

TOWN OF NEEDHAM, MA MBTA COMMUNITIES SUMMARY REPORT

April 2024



RKG

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RKG Associates, Inc. is a multi-disciplinary consulting firm, founded in 1981. We serve private, public, and institutional clients and provide a comprehensive range of advisory, planning, marketing, and management services throughout the US and around the world.

We are proud that the projects we are involved in are projects that get built – projects that happen – projects that work.

RKG is headquartered in Alexandria, VA, and has offices in Boston, Atlanta, Dallas, and Newton, NH.

The Needham MBTA Communities assistance project was undertaken in partnership with our subconsultants at Innes Associates. IA works with communities of all sizes, assisting with planning at all scales: from lots to neighborhoods to entire towns or cities. Their focus is on providing municipalities with the tools they need to support their communities through changes in their economy, society, and environment.

Innes Associates is headquartered in Newburyport, MA.

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PURPOSE THE STUDY AND ANALYSIS

In December 2021, the Executive Office of Housing and Livable Communities (EOHLC, formerly DHCD) issued guidelines on how the 177 cities and towns that are part of the MBTA Communities Act were to create zoning compliant with the multifamily zoning requirement for MBTA Communities. Recognizing the complexity of the guidelines and the technical aspects of creating compliant zoning, the Town of Needham issued a request for proposals (RFP) to procure a consultant team to assist in the process. The consultant team would be charged with working directly with the Housing Needham (HONE) Advisory Group and town staff as well as engaging the public throughout the study process with the goal of developing compliant zoning that could be voted on at Town Meeting in 2024. Through the competitive bid process, the town selected the consultant team of RKG Associates and Innes Associates.

HOUSING NEEDHAM (HONE) ADVISORY GROUP

The Housing Needham (HONE) Advisory Group was established jointly by the Select Board and Planning Board in 2023. The group was tasked with leading the community engagement process to create multi-family zoning that complies with the MBTA Communities Act (MGL c.40A Section 3A). The group serves as advisors to the Select Board and Planning Board on proposed zoning to bring to Town Meeting in 2024, informed by their individual expertise, group deliberations, and feedback received from the public.¹

The Housing Needham (HONE) Advisory Group's charge was to:

1. Lead a broad public engagement effort for the Needham community to envision and shape zoning to allow multi-family housing that complies with the MBTA Communities Act.
2. Utilize the recommendations in the Town of Needham's 2022 Housing plan as a starting point.
3. Evaluate buildouts, projections, and analyses of fiscal, school enrollment, and infrastructure impacts provided by staff and consultants.
4. Consider related zoning elements that are allowed, but not required under the MBTA Communities Act, including but not limited to inclusionary zoning (affordable housing requirements) and parking minimums.
5. Update the Select Board, Planning Board and Finance Committee throughout the process on group deliberations and community feedback.
6. Recommend draft zoning to the Select Board and Planning Board to submit to EOHLC and Town Meeting.

HONE was comprised of a nine-member group appointed by the Select Board and the Planning Board to each serve through the end of 2024. A list of HONE members is shown in Table 1.

¹ Needham's HONE Advisory Group Webpage, <https://www.needhamma.gov/5478/HONE-Advisory-Group>

Table 1: HONE Membership

Member Name	Seat/Appointing Body	Year Appointed	Term Expiration
Heidi Frail	Co-Chair, Select Board Member/Select Board	2023	2024
Natasha Espada	Co-Chair, Planning Board Member/Planning Board	2023	2024
Kevin Keane	Select Board Member/Select Board	2023	2024
Jeanne McKnight	Planning Board Designees as of 4/16/2024 Member/Planning Board	2023	2024
Joshua Levy	Finance Committee Member/Select Board	2023	2024
Karen Calton	Finance Committee as of 4/16/24 Member/Select Board	2024	2024
Ron Ruth	Architect, Land Use Planner, Land Use Attorney, or Real Estate Developer/Planning Board	2023	2024
Bill Lovett	Architect, Land Use Planner, Land Use Attorney, or Real Estate Developer/Planning Board	2023	2024
Elizabeth Kaponya	Renter/Select Board	2023	2024
Michael Diener	At-Large/Select Board	2023	2024

Throughout the course of the engagement with the Consultant Team and developing the recommended MBTA Communities Zoning/Scenarios, HONE met 17 times, generally one to two times a month including hosting three community-wide public workshops.

OVERVIEW OF THE MBTA COMMUNITIES LAW

Serving as the backdrop to the work HONE was tasked with completing is the MBTA Communities Act, Section 3A of MGL c. 40A passed by the Massachusetts Legislature in January 2021. The law has three primary tenets which created the basis for the guidelines issued by EOHLC:

1. MBTA zoning districts must have a minimum gross density of 15 units per acre.
2. MBTA zoning districts cannot be located not more than 0.5 miles from a commuter rail station, subway station, ferry terminal or bus station, if applicable.
3. MBTA zoning cannot include age restrictions and cannot prevent housing that is suitable for families with children.

The premise behind the law and the guidelines is to address the Commonwealth's housing shortage and the impact that shortage has on our ability to compete for business and talent, ensure our residents can live affordably regardless of their income, and better linking housing, jobs, and transportation to address climate change and help reduce greenhouse gas emissions.

The guidelines set forth a detailed explanation for how communities are to comply with the law and the process by which they need to follow to show EOHLC and the Attorney General's Office that their zoning districts comply. The guidelines also established compliance deadlines for the 177 communities categorized by the type of transit serving the community or the size of the community and its adjacency to transit served communities. Needham is categorized as a Commuter Rail community and is given a deadline of December 31, 2024 to submit a compliance application to EOHLC for review and approval.

BUILDING ON NEEDHAM'S 2022 HOUSING PLAN

Fortunately for Needham, at the time of the legislature's approval of the MBTA Communities Act the town was working toward the completion of the Needham Housing Plan² which provided an opportunity to think through the implications of MBTA Communities and preliminarily identify options for how Needham could comply with the law. The original MBTA Guidelines as developed by EOHLC were available at the time of Needham's Housing Plan, but subsequent changes to the Guidelines in August 2023 came after the Housing Plan was approved. Regardless, the zoning changes proposed in Housing Plan formed a strong base from which HONE was able to work from. A summary of the proposed zoning changes and illustrative maps can be found [here](#).

TASKS AND TIMELINE

The consultant team was tasked with helping HONE identify at least one MBTA Communities compliant zoning scenario to bring forward at Town Meeting in 2024. To meet the deadline of Fall 2024 Town Meeting and have enough time for a preliminary review of the zoning by EOHLC, HONE established a completion deadline for this project of April 2024. Figure 2 illustrates the original timeline for the study established at HONE's first meeting in September 2023.

Figure 1 illustrates the tasks the consultant team was to complete during the course of the study. Generally, this included the following:

- Establish MBTA Districts and Scenarios
- Run the MBTA Compliance Model on Districts/Scenarios
- Conduct a Potential Build Out Analysis (Propensity Model)
- Conduct an Economic Feasibility Analysis (EFA)
- Conduct a Fiscal Impact Analysis (FIA)
- Illustrate Future Development on 3-4 Example Parcels
- Develop Compliant Zoning Language for Town Meeting
- Engage the Public

² Needham Housing Plan 2021 website: <https://www.needhamma.gov/5050/Needham-Housing-Plan-2021>

Figure 1: Original Scope Elements

SCOPE ELEMENTS

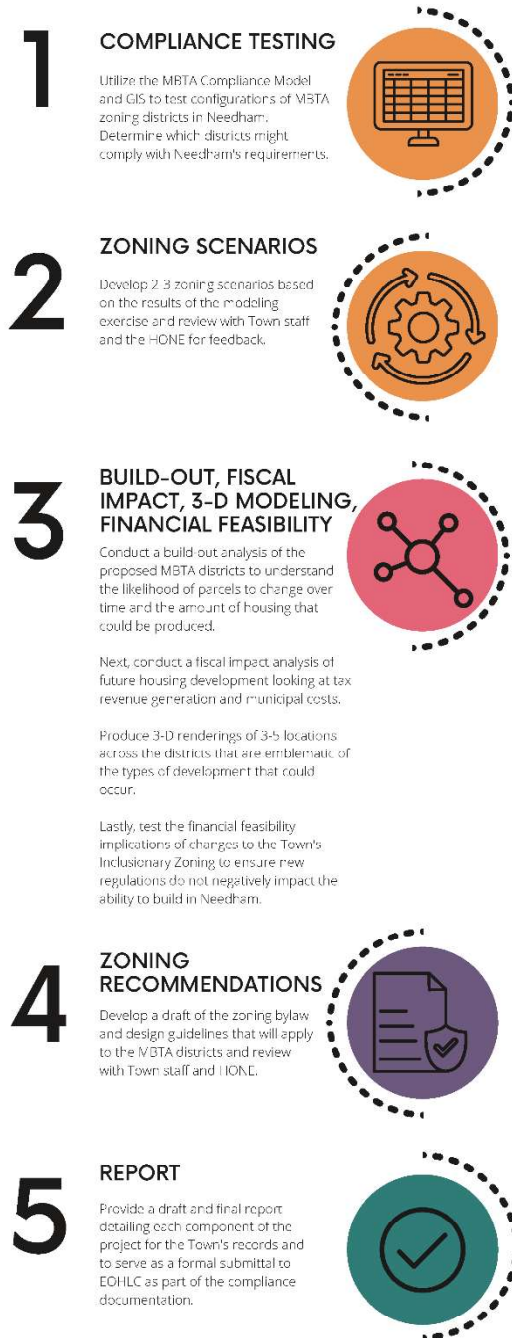
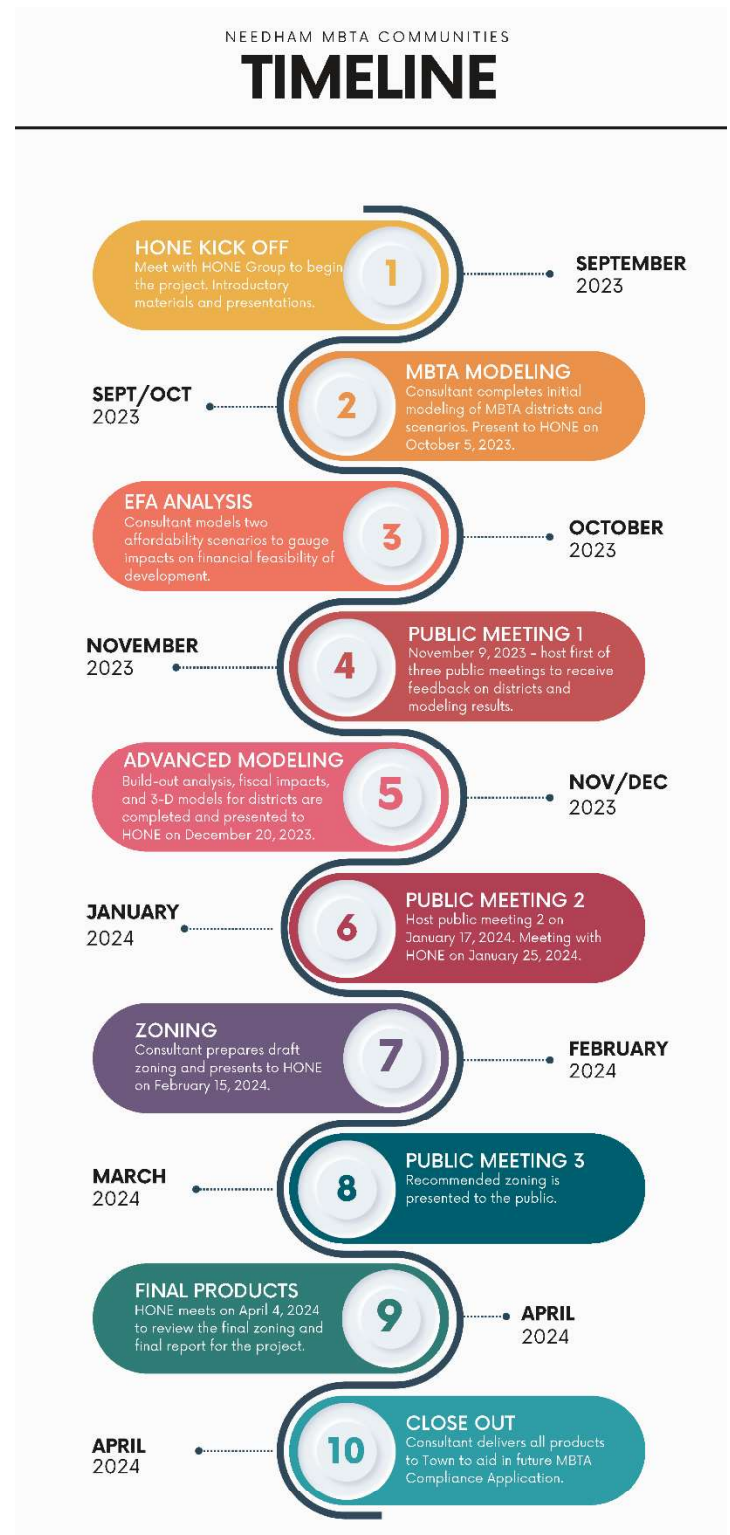


Figure 2: Original Timeline



PUBLIC ENGAGEMENT PROCESS

One key component to the work of HONE and the consultant team was ensuring a clear and transparent process for how the proposed MBTA Communities districts and zoning were determined. At the onset of the project, HONE was committed to meeting as many times as needed to establish their recommendations to Town Meeting in a way that responded to public comment throughout the process. In addition, HONE conducted three public workshops throughout the process to engage residents in the decision-making process and listen to their feedback on proposed MBTA district and zoning scenarios. Throughout the study process, HONE engaged with hundreds of Needham residents in both virtual and in-person formats as well as receiving and responding to written comments throughout.

HONE MEETINGS

As noted earlier, the HONE Advisory Committee met as an official group 17 times between September 2023 and April 2024. These regular business meetings were conducted in-person with the opportunity for participants outside of HONE to join either in-person or virtually. HONE meetings were typically held on Thursday evenings beginning at 7PM one to two times a month depending on the schedule and deliverables.

PUBLIC WORKSHOPS

At three specific points in the process, HONE hosted public workshops to engage residents and other interested participants to help formulate the MBTA Communities district scenarios and zoning parameters. They also delivered detailed presentations outlining how HONE deliberated and reached milestones throughout the process. Each public workshop was conducted in a hybrid manner where participants were able to attend an in-person meeting or as part of a virtual meeting. Regardless of how a participant chose to engage, the meeting and activities were mirrored to ensure all participants had equal opportunity to have their voice heard. The following descriptions provide a brief summary of each of the three public workshops highlighting the purpose of each meeting and how the feedback received was used as part of HONE's process.

PUBLIC WORKSHOP #1

On November 9, 2023, the HONE Committee of the Town of Needham hosted a Public Workshop at Powers Hall to discuss the town's compliance requirements for the MBTA Communities Act and to receive input from the public on potential MBTA districts, zoning districts, and zoning parameters. The meeting was held in-person and online with a synchronous presentation for all attendees and mirrored asynchronous activities so all could participate regardless of where they attended from. Overall, the meeting attracted approximately 300 participants both online and in-person.

At the start of the meeting, the consultant team gave a presentation that covered the MBTA Communities Act, the EOHLC Guidelines, and Needham's specific MBTA requirements under the law. After the presentation, participants were guided through a series of seven stations which asked questions related to

the zoning parameters that should be applied to different parts of Needham’s overall MBTA district. These included questions around height, density, lot coverage, and minimum lot size. There was a station with specific questions related to Needham’s Center Business district and whether mixed-use should be mandatory or not in that zoning district.

All feedback from the in-person and online attendees was [summarized](#) and presented to HONE. The group then deliberated and made decisions on how to set zoning for the proposed MBTA districts based on the public’s input.

PUBLIC WORKSHOP #2

On January 18, 2024, the HONE Committee of the Town of Needham hosted the second Public Workshop at Powers Hall to share three draft MBTA scenarios with participants and ask for their feedback. At this workshop, the consultant team presented three MBTA scenarios each with increasing land area and unit capacity amounts (*these are discussed further in the Roadmap for Scenario Building section of this report*). The meeting was held in-person and online with a synchronous presentation for all attendees, an online survey, and an open mic opportunity for questions and comments. This meeting also attracted over 300 participants both online and in-person.

All survey responses and public comments were summarized and presented at HONE’s next meeting. Once again, the feedback received from the public fed directly into the continued evolution of HONE’s MBTA district scenarios.

PUBLIC WORKSHOP #3

On March 28, 2024, the HONE Committee of the Town of Needham hosted the third Public Workshop at Powers Hall to share two refined draft MBTA scenarios with participants and ask for their feedback. At this workshop, the consultant team presented the two MBTA scenarios (*these are discussed further in the Roadmap for Scenario Building section of this report*), the results of the fiscal impact analysis, results of the economic feasibility analysis, and some sample renderings showing how parcels could potentially build out over time under each scenario. The meeting was held in-person and online with a synchronous presentation for all attendees and an open mic opportunity for questions and comments. This meeting attracted close to 400 participants both online and in-person.

All public comments were summarized and presented at HONE’s next meeting. Once again, the feedback received from the public fed directly into the continued evolution of HONE’s MBTA district scenarios.

OTHER ENGAGEMENT

In addition to the regular HONE meetings and the three public workshops, members of HONE and town staff met with other elected and appointed boards in Needham to keep them informed of the progress of the committee. This included meetings with the Select Board, Planning Board, and Finance Committee. There were also smaller forums to solicit input from specific groups such as a focus group with the

Town's Council of Economic Advisors and development industry to better understand how proposed zoning changes may influence their decisions to invest in Needham.

ROADMAP FOR SCENARIO BUILDING AND RESULTS

HONE's charge was ultimately to recommend draft zoning language to the Select Board and Planning Board that would comply with the MBTA Communities Act and guidelines. Over the course of an eight-month period, HONE worked with town staff, the public, and the consultant team to evaluate over a dozen different iterations of zoning districts and zoning parameters to create a recommendation that would both meet compliance with the law and be tailored to Needham's vision and goals for housing.

To meet its compliance requirements, Needham's MBTA Communities districts and zoning must meet the following criteria:

- A minimum land area of 50 acres.
- 45 acres must be located within a half-mile of any of Needham's commuter rail stations.
- One district must be at least 25 acres in size.
- No single district can be less than 5 acres in size.
- The zoning capacity of the districts must meet or exceed 1,784 units.
- 1,606 of those units must be within a half-mile of any of Needham's commuter rail stations.
- The districts must have zoning that allows for an average of 15 dwelling units per acre.

In the end, HONE's recommendation included two compliant scenario options for the Select Board, Planning Board, and Town Meeting to consider. These scenarios are referred to as Base Compliance and Neighborhood Housing Plan (NHP). These two scenarios were the result of input from HONE and the public throughout the process and both reflect feedback from public workshops and written public comments submitted throughout the process.

This section of the report is intended to provide an overview of the key steps and scenarios presented over the eight-month process. All presentations to HONE and the public which have more details on each scenario iteration can be found on [HONE's webpage](#).

NEEDHAM HOUSING PLAN

As noted earlier in this report, HONE had the advantage of not having to start from scratch with the creation of MBTA Communities districts and zoning. In 2021, a group of volunteers in Needham began working on the Needham Housing Plan that identified the housing challenges in town as well as potential solutions. Fortunately for the town, during the development of the Housing Plan the initial guidelines for MBTA Communities were released creating a window of opportunity to have the Housing Plan group consider how Needham could shape zoning and districts to comply with the law. The Housing Plan group developed a set of illustrative zoning maps and a list of recommended zoning changes that could help the town down the path of compliance with MBTA Communities.

The zoning maps included in the Housing Plan’s recommendations showed that the majority of the zoning changes could be concentrated in the Needham neighborhoods geographically located near three of Needham’s four MBTA commuter rail stations. These stations generally comprise an area that could be thought of as the Chestnut Street / Highland Avenue north / south corridor. This corridor included the more densely built parts of town with a mix of commercial, institutional, municipal, and residential uses with a range of density and building types. Accompanying each zoning district map was a detailed set of recommendations that, at the time, were considered to be zoning changes critical to creating compliance with MBTA Communities. A summary of the proposed zoning changes and illustrative maps from the Housing Plan can be found [here](#).

REFINING HOUSING PLAN RECOMMENDATIONS

In October 2023, at the request of HONE, the consultant team ran the Housing Plan recommendations (districts and zoning) through the MBTA Compliance Model to understand how close the Housing Plan scenario could come to helping Needham achieve compliance. The consultant team reported to HONE that the Housing Plan as envisioned resulted in the following compliance measures:

- 341 gross acres.
- Zoning capacity for 5,183 housing units.
- A gross density of 16.9 dwelling units per acre.

Under the specific conditions described in the Housing Plan, it was possible that Needham could have met the compliance requirements. However, there were several concerns on the part of HONE and the public that the Housing Plan may have gone too far in its overall size, unit capacity, and the inclusion of areas currently zoned General Residence (GR) which today is predominately single-family and two-family neighborhoods. This meant HONE would need to begin exploring ways to tailor the Housing Plan’s recommendations to better match the desired outcomes of the community and still meet or exceed the MBTA compliance requirements.

INITIAL DRAFT SCENARIOS FOR PUBLIC REVIEW

Following HONE’s initial public workshop in November 2023, the group began revising the original Housing Plan scenario to create options for MBTA Communities compliance. Utilizing the [feedback](#) from the November 2023 public workshop, HONE developed three distinct MBTA compliance scenarios to bring back to the public at a second workshop in January 2024. At that workshop HONE presented a minimum compliance scenario with 1,784 units, a slightly revised Housing Plan scenario with 2,630 units, and a more robust Increased Density scenario with 4,782 units. Table 2 shows the key metrics for each of the three scenarios.

Table 2: Initial Scenarios – Key MBTA Compliance Metrics

Model Output	Scenario A – Base Compliance	Scenario B – Housing Plan	Scenario C – Increased Density
Gross Acres	111.4	186.7	353.1
Max Unit Capacity	1,784	2,630	4,782
DU/AC	15.0	15.8	15.0

The workshop offered a synchronous paper and online survey participants, available for completion during the workshop. Additionally, an asynchronous survey was available for a week following the workshop, allowing for participants to review the scenarios and provide further input. The survey asked specific questions about each scenario and how participants felt about the overall scenario, the size and location of specific zoning districts, and the zoning parameters used to determine unit capacity and density.

Following the public workshop, HONE convened to discuss the public feedback and continue to refine the MBTA district scenarios. Some key points of public feedback that helped shape the next iterations of HONE's scenarios included, but was not limited to:

- Scenarios A and C, the lowest and highest unit capacity figures, were the first choice of most workshop participants highlighting a split within the community for meeting base compliance with the law or using the law to push housing production in Needham.
- Most participants were comfortable leaving the size of districts in Scenario A, B, and C as they were drawn with the exception of the Center Business District. Throughout the process participants were split on whether to include the Center Business District or not because of its importance as a mixed-use business district that currently requires first floor commercial in a residential building.
- Participants were split on whether to include Needham's General Residence (GR) zoning district in an MBTA compliance scenario.

Figures 3, 4, and 5 show the MBTA district scenario maps that were presented at the second public workshop for feedback.

Figure 3: Base Compliance Scenario Map – November 2023

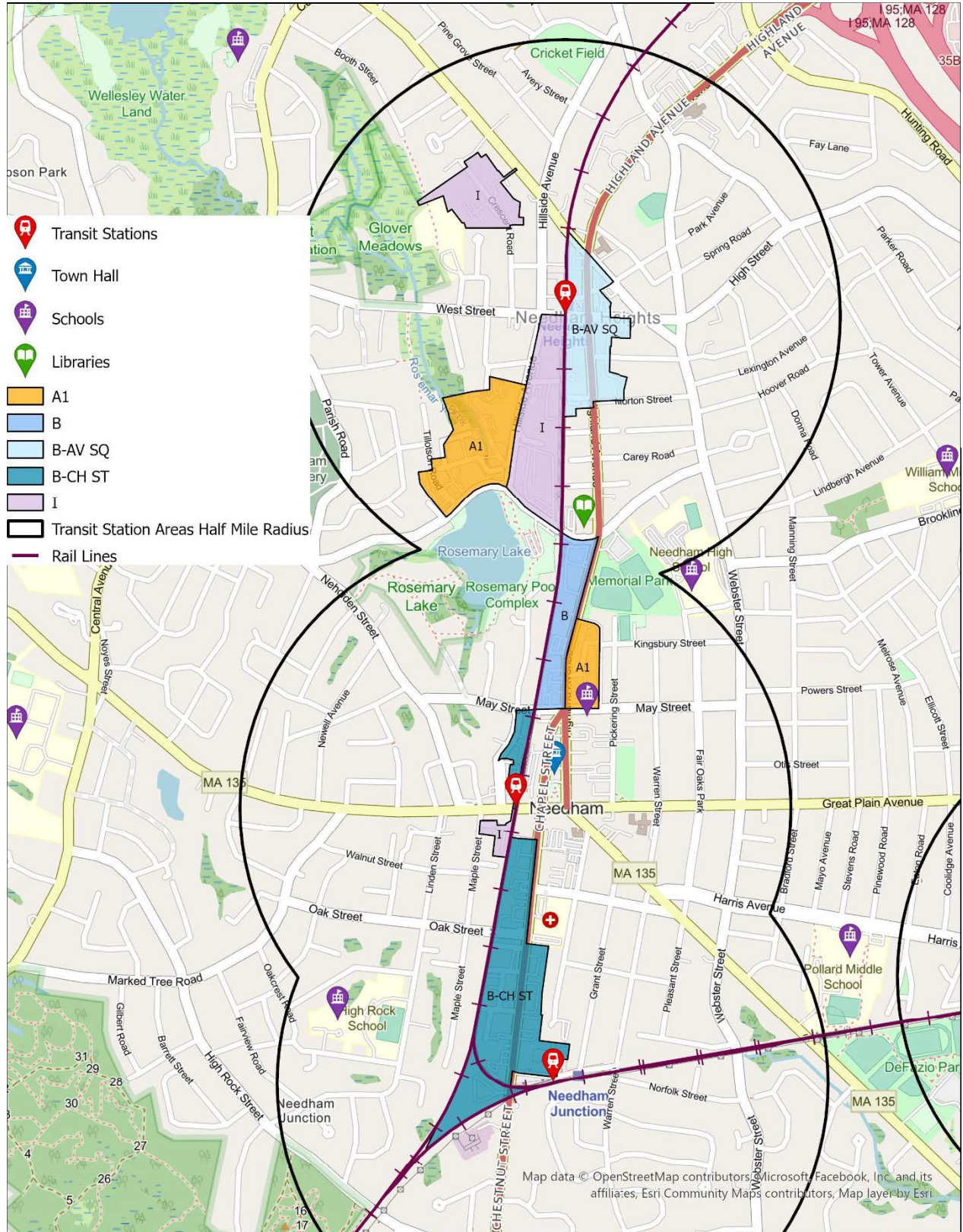


Figure 4: Housing Plan Scenario Map – November 2023

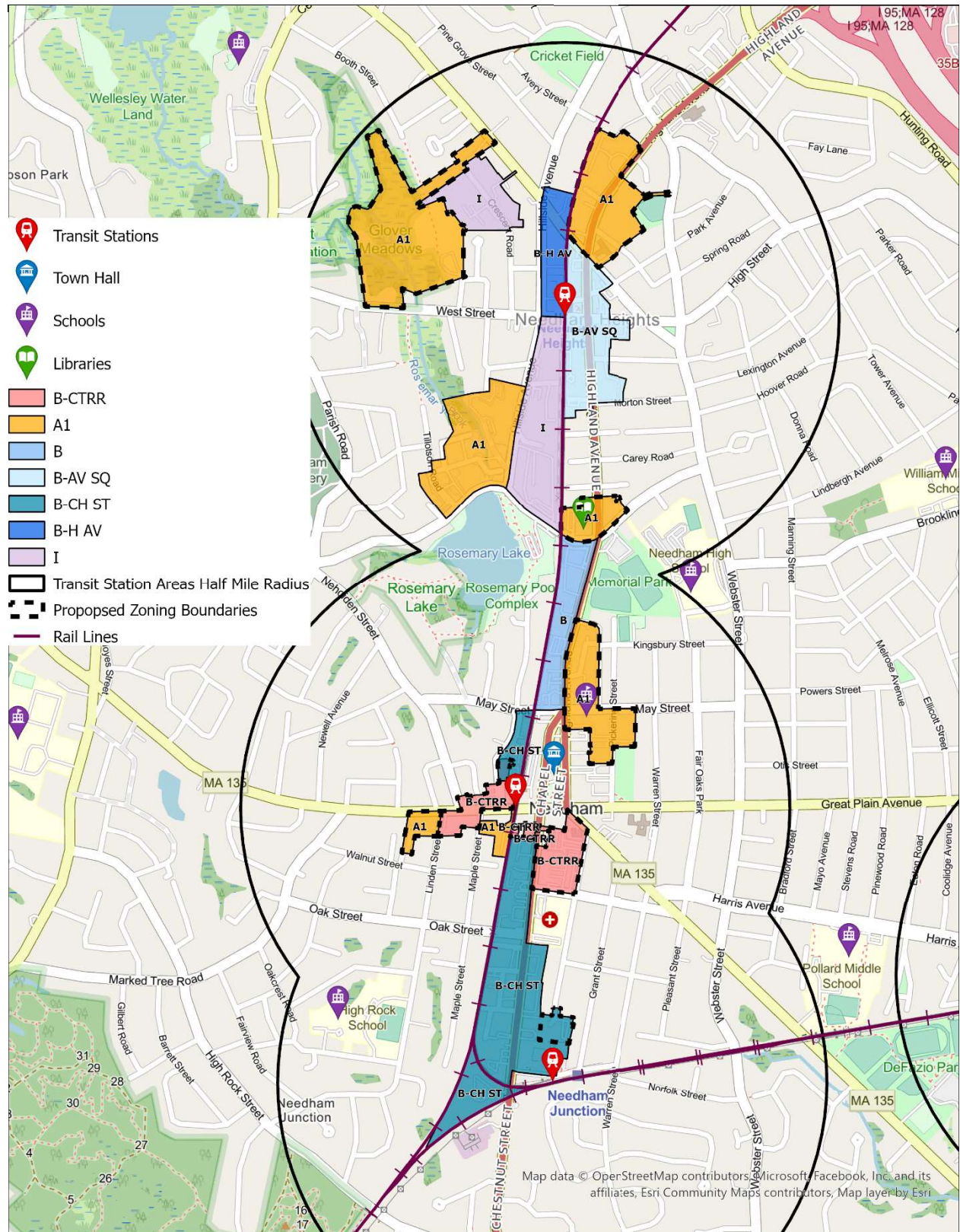
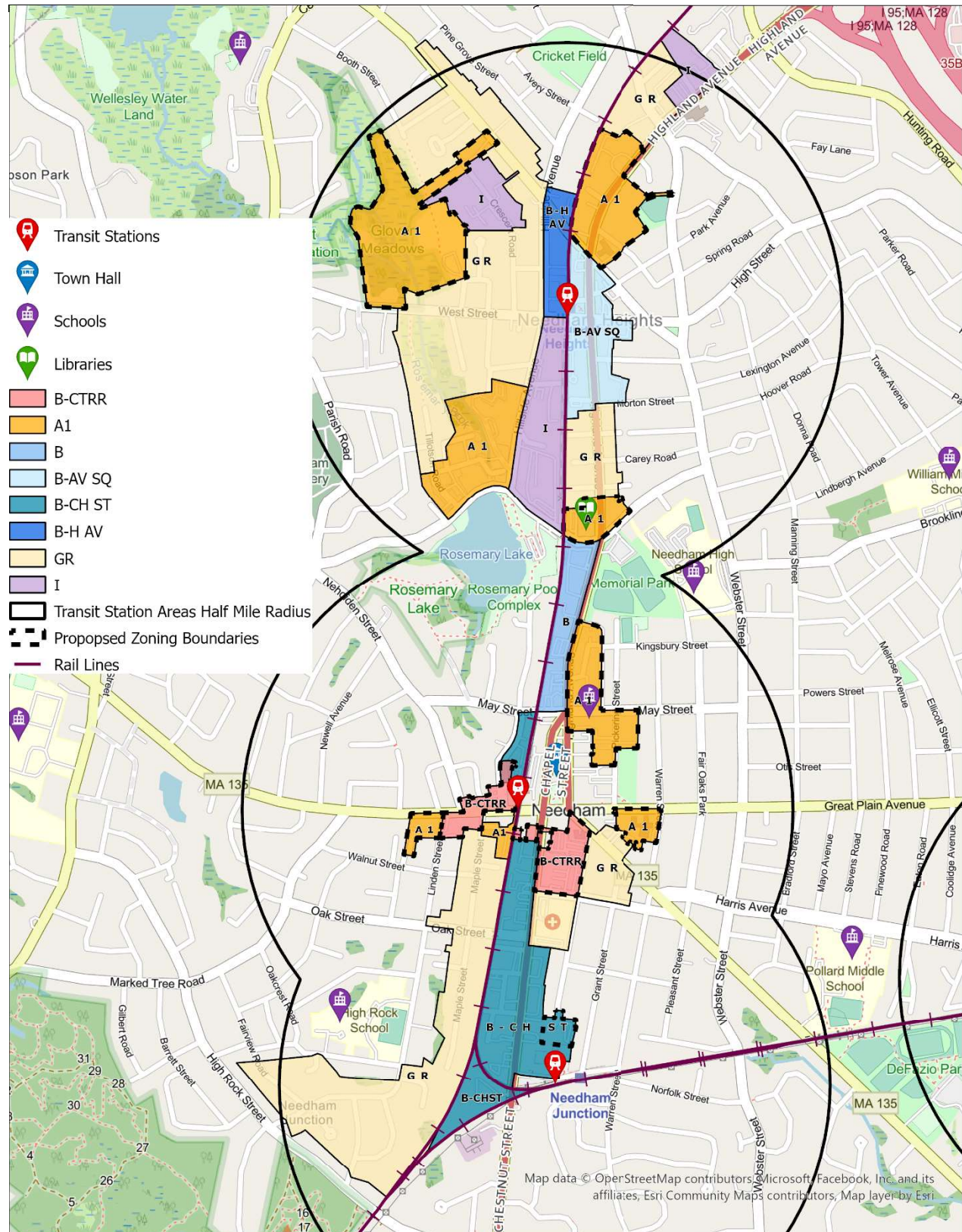


Figure 5: Increased Density + GR Scenario Map – November 2023



REFINED DRAFT SCENARIOS FOR PUBLIC REVIEW

Prior to the third and final community workshop, HONE met with the consultant team and town staff to refine the MBTA scenarios to two final drafts which included a Base Compliance scenario and a Neighborhood Housing Plan scenario. At HONE's meeting on February 15, 2024 the group workshopped changes to the size and location of all individual zoning districts and the zoning parameters that would be applied to each. HONE utilized the feedback from the survey that accompanied the second public workshop to remove and adjust zoning districts and adjust zoning parameters to better reflect public sentiment. It was the feedback at the second public workshop that drove HONE's decision to create a Base Compliance scenario that would meet the MBTA Communities requirements and only exceed by a small amount to provide a buffer. HONE also decided to create a second scenario (Neighborhood Housing Plan) that was targeted toward specific zoning districts where there was both desires to, and capacity for, increasing housing production.

Coming out of the February 15th meeting, HONE made the following major changes to the Base Compliance scenario:

- Removed the Center Business District mixed use offset from the model.
- Added an Apartment A-1 district on north Highland Avenue.
- Added an Apartment A-1 district covering the Charles Court condominiums off Greendale Avenue.
- Reduced the size of the Avery Square district to only cover the 100 West Street parcel.

The following major changes were also made to the Neighborhood Housing Plan scenario:

- Created two different overlay districts for Industrial – Crescent and Industrial – Hillside areas.
- Created three different overlay districts for Chestnut Street/Garden Street, Chestnut Street East and Chestnut Street West.
- Reduced the size of the Apartment A-1 overlay district covering St. Joseph's church.
- Removed the Apartment A-1 overlay district over the Hillside School area off West Street.
- Reduced the size of the Apartment A-1 overlay district on north Highland Avenue.
- Removed all General Residence areas from the scenario.
- Removed the Center Business Residential district that was proposed at the second public workshop.

Table 3 highlights the key compliance metrics for the refined Base Compliance and NHP scenarios.

Table 3: Refined Scenarios – Key MBTA Compliance Metrics

Model Output	Scenario A – Base Compliance	Scenario B – NHP
Gross Acres	103.9	96.23
Max Unit Capacity	1,868	3,339
DU/AC	18.6	36.1

Figure 6: Base Compliance Scenario Map - February 2024

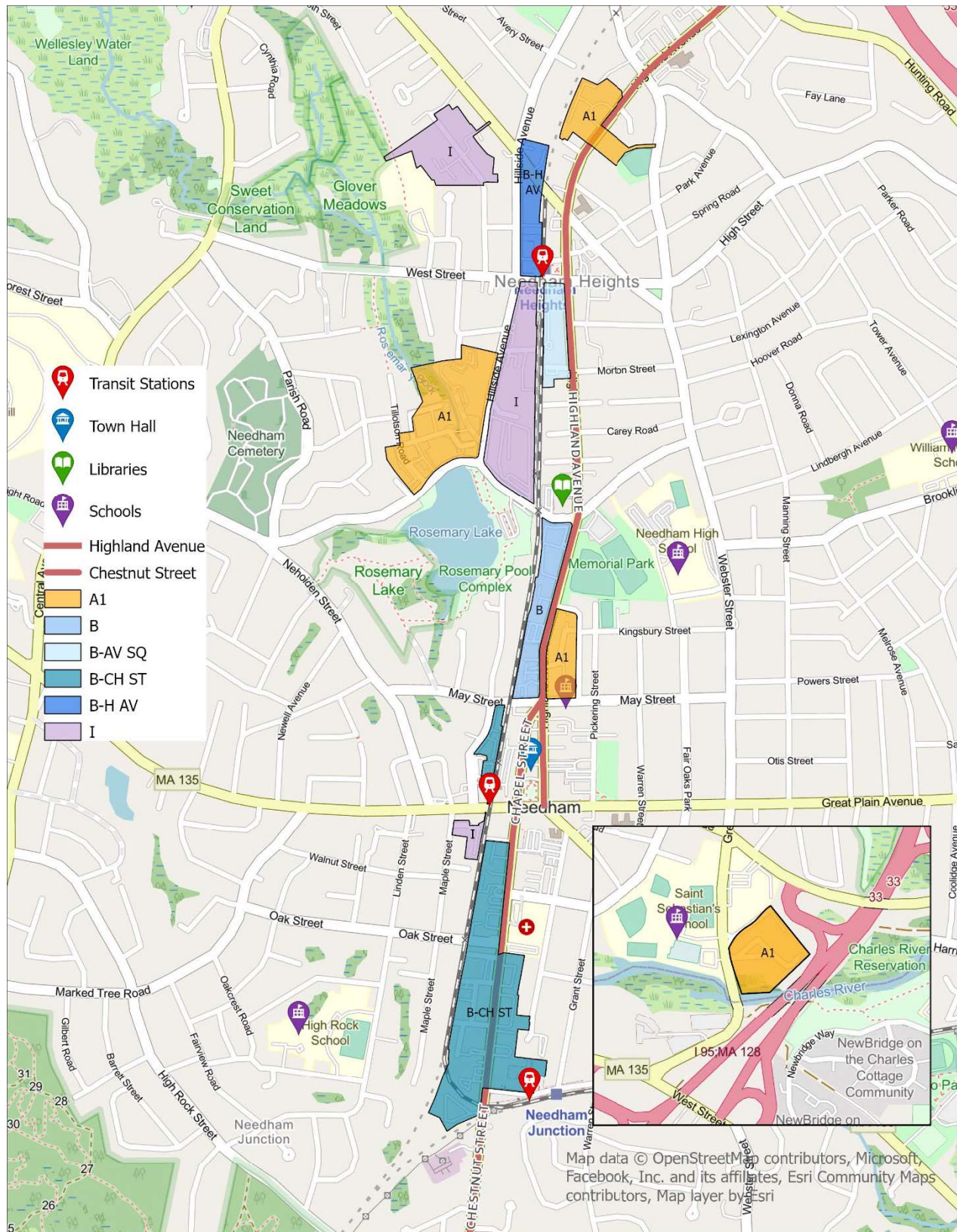
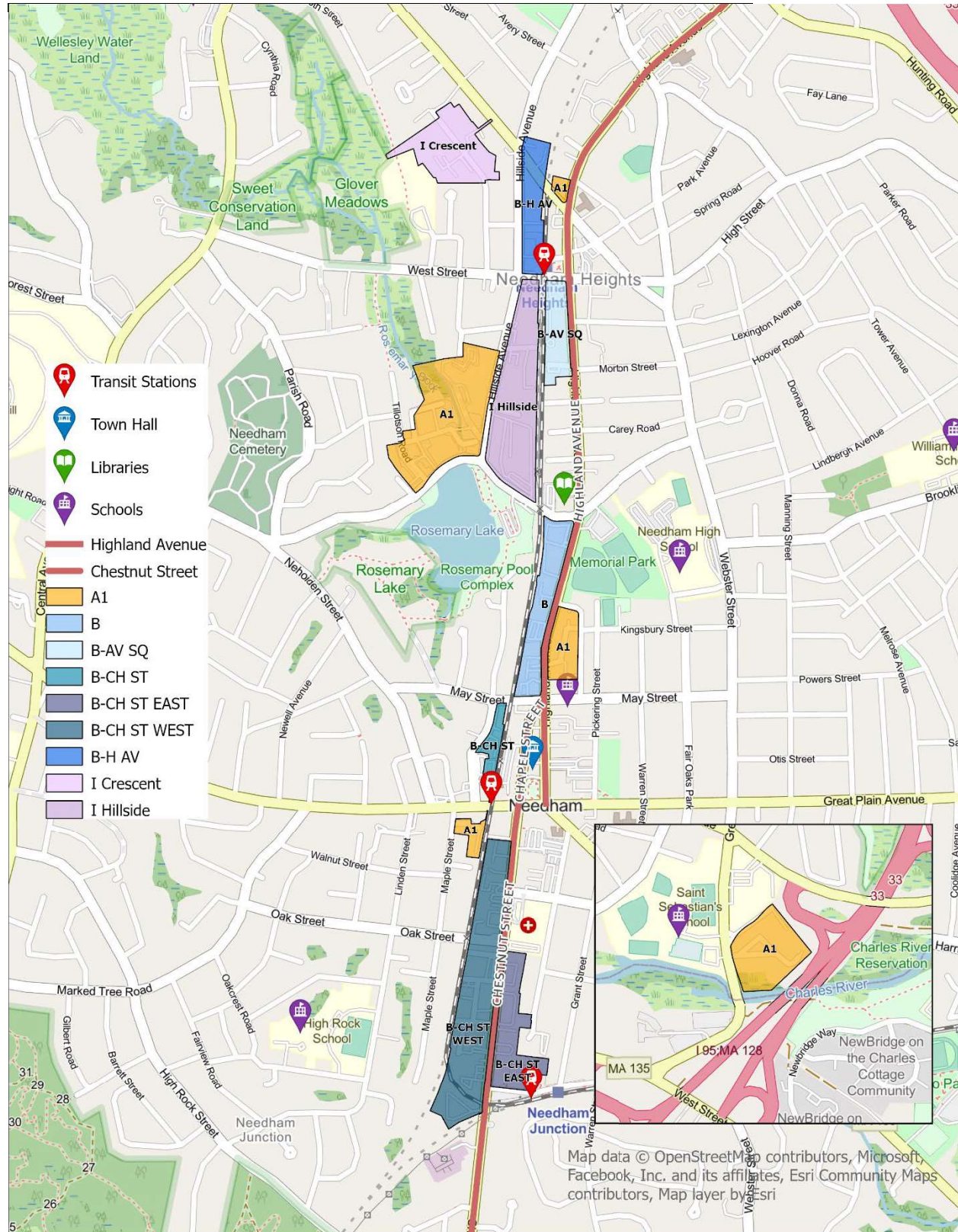


Figure 7: Neighborhood Housing Plan Scenario Map - February 2024



HONE RECOMMENDED SCENARIOS

HONE worked with the consultant team and town staff through the months of February and March 2024 to continue refining the Base Compliance and Neighborhood Housing Plan scenarios with a final presentation to the public at a workshop on March 28, 2024. At this workshop, HONE presented their final two draft scenarios for questions and public comment along with an analysis of likely build out scenarios, a fiscal impact analysis, the economic feasibility analysis, and 3-D representations of what new development could theoretically look like. During the public comment period at the workshop most speakers appeared to be supportive of HONE's efforts to develop the two scenarios, offering Town Meeting the opportunity to decide the best direction for Needham. There were comments made in support of both the Base Compliance scenario as well as Neighborhood Housing Plan scenario.

Following the public workshop, HONE met to discuss public feedback and refine the scenarios one last time. The only substantive change HONE made at their advisory group meeting was to move the southernmost parcel in the Neighborhood Housing Plan scenario from the Chestnut West district to the Chestnut East district. The lower height in the Chestnut East district (3 stories vs. 4 stories) lowered the total unit capacity to 3,294 and the density to 35.6 DU/AC. Otherwise, both scenarios remained the same as those presented on March 28th.

Table 4: Refined Scenarios – Key MBTA Compliance Metrics

Model Output	Scenario A – Base Compliance	Scenario B – NHP
Gross Acres	103.9	96.23
Max Unit Capacity	1,868	3,294
DU/AC	18.6	35.6

FINAL METRICS FOR MBTA SCENARIOS

This section provides the MBTA Compliance Model outputs for each of HONE's MBTA district scenarios as well as a comparison to what the town's current zoning bylaw would allow if applied to the districts today. This comparison is important as it shows how many multifamily units could be produced today under the existing zoning bylaw compared to what is shown for the two MBTA district scenarios.

To understand the different facets of existing conditions in Needham, the consultant team first worked with town staff to estimate the number of housing units that actually exist on the ground today in each of the MBTA districts. This was done by reviewing Needham's property assessment database and using land use codes, building permits, and plan reviews to quantify existing units. These are shown in the Existing Units column in Table 5. The Existing Zoning Unit Capacity column in Table 5 quantifies the unit capacity of Needham's existing zoning that overlaps with the MBTA districts in the Base Compliance scenario. This analysis was undertaken to understand how many multifamily units could be produced under the town's existing zoning today. Lastly, the consultant team quantified the number of units

possible under Needham’s existing zoning bylaw but including the Chestnut Street Overlay district that allows multifamily housing at a higher FAR and overall height with a Special Permit.

Our analysis shows there are approximately 775 existing housing units within the proposed MBTA districts today with zoning capacity for a total of 1,019 multifamily units under existing zoning. If one were to apply the Chestnut Street Overlay district to existing zoning, that could yield a total zoning capacity of 1,636 units. Under this scenario we are only 232 units under the zoning capacity for the Base Compliance model meaning Needham’s existing zoning actually provides a reasonable amount of zoning capacity for multifamily housing. The challenge is that some districts require a Special Permit to unlock the ability to build multifamily housing which is not allowed under the MBTA Communities law.

Table 5: Existing Zoning Bylaw – Key MBTA Compliance Metrics

Zoning District	Existing Units	Existing Zoning Unit Capacity	Existing Zoning with Overlay Special Permit Unit Capacity
Apartment A1	588	526	526
Business	4	N/A	N/A
Avery Square Business	72	77	77
Chestnut Street	46	370	987
Hillside Ave Business	44	46	46
Industrial	21	N/A	N/A
TOTAL UNITS	775	1,019	1,636

Table 6 shows the final unit capacity metrics for the Base Compliance and NHP scenarios broken out by zoning district. Under the Base Compliance scenario there is only one Chestnut Street district and one Industrial District which is why the cells are merged in the table compared to the multiple Chestnut Street and Industrial districts under the NHP scenario.

It is worth noting and repeating that both the Base Compliance and NHP scenarios meet all compliance requirements including:

- Overall district acreage
- Minimum district sizes
- One district of at least 25 acres
- Acreage within the half-mile transit area
- Minimum unit capacity
- Units within the half-mile transit area
- Minimum density

Table 6: Unit Capacity of MBTA Communities Scenarios

Zoning District	Base Compliance	Neighborhood Housing Plan
Apartment A1	526	877
Business	210	305
Avery Square Business	187	187
Chestnut Street East	370	547
Chestnut Street West		732
Chestnut Street/Garden Street		75
Hillside Ave Business	80	62
Industrial – Crescent	495	184
Industrial – Hillside		325
TOTAL UNITS	1,868	3,294

Figure 8: Final Base Compliance Scenario Map

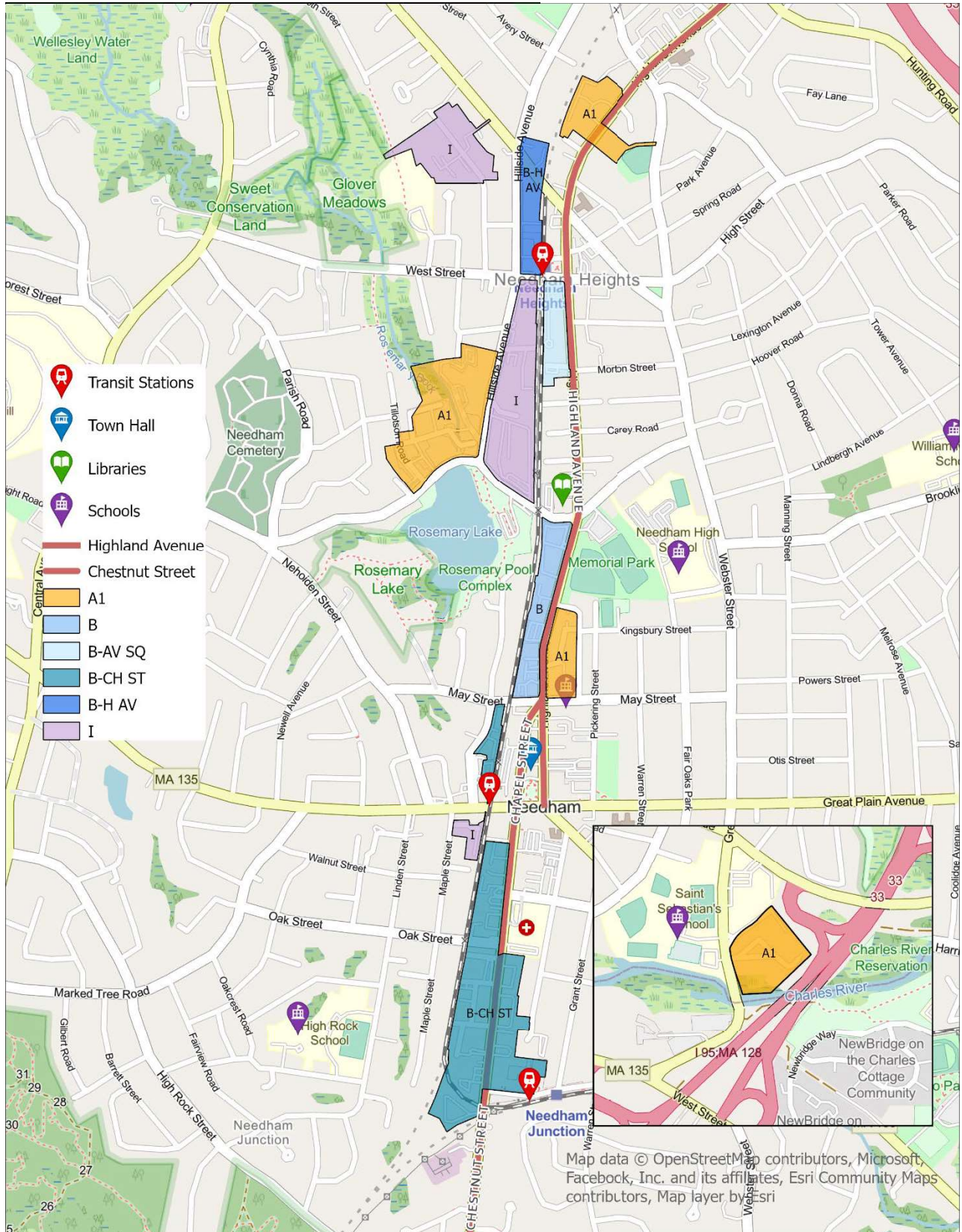
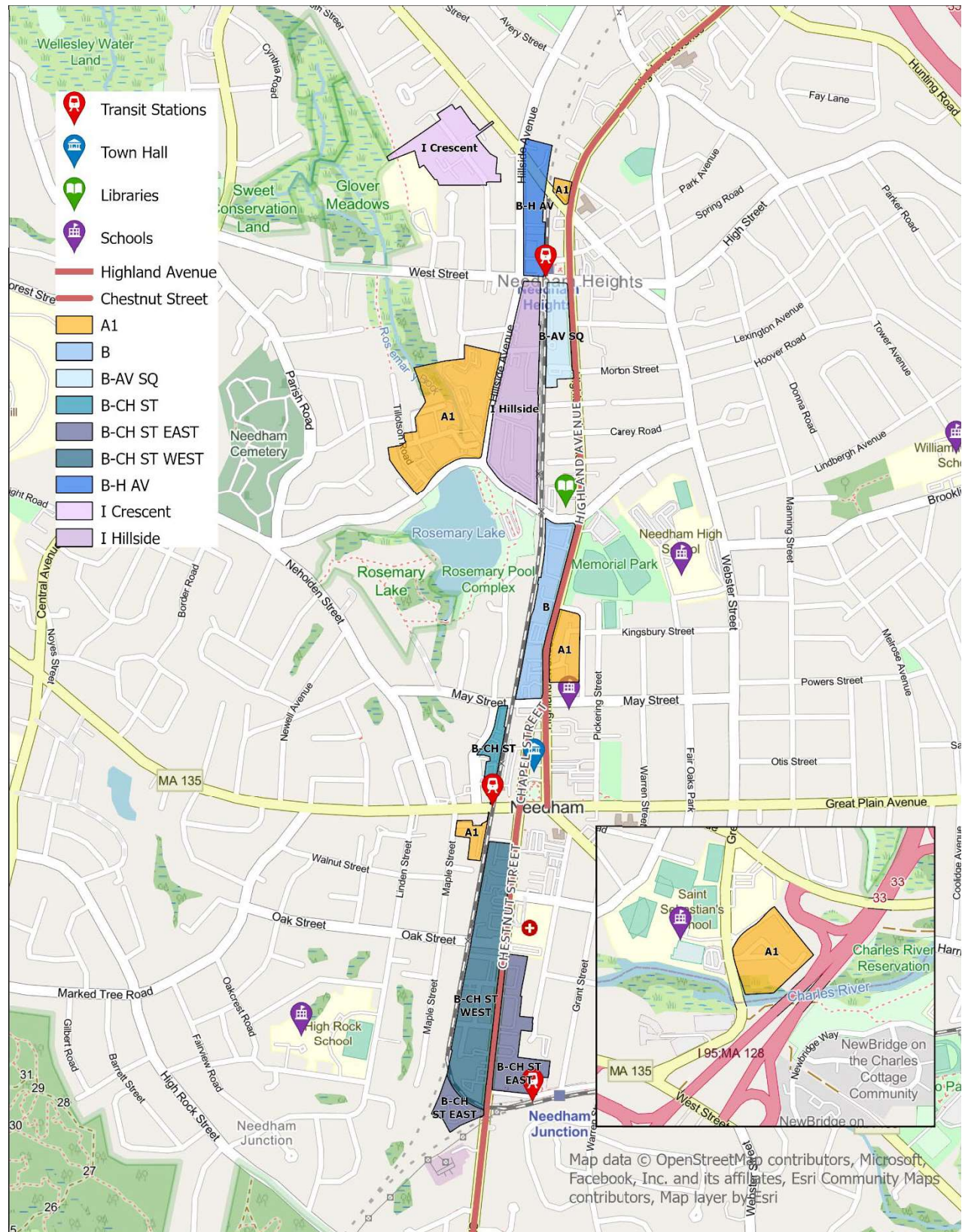


Figure 9: Final Neighborhood Housing Plan Scenario



VISUALIZING THE FUTURE

It can be challenging to envision how zoning changes may impact a street, block, or parcel in the future should development/redevelopment occur. Zoning is a set of text-based rules and regulations guiding the built environment in a community and rarely includes samples or examples of how that zoning could materialize in reality. Oscar Mertz developed sample sketch renderings depicting what a three- and four-story multifamily redevelopment could look like. The consultant team developed some parcel specific building massing showing what three- and four-story buildings could look like in specific locations in Needham where MBTA districts are proposed. The following sketches are illustrative examples of what zoning changes could potentially deliver over time.

Figure 10: Three Story Multifamily Corridor



Figure 11: Four Story Multifamily Corridor



Figure 12: Three Story Multifamily Corridor



Figure 13: Four Story Multifamily Corridor



Figure 14: Highland Avenue Business (B) District – Existing Conditions



Figure 15: Highland Avenue Business (B) District – Base Compliance

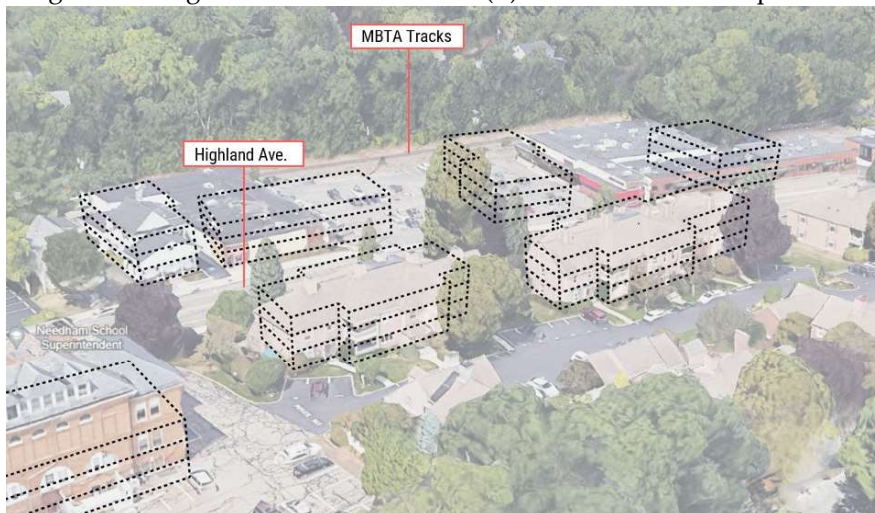


Figure 16: Highland Avenue Business (B) District – Neighborhood Plan

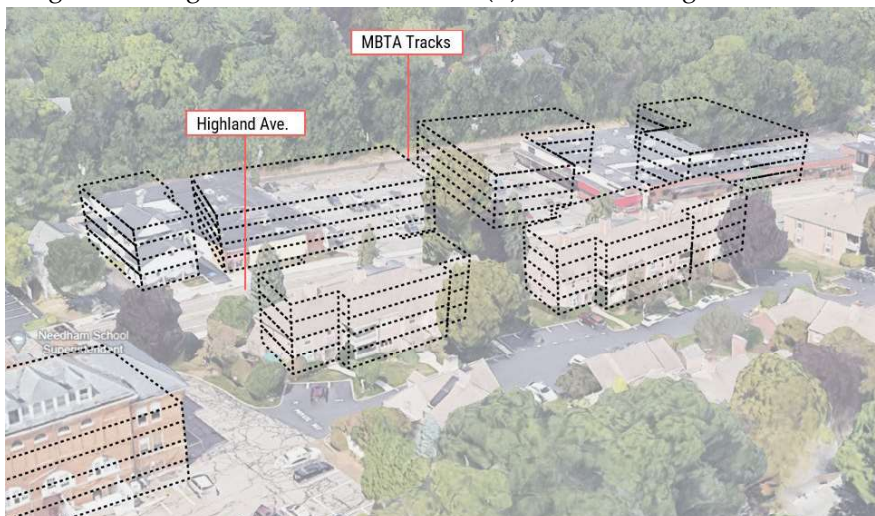


Figure 17: Chestnut West District – Existing Conditions



Figure 18: Chestnut West District – Base Compliance



Figure 19: Chestnut West District – Neighborhood Plan

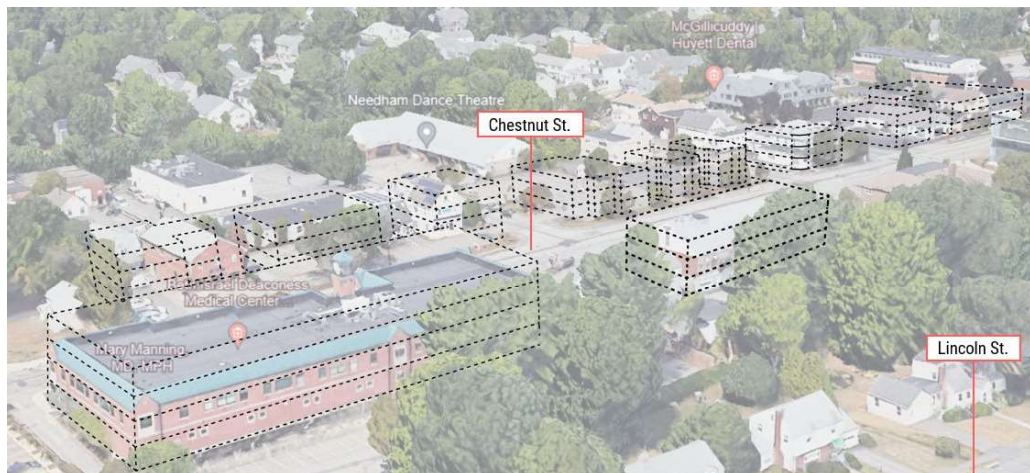


Figure 20: Hillside Industrial District – Existing Conditions



Figure 21: Hillside Industrial District – Base Compliance

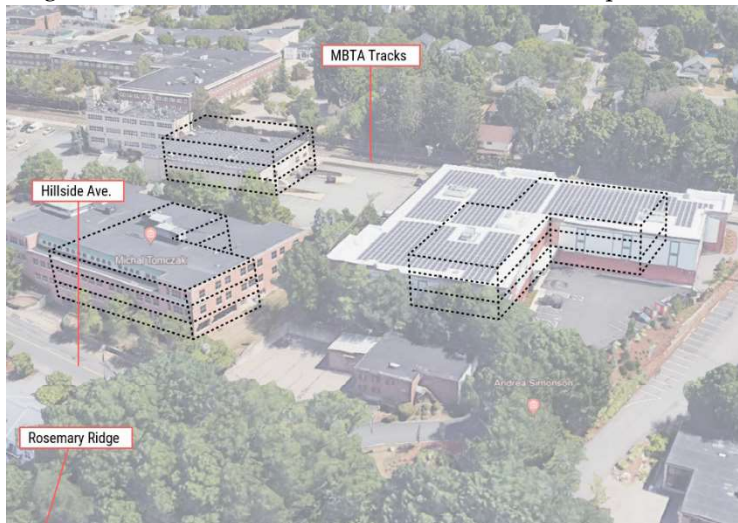


Figure 22: Hillside Industrial District – Neighborhood Plan



PROPENSITY FOR CHANGE MODEL

It is important to recognize that although HONE is putting forth scenarios that zone for thousands of units in the MBTA districts, it is unlikely that every parcel within the districts will develop/redevelop over time. There are many factors that go into a development deal of which zoning is only one. In reality, Needham is likely to realize a portion of the unit capacity described in the Base Compliance or Neighborhood Housing Plan scenarios. Nevertheless, the question was raised during this study about how many units might be likely to build out under each of the HONE scenarios and what might the impact of those units be on the town.

To provide HONE and the public with a better understanding of the more likely build out under each of the two MBTA scenarios, the consultant team developed an in-house model that estimates which parcels may be more likely to change if the proposed MBTA zoning were to pass. This “Propensity for Change” model provides a parcel-by-parcel estimate of the likelihood of change.

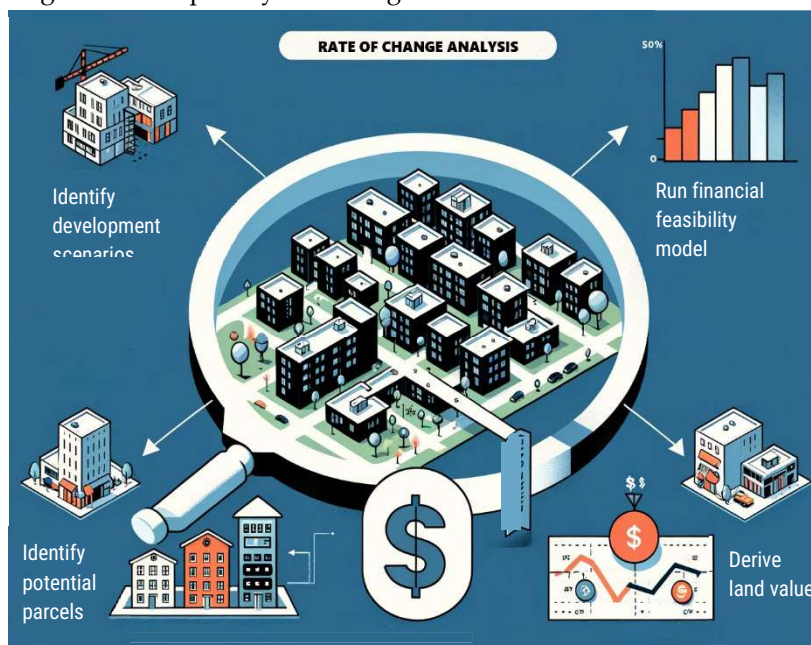
The Propensity for Change Model uses a financial feasibility model for multifamily

development that derives land value for each parcel in the MBTA district utilizing market return metrics, asking rents, and construction costs. The analytical approach can be simplified into the following steps:

1. Identify development scenarios based on height, unit, parking, and affordability requirements.
2. Run a financial proforma model for each development scenario based on market factors (e.g., rents, rates, construction costs, return expectations).
3. Using target return metrics from the following step, derive land values required to meet an Internal Rate of Return (IRR) of 15%.
4. Identify parcels that currently have land values below the established threshold. These are parcels with the highest probability for turnover and redevelopment if the zoning is changed.

Effectively, the propensity for change analysis uses current market assumptions and return expectations coupled with feasible development scenarios to back into land values that would make projects work

Figure 23: Propensity for Change Model



Source: RKG Associates, Inc.

within each district. Using that land value as a benchmark for each scenario, values above said value would suggest that land would be too expensive for redevelopment while land values below the estimated benchmark value would have a higher likelihood to be redeveloped. The further the current land value is from the benchmark value, the greater the potential to capture value through a redevelopment opportunity under the proposed zoning.

The Propensity for Change model utilizes the same financial feasibility model and assumptions as the Economic Feasibility Analysis model for consistency purposes (described later in this report). The benchmark land values used in the propensity model were derived from Needham's property assessment database utilizing the assessed value of the land as the best estimate of current "market" value for each parcel in the MBTA district. The propensity model then measures the delta between the current assessed land value of a parcel and the future value of that land under a development scenario that would be allowable through the proposed zoning change. For each parcel within an MBTA district, the propensity model uses the outputs from the MBTA Compliance Model to derive total unit count under the proposed zoning change.

MODEL RESULTS

This section of the report describes the results of the Propensity for Change model runs for the Base Compliance and Neighborhood Housing Plan MBTA scenarios. The consultant team applied the propensity model to each of Needham's MBTA Districts to understand the potential for future build-out and redevelopment. To set a conservative threshold for what would be considered "likely to change," the consultant team filtered for those parcels where projected land values were more than 50% higher than current values. The development proforma model used to generate land value utilized all zoning assumptions from the MBTA scenario, a 1.0 parking ratio for all new multifamily units, and construction costs and revenues based on actual metrics from Needham and the surrounding region (as further detailed in the EFA section of this report).

Table 7 shows the results of the propensity modeling for the Base Compliance and Neighborhood Housing Plan scenarios. For the Base Compliance scenario, the propensity model projects a potential build out of 222 multifamily units or about 12% of the full build unit capacity of 1,868 units. This low percentage is mostly due to the limits of the zoning under the Base Compliance model largely following the zoning that is already in place in Needham's existing zoning bylaw. This scenario does not provide as much of an incentive to redevelop as the Neighborhood Housing Plan scenario.

Under the Neighborhood Housing Plan scenario, the propensity model projects a build out of 1,099 multifamily units or about 33% of the full build unit capacity of 3,294 units. Here we see the impact of increased flexibility primary in the Business, Chestnut Street East and West, and Apartment A-1 zoning districts where heights and floor area ratios were increased above what current zoning would allow. These changes provide more of an incentive to redevelop parcels in the MBTA district compared to the Base Compliance scenario.

Table 7: Propensity for Change Results – Housing Units

	Base Compliance <i>Propensity</i>	Base Compliance <i>Full Build</i>	Neighborhood Plan <i>Propensity</i>	Neighborhood Plan <i>Full Build</i>
District Name	Units	Units	Units	Units
Apartment A1	0	526	82	877
Business	43	210	111	305
Avery Square Business	0	187	0	187
Chestnut Street East	50	370	137	547
Chestnut Street West	-	-	560	732
Chestnut Street Business	-	-	33	75
Hillside Ave Business	8	80	6	62
Industrial	121	495	-	-
Industrial - Crescent	-	-	79	184
Industrial - Hillside	-	-	91	325
Totals	222	1,868	1,099	3,294

In addition to running the propensity model for the two scenarios, the consultant team also created maps showing the likelihood of change on the parcels in each district. Figure 24 provides a sample illustration for how each visual representation of the propensity model will be shown on the proceeding pages. Each illustration will include a brief summary of the key district zoning parameters (height, density, FAR, and lot size), the building and parking assumptions, a map of each district under the two scenarios, and bar graphs showing how many parcels fall within the land value differential that triggers the propensity for change model. The bar graphs show the number of properties that are more (in red) or less (in green) likely to change as a result of the proposed zoning changes. The maps utilize the same color scheme to illustrate the parcels within each district that are more (red) or less (green) likely to change.

Figure 24: Propensity Change Model Sample Illustration

OVERVIEW

District Requirements	
Height	District requirements from MBTA Compliance Model
Max DU / AC	
FAR	
Minimum Lot Size	
Model Scenario	
Construction Type	Development Scenario Assumptions (Representative of average project type in district)
Units	
Parking Max	
Parking Type	

Source: MassGIS, Town of Needham, CoStar, EOHLC, RSMeans

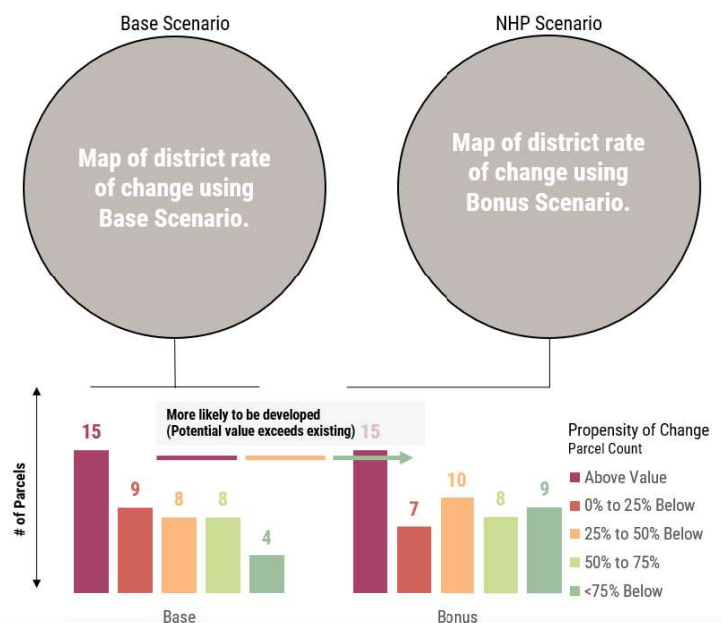


Figure 25: Propensity Change Model – Apartment A-1 District

A1 DISTRICT

	BASE	BONUS
District Requirements		
Height	3	4
Max DU / AC	18	36
FAR	0.5	1
Minimum Lot Size	20,000	20,000
Model Scenario		
Construction Type	Wood Frame	Wood Frame
Units	25	50
Parking Ratio	1	1
Parking Type	Surface	Surface

Source: MassGIS, Town of Needham, CoStar, EDHLC, RSMMeans

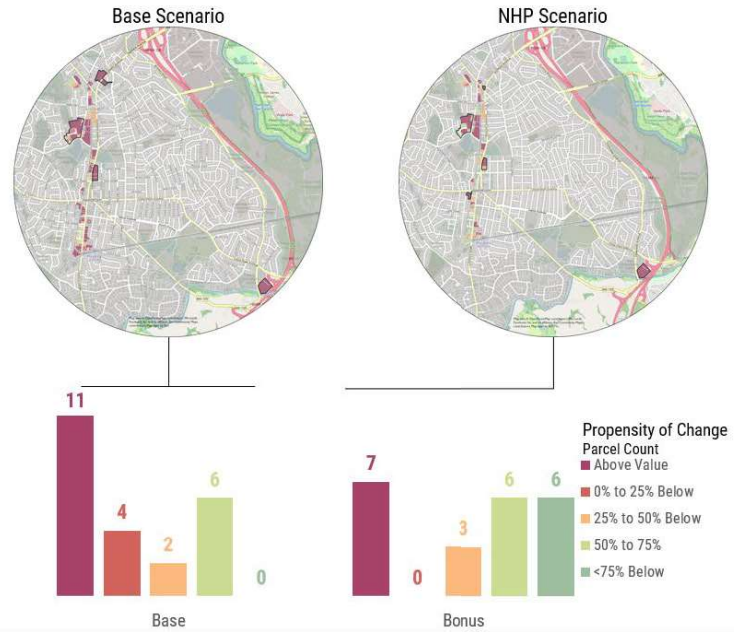


Figure 26: Propensity Change Model – B Business District

B DISTRICT

	BASE	BONUS
District Requirements		
Height	3	4
Max DU / AC		48
FAR		2
Minimum Lot Size	10,000	10,000
Model Scenario		
Construction Type	Wood Frame	Wood Frame
Units	25	40
Parking Ratio	1	1
Parking Type	Surface	Surface

Source: MassGIS, Town of Needham, CoStar, EDHLC, RSMMeans



Figure 27: Propensity Change Model – B-AV Avery Square District

B - A V S Q D I S T R I C T

	BASE	BONUS
District Requirements		
Height	3	3
Max DU / AC		
FAR	1	1
Minimum Lot Size	10,000	10,000
Model Scenario		
Construction Type	Wood Frame	Wood Frame
Units	150	150
Parking Ratio	1	1
Parking Type	Surface	Surface

Source: MassGIS, Town of Needham, CoStar, EOHLIC, RSMMeans

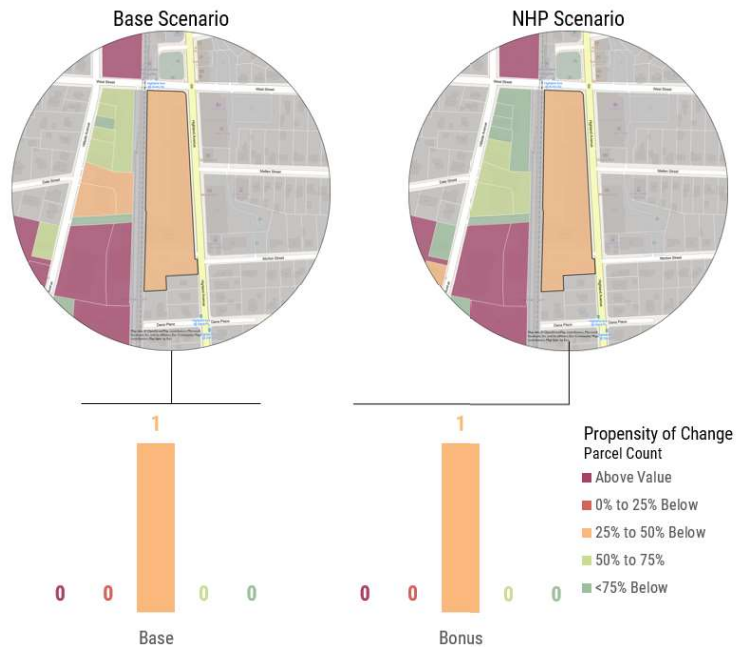


Figure 28: Propensity Change Model – B-CH Chestnut Street District

B - C H S T D I S T R I C T

	BASE	BONUS
District Requirements		
Height	3	3
Max DU / AC	18	
FAR	0.7	2
Minimum Lot Size	10,000	10,000
Model Scenario		
Construction Type	Wood Frame	Wood Frame
Units	15	25
Parking Ratio	1	1
Parking Type	Surface	Surface

Source: MassGIS, Town of Needham, CoStar, EOHLIC, RSMMeans



Figure 29: Propensity Change Model – B-CH Chestnut Street East & West Districts

B - CH ST EAST & WEST

	BONUS	BONUS
District Requirements		
Height	3	4
Max DU / AC		
FAR	2	2
Minimum Lot Size	10,000	10,000
Model Scenario		
Construction Type	Wood Frame	Wood Frame
Units	40	50
Parking Ratio	1	1
Parking Type	Surface	Surface

Source: MassGIS, Town of Needham, CoStar, EOHLC, RSMeans



Figure 30: Propensity Change Model – B-H AV Hillside Avenue District

B - H AV DISTRICT

	BASE	BONUS
District Requirements		
Height	3	3
Max DU / AC		24
FAR	0.7	1
Minimum Lot Size	10,000	10,000
Model Scenario		
Construction Type	Wood Frame	Wood Frame
Units	15	15
Parking Ratio	1	1
Parking Type	Surface	Surface

Source: MassGIS, Town of Needham, CoStar, EOHLC, RSMeans

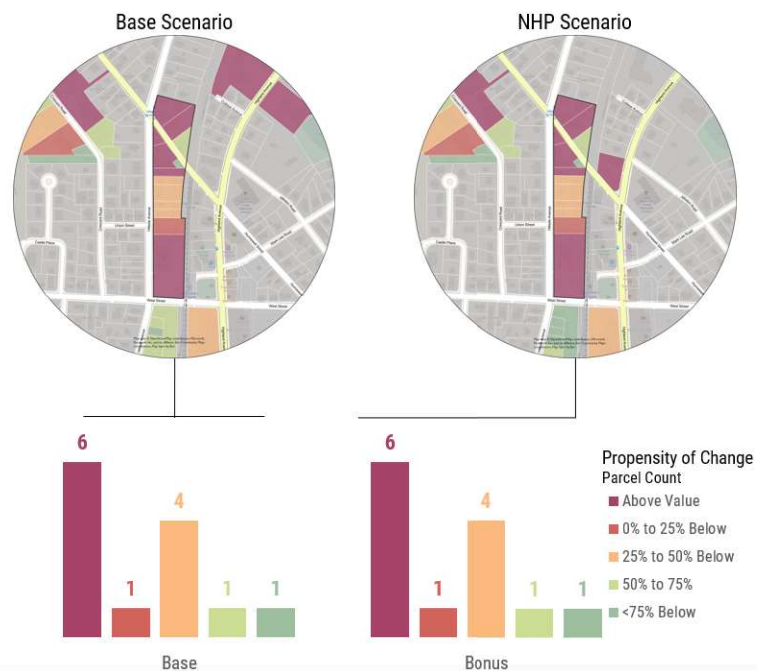


Figure 31: Propensity Change Model – I Industrial District

INDUSTRIAL DISTRICT**BASE**

District Requirements		
Height	3	-
Max DU / AC		-
FAR	0.5	-
Minimum Lot Size	10,000	-
Model Scenario		
Construction Type	Wood Frame	-
Units	25	-
Parking Ratio	1	-
Parking Type	Surface	-

Source: MassGIS, Town of Needham, CoStar, EOHLC, RSMeans

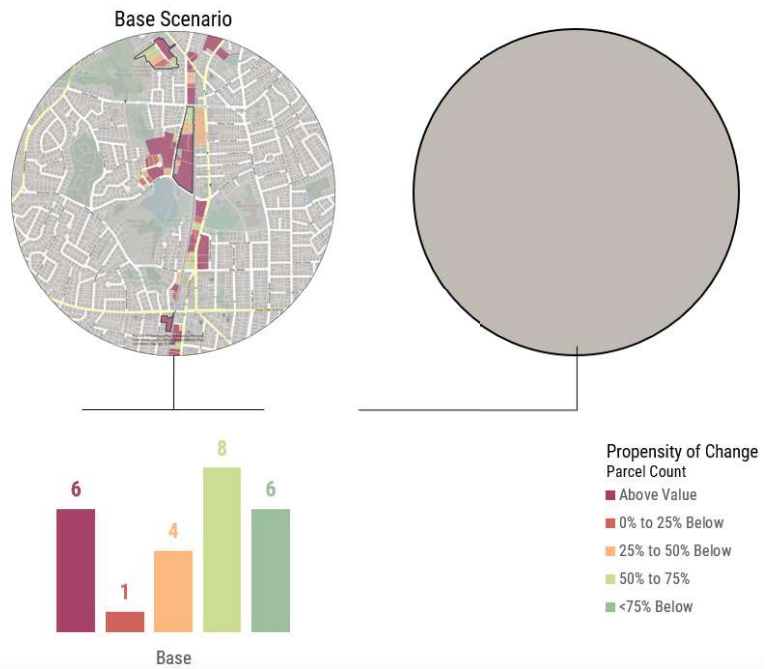


Figure 32: Propensity Change Model – I Crescent and I Hillside Industrial Districts

I-CRESCENT & I-HILLSIDE**BONUS****BONUS**

District Requirements		
Height	3	3
Max DU / AC	24	24
FAR	0.75	1
Minimum Lot Size	10,000	10,000
Model Scenario		
Construction Type	Wood Frame	Wood Frame
Units	25	40
Parking Max	1	1
Parking Type	Surface	Surface

Source: MassGIS, Town of Needham, CoStar, EOHLC, RSMeans



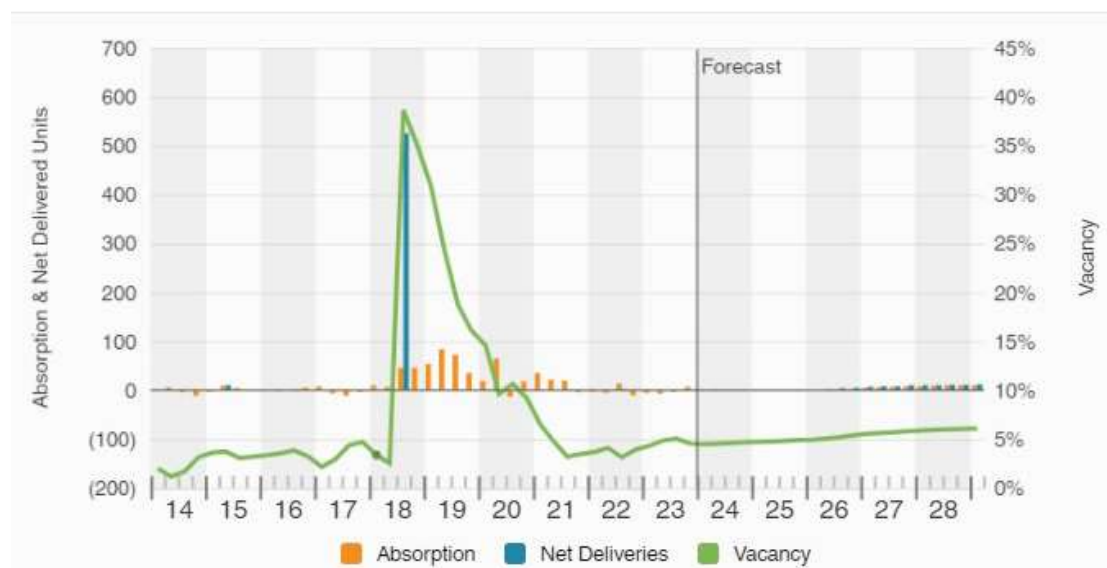
ABSORPTION ESTIMATES OF MULTIFAMILY UNITS

In addition to the number of multifamily units that could build out as a result of the zoning changes related to the MBTA scenarios, there were also questions throughout the process around timing of the build out. To provide some context around the delivery and absorption of new multifamily units, the consultant team pulled real estate metrics from CoStar on multifamily development in Needham between 2014 and 2024 and projections through 2028.

As illustrated in Figure 33, Needham saw a substantial delivery of 526 multifamily units in 2018, but those units took four years to absorb (lease up) in the market. Between 2014 and 2023, those 526 units were the only substantial delivery of units Needham saw over that ten-year span, meaning on average Needham is delivering about 53 multifamily units per year under current conditions. At that pace, it could take upwards of 19 years to absorb the total build out of units under the Base Compliance scenario (1,868 total units) and 34 years to absorb the total build out of the Neighborhood Housing Plan scenario (3,294 units).

Figure 33: Absorption, Deliveries, and Vacancy of Multifamily Developments in Needham

Absorption, Net Deliveries & Vacancy



Source: CoStar, 2024

FISCAL IMPACT ANALYSIS

After modeling both the full build of both MBTA district scenarios and the propensity models for both scenarios, HONE wanted to understand the potential fiscal impact of new multifamily housing to the operations of municipal services and the school department. This request included measuring the potential fiscal impact to the town to determine if there would be a financial benefit or loss when comparing gross property tax revenue of new multifamily development and the municipal service costs new residents may require.

Over the course of several months, the consultant team worked closely with the municipal departments and the school district to quantify the potential fiscal impact of the MBTA districts and new zoning. This included the creation of a fiscal impact model measuring the net fiscal benefit or loss of the build-out of each MBTA scenario. RKG utilized an industry standard incremental fiscal impact methodology which measures the incremental impact on the town's general fund budget with each new unit of housing constructed. The increment is derived by determining "fixed" costs and "incremental" costs across each department using the most recently available town budget. Fixed costs are defined as those that are not expected to increase with the addition of a new housing unit, while incremental costs are expected to increase the town's overall costs to support new housing units. For example, it is unlikely the town would hire a new Police Chief with each new incremental housing unit, but there may be a need to hire additional police officers and equip those new staff as new housing is constructed and occupied. Once all town costs are categorized as fixed or incremental, the consultant team then compares incremental costs to potential gross property tax revenue to determine if new development is a net positive or negative to Needham.

A similar analysis was completed for the school district using the town's budget breakdown as reported to the Department of Elementary and Secondary Education (DESE). The consultant team reviewed the line items in the DESE budget document and identified which costs are considered to be fixed and incremental with the addition of a new pupil to the public school system.

FISCAL IMPACT ANALYSIS METHODOLOGY AND ASSUMPTIONS

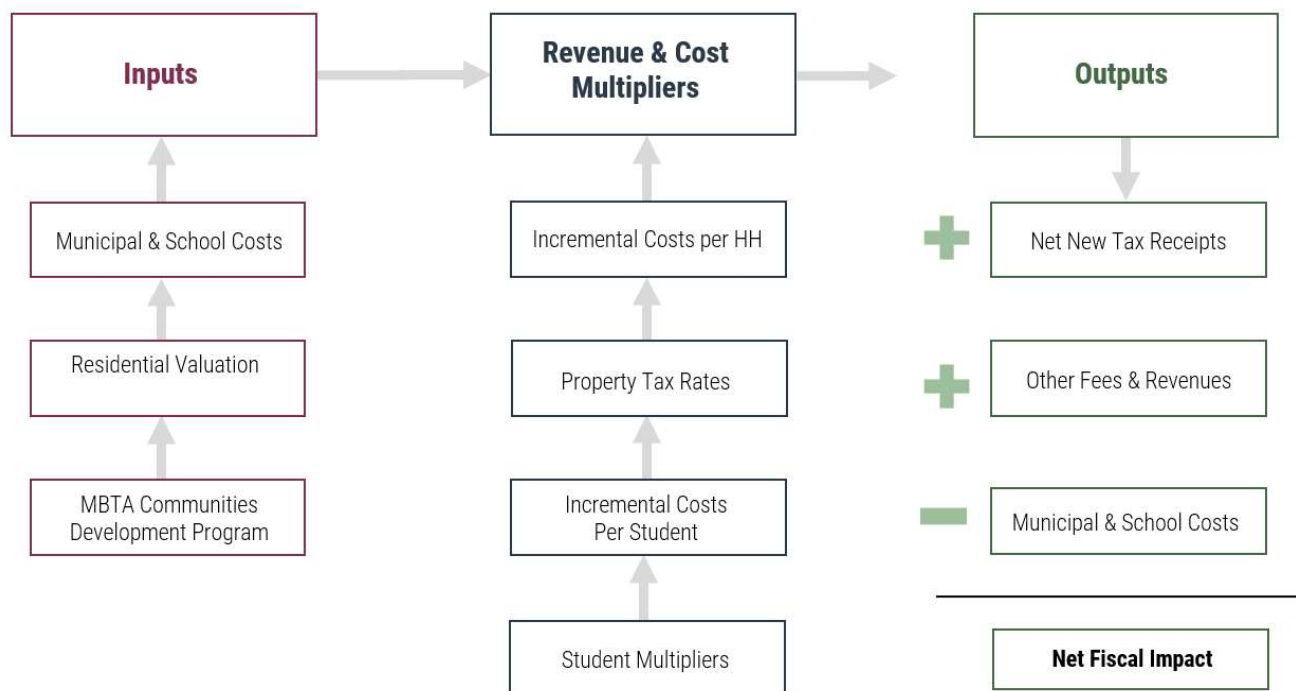
A fiscal impact analysis estimates the municipal revenues and costs associated with development and growth. Revenues include local taxes (property, excise, etc.) and various fees and other payments, while costs include the provision of municipal services (public safety, education, public works, general government, etc.). While several approaches exist to determine fiscal impacts, all are based on the common assumption that current local operating costs and revenues are the best basis for determining future costs and revenues. These approaches therefore utilize recent data on municipal service costs in the host community, as well as current tax rates and other revenue sources to calculate the net fiscal impact.

The primary focus is on the town's General Fund since that is typically where tax revenues and most municipal service costs are accounted. The consultant team applied an incremental cost approach to both

the General Fund and the town's school budget as reported by DESE to determine the cost borne by the town resulting from new multifamily residential development. The approach involves looking at the town's annual budget by department to determine if an expenditure is either fixed or incremental. Again, a fixed cost is one which would occur irrespective of development, an example being the salary of the Police Chief which is unlikely to be impacted by new development. Conversely, the costs associated with police officer wages and equipment are classified as incremental as they are likely to change based on the addition of more residents in town that may result in additional calls for public safety services.

Fiscal impact approaches are 'static' that is, they assume that the project (or district in this case) is fully built-out and housing is occupied. This assumption allows a comparison of the financial effect of the entire district on municipal costs and revenues. While most residential developments are constructed over a multi-year period, municipal costs and revenues occur in equal proportions. Therefore, this steady-state approach does not detract from the appropriateness or accuracy of this method. It should also be noted that the fiscal impact analysis is only concerned with local public costs and expenditures, and not with state or other jurisdictional funding. For this fiscal impact analysis, the consultant team constructed a model to measure the fiscal impacts for the potential build-out of the two MBTA district

Figure 34: Fiscal Impact Flow Model



FISCAL IMPACT ANALYSIS ASSUMPTIONS

To test the fiscal impact of Needham’s proposed MBTA scenarios, the consultant team constructed a fiscal impact model to understand the potential tax revenues from new development compared to the municipal and school costs to support that development. The fiscal impact model relies on numerous data points and assumptions regarding potential revenues from the development and anticipated municipal and school costs.

To estimate municipal revenues, RKG utilized the town’s most recent property tax rate and existing property values and tax collections. To estimate the future valuation of new multifamily housing, we used construction costs on a per square foot basis as a proxy for generating future assessed values based on recent multifamily construction market comps.

For municipal and school costs, the consultant team was provided with Needham’s FY24 annual budget document to which we assigned a fixed or incremental cost categorization to derive per household costs in the fiscal impact model. For school costs, we utilized the most current school budget worksheets from the MA Department of Elementary and Secondary Education (DESE) and assigned values for fixed and incremental costs. These school costs were then applied to the projections of future school children that may reside in the new multifamily housing if built.

REVENUE ESTIMATE ASSUMPTIONS

To derive potential property taxes, the consultant team had to develop estimates for future assessed values. Using sources such as CoStar and property assessment data from recently built multifamily housing in Needham and surrounding communities, we generated a per square foot assessment value for new multifamily construction. These per square foot values were then used to generate per unit value estimates based on the average size of a studio, one-, two-, and three-bedroom apartment unit.

Table 8 shows the assessed value estimates on a per unit basis. To derive the total property taxes for each district, the total unit count from the MBTA Compliance models is allocated out by bedroom count using a formula of 10% studios, 45% one-beds, 35% two-beds, and 10% three-beds. Each unit is multiplied by its projected value, then summed for the district, and lastly the tax rate is applied to derive total gross property tax value. It is likely that once new buildings are constructed, the town’s assessor would apply an income-based approach to valuation, potentially increasing the amount of property taxes paid to the town.

Table 8: Assessed Value per Unit Estimates

Residential Type	Gross SQFT per Unit	Per SQFT Value	Total Value per Unit
Studio Apartment	500	\$300	\$150,000
One-Bedroom Apartment	750	\$300	\$225,000
Two-Bedroom Apartment	1,050	\$300	\$315,000
Three-Bedroom Apartment	1,250	\$300	\$375,000

MUNICIPAL COST ASSUMPTIONS

The flip side to the property tax/revenue component of the fiscal impact model are the municipal service costs. To estimate municipal service costs, RKG reviewed the Town’s FY24 annual budget for each department as provided by the town’s Finance Department. For each department’s budget, the consultant team identified costs that are likely to increase with the addition of a new household in town (incremental costs). We anticipate costs such as police staff salaries, library expenditures, or maintenance of recreation fields to increase with new households while a department head’s salary or hours for Town Counsel to experience little to no impact (fixed costs).

The consultant team identified all costs that are likely to vary (incremental costs) with the addition of new households as a subset of the Town’s total operational budget. Departments were then consolidated into four categories for ease of presentation which included:

- General Government – all town departments except police, fire, DPW, and schools.
- Public Safety – Fire – the Needham fire department.
- Public Safety – Police – the Needham police department.
- Public Works – the Needham Public Works Department.
- Other – all other costs assumed to be fixed and not directly associated with a direct departmental cost such as capital and infrastructure, debt service, retirement benefits, health care, etc. *In our experience, these line items are not likely to increase substantially with the addition of a new housing unit. It is also very difficult to predict future changes in these line items as fewer employees could retire over time, employees in the pension system could pass away, and future debt service levels could change.*

Once the incremental budget is established, it must be apportioned to residential and non-residential uses to properly account for the impact of residential multifamily housing. For that we use a breakout of assessed value from the MA Department of Revenue (DOR) which shows 88% of Needham’s assessed value driven by residential with 9% driven by commercial/industrial property. The remaining 3% is comprised of personal property typically associated with non-residential development. Since Needham was unable to provide the consultant team with a detailed line item budget for every department and every cost, we had to make some assumptions about the percentages of incremental budget that were likely to be impacted by new multifamily development. These “efficiency adjustment” percentages were applied to the residential portion of the incremental budget for each department to further adjust municipal expenditures.

Table 9: Incremental Expenses by Town Department

Use Category	FY 2024 Budget	Incremental Share of Budget	Residential Proportional Share @ 88%	Efficiency Adjustment	Adjusted Expenses
General Gov’t	\$14,358,516	\$6,338,432	\$5,577,820	10%	\$557,782
Public Safety - Fire	\$10,695,558	\$10,655,531	\$9,376,867	75%	\$7,032,650
Public Safety - Police	\$8,749,162	\$8,614,268	\$7,580,556	60%	\$4,548,334
Public Works	\$20,340,339	\$8,793,620	\$7,738,386	15%	\$1,160,758
Other	\$66,335,088	\$0	\$0	0%	\$0
TOTALS	\$120,478,663	\$34,401,851	\$30,273,629		\$13,299,524

After calculating the incremental costs by department and the share of the incremental budget allocated to residential uses, we must calculate municipal costs on a per household (HH) basis. This forms the basis of our estimates for calculating future costs of housing in the MBTA Districts. The incremental budget for each service category is multiplied by the residential share of total assessed value on the prior page and then divided by the total number of households in Needham (11,710) per the 2021 American Community Survey's Five-Year estimates. This formula provides the incremental per household costs that new housing units in the MBTA Districts may generate.

The municipal costs per household and per MBTA District can then be compared to the gross property tax revenues described on the prior pages to begin the process of calculating the net fiscal impact to the town from MBTA district development.

Table 10: Cost Allocation for New Residential Units

Cost Category	Incremental Budget	Cost per HH
General Gov't	\$557,782	\$47.63
Public Safety - Fire	\$7,032,650	\$600.57
Public Safety - Police	\$4,548,334	\$388.41
Public Works	\$1,160,758	\$99.13
Other	\$0	\$0
TOTALS	\$13,299,524	\$1,136

SCHOOL COST ASSUMPTIONS

Recognizing education costs are often the single largest line item in a town's budget, the consultant team developed estimates for the number of school aged children that could result from the addition of each residential unit in the MBTA districts and an incremental cost per pupil. School costs, like municipal costs, are then deducted from the gross property tax estimates for each District to project the net fiscal impact of the build-out of each district.

The industry standard for developing estimates for new school children is to use school aged children (SAC) ratios that are applied to new development on a per unit basis. To develop the SAC ratios for Needham's MBTA districts, we utilized multiple sources of information including the 2017 Residential Demographic Multipliers report for Massachusetts, actual SAC ratios from existing multi-family properties in Needham, and a proprietary list of residential development projects and SAC ratios that RKG has compiled from communities around the Greater Boston region.

Table 10: SAC Ratios by Unit Type

Unit Size	SAC Ratio per Unit
Studio – MKT	0.00
One Bedroom – MKT	0.00
Two Bedroom – MKT	0.06
Three Bedroom – MKT	0.50
Studio - AFF	0.00
One Bedroom – AFF	0.00
Two Bedroom – AFF	0.06
Three Bedroom – AFF	1.20

The consultant team then calculated an incremental education cost specific to Needham’s school budget based on 2022 budget information provided by the Department of Elementary and Secondary Education (DESE). Using local costs only (net of state aid and grants), the estimated incremental cost to educate a child in the Needham District was **\$12,128**. This accounts for **58%** of the full cost to educate a child in Needham of **\$19,829**.

Table 11: School Cost Assumptions

Budget Category	FY 2022 General Fund Budget	% of Costs Included	Per Pupil Cost
Classroom Teachers	\$41,671,615	62%	\$7,492
Instructional Leadership	\$8,319,399	12%	\$1,496
Other Teaching Services	\$9,466,212	14%	\$1,702
Instructional Materials	\$3,579,993	5%	\$644
Transportation	\$1,070,662	2%	\$192
Pupil Services	\$3,346,074	5%	\$602
TOTALS	\$67,453,955	58%	\$12,128

By multiplying the local cost to educate a child by the number of school children in each MBTA district, we can estimate total education costs. These costs, along with municipal costs, are then netted against the gross property tax revenue for each scenario later in this analysis.

FISCAL IMPACT ANALYSIS RESULTS

Now that the per unit revenues and municipal costs are established as well as the multipliers and costs for new school aged children, we can calculate the estimated fiscal impact of each MBTA district scenario. For this exercise, the consultant team was asked to evaluate the fiscal impact of four different build-out scenarios for Needham which included:

1. Base Compliance Propensity for Change Scenario.
2. Base Compliance Full Build Scenario.
3. Neighborhood Housing Plan Propensity for Change Scenario.
4. Neighborhood Housing Plan Full Build Scenario.

For each district scenario, the following generalized calculations were completed to estimate the net fiscal impact to the Town of Needham:

Table 35: Fiscal Impact Analysis Calculation Model

$$\begin{array}{l}
 \boxed{\text{Number of Units}} \times \boxed{\text{Per Unit Revenue}} = \text{Gross Property Tax Revenue} \\
 \boxed{\text{Number of Units}} \times \boxed{\text{Per Unit Municipal Costs}} = \text{Municipal Costs} \\
 \boxed{\text{Number of Units}} \times \boxed{\text{SAC Ratio}} \times \boxed{\text{Per Child School Costs}} = \text{Education Costs}
 \end{array}$$

$$\text{Gross Property Tax Revenue} - \text{Municipal Costs} - \text{Education Costs} = \boxed{\text{Net Fiscal Impact}}$$

The following tables illustrate the estimated fiscal impacts of each of the four scenarios:

Table 12: Base Compliance Propensity Model Scenario

District Name	Units	Net Fiscal Impact	CPA Taxes*	Vehicle Excise Taxes**
Apartment A1	0	\$0	\$0	\$0
Business	43	\$50,683	\$2,961	\$25,772
Avery Square Business	0	\$0	\$0	\$0
Chestnut Street Business	50	\$66,830	\$3,443	\$29,967
Hillside Avenue	8	\$4,840	\$521	\$4,795
Industrial	121	\$157,849	\$8,331	\$72,521
TOTALS	222	\$280,202	\$15,256	\$133,055

Table 13: Base Compliance Full Build Model Scenario

District Name	Units	Net Fiscal Impact	CPA Taxes*	Vehicle Excise Taxes**
Apartment A1	526	\$704,026	\$36,216	\$315,255
Business	210	\$278,262	\$14,459	\$125,862
Avery Square Business	187	\$249,461	\$12,875	\$112,077
Chestnut Street Business	370	\$489,694	\$25,475	\$221,757
Hillside Avenue	80	\$99,652	\$5,508	\$47,948
Industrial	495	\$656,770	\$34,081	\$296,675
TOTALS	1,868	\$2,477,865	\$128,614	\$1,119,574

*[CPA Tax](#) – Community Preservation Act is a locally enacted property tax add on adopted by the Town of Needham with the specific use of funding affordable housing, open space, historic preservation, and recreation projects in town.

**[Motor Vehicle Excise Tax](#) – a local excise tax charged on the value of any vehicle registered within the Town of Needham.

Table 14: Neighborhood Housing Plan Propensity Model Scenario

District Name	Units	Net Fiscal Impact	CPA Taxes*	Vehicle Excise Taxes**
Apartment A1	82	\$104,266	\$5,646	\$49,146
Business	111	\$146,908	\$7,642	\$66,527
Avery Square Business	0	\$0	\$0	\$0
Chestnut Street East	137	\$182,630	\$9,433	\$82,110
Chestnut Street West	560	\$746,075	\$38,557	\$335,633
Chestnut Street Business	33	\$36,795	\$2,188	\$19,104
Hillside Ave Business	6	\$1,987	\$419	\$3,596
Industrial - Crescent	79	\$97,345	\$5,439	\$47,348
Industrial - Hillside	91	\$112,899	\$6,265	\$54,540
TOTALS	1,099	\$1,428,905	\$75,589	\$658,004

Table 15: Neighborhood Housing Plan Full Build Model Scenario

District Name	Units	Net Fiscal Impact	CPA Taxes*	Vehicle Excise Taxes**
Apartment A1	877	\$1,174,145	\$60,383	\$525,625
Business	305	\$400,389	\$21,000	\$182,800
Avery Square Business	187	\$249,461	\$12,875	\$112,077
Chestnut Street East	547	\$728,214	\$28,367	\$246,930
Chestnut Street West	732	\$973,061	\$62,792	\$546,602
Chestnut Street Business	75	\$100,246	\$5,164	\$44,951
Hillside Ave Business	62	\$82,385	\$4,269	\$37,159
Industrial - Crescent	184	\$242,540	\$12,669	\$110,279
Industrial - Hillside	325	\$434,398	\$22,377	\$194,787
TOTALS	3,294	\$4,384,839	\$229,896	\$2,001,210

Table 16: Estimated School Enrollment Projections from Each Scenario

District Name	Base Compliance – Propensity	Base Compliance – Full Build	NHP – Propensity	NHP – Full Build
Apartment A1	0	42	7	70
Business	4	17	9	25
Avery Square Business	0	15	0	15
Chestnut Street East	4	30	11	44
Chestnut Street West			45	58
Chestnut Street Business			3	6
Hillside Ave Business	1	7	1	5
Industrial - Crescent	10	40	7	15
Industrial - Hillside			8	26
TOTALS	19	151	91	264

CAPITAL COSTS

Since the consultant team's fiscal impact analysis only dealt with the operational costs of new multifamily development in Needham, town staff met with all pertinent department heads to discuss the potential capital and infrastructure needs should the MBTA Communities zoning result in projections from the propensity for change model or the full build MBTA compliance model scenarios. Appendix 1 of this report includes a memo from town staff summarizing the results of those department head discussions.

TAX IMPLICATION ANALYSIS

In addition to the fiscal impact analysis, the Town of Needham engaged the consultant team to conduct an analysis of the impacts of the MBTA Communities rezoning scenarios on gross property taxes. The focus of this analysis was to understand the tax implications of shifting a parcel of land within the MBTA District from commercial/industrial use to a residential use. Since Needham has a split tax rate where residential property is taxed at a lower rate than commercial/industrial property, shifting the use of a parcel could reduce its annual tax payment.

Recognizing that the ability to permit multifamily housing as of right in the MBTA District could result in some parcels redeveloping, the town wanted to try to quantify the potential impact of redevelopment on the property tax base.

To do that, we worked closely with the Town's Assessor to collect FY24 property assessments and total tax bills for every parcel that falls within the proposed MBTA Districts under the Base Compliance and the Neighborhood Housing Plan scenarios. We analyzed the property tax implications for four build-out scenarios in total, which included:

1. Base Compliance Propensity for Change Scenario.
2. Base Compliance Full Build Scenario.
3. Neighborhood Housing Plan Propensity for Change Scenario.
4. Neighborhood Housing Plan Full Build Scenario.

For each of the four build-out scenarios, the consultant team selected all impacted parcels within the proposed MBTA Districts and joined their parcel information with the assessed value and total tax bill information from the Town's Assessor. This created a link from each MBTA District parcel to the taxes currently paid in FY24. We then summed the total tax bills for these parcels and compared those totals to the gross property tax revenue projections from the fiscal impact model. The following page shows the comparisons of existing property taxes today to the projected property taxes under each MBTA District scenario.

GROSS PROPERTY TAX EVALUATION RESULTS

The two tables below illustrate the differences in the use of the parcels, total assessed value, and total property taxes between the FY24 existing conditions and the MBTA Base Compliance scenario. Under the propensity for change model, RKG is only projecting 57 parcels to redevelop, yielding a potential for 222 multifamily units. Under this scenario, the projected property taxes are not enough to cover the transition of 43 parcels from commercial to residential classification. There is a projected loss of nearly \$150,000 in gross property taxes. This is mostly due to the low number of units (222) projected under the propensity model scenario, but again, this is a projection and not a prediction of what will happen in the future.

Under the Base Compliance full build scenario, the gross property taxes are enough to offset the loss of commercial properties because of the much higher total unit count of 1,868 units which drive far more value than the propensity for change model.

Table 17: Base Compliance Propensity Model Results

Scenario	Commercial/ Industrial Properties	Residential Properties	Total Assessed Value	Total Property Taxes
Existing Conditions	43	14	\$40,634,700	\$884,215
Base Compliance	0	57	\$58,707,000	\$735,012
Difference	-43	43	-\$18,072,300	-\$149,203

Table 18: Base Compliance Full Build Model Results

Scenario	Commercial/ Industrial Properties	Residential Properties	Total Assessed Value	Total Property Taxes
Existing Conditions	85	25	\$223,908,700	\$4,768,964
Base Compliance	0	110	\$493,152,000	\$6,174,263
Difference	-85	85	\$269,243,300	\$1,405,299

The next two tables below illustrate the differences in the use of the parcels, total assessed value, and total property taxes between the FY24 existing conditions and the MBTA Neighborhood Housing Plan scenario. Under the propensity for change model, RKG is projecting 80 parcels to redevelop, yielding a potential for 1,099 multifamily units. Under this scenario, the projected property taxes are enough to cover the transition of 60 parcels from commercial to residential classification. There is a projected increase of nearly \$2M in gross property taxes over existing tax amounts. This is due to the higher total unit count (1,099) projected under the propensity model scenario.

Under the Neighborhood Housing Plan full build scenario, the gross property taxes continue to be more than enough to offset the loss of commercial properties because of the much higher total unit count of 3,339 units which drive far more value than the propensity for change model.

Table 19: NHP Propensity Model Results

Scenario	Commercial/ Industrial Properties	Residential Properties	Total Assessed Value	Total Property Taxes
Existing Conditions	60	20	\$79,142,600	\$1,689,551
Base Compliance	0	80	\$290,136,000	\$3,632,503
Difference	-60	60	\$210,993,400	\$1,942,951

Table 20: NHP Full Build Model Results

Scenario	Commercial/ Industrial Properties	Residential Properties	Total Assessed Value	Total Property Taxes
Existing Conditions	85	20	\$205,828,400	\$4,538,096
Base Compliance	0	80	\$881,496,000	\$11,036,330
Difference	-85	60	\$675,667,600	\$6,498,233

ECONOMIC FEASIBILITY ANALYSIS

Section 4.B “Affordability Requirements” of EOHLC’s Compliance Guidelines for Multi-Family Zoning Districts has set limitations related to affordability requirements to ensure consistency with the state’s law for as-of-right multifamily zoning. Specifically, communities that fall within the MBTA Communities designation cannot require more than 10% of units in a project to be set aside as deed restricted affordable units, and the cap on income of families or individuals who are eligible to occupy those units cannot be lower than 80% of Area Median Income (AMI).

If a community wishes to exceed the 10% set aside or the 80% AMI restriction, then an Economic Feasibility Analysis (EFA) is required which could allow a lower AMI or up to a 20% unit set aside. Since Needham’s Inclusionary Zoning Bylaw already requires a 12.5% set aside for affordable housing, an EFA was included in the town’s scope of work to be performed by the consultant team.

EFA MODEL AND ASSUMPTIONS

The economic feasibility model is a proforma-based excel model that is designed to test the financial impact of potential policy changes against the financial risk/reward of a potential investment. The consultant team’s economic feasibility model uses locally sourced data to determine how changes to inclusionary zoning could impact the financial performance of a potential project. At its most basic level, the model is designed to capture construction and operational costs and compare those to potential revenues to determine if the project will meet or exceed local return expectations.

The model has the capability to test variations across nearly all data points to test the sensitivity of dozens of variables on financial feasibility. This includes variability in construction costs, land costs, operational costs, development type and size, location within the community, and more. The model is also set up to test changes in affordability metrics such as the percentage of affordable units, target AMIs, unit thresholds, and more. While the model is a powerful tool to understand the impacts of changes to inclusionary zoning and the sensitivity of modifying assumptions, it is not intended to be the only analytic tool or encapsulate the exact specifics of a deal.

The economic feasibility modeling is based upon three principal components: **construction costs**, **operational revenues**, and **operational costs**. Each component relies upon several market-based and financial inputs for the model to be effective. The primary inputs for which local data was derived include, but is not limited to:

Construction costs

- Soft costs – design and preparation.
- Hard costs – materials and construction.
- Land costs – physical location.

Operation costs

- Financing costs – debt and equity to pay for the project.
- Marketing, management, repairs, property taxes.

Operational revenues

- Rental rates and sale prices.
- Parking revenue.

To conduct an economic feasibility analysis for the proposed zoning, the consultant team must make several qualifications and assumptions to create a series of archetypal development projects that would trigger the affordability requirement based on the zoning. It should be noted that these development scenarios do not include any site-specific information, agreed-upon purchase prices, site plans or building designs. More specifically:

- There are no architectural plans or building specific plans/estimates.
- The model assumes the parcel is easily developable meaning hard cost estimates for new construction do not assume added costs such as major site improvements, blasting, demolition, or infrastructure costs.
- Land costs are derived from residual land values, assessment data and market comparable as this model is not an actual site-specific land acquisition pro forma.
- Construction hard costs and assumptions are based on an average within the market and are derived from interviews with developers and contractors as well as data RS Means.
- Interest rates and financial assumptions are based on the point of time of the analysis. Evolving macroeconomic conditions can alter the financing of projects such as a slowdown in rent growth, higher costs of capital, and changing cap rates.

The following tables detail the assumptions that went into Needham's EFA model.

Table 21: EFA Assumptions List

Construction Costs	Input	Source
Land Acquisition (per unit)	\$50,000	Assessment Data; Residual Land Est.
Total Land Costs	Variable	Assessment Data
Soft Costs (percentage of hard costs)	20%	Local Developers
Hard Costs (per SQFT)		
Residential	\$150	RS Means
Commercial Stick Built	\$265	RS Means/Developers
Commercial Podium	\$335	RS Means
Commercial Steel	\$4500	RS Means
Parking Assumptions		
Parking Ratio (unit dependent)	1	Town of Needham
Parking Cost by Type		
Surface (per space)	\$8,000	Local Construction
Structured (per space)	\$35,000	Local Developers
Underground (per space)	\$75,000	Local Developers

Operations & Expenses	Input	Source
VACL (percentage)	5%	Moody's Analytics
Operating Expense (% of EGI)	23%	Local Developers

Revenue Sources	Input	Source
Rents by Bed Count (per SQFT)		
Studio/Efficiency	\$4.94	CoStar/Market Comps
One Bedroom	\$3.99	CoStar/Market Comps
Two Bedroom	\$3.55	CoStar/Market Comps
Three Bedroom	\$3.65	CoStar/Market Comps
Other Income		
Parking Revenue (surface/structured, per month per space)	\$50/\$150	Local Developers
On-Site Laundry (per month)	N/A	N/A
Other (please list)	N/A	N/A

Financial Sources	Input	Source
Rents by Bed Count (per SQFT)		
Lending Rate (Percentage)	6%	Local Developers/CoStar
Lending Term (Years)	30	
Debt Equity Ratio	70/30	
Cap Rate	5%	
Return Expectations		
Internal Rate of Return (IRR)	15%	Local Developers/CoStar
Return on Cost (ROC)	5.2%	
Cash on Cash (CoC)	5.5%	

It is worth noting that the consultant team completed Needham's EFA in December 2023, therefore the assumptions and inputs made at that time represent a point in time analysis of financial feasibility and may have changed since the date of analysis.

EFA FINDINGS

The core function of the economic feasibility model is to understand how changes in policy and project type impact financial returns compared to market expectations and whether a given development project in an MBTA District can support the town's inclusionary zoning regulations. To gauge whether the market could absorb the construction and cost associated with affordable housing units, the EFA model utilizes three financial metrics to gauge feasibility:

- Cash on Cash (5.5% return threshold)
- Return on Cost (5.2% return threshold)
- Internal Rate of Return (15% return threshold)

The consultant team utilized the EFA model to test affordable housing set aside from 10% to the maximum of 20% to provide HONE with the range of feasibility when incorporating a set aside. To do this, the consultant team chose five development scenarios, each with an increasing number of units, to gauge feasibility at different scales of development. The scenarios are outlined in the table below.

Table 22: EFA Scenarios

EFA Scenarios	S1 – Minimum	S2	S3	S4	S5 - Maximum
Unit Count	6	25	50	100	200
Construction Type	Stick	Stick	Stick	Stick	Stick
Parking Assumption	Surface	Surface	Structured	Structured	Structured
Parking Ratio	1	1	1	1	1

Using all the assumptions in the model against the EFA scenarios described above, it appears that all scenarios would meet or exceed the return expectations for all three return metrics. The consultant team presented these findings to HONE at their December 2023 meeting where HONE decided to keep the affordable housing set aside at the current 12.5% at 80% AMI. The EFA modeling supports this decision and will be sent to EOHLC along with the town's full compliance application.

OVERVIEW OF PROPOSED ZONING

Needham's strategy for compliance with MGL Chapter 41A, Section 3A (the MBTA Communities Act) has two steps. The first step (**the Base Plan**) is to create an overlay district – the Multi-Family Overlay District – which is compliant with the state's requirements. The second step (**the Neighborhood Plan**) modifies the new overlay to add additional residential capacity, including a height bonus for mixed-use or deeper affordability in four subdistricts.

An overlay district sits on top of a base district and provides property owners with alternative options for developing or enhancing their properties. The owner must choose to apply using the rules of either the base district or the overlay. An overlay can have subdistricts that allow for different uses and dimensional standards. The Town of Needham has chosen to use **subdistricts to allow for different heights, setbacks, and allowable density** to keep the overlay reasonably consistent with the relevant underlying districts. The names of the subdistricts are the acronyms of the relevant base zoning districts to make it easier to understand the relationship between the base zoning districts and the proposed overlay district.

The proposed zoning changes also require **affordable housing** consistent with the Town's requirements in its existing overlay districts with an **option for additional affordable units** in the Neighborhood Plan.

Development standards either point to or are drawn from the relevant existing sections of the Town of Needham Zoning By-Laws and the Planning Board is authorized to adopt **design guidelines**.

Finally, the overlay contains a **modified site plan review and approval process** to meet the requirements of the state's guidelines while remaining consistent with the Town's current process.

The **dimensional standards for the Base Plan** are as follows:

Table 23: Base Compliance Dimensional Standards

	A-1	B	ASB-MF	CSB	HAB	IND
Minimum Lot Area (square feet)	20,000	10,000	10,000	10,000	10,000	10,000
Minimum Lot Frontage (feet)	120	80	80	80	80	80
Minimum Front Setback (feet) from the front property line	25	10	Minimum 10 Maximum 15	20 feet for buildings with frontage on Chestnut Street 10 feet for all other buildings	20	25
Minimum Side and Rear Setback (feet)	20	10 ^{a, b}	10 ^{a, d}	20 (side) ^{a, b, e}	20 ^{a, b}	20 ^{a, b}
Maximum Building Height (stories)	3.0	3.0	3.0 ⁱ	3.0	3.0	3.0
Maximum Building Height (feet)	40	40	40 ⁱ	40	40	40
Floor Area Ratio (FAR)	0.50	N/A	1.00 ^k	0.70	0.70	0.50
Maximum Building Coverage (%)	N/A	25%	N/A	N/A	N/A	N/A
Maximum Dwelling Units per Acre ^j	18	N/A	N/A	18	N/A	N/A

The Neighborhood Plan divides the CSB subdistrict into three smaller subdistricts and the IND subdistrict into two subdistricts. Both the B and the CSB subdistricts allow additional height in exchange for either a commercial ground floor (creating a mixed-use building) or increased affordable housing. The footnotes for the tables for the Neighborhood Plan are the same as the ones in the table for the Base Plan.

The **dimensional standards for the Neighborhood Plan** are as follows:

Table 24: Neighborhood Housing Plan Dimensional Standards

	A-1	B	ASB-MF	CSB-E	CSB-W	CSB-GS	HAB	IND - C	IND
Minimum Lot Area (square feet)	20,000	10,000	10,000	10,000	10,000	10,000	10,000	10,000	10,000
Minimum Lot Frontage (feet)	120	80	80	80	80	80	80	80	80
Minimum Front Setback (feet) from the front property line	25	10	Minimum 10 Maximum 15	Minimum of 5 feet or average of setbacks within 100 feet, whichever is smaller	Minimum of 5 feet or average of setbacks within 100 feet, whichever is smaller	Minimum of 10 feet or average of setbacks within 100 feet, whichever is smaller	20	25	25
Minimum Side and Rear Setback (feet)	20	20 ^{a, b}	10 ^{a, d}	20 (side) 30 (rear) ^{a, b}	20 ^{a, b}	20 ^{a, b}	20 ^{a, b}	20 ^{a, b}	20 ^{a, b}
Maximum Building Height (stories) ^f	<u>4.0</u>	4.0 4.5 with commercial ground floor or see 3.17.8.1	3.0 ⁱ	3.0 3.5 with commercial ground floor or see 3.17.8.1	4.0 4.5 with commercial ground floor or see 3.17.8.1	3.0 3.5 with commercial ground floor or see 3.17.8.1	3.0	3.0	3.0
Maximum Building Height (feet) ^f	<u>50</u>	50 55 with commercial ground floor or see 3.17.8.1	40 ⁱ	40 45 with commercial ground floor or see 3.17.8.1	50 55 with commercial ground floor or see 3.17.8.1	40 45 with commercial ground floor or see 3.17.8.1	40	40	40
Floor Area Ratio (FAR)	1.00	2.00	1.00 ^k	2.00	2.00	0.75	1.00		1.0
Maximum Building Coverage (%)	N/A	N/A	N/A	N/A	N/A	N/A	N/A		N/A
Maximum Dwelling Units per Acre ^j	36	N/A	N/A	N/A	N/A	24	24		24

Footnotes to both tables:

- a) The requirement of an additional 50-foot side or rear setback from a residential district as described in Subsection 4.4.8 Side and Rear Setbacks Adjoining Residential Districts or Subsection 4.6.5 Side and Rear Setbacks Adjoining Residential Districts shall not apply.
- b) Any surface parking, within such setback, shall be set back 10 feet from an abutting residential district and such buffer shall be suitably landscaped.
- c) An underground parking structure shall be located entirely below the grade of the existing lot and set back at least ten (10) feet from the lot line and the surface of the garage structure shall be suitably landscaped in accordance with Subsection 4.4.8.5 Landscaping Specifications.
- d) The rear and side setbacks are 20 feet along the MBTA right-of-way. With respect to any lot partially within an underlying residential district, (i) no building or structure for a multi-family residential use shall be placed or constructed within 110 feet of the lot line of an abutting lot containing an existing single family residential structure and (ii) except for access driveways and sidewalks, which are permitted, any portion of the lot within said residential district shall be kept open with landscaped areas, hardscaped areas, outdoor recreation areas (e.g., swimming pool) and/or similar open areas.
- e) Base Plan only: On the west side of Chestnut Street, the rear setback shall be 20 feet. On the east side of Chestnut Street, the rear setback shall be 30 feet.
- f) Neighborhood Plan only: The requirements of Subsection 4.4.7 Business Use in Other Districts are not applicable to commercial ground floor uses in the MFOD.
- g) Exceptions. The limitation on height of buildings shall not apply to chimneys, ventilators, towers, silos, spires, or other ornamental features of buildings, which features are in no way used for living purposes and do not occupy more than 25% of the gross floor area of the building.
- h) Exceptions: Renewable Energy Installations. The Site Plan Review Authority may waive the height and setbacks in Subsection 3.17.5.2 Building Height Requirements and Subsection 3.17.5.1 Lot Area, Frontage and Setback Requirements to accommodate the installation of solar photovoltaic, solar thermal, living, and other eco-roofs, energy storage, and air-source heat pump equipment. Such installations shall be appropriately screened, consistent with the requirements of the underlying district; shall not create a significant detriment to abutters in terms of noise or shadow; and must be appropriately integrated into the architecture of the building and the layout of the site. The installations shall not provide additional habitable space within the development.
- i) In the ASB-MF subdistrict, the Applicant may apply for a Special Permit for a height of four stories and 50 feet, provided that the fourth story is contained under a pitched roof, having a maximum roof pitch of 45 degrees, or is recessed from the face of the building (street-facing) by a minimum of 12 feet as shown in the Design Guidelines adopted for the Needham Center Overlay District under Subsection 3.8.8 Design Guidelines.
- j) The total land area used in calculating density shall be the total acreage of the lot on which the development is located.
- k) In the ASB subdistrict, the Applicant may apply for a Special Permit for an FAR of 1.4.

ADDITIONAL ZONING RECOMMENDATIONS

There were two items that the Housing Needham Advisory Group voted to recommend to the Planning Board, during the Board's deliberations on the MBTA Communities Act zoning, once the Town hears back from the Executive Office of Housing and Livable Communities (EOHLC) on their preliminary review:

1. In the Avery Square Business subdistrict (which applies to the parcel at 100 West Street only), within the Neighborhood Housing Plan, consider allowing 4 stories and an FAR of 1.4 as of right if the applicant chooses to provide 7.5% of units as workforce housing for households with incomes between 80% – 120% AMI.
2. Under both the Base Compliance Plan and the Neighborhood Housing Plan, in the Avery Square Business subdistrict, consider exempting structured parking from the calculation of floor area ratio to be consistent with the underlying zoning on that parcel. All other areas proposed for multi-family zoning count structured parking towards the FAR calculation, consistent with the underlying zoning in those subdistricts. This deliberation should be informed by any comments received by EOHLC on Needham's existing zoning as it relates to structured parking.

Over the course of HONE's deliberations, there were some matters that the members chose to exclude from their recommendations for compliance with the MBTA Communities Act, but voted to recommend further action by the Planning Board.

The Housing Needham Advisory Group recommends that the Planning Board:

1. Review zoning in the Hersey Station area, encompassing at least the area, that is now commercially zoned and the Hersey MBTA lots, for multi-family housing, with or without mixed use.
2. Review the General Residence district to consider: (1) allowing 3 or 4 units per 10,000 square foot lot in the General Residence district, (2) whether the 10,000 square foot threshold should be reduced, and (3) any implications of our current inclusionary zoning, which does not apply to buildings with fewer than 6 housing units. Current zoning has a 2-unit per parcel restriction.
3. Consider ways of making mixed-use development in the Center Business District more likely, where stand-alone multi-family should be considered, and what incentives could be used.
4. Consider rezoning the south side of Great Plain Avenue between Pickering Street and Warren Street for multi-family housing.
5. Review and update existing parking requirements for commercial uses.
6. Review whether to reduce lot size from 10,000 square feet to something less in the Chestnut Street District, the Industrial District, and the Hillside Avenue Business District.
7. Review zoning and financial strategies to incentivize workforce housing and consider developing a Town program for workforce housing.
8. Review the Planning Board's existing site plan review process under Section 7.4 of the Zoning Bylaw.

APPENDIX 1

MEMORANDUM

TO: Housing Needham (HONE) Advisory Group
FROM: Katie King, Deputy Town Manager
SUBJECT: Capital Impacts Assessment on Proposed MBTA Communities Act Zoning
DATE: April 26, 2024

One component of the Housing Needham (HONE) Advisory Group's charge, as it creates multi-family zoning that complies with the MBTA Communities Act, is to "evaluate build-outs, projections, and analyses of fiscal, school enrollment, and infrastructure impacts provided by staff and consultants." The Town's consultant, RKG Associates, has run six analyses to answer various questions of interest to HONE and to the community:

- **Propensity for Change:** What is the likely number of housing units that will be developed under each zoning proposal?
- **Net Absorption of Multi-family Units:** What is an estimated time frame for this build out?
- **School Enrollment:** What is the estimated number of school aged-children that could result from each of the zoning scenarios?
- **Fiscal Impact Analysis:** On a per unit basis, how will the potential tax revenues from new development compare to the municipal and school operating costs needed to support that development?
- **Tax Implication Analysis:** How does the existing property tax revenue generated from these parcels today compare to the anticipated tax revenue generated under each zoning proposal?
- **Economic Feasibility Analysis:** Can a reasonable variety of multi-family housing types be feasibly developed at a proposed affordability level of 12.5%? This analysis is required by the State for any community that includes an affordability requirement of greater than 10%.

Initial results from each of these analyses have been presented to HONE and are included in RKG's final report. For context, the chart below compares the number of existing housing units in the proposed area for rezoning with the unit capacity under Needham's existing zoning and HONE's two proposals. Unit capacity is a calculation of the maximum number of units that could be built if every parcel started as a blank slate today (no existing buildings) and was built to the maximum allowed under the zoning.

Existing Units	Existing Zoning Unit Capacity	Existing Zoning with Overlay Special Permit Unit Capacity	Base Compliance Plan Unit Capacity	Neighborhood Housing Plan Unit Capacity
775	1,019	1,636	1,868	3,294

This chart summarizes the likely and maximum build out under each plan:

	Base Compliance Plan	Neighborhood Housing Plan
Likely Build Out	222 units, 19 students, 334 – 666 residents ¹	1,099 units, 91 students, 1,703 – 3,297 residents
Full Build Out	1,868 units, 151 students, 2,897 - 5,607 residents	3,294 units, 264 students, 5,106 – 9,882 residents

Methodology for Capital Impacts Assessment: Relevant Town departments, including the Finance Department, Needham Public Schools, Department of Public Works (including Engineering, Highway Division, and Water, Sewer, and Drains Division), Building Department, Police Department, and Fire Department, were consulted on the sections of the RKG Associates analyses related to each department. Staff reviewed the anticipated development growth, including projects number of housing units, student enrollment, and population growth, under these zoning proposals. Staff compared the proposals and related analyses to known Town capital infrastructure needs and proposed improvement projects² informed by their expertise and the source documents cited in the footnotes and summarized on the last page of this memo. Below are the anticipated impacts on capital projects that are already being planned for and new projects that may result from development under the zoning scenarios.

SCHOOLS

Background: The School District's current FY25-39 enrollment projection³ predicts that the District will return to pre-pandemic, 'capacity' enrollment levels within the next 15 years, particularly at the elementary and middle school levels. The largest projected elementary enrollment of 2,628 (FY39) is at the District's 2,634 calculated capacity for its five existing elementary schools. The largest projected middle school class of 1,347 (also in FY39) is close to the middle level capacity of 1,419 students.

To address the 'capacity' conditions of existing schools, the School Department engaged a consultant to develop a master plan⁴ for updating aging school facilities and creating enrollment capacity, district-wide. The School Committee's preferred master plan scenario, entitled "High Rock as Elementary School (C1a)", addresses these needs by: a) positioning grades 6 - 8 under one roof at the Pollard School, b) repurposing the High Rock as a sixth elementary school and c) renovating the aging Mitchell School as a smaller, 3-section elementary school. An alternative version of this plan (C3) would leave open the possibility of re-constructing the Mitchell as a 4-section school, its current configuration. The School Committee's preferred master plan scenarios increase the district's elementary and middle school enrollment capacities, largely as a result of re-purposing High Rock as a sixth elementary school. The current anticipated cost of the C1a Master Plan is \$465.8 million, and would begin with a proposed

¹ Resident estimates are based on a low and high assumption of people living in each unit type: Studio with 1–2 people, one-bed with 1-2 people, two-bed with 2-4 people, and 3-bed with 3–5 people. These were then applied to RKG Associates' build out assumptions of 10% studios, 45% one-beds, 35% two-beds, and 10% three-bed units.

² FY2025-2029 Capital Improvement Plan: <https://needhamma.gov/5495/FY2025-2029-Capital-Improvement-Plan>

³ FY25 Enrollment Report to the School Committee (December 2023) and McKibben Population & Enrollment Forecast FY25-39 (November 2023)

https://www.needham.k12.ma.us/departments/business_operations/business_office/enrollment_growth_for_ecasts

⁴ Master Plan Extension Update Final Report and Master Plan Update (2023), <https://www.needham.k12.ma.us/cms/one.aspx?portalId=64513&pageId=37970530>

renovation/addition project at Pollard, done in partnership with the Massachusetts School Building Authority. A request of \$2.75 million for Pollard feasibility study funds is included in the 2024 Town Meeting warrant.

The new students predicted to result from the “Likely” and “Full” build out of each zoning scenario (in the chart above) represent an addition to the McKibben projections. These students would be distributed across the Sunita Williams, Newman, Eliot, and Broadmeadow districts, with the majority of students projected at Williams and Newman.

The zoning analysis does not predict the grade levels of the anticipated students. Below is an analysis comparing anticipated total school enrollment (McKibben FY39 estimates plus RKG estimates) with capacity under the school master plan preferred scenario. This analysis takes a conservative approach, first assuming that every new student generated from the rezoning enters an elementary school, and then a second calculation assuming that every new student generated enters into middle school.

In the unlikely event that the additional development would result in all elementary-aged students, the maximum elementary enrollment resulting from the “Likely” scenario of the Neighborhood Housing Plan would be 2,719, which is within the 2,854-student capacity of the C1a master plan (with Mitchell as a 3-section school). Additionally, the maximum elementary enrollment under the “Full” model of the Neighborhood Housing Plan (2,892) would fall within the capacity of the alternative C3 model (of 2,983, with Mitchell as a 4-section school). At the middle level, the potential maximum enrollments of 1,438 (“Likely”) and 1,611 (“Full”) under the Neighborhood Housing Plan, would also be within the master plan’s projected middle school capacity of 1,624 students.

In the most recent projection series, McKibben projects a peak high school population of 1,725 in FY35. Needham High School has a capacity of 1,800. In the unlikely event that every student generated from the proposed rezoning entered high school in this peak year, the potential student population under the Neighborhood Housing Plan would be over capacity at the “Likely” build (1,816 students) and “Full” build (1,989 students). Assuming that half of the students generated from the proposed rezoning entered high school in the peak year, the potential student population for the Neighborhood Housing Plan “Likely” build would be 1,770 (30 under NHS’ capacity) and for the Neighborhood Housing Plan “Full” build would be 1,857 (57 over capacity).

Conclusion: Based on best available information, the additional students projected under the “Likely” and “Full” build out scenarios for the Base Compliance Plan and the Neighborhood Housing Plan can be accommodated within the School Committee’s preferred master plan scenarios.

Over the next several years, the Needham Public Schools and Town will assess the impact of the MBTA Communities Act on school enrollment as developments materialize. In the short term, if enrollment increases at individual schools need to be accommodated, the district could consider temporary classrooms, redistricting and/or higher class sizes, as needed. In the long term, the School Department can adjust its plans for a renovated Mitchell school to accommodate more or fewer students.

POLICE & FIRE

Background: The Town of Needham has recently made significant investments in the capital needs of the Police and Fire Departments. The Town opened a new Fire Station 2 in Needham Heights, at the intersection of Highland Avenue and Webster Street, in the Fall 2021. The Public Safety Building on

Chestnut Street, which houses the Needham Police Department and Fire Station 1, opened in 2022. These stations are located in close proximity to the areas proposed for multi-family housing zoning. The Fire Department's vehicles and apparatus can serve the height and density of the buildings that would be allowed under the proposed zoning, as buildings of this size (and larger) exist in town.

Conclusion: Needham Police and Needham Fire do not anticipate any significant impact on their current operations. There may be a need for a small increase to staff over time as the Town's population grows, which is something that both departments regularly monitor. There are no anticipated public safety capital needs (e.g., new stations or equipment) as a result of these proposals. Proposed developments would be required to comply with all fire code and building codes. Under Massachusetts Building Code, new multi-family buildings with three or more units will be required to have fire sprinklers. To properly design the system, the project applicant must ascertain, through flow tests, that there is sufficient water available for the system to work. If the flow tests show there is not, the applicant must identify alternatives, such as an on-site water tank, to ensure the fire suppression system meets code.

DEPARTMENT OF PUBLIC WORKS

The Department of Public Works (DPW) is both proactive in its planning around potential development and reactive to each development as they are built. DPW has several plans to investigate and manage the Town's infrastructure through master plans in the next 1-3 years for transportation, sewer, water, and drainage. These plans will provide the department with a comprehensive study of the age and condition of our infrastructure, identify locations for needed replacements and upgrades, and inform the prioritization of these projects. DPW will also be undertaking drainage, sewer, and transportation projects in the plan areas in upcoming years. The funding needed for these plans and anticipated projects are detailed below. These projects are necessary given the current conditions and any changes in zoning will be factored in to adjust the project scopes, as needed.

As discussed in more detail below, the DPW does not anticipate that the proposed MBTA zoning will result in a need for new capital projects to expand existing water or sewer capacity. The Executive Office of Housing and Livable Communities' guidelines state that "compliance with Section 3A does not require a municipality to install new water or wastewater infrastructure, or add to the capacity of existing infrastructure, to accommodate future multi-family housing production within the multi-family zoning district."⁵ In order to be constructed, all projects will need to comply with Building Code and generally applicable DPW regulations. DPW provides a thorough review of all projects that go through the Planning Board to ensure that projects comply with local requirements related to water, sewer, and drainage, and this review will allow for consideration of any issues on a project-specific basis. The Town will not be required to shoulder any capital investment needed to make a specific project viable.

Each section below speaks to DPW's systemwide view of the Town's infrastructure, their oversight of specific development proposals, and how planned master plans will inform both in the coming years.

WATER

Background: The Town's water distribution system is a single service pressure zone system supplied by two sources. The Town's primary source of water is the Charles River Well Field. The well field consists

⁵ Executive Office of Housing and Livable Communities, *Compliance Guidelines for Multi-family Zoning Districts Under Section 3A of the Zoning Act*, August 17, 2023. <https://www.mass.gov/info-details/section-3a-guidelines>

of three groundwater-pumping stations. Needham's second water source is a connection to the Massachusetts Water Resources Authority (MWRA) surface water supply originating at the Quabbin Reservoir and delivered through the Metrowest Tunnel and the Hultman Aqueduct. This water is pumped into the Needham system at the St. Mary's Pumping Station located at the corner of St. Mary Street and Central Avenue. This supply is used when the Town's demand for water is greater than the local supply, and serves as a backup should the Town's wells need to be taken off-line. The Town can be supplied 100% of its water through the MWRA, if necessary. Water Division staff operate the water treatment plant and also operate, maintain, and repair the townwide water distribution system. The system is comprised of more than 143.5 miles of water mains, 1,344 public and private hydrants, 3,231 water gate valves, and 10,294 water service connections. This system supports 15,612 installed meters as of June 30, 2023.

Overall water production during calendar year 2023 declined by more than 126 million gallons of water compared to 2022 due to drought conditions in 2022 followed by flooding in 2023. The Town's use of MWRA water declined by 41.6% from the prior year, 249.5 million gallons compared to 427 million gallons of water. During calendar year 2021, approximately 27.1% of the total water production came from the MWRA; during calendar year 2022, 32.5% of production came from the MWRA; during calendar year 2023, approximately 21.0% of production came from the MWRA. Water usage increases significantly every year during the summer months (as compared to the off-season), when the majority of the Town's usage is due to outdoor watering. The Water Enterprise Fund operating budget is a self-supporting account. Water user fees and charges cover the entire cost of operations.

The Town has been investing in the Town's water treatment, storage, and distribution systems over the past several years and the work continues. Planning is underway to add redundancy to Needham's water system. Town Meeting appropriated design funding in FY2024 to create a fourth well at the Charles River Well Field, to add reliability to the Town water supply. DPW has requested \$3M in FY2026 to construct this fourth well. The MWRA is also advancing their Metropolitan Water Tunnel Program to create redundancy of the water distribution system to the Metropolitan Boston area.

FY25 - 29 Water Capital Project Requests:

Project	FY25	FY26	FY27	FY28	FY29
Water Distribution Master Plan		\$300,000			
Water Supply Development (creation of 4 th Town well)		\$3,000,000			
Replacements: Mills Road from Sachem to Davenport; and Mayo Avenue from Harris to Great Plain		\$50,000	\$470,000		
Replacement: Kingsbury Street from Oakland to Webster			\$122,000	\$555,000	
Replacement: Oakland Avenue from May to Highland				\$380,000	\$500,000

Conclusion: The Town believes it has enough water capacity to support housing developments that may result from the proposed zoning. Needham has capacity in its local water supply in the off-season and augments that local supply with additional water available through the Massachusetts Water Resources

Authority. Irrespective of this zoning, the Town is working on redundancy systems for its local water supply and the MWRA is undertaking a redundancy project for their regional supply system.

DPW has requested \$300,000 in FY2026 for a water distribution system master plan to study and prioritize potential water distribution system improvements townwide. This study will inform future water capital projects and how they will be prioritized. At this time, DPW does not anticipate any new capital projects resulting from the proposed zoning, but may adjust the scope of projects (e.g., replace with a larger diameter pipe) to factor in any anticipated population growth.

For a specific development, the property owner/developer would be required to pay for the materials and construction to connect the pipes from their building into the existing water system.

SEWER

Background: The Town's sewage collection system consists of more than 130 miles of collector and interceptor sewers, 3,700 sewer manholes, and ten sewer pump stations. The Town's sewer system is a collection system that discharges its wastewater to the MWRA system for treatment. Approximately 65% of the Town's sewer collection system is a gravity-only system, and 35% of the sewer system is pumped into the gravity system. Needham has two principal points of discharge into the MWRA system and nineteen other public locations where subdivisions discharge to the MWRA system. Personnel maintain and operate 24 sewer pumps, motors, switchgear, gates, valves, buildings, and grounds contained in ten pumping facilities located throughout Town. The Sewer Enterprise Fund budget is a self-supporting account. Sewer user fees and charges cover the cost of the sewer operations.

The Town has been preparing for several major sewer system infrastructure replacement and upgrade projects. As noted in *Needham 2025: Commercial and Residential Growth Impact Study*, "Overall, the current sewer system is reliable and can accommodate development on either side of I-95."⁶ However, the study noted the largest challenge facing Needham's current sewer capacity and reliability is existing deficiencies with the Greendale Avenue/Route 128 sewer interceptor from Cheney Street to Great Plain Avenue. This is a trunk sewer that collects and conveys wastewater from numerous surrounding sewer lines and plays a critical role in the operation of the Town's sewer system. The existing interceptor sewer line is deteriorating and in need of rehabilitation in order to remain functional. This multi-phase project would consist of replacing or relining the 12,000 feet (2.5 miles) of 18-inch reinforced concrete gravity sewer main. Design funding was provided in FY2023, and Phase 1 of construction is currently underway, funded via the American Rescue Plan Act (ARPA). DPW has requested that Town Meeting appropriate \$13.6 million at the 2024 Annual Town Meeting to begin Phase 2 in FY2025. Due to the investment required to complete the remaining phases, the Town intends to apply for several sources of outside funding (including MWRA and MassDEP programs) to reduce the local funding required.

The Town of Needham is also under Administrative Orders from MassDEP to identify and remove Infiltration and Inflow (I/I) in its existing sewer systems. I/I is groundwater and stormwater that enter into the sewer system, rather than into stormwater drains, limiting the capacity to process sewer wastewater. Failure to address I/I will result in increases to the percentage of sewer costs from the

⁶ Needham 2025: Commercial and Residential Growth Impact Study, prepared for the Town by Urban Partners, June 30, 2020. <https://needhamma.gov/DocumentCenter/View/22924/Needham-2025-Report-Final-Compressed?bidId=>

MWRA borne by the Town as well as additional administrative requirements. The Town completed a study in 2016 that identified target areas for I/I removal over the next ten years. DPW has been undertaking these projects using funds appropriated at Town Meeting, supplemented by funding from private development and grant funding secured from the MWRA, and all projects identified in the 2016 study have been completed. DPW has requested \$1M in FY2026 to formulate a new plan and cost estimates for the continuation of the I/I removal program. Most of the funding for the implementation of this updated plan will be sourced from private entities and developments, as required by the Town's Sewer System Impact Program Regulations.⁷

American Rescue Plan Act (ARPA) Project	Amount
Sewer Main Replacement: 128-Interceptor Phase 1 (CY2024)	\$3,000,000

FY25 - 29 Sewer Capital Project Requests:

Project	FY25	FY26	FY27	FY28	TBD
128-Interceptor Phase 2: Kenney Street to Valley Road at Norwich Road	\$13,600,000				
128-Interceptor Phase 3					\$14,000,000
128-Interceptor Phase 4					\$6,000,000
Cooks Bridge Sewer Pump Station Replacement		\$195,000	\$3,900,000		
Sewer System Infiltration & Inflow Assessment		\$1,000,000			

Conclusion: Sewer infrastructure is in place throughout the areas proposed for rezoning. DPW has requested \$1M in FY2026 for a townwide sewer system infiltration and inflow assessment to identify priority capital projects with cost estimates. At this time, DPW does not anticipate any new sewer capital projects resulting from the proposed zoning, but may adjust the scope of priority projects identified in the I/I assessment if they fall in the area of the proposed rezoning. Current conditions require the Town's investment in rehabilitating the Rt.128 sewer interceptor. The proposed zoning will not impact the scope, timeline, or estimated cost of that project. Individual housing developments will be subject to DPW's Sewer System Impact Program Regulations to reduce I/I.

STORMWATER

Background: The DPW Water, Sewer, and Drains divisions oversee the collection and transportation of stormwater (drains program) originating from rain and snowstorms for discharge into streams, brooks, rivers, ponds, lakes, flood plains and wetlands throughout Town. The Town's drainage infrastructure consists of approximately 100 miles of various size drainage pipes, 4,300 catch basins, 1,500 drainage manholes, and 295 drainage discharges. DPW's oversight includes managing both the quality and the quantity of stormwater in Needham. In terms of quality, stormwater and associated discharges are now considered by the federal government as potentially contaminated and have come under increasingly severe discharge performance standards. The intention is to reduce or eliminate contaminants

⁷ DPW Sewer System Impact Program: <https://www.needhamma.gov/DocumentCenter/View/25715/Sewer-System-Impact-Program-Requirements-Final-2016>

contained in the flow washed from ground surfaces considered to be harmful to the environment. In terms of quantity, Needham has experienced increased levels of flooding during intense rainfall events. The Town is focused on strengthening infrastructure, protecting critical assets, and educating residents about flood protection best practices. The Town is looking at two sets of strategies for stormwater management. The first are the system-wide improvements needed in the Town's stormwater drainage system. The second are site-specific improvements required of developments under the Town's Stormwater Bylaw.⁸

For system-wide improvements, DPW has requested that the May 2024 Annual Town Meeting appropriate \$250,000, as part of Article 31 for Public Works Infrastructure to supplement ARPA funds to support a Stormwater Plan that would evaluate the capacity and the condition of the existing townwide stormwater drainage system. The plan would identify, prioritize, and address the health and safety, regulatory, and capacity concerns associated with the management of stormwater. It would also provide estimates for the financial investments that would be required for the construction and maintenance of future storm drain improvement projects, including storage areas for discharge (e.g., retention ponds, underground vaults, dry wells).

The Stormwater Plan would be closely tied to the ongoing master planning of the Town's brooks and culverts, which function as another important component of the stormwater network capacity by controlling the flow of surging water during heavy rains/storms. Destructive flooding in the summer of 2023 continued a pattern of increasingly erratic weather that is expected to worsen over time, further illustrating the need to continuously maintain and improve stormwater management infrastructure through holistic planning.

In addition to the capacity and resiliency considerations, the Stormwater Plan would allow the Town to identify ways to improve surface water quality by mitigating pollutants through the stormwater drainage system. This portion of the Stormwater Capacity Plan would assist the DPW in their efforts to comply with standards set by the National Pollutant Discharge Elimination System (NPDES) permit. To meet these permit obligations, the Town must increase its investment in stormwater infrastructure management.

In April 2023, the Needham Select Board approved a Stormwater Utility Fee Program,⁹ which will spread the cost of this public service. Beginning in April 2024, residential and non-residential properties in Needham which have more than 200 square feet of impervious surface will incur a stormwater utility assessment. The assessment will be included in the monthly or quarterly water/sewer bill. Impervious surfaces are hard areas such as roofs, concrete, asphalt driveways, and patios that do not allow water to soak into the ground easily. Instead, water runs off the impervious surfaces, and then flows into a storm drain or a nearby body of water taking everything on that surface (pollution, trash, animal waste, etc.) with it. Properties with more impervious surface create more runoff and have a larger impact on water quality and quantity, therefore the fee charged is related to the amount of impervious area on the property. As every property generates runoff and benefits from a stormwater program, the utility model is a recommended method of collecting revenue from those who place a demand on the

⁸ Needham General Bylaws Article 7, <https://www.needhamma.gov/DocumentCenter/View/17787/Stormwater-By-Law-OTM-for-warrant-9192018-Clean-FINAL?bidId=>

⁹ Stormwater Fee: [https://www.needhamma.gov/5548/Stormwater-Utility-Fee?ct=t\(EMAIL_CAMPAIGN_5_25_2021_14_31_COPY_01\)](https://www.needhamma.gov/5548/Stormwater-Utility-Fee?ct=t(EMAIL_CAMPAIGN_5_25_2021_14_31_COPY_01))

stormwater management system. The revenue generated by the stormwater utility fee will be used to manage and upgrade our Town's public stormwater drainage system.

Site-specific improvements required of developments fall under the Town's Stormwater Bylaw, which requires new construction to collect and infiltrate 1-inch of water runoff from the roof. If a new building is located on a site with more than 4,000 square feet of impervious surface, that development is required to ensure that there is no impact from water runoff to abutting properties. The original focus of the Town's Stormwater Bylaw was on water quality and reducing pollutants. The Select Board has appointed a Stormwater Bylaw Working Group¹⁰ to make recommendations for revisions to the Town's bylaws to strengthen requirements related to stormwater capacity. Recommendations from this working group are anticipated in 2025. Efforts to educate and encourage the designing of new buildings and the hardening of existing buildings against flood risk, are ongoing.

American Rescue Plan Act (ARPA) Project	Amount
Town Reservoir sediment removal	\$2,150,000
Walker Pond Improvements	\$750,000
Rosemary Lake Sluiceway Replacement	\$120,000

FY25 - 29 Stormwater Capital Project Requests:

Project	FY25	FY26	FY27	FY28	FY29
NPDES Support Projects		\$816,000	\$987,000	\$1,200,000	\$1,200,000
Public Works Infrastructure: Storm Drain Capacity	\$250,000				\$250,000
Public Works Infrastructure: Brooks & Culverts	\$225,000		\$1,100,000	\$250,000	

Conclusion: As projected flood risk continues to increase, addressing stormwater quality and capacity will be a Town priority for the foreseeable future. There has been flooding throughout Needham, including in some of the areas proposed for multi-family housing zoning. DPW has a variety of [stormwater improvement projects](#) completed, in process, and planned for throughout town. These and future investments will be informed by a townwide master plan and individual project scopes will be adjusted based on any zoning changes.

Housing developments under this proposed zoning are subject to the Town's Stormwater Utility Fee and Stormwater Bylaw, and to any future amendments of the Stormwater Bylaw adopted by Town Meeting to strengthen on-site requirements for stormwater retention. New developments will also be subject to local and state wetlands regulations and the Town's Flood Plain District requirements.

ROADWAYS

Background: The Department of Public Works is currently working on a redesign of two of the three main arterials running through the proposed zoning areas: Great Plain Avenue from Linden Street to Warren Street and Highland Avenue between Webster Street and Great Plain Avenue. The goals for these roadway improvement projects are to design with a Complete Streets approach, to slow car speeds, better accommodate bicycles and pedestrians, and improve traffic flow. The redesign of Great

¹⁰ Stormwater Bylaw Working Group: <https://www.needhamma.gov/5492/Stormwater-By-Law-Working-Group>

Plain Ave will be funded by Chapter 90 and completed in 2025, with construction anticipated in 2026-2027. The Highland Avenue project is estimated in the next 5 – 7 years. This project will be designed with Chapter 90 funds, with a goal of having construction funded by the State if it is accepted as a Transportation Improvement Program (TIP) project. The designs of both projects are in an early enough stage that they will incorporate the anticipated traffic volumes associated with the proposed zoning.

DPW undertakes a periodic analysis of roadways townwide to determine a pavement condition index for each street to prioritize maintenance projects. A recent surface treatment of Chestnut Street was completed in 2023; one segment of the road was redone by Eversource after the completion of a gas main project with the balance undertaken by the Town due to need based on the roadway condition.

The Department is currently partnering with the Metropolitan Area Planning Council (MAPC) to complete a Transportation Master Plan, anticipated by the end of 2025. This master plan will analyze Needham's existing transportation infrastructure from a holistic perspective, not just in terms of infrastructure maintenance but also in terms of safety considerations, use patterns and traffic flows, community connectivity, walking and biking accommodations, and how to best bridge gaps. The plan will be a foundational document from which the Town's Mobility Planning & Coordination Committee will establish transportation goals, set standards governing when and where to install bike lanes, identify target areas for improvement, and cost out solutions. The study will also investigate how the Town's transportation network integrates with surrounding communities to improve multimodal connectivity throughout the region.

FY25 - 29 Roadway Capital Project Requests:

Project	FY25	FY26	FY27	FY28	FY29
Public Works Infrastructure: Street Resurfacing	\$1,700,000	\$1,800,000	\$1,900,000	\$2,000,000	\$2,000,000
Public Works Infrastructure: Sidewalks	\$995,000	\$1,100,000	\$1,100,000	\$1,200,000	\$1,200,000
Public Works Infrastructure: Intersection Improvements	\$1,100,000 Hunnewell at Central	\$1,300,000 Central at Great Plain	\$405,000 Central at Gould; Kendrick at 4	\$802,000 Central at Gould	\$250,000 Great Plain at Greendale

Conclusion: Major roadway improvement projects of two of the three main arterials running through the proposed zoning areas are underway. Improvements to Chestnut Street are not currently in the Town's FY25-29 capital improvement plan and may become a priority, depending on where multi-family development occurs. There has not been a feasibility study nor design of what a major roadway improvement project of this corridor would cost, but the Department has suggested \$10 - \$20 million as an order-of-magnitude estimate to undertake a major redesign of Chestnut Street, including drainage infrastructure, wider sidewalks, new pavement, and other amenities.

The Town has also studied the build-out of additional segments of the Rail Trail, between High Rock Street to Needham Junction and from Needham Heights to Newton. Funding for these projects, or alternative networks of bicycle accommodations on our roadways, are not currently in the Town's FY25-

29 capital improvement plan and may become a higher priority with an increase in nearby, transit-oriented development.

At its April 18, 2024 meeting, the HONE Advisory Group voted to request that a traffic study be completed for the proposed zoning area, if funds can be identified and traffic counts can be collected before the end of the school year. This would provide a more comprehensive understanding of current conditions, and anticipated traffic conditions, under the Base Compliance Plan and the Neighborhood Housing Plan. Staff are working towards this goal as of the writing of this memo.

PARKING

Background: Needham's current zoning by-law requires 1.5 parking spaces per housing unit. The proposed zoning reduces that requirement to 1 parking spot per unit for multi-family residential uses in the overlay area only. This is informed by two parking studies: the Metropolitan Area Planning Council's Perfect Fit Parking study¹¹ and the Needham Center & Needham Heights Parking Study conducted for the Town by Stantec in 2023.¹²

MAPC has conducted four phases of their study, conducting overnight weeknight parking counts at multi-family housing sites in Greater Boston to get data on peak parking utilization. Phases 1 and 2 examined nearly 200 sites and found that "only 70% of the off-street parking spaces provided at multifamily developments were occupied during peak hours (in the middle of the night), while Phase 3 similarly found only 76% parking utilization during peak hours." Needham participated in Phase 4 of the study, which focused on communities west of Boston (Bedford, Belmont, Brookline, Concord, Framingham, Lexington, Natick, Needham, Newton, Sudbury, Waltham, Watertown, and Wayland). Parking counts were conducted at 37 multi-family housing sites and concluded that the parking supply was 1.45 spaces/unit while the parking demand was 0.92 spaces/unit. This is a parking utilization rate of 62%. The data collected in Needham showed a parking utilization rate of 57%, with parking supply of 1.20 spaces/unit and parking demand of 0.57 spaces/unit.

As part of a comprehensive parking study undertaken by the Town of Needham, Stantec provided a zoning analysis comparing Needham's requirements for parking in comparison to best practice national standards. In nearly all categories of land use, including residential, office, medical office, and retail, Needham's zoning requirement is higher than the national standards. For residential developments, the national standard is 1.15 spaces per unit.

The proposed zoning does not change any of the parking requirements for non-residential uses. It also maintains the Town's on-street overnight parking ban.

Conclusion: The parking requirement of a minimum of 1 space per unit is expected to be sufficient. A multi-family housing developer may choose to build additional parking, if they believe that a higher ratio is necessary to successfully rent or sell each unit based on market demand.

ENVIRONMENTAL

Housing more people in denser homes has net positives for the Town's per-capita emissions. The areas that have been selected for rezoning are largely already developed and seek to promote "in-fill"

¹¹ MAPC Parking Study: <https://perfectfitparking.mapc.org/>

¹² Stantec Parking 2023 Study: <https://www.needhamma.gov/5383/Needham-Center-and-Needham-Heights-Parki>

development or redevelopment that takes advantage of the fact that there is already utility infrastructure and a pre-existing building footprint that limits the need to add additional impervious surfaces. In addition, increasing public transit ridership and reducing transit-related emissions is one of the goals of Needham's Climate Action Roadmap, which is why revising local zoning requirements to ensure compliance with the MBTA Communities zoning law is one of the stated actions in the Roadmap.

Neither the MBTA Communities Act nor the proposed local zoning override state or local environmental regulations. The Town's existing bylaws (e.g., stormwater, floodplain, and wetlands) will still be applicable to any new development that occurs in these rezoned areas. This proposal does not rezone any Town-owned open space for housing.

Needham adopted the Opt-In Specialized Energy Code at the October 2023 Town Meeting, effective July 1, 2024. Any new multi-family housing over 12,000 square feet will need to meet Passive House standards and any new multi-family housing under 12,000 square feet will need to be all-electric or if using fossil fuel combustion systems, will need to provide pre-wiring for future appliances and HVAC electrification and install solar to offset energy usage.

Sources

1. Resident estimates are based on a low and high assumption of people living in each unit type: Studio with 1–2 people, one-bed with 1-2 people, two-bed with 2-4 people, and 3-bed with 3–5 people. These were then applied to RKG Associates’ build out assumptions of 10% studios, 45% one-beds, 35% two-beds, and 10% three-bed units.
2. Town of Needham, *FY2025-2029 Capital Improvement Plan*, January 2024.
<https://needhamma.gov/5495/FY2025-2029-Capital-Improvement-Plan>
3. FY25 Enrollment Report to the School Committee (December 2023) and McKibben Population & Enrollment Forecast FY25-39, November 2023.
https://www.needham.k12.ma.us/departments/business_operations/business_office/enrollment_growth_forecasts
4. Master Plan Extension Update Final Report and Master Plan Update, 2023.
<https://www.needham.k12.ma.us/cms/one.aspx?portalId=64513&pageId=37970530>
5. Executive Office of Housing and Livable Communities, *Compliance Guidelines for Multi-family Zoning Districts Under Section 3A of the Zoning Act*, August 17, 2023.
<https://www.mass.gov/info-details/section-3a-guidelines>
6. Urban Partners, *Needham 2025: Commercial and Residential Growth Impact Study*, June 30, 2020. <https://needhamma.gov/DocumentCenter/View/22924/Needham-2025-Report-Final-Compressed?bidId=>
7. Town of Needham Department of Public Works Sewer System Impact Program:
<https://www.needhamma.gov/DocumentCenter/View/25715/Sewer-System-Impact-Program-Requirements-Final-2016>
8. Needham General Bylaws Article 7, Stormwater Bylaw:
<https://www.needhamma.gov/DocumentCenter/View/17787/Stormwater-By-Law-OTM-for-warrant-9192018-Clean-FINAL?bidId=>
9. Stormwater Fee: [https://www.needhamma.gov/5548/Stormwater-Utility-Fee?ct=t\(EMAIL_CAMPAIGN_5_25_2021_14_31_COPY_01\)](https://www.needhamma.gov/5548/Stormwater-Utility-Fee?ct=t(EMAIL_CAMPAIGN_5_25_2021_14_31_COPY_01))
10. Stormwater Bylaw Working Group: <https://www.needhamma.gov/5492/Stormwater-By-Law-Working-Group>
11. Metropolitan Area Planning Council (MAPC), *Perfect Fit Parking Study*, July 2023:
<https://perfectfitparking.mapc.org/>
12. Stantec, *Needham Center and Needham Heights Parking Study*, 2023:
<https://www.needhamma.gov/5383/Needham-Center-and-Needham-Heights-Park>
13. Town Stormwater Projects: <https://www.needhamma.gov/5527/Town-Stormwater-Projects>
14. RKG Associates and Innes Associates, *Town of Needham, MA MBTA Communities Summary Report*, April 2024.