the Alewife area into the “Triangle” along CambridgePark Drive, north of the Fitchburg Rail line, and the “Quadrangle” between the rail line and Fresh Pond Reservation. The Quadrangle was further divided into a “Shopping Center” district along Alewife Brook Parkway and four geographic quadrants covering the largely commercial/industrial area between the retail district and the Cambridge Highlands residential neighborhood. The Concord-Alewife plan envisioned the entire area transitioning to a mix of housing and commercial uses over time. In the Quadrangle in particular, the Concord-Alewife planning goals encourage the addition of housing, with a transition from lower-density development near the Cambridge Highlands neighborhood to medium-density development further to the east.

Other goals of the Concord-Alewife plan included managing traffic demand by supporting walking, bicycling and public transportation as alternative modes of transportation, promoting stormwater management, supporting neighborhood-focused retail near Alewife Brook Parkway, and allowing the retention of light industrial uses in areas near the active railroad line. A major urban design objective was to transition the area from an automobile-oriented character to a more pedestrian- and bicycle-friendly environment by activating streets, creating outdoor gathering spaces, and reinforcing connections to nearby open spaces.

The Concord-Alewife plan also identified desired infrastructure improvements to serve public goals, including a pedestrian/bicycle connection from the Quadrangle to the Alewife MBTA station, roadway connections to allow more flexible east-west travel without relying on Concord Avenue, enhanced bicycle and pedestrian connections throughout the area, and public open space to serve community-gathering functions in addition to stormwater management. As discussed earlier, the zoning provides development bonuses for providing key public infrastructure identified in the plan.

Since the completion of the *Concord-Alewife Planning Study*, much of the area has begun to transition from a predominantly commercial character to a greater mix of uses, particularly through the development of a large amount of multifamily housing in the Triangle, eastern Quadrangle, and other nearby areas. The total effect of this increase in housing is yet to be determined, since much of it is newly completed or is still under construction. More recently, the market for development has favored commercial laboratory and technical office space, which has been created through both new construction and the rehabilitation of existing commercial space. However, so far there has been little development in the section of the Quadrangle west of Smith Place and east of the Highlands neighborhood.

Envision Cambridge / Alewife Plan

As part of the Envision Cambridge comprehensive planning process, from 2016 to 2018, CDD staff and consultants engaged the public, including an Alewife Working Group made up of community stakeholders, to develop an updated set of planning goals and recommendations for the area. The key goal that emerged through this process was the creation of an identity and sense of place for the whole area in the following ways:

- Better integrate the district with the rest of the city through new walking and biking paths, streets, and open spaces;
- Ensure that both new development and existing infrastructure, neighborhoods, and community resources are prepared for climate change, particularly the impacts from flooding and heat;
- Encourage forms of development, a mix of uses, and a range of improvements that will facilitate and encourage walking, biking, and transit use and reduce the growth of vehicular trips;
- Ensure that new development benefits the adjacent residential neighborhoods by introducing new amenities and services and creating neighborhood destinations.

The more recent Alewife planning process shares many of the overall objectives of the Concord-Alewife planning study, such as transitioning from an automobile-oriented environment to one that encourages more pedestrian activity and sustainable modes of transportation. The Alewife Working Group continued to endorse key infrastructure improvements (e.g. a pedestrian/bicycle railroad crossing), enhanced bicycle and pedestrian connections to Alewife Brook Reservation and the retail district along Alewife Brook Parkway, and public open space; it also recommended retaining and strengthening zoning incentives that would promote such improvements.

In addition, the Alewife Working Group highlighted some issues and recommended some approaches that refine and expand upon the Concord-Alewife plan. For instance, the Alewife Working Group focused on the intersection between urban design and the projected impacts of climate change, based on the City's Climate Change Vulnerability Assessment (CCVA), and recommended urban design approaches that aim to promote the area's transition to a more pedestrian-friendly, mixed-use environment while still protecting against future flooding and reducing urban heat island effects. These strategies include elevating buildings while maintaining a pedestrian-accessible ground floor using elevated walkways, as well as continuous tree plantings and shade canopies along street frontages and more contiguous planted open space in the interiors of blocks. These approaches continue to be refined by the ongoing work of the City's Climate Change Preparedness and Resilience (CCPR) planning and the Climate Resilience Zoning Task Force (CRZTF). Some approaches for this particular area are outlined in [the Alewife Preparedness Handbook](#).

Particularly relevant to this zoning petition, the Alewife Working Group envisioned a more targeted land use strategy for industrial portions of the Quadrangle, which it identified as one of the last remaining districts in the city that accommodates certain types of light industrial uses. Light industrial businesses and community-based businesses that use light industrial space were prioritized in the planning process because they often pay relatively high wages with lower barriers to entry (such as minimum educational

requirements), provide lower cost space, offer unique retail experiences, and preserve and expand the types of businesses that currently call Alewife home. Legacy businesses, such as Iggy's Bread of the World, Gymnastics Academy of Boston, Central Rock Gym, Longleaf Lumber, and Anderson McQuaid, serve vital community functions as retailers, employers, amenity-providers, and community gathering spaces.

While the Concord-Alewife plan anticipated an eventual transition to housing, the more recent plan supports commercial development with light industrial space in the ground floors, which would require taller floor-to-ceiling spaces on ground floors and thus greater flexibility in total allowed commercial building heights. Such an approach would also require density incentives since the ground-floor uses would produce less revenue than new commercial office or laboratory space.

The Quadrangle is served by a busy regional roadway network, and the current Alewife plan recognizes that other modes of transportation will need to be increasingly relied upon as the area transforms. Because the shift to a more commercial development pattern raises concerns about additional traffic generation, the Alewife Working Group studied present and future transportation conditions to recommend new approaches to managing transportation such as limiting parking creation and promoting greater use of transportation demand management (TDM) programs in addition to building infrastructure for non-automobile modes of travel.

A final report from the Alewife component of the Envision Cambridge process is expected to be available in the near future. However, [zoning recommendations developed through that process \(as presented in May, 2018\) can be downloaded from the Envision Cambridge web page, envision.cambridgema.gov.](#)

Comments on Zoning Petition

The CCF team is knowledgeable about the recommendations of the Alewife Working Group and has incorporated aspects of the zoning recommendations from that process into the present zoning petition. The petition aligns with the Alewife Working Group's recommendations in the following ways:

- *Building Heights.* The increase in allowed height to 85' for commercial uses is consistent with the recommendations of the Alewife planning process, though the planning process stressed the importance of aggressive transportation policy and infrastructure improvements accompanying new commercial growth (detailed further below). This height increase is intended to enable the construction of commercial buildings with appropriately-scaled space for light industrial uses at the ground floor. The petition includes "greater floor-to-ceiling height than the average of the upper floors" as a criterion for approval but does not specify a height. The petition would only allow a height increase for projects utilizing a development bonus for key public infrastructure; this constraint promotes an important public planning objective but was not specifically recommended in the Alewife planning process.
- *Exemption for Ground-Floor Uses.* The Alewife planning process recommended exempting ground-floor spaces that are occupied by light industrial uses or similar businesses providing good-paying, low-barrier-to-entry jobs from the calculation of gross floor area (GFA) limitations. The GFA exemption and additional height allowance recommended in the Alewife planning process is intended to enable developers to provide these spaces without reducing the capacity for more

profitable commercial uses, such as offices and labs. The types of businesses envisioned for Alewife during the planning process include light industrial businesses (e.g., manufacturers of bikes, medical equipment, furniture, catering food companies) as well as community-focused businesses that require light industrial space (such as the existing tenants Gymnastics Academy of Boston and Central Rock Gym). To promote activation of the streetscape, the Alewife planning process encouraged these uses to include retail or “showroom” functions similar to what some existing businesses currently do. The petition proposes exempting a more expansive range of uses, which could result in more retail or similar community-serving establishments and fewer true light industrial businesses. There may be a rationale for incentivizing some additional uses; however, the range of uses that are eligible for such an exemption should be carefully considered and the basis for the Planning Board’s approval should be made as clear as possible.

The following topic is addressed in the petition, but not in as much detail as in the Alewife zoning recommendations:

- *Flood Resilience.* The petition includes a criterion that buildings be “Flood Resilient,” defined as “designed for the projected 2070, 100-year precipitation-driven flood elevation.” In principle, this is similar to the Alewife zoning recommendations for the Quadrangle except that the flood elevation datum should be based on projected sea level rise and storm surge, which is generally higher than precipitation-driven flooding. More specifically, the recommended Alewife zoning standard is to protect (in most cases, elevate) the most flood-sensitive uses (e.g., residential units, critical building systems) from the 10% probability (10-year) flood and to design all buildings to recover from the 1% probability (100-year) flood by using flood-resistant materials, temporary barriers, and other measures. To maintain a pedestrian-friendly relationship with the street, ground floors would be elevated to the 10% probability (10-year) flood elevation and no higher than 4 feet above grade; other protective measures would be used above that height when necessary. If not included in the petition, these specific standards would be applied through development review. However, it may be advisable not to create definitions of “Flood Resilient” particular to this area if they might cause confusion with other standards applied more broadly.

The Alewife zoning recommendations include the following topics that are not addressed in the petition:

- *Parking and Transportation.* To limit traffic growth, the Alewife zoning recommendations include maximum limits on off-street parking ratios (for instance, 1.1 space per 1,000 square feet of office and 0.8 space per 1,000 square feet of laboratory) and the removal of minimums except for residential use (minimum 0.25 space per unit, maximum 0.75 space per unit). The recommendations also include enhanced transportation demand management (TDM) measures, which have proven effective elsewhere in the city where there has been growth in employment, and funding contributions for new commercial uses (at a rate of \$5 per square foot) to support public improvements toward transportation infrastructure and programs.
- *Urban Design / Built Form.* The recent planning for Alewife emphasizes creating a unique streetscape character, which relies in part on prescriptive “build-to” front setback lines to establish street widths that include adequate space for vehicles, bicycles, and pedestrians as well as street tree plantings and similar features. Recommended standards also include elevated streets or 12-

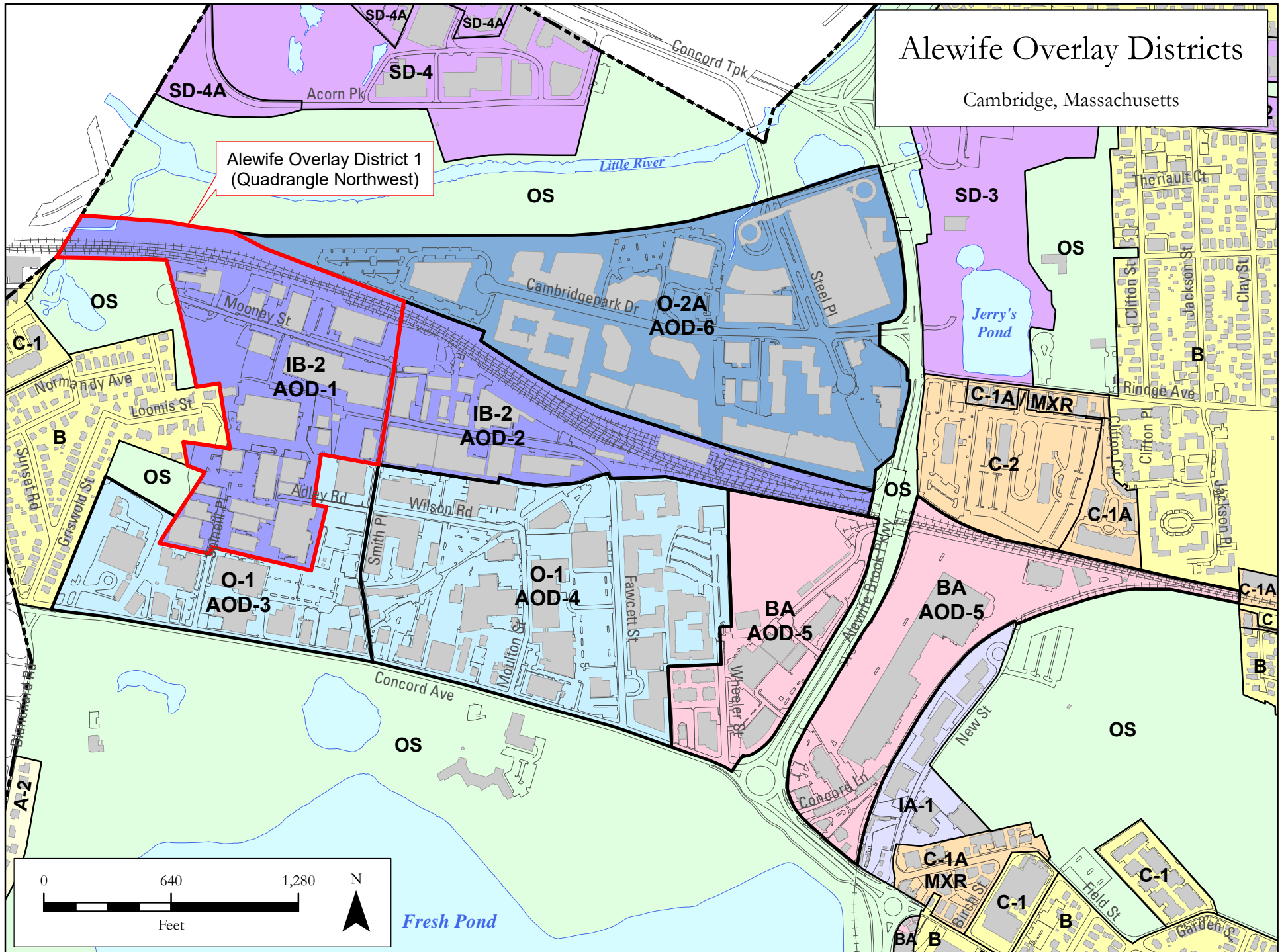
foot-wide elevated walkways fronting the ground floors of buildings, shade canopies covering sidewalks and public walkways to ensure pedestrian accessibility and comfort, maximum building lengths of 200 feet along street frontages, and screening above-grade structured parking with occupied building spaces. The petition does not include these standards, but if the zoning were adopted, these standards could be applied through the Planning Board’s development review and approval process.

- *Heat Resilience.* The topic of climate change resilience is not just limited to flooding but also includes development strategies that will reduce urban heat island effects, which include shading, vegetation, and use of high-solar-reflectivity materials (such as “white roofs”). In addition to increased shade tree plantings, the Alewife recommendations include measures to promote increased green and permeable open space, including more contiguous green space in the interior of blocks. These strategies continue to be studied and refined through the aforementioned CCPR and CRZTF processes.

Overall, the key principle in both the current AOD zoning and the Alewife zoning recommendations from the Envision Cambridge process is that to access the additional height, density, and development bonuses available under the overlay zoning, the area planning objectives must be met as a whole.

Alewife Overlay Districts

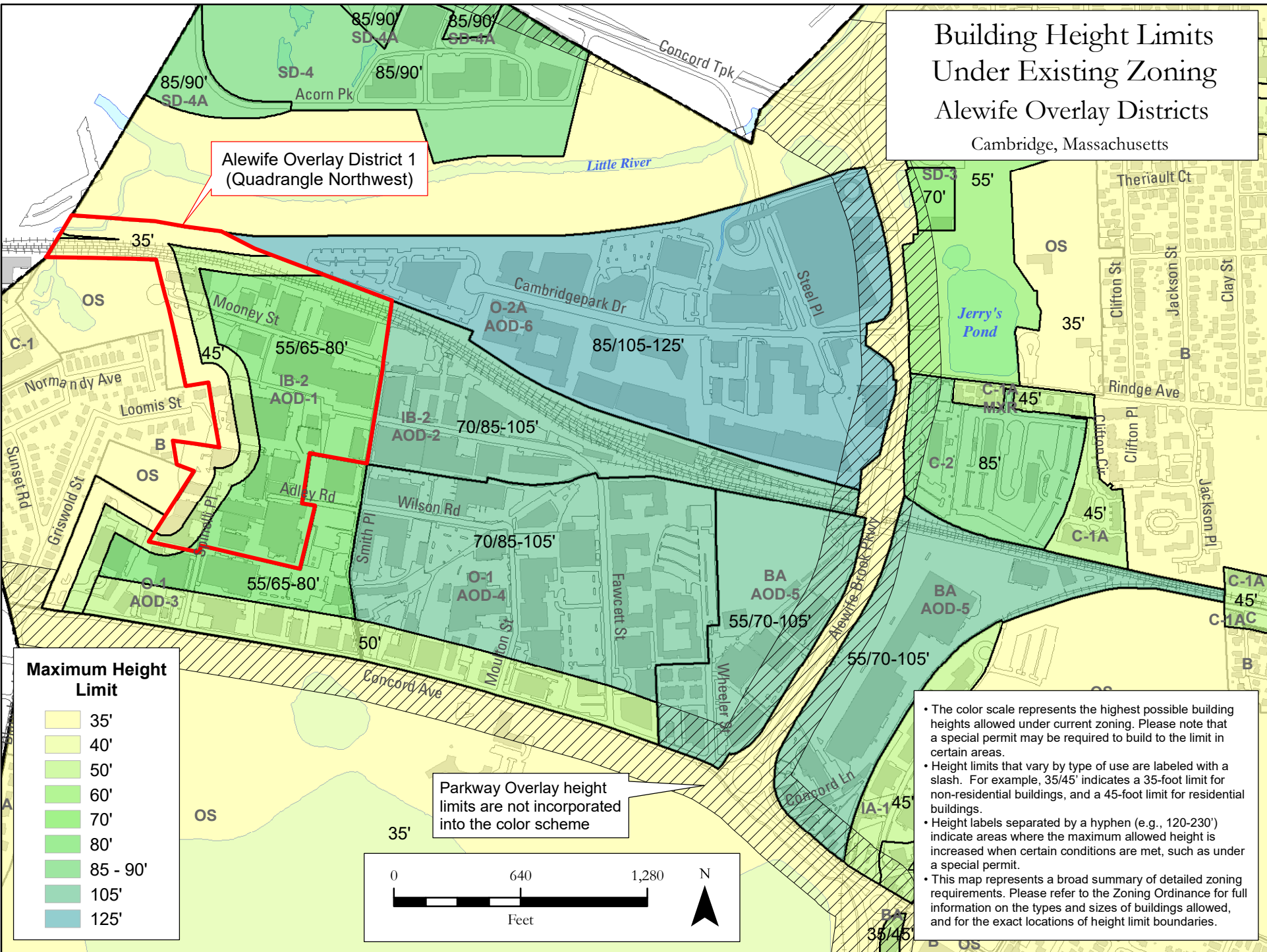
Cambridge, Massachusetts



Building Height Limits Under Existing Zoning Alewife Overlay Districts

Cambridge, Massachusetts

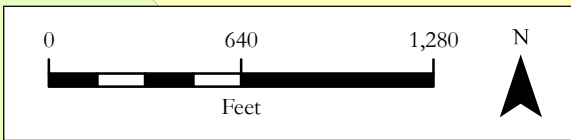
Alewife Overlay District 1
(Quadrangle Northwest)



Maximum Height Limit

35'
40'
50'
60'
70'
80'
85 - 90'
105'
125'

Parkway Overlay height limits are not incorporated into the color scheme



- 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 limits that vary by type of use are labeled with a slash. For example, 35/45' indicates a 35-foot limit for non-residential buildings, and a 45-foot limit for residential buildings.
- Height labels separated by a hyphen (e.g., 120-230') indicate areas where the maximum allowed height is increased when certain conditions are met, such as under a special permit.
- This map represents a broad summary of detailed zoning requirements. Please refer to the Zoning Ordinance for full information on the types and sizes of buildings allowed, and for the exact locations of height limit boundaries.