Citywide ADU Zoning Zoning Analysis Updates

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Goals of Right-Sizing Residential Zoning

By the end of 2024, the BPDA and the City aim to update residential zoning throughout Boston's neighborhoods. The goals of these zoning updates are:

#1 Allow ADUs to be built on most residential lots



Homeowners will be able to build ADUs without waiting months for unnecessary zoning approval.

3 Create clear standards for new housing development



New 1 - 4 unit housing will be more quickly permitted and built on vacant lots.

#2 Legalize established neighborhood fabric through right-sized regulations



Small-scale renovations will be allowed without first requiring zoning relief for pre-existing nonconformities.

4 Simplify and streamline zoning text



Residents & design professionals will be able to more easily use the zoning code.

Zoning Reform for ADUs in Boston





Where is there a mismatch between existing homes and what the zoning code prescribes?

Why does this matter for ADUs?







Nonconformity Means No Change Without ZBA Approval

When the zoning code is out of alignment with one or more aspects of a home, this is a "nonconformity," meaning a homeowner *cannot make any further renovations* without zoning relief.

The following are common renovation projects that frequently require zoning relief and approval from the Zoning Board of Appeal.

- Adding dormers
- Installing balconies/porches/roof decks
- Adding extra rooms
- Increasing square footage of existing rooms
- Raising roof height
- Extending living space into basement or attic
- Building an ADU

Dormers are a common aspect of many homes, but their addition often violates FAR or height maximums.









Where does the zoning code *fail to match* what already exists on the ground and that we love?



Our zoning was enacted after most housing got built.

Boston's zoning code was created in 1964. But the vast majority of Boston's housing stock was already built before the zoning code was enacted, and never aligned with those rules.



This Brighton triple-decker, built in 1910, is in violation of most of the zoning regulations for its subdistrict.





More modern homes may still have zoning violations, as they tend to be designed to match the existing, established character of a 15 neighborhood.

37% of lots in Boston are too small for their zoning district.

In zoning, minimum lot size means that if a parcel is below a certain size, nothing can be built on it.

The minimum lot size in the zoning code is more restrictive than the actual lot size on **37%** of Boston's residential parcels. This means that 37% of residential lots would be unbuildable without zoning relief.

Compliant with lot size zoning requirements

Non-compliant with lot size zoning requirements





87% of lots with buildings on them have yards that don't meet requirements in zoning.

Zoning has different rules for the distance a building must sit from the front, side, and rear edges of a parcel, or the width/depth of yards.

While there are some cases that cannot be calculated citywide (a "modal setback", where the rules can vary depending on neighboring properties), we estimate that approximately **87% of existing residential buildings** in Boston fail at least one of these rules on where they are allowed to be placed on their property, according to current zoning. Yard violations are the most common zoning violation at the ZBA.

Compliant with zoning requirements for yards

Non-compliant with zoning requirements for yards





Together, 99.7% of residential parcels have zoning that fails to match what's there.

Without case-by-case zoning relief, the current zoning code effectively declares that **nothing should be built in Boston that looks like what is currently in Boston**.

This is true whether it is infill on a vacant lot, an ADU, or a simple change like adding a dormer or rebuilding a porch.

(**99.7% of parcels fail to conform** to unit count, lot size, floor area ratio, or yard requirements. This does not account for parking or any other zoning rules that cannot be measured citywide.)

Compliant with certain zoning requirements

Non-compliant with at least one zoning requirement





Observation: Residential areas display high amounts of heterogeneity in form.



All these streets display the typical randomness of building form we know and love about Boston.

Roslindale (3F-4000)

Brighton (3F-4000)





Dorchester 3F-6000

Roxbury, 3F-5000



These buildings look like six-packs, but they each only hold 3 units. (L - Dorchester; R - Brighton)



Observation: Building form + unit count don't always follow the logical rules we might expect to see.



Areas we think of as more standardized (i.e. Southie) still have varied lot sizes, lot coverage, and setbacks from block to block.

2 family dwellings "hide" amongst the 2-story colonial style single family homes in Woodbourne in JP, in a single-family subdistrict.

In typical Boston fashion, there's a 3.5 story triple decker (and several other – 3-story, 3-unit friends) casually on the block as well.



Observation: All areas display heterogeneity in unit count.



Roslindale – 2F





Dorchester - 1F

Dorchester (1F-2F subdistricts)



Observation: **Triple deckers appear in practically every residential neighborhood. They often look** different, have varying floorplates, complicate visual cues for density (height/form/unit) and break zoning rules.







Current Zoning and Existing Buildings

Currently the code does not match up well with the city's existing fabric.

Many homes that we know and love do not fit within the three-dimensional envelope created by the existing code.

For example, this triple decker in what is currently a 2F-5000 subdistrict has a number of problems...





Current Zoning and Existing Buildings

The portion of the building shown is green is inside the existing zoning envelope. Any portion of the building outside of that box is not allowed...

That means this historic triple decker, a quintessential Boston housing typology, is not compliant with our current zoning code.

- Front, rear, and side yard requirements are so extensive that the existing structure does not fit
- Maximum height limits and story limits are lower than the existing structure





Current Zoning and ADUs

Without addressing the underlying issues in the current zoning code, ADUs cannot be easily built everywhere in the city.

Any zoning changes that may come out of this effort must provide a zoning envelope that is right-sized to allow for the development of future ADUs.

The envelope needs to be flexible enough to allow many types and sizes of ADUs which will best match each lot and building type.





Takeaways from ground-level observations

- In any given zoning subdistrict, there is a **wide variety** of the kinds of homes that appear. ADUs will be look different on different lots.
- This affects not just the **number of units**, but also **building height**, **size of unit**, and **shape and size of building floor plate**. ADUs will need to adjust their form and layout accordingly.
- **Triple-deckers** appear across Boston, and themselves vary strikingly in appearance. Finding a set of common solutions for ADUs here is key.
- **Building height**, **unit count**, and **FAR** by themselves do not consistently predict the overall feel of a residential area. To allow for ADUs in these locations, we need to identify other zoning mechanisms that are more consistent.



Analysis of Lot and Building Patterns across Boston



Patterns within Boston's Heterogenous Form

While the built form of our city varies widely, thinking differently about buildings and the space surrounding them has exposed some very broad patterns. We have to understand these patterns so that we know how ADUs can and cannot fit.



Type A - Attached Small, narrow, and often with row houses Type A - Detached Small and narrow lots Type B Highly variable form and lots Type C Large lots and plenty of space



How do ADUs Fit in these Patterns?

Understanding these spatial patterns throughout Boston's existing and heterogeneous built fabric will allow us to accommodate many types and sizes of ADUs. Allowing variability in ADU design is vital for ensuring all areas of our city have the ability to create ADUs.





Small and Narrow Lots (Type A) - Dimensional Patterns

- Smaller, tighter lots
- **Higher lot coverage**
- Less space between buildings (smaller yards)
- Narrower lots and buildings



Small and Narrow Lots (Type A) - Attached







Roxbury 3F-4000, RH // XS, Less Space **Charlestown** 3F-2000 // XS, Less Space

East Boston 3F-2000 // XS, Less Space



Small and Narrow Lots (Type A) - Detached





Mission Hill 3F-2000 // S, Less Space

Dorchester 2F-5000 // S, Less Space

Dorchester 3F-5000 // S, Less Space





Roxbury 3F-4000// S, Less Space



Small and Narrow Lots (Type A) - Detached



Dorchester 2F-5000// M, Less Space



Mission Hill 3F-2000// M, Less Space



South Boston MFR// S, Less Space

East Boston 2F-2000// XS, Less Space



How will ADUs fit? - Small Lots

On smaller lots or lots with existing higher lot coverage an ADU may be something as simple as a small bump out to make enough liveable interior space for a fully interior ADU.

- Small interventions like this can be relatively simple ways to add an ADU
- Smaller projects can help maintain existing trees and open space





Everything, Everywhere, All at Once (Type B) - Dimensional Patterns

- Larger and wider lots, but generally in the medium category
- Lot coverage in the medium range of the city
- Highly variable lot size and shape
- Highly variable building form and shape
- More breathing room between buildings





Everything, Everywhere, All at Once (Type B)



Jamaica Plain 3F-4000 // M, Less Spac

Roslindale 2F-5000 // M, Less Space





Allston 2F-5000 // M, Less Spa

Dorchester 25-5000 //M, Less Space



Everything, Everywhere, All at Once (Type B)





Brighton 1F-3000 // M, Less Space





F 3

Mattapan R2 //S, More Space



Everything, Everywhere, All at Once (Type B)



Jamaica Plain 3F-4000 // L, Less Space



Brighton 3F-4000//S, More Space

Roslindale 2F-5000 // M, Less Space



Brighton 3F-4000 // M, Less Space





How will ADUs fit? - Medium Lots

On medium lots or lots with existing medium lot coverage an ADU may take the form of a small attached unit.

• Attached ADUs are an efficient way to add an additional unit when space is slightly more generous but yards are still not large enough to provide for a stand alone structure





Medium rear

Big Lots (Type C) - Dimensional Patterns

- Largest and widest lots medium and large lot categories are well represented
- Lot coverage in the low range of the city
- Like the other types, highly variable building form and shape
- The most generous space between buildings, especially at the rear of lots and buildings









Roslindale 1F-6000// L, More Space

Hyde Park 1F-9000// L, More Space



Hyde Park 1F-6000//M, Less Space

Jamaica Plain 1F-9000//L, More Space









West Roxbury 1F-8000//L, More Space

> Dorchester 1F-7000//L, Less Space





Mattapan R1//L, Less Space



How will ADUs fit? - Large Lots

On large lots or lots with low existing lot coverage an ADU may take the form of a small stand alone structure in a rear or large side yard.

- Garages and carriage houses can be renovated to accommodate ADUs
- Large lots can also accommodate new appropriately sized stand alone ADUs





How wide a lot is and how big a lot is are both important to determine its "type"

Based on this analysis, two key properties about a parcel can provide most of the information needed to decide what "kind" of parcel it is: **lot width** and **lot area**.

For this analysis we define a set of increasing thresholds.

A parcel's "type" would be the smallest category where the **width** and **area** are smaller than the limits listed to the right.

Lot Type	Max Width (feet)	Max Area (sq ft)
Extra-Extra Small	15	1000
XS, Less Space	25	2500
XS, More Space	30	1500
S, Less Space	34	3740
S, More Space	40	3200
M, Less Space	55	6600
M, More Space	60	4800
L, Less Space	70	9100
L, More Space	>	>



Lot Types Vary Across the City and Within Neighborhoods

Lot Type	Max Width (ft)	Max Area (sqft)
XXS	15	1000
XS, Less Space	25	2500
XS, More Space	30	1500
S, Less Space	34	3740
S, More Space	40	3200
M, Less Space	55	6600
M, More Space	60	4800
L, Less Space	70	9100
L, More Space	>70	>9100



Small, medium, and large lots all occur across Boston.



Using this Data to Enable ADUs: Next Steps

ADU Zoning Initiative: Process Timeline



boston planning & development agency

Appendix

Nonconformity Means Delay, Cost, and Uncertainty

Even projects that are approved the very first time at the Zoning Board of Appeals undergo a review process that takes an average of 6 months. The additional work required for lawyers, architects, and community process increases costs.

Costs increase even more for projects that require a redesign and resubmission to the ZBA.

Mean Days Between Filing and Hearing Date, by Hearing Date Month





Nonconformity with Unit Count

In zoning, maximum unit count sets a cap on the number of units that can be on a single parcel.

The maximum unit count in the zoning code is more restrictive than the actual current unit count on **16%** of Boston's residential parcels.

We are showing residential parcels with 1-6 units, and do not anticipate ADUs being appropriate tools in parts of Boston that have been recently rezoned or where landmarks designations already dramatically limit what could happen without zoning relief anyway.

Compliant with unit count zoning requirements

Non-compliant with unit count zoning requirements





Nonconformity with FAR

"Floor Area Ratio" (FAR) is the amount of building on a parcel relative to the size of that parcel.

71% of Boston's residential lots have an FAR that exceeds what zoning allows, which means that that 71% of parcels have buildings which according to the zoning code are bigger than should be allowed.



Non-compliant with floor-area ratio (FAR) zoning requirements





Right Sizing Dimensional Standards - Zoning Envelope

If we look at the triple-decker we studied earlier, an updated zoning envelope would ideally make this beloved housing type fully compliant with the zoning code.





Right Sizing Dimensional Standards

Using the patterns we just discussed, what changes to dimensional standards do we need in order to update the zoning?

- Rules related to lots and spaces around buildings
- Rules related to buildings and their size





Right Sizing Dimensional Standards - Yards

Lot and Spatial Standards

Yard requirements establish the **relationships between homes**, **the public realm**, **and other buildings**. They are part of a a toolbox to help control how much yard & permeable space occurs on lots, and how much space occurs between buildings on a block.





Right Sizing Dimensional Standards - Lot Coverage

Lot and Spatial Standards

Lot coverage establishes how much of the lot may be covered by buildings. Lot coverage works in conjunction with setbacks to determine how much yard & permeable space must be provided on a lot.





Right Sizing Dimensional Standards - Floorplate Maximum

Building Scale Standards

Floor plate maximums determine the horizontal size of a building itself, regardless of lot size. Even as lot coverage and setbacks adjust with lot size, floor plate maximums can remain constant.





Right Sizing Dimensional Standards - Building Height

Building Scale Standards Maximum building height - in feet and/or stories - controls the vertical size of buildings and, in conjunction with floorplate maximums, ultimately how bulky they feel from the public realm.





Right Sizing Dimensional Standards - Zoning Envelope

All of these tools work together to create a zoning envelope for each building on each lot. This new zoning envelope will include two concepts...

- Where buildings can land
- How large buildings may be

Setbacks establish the size of the horizontal red rectangle seen to the right. **This area sets the rules for where a building may land on the lot**.

Floorplate maximums, height maximums, and lot coverage establish the size of the smaller orange box. This volume sets the rules for how large a building may be. **Buildings may vary in size and shape but must fit within this volume**.





Right Sizing Dimensional Standards - Zoning Envelope & ADUs

The proposed zoning envelope we are studying must also be right-sized to allow for the development of future ADUs.

The envelope needs to be flexible enough to allow many types and sizes of ADUs which will best match each lot and building type.



