MASHPEE COMMONS
CAC Overlay District

Planning Board Meeting

JULY 21, 2021

MASHPEE
COMMONS

Nutter
uncommon law

UNION STUDIO
ARCHITECTURE & COMMUNITY DESIGN

OVERVIEW

1. Introduction
2. What is Traditional Neighborhood Design (TND)?
3. Why TND on the Cape and in Mashpee?
4. TND - density, lot coverage and setbacks
5. Questions

SECTION 1

Introduction

Founded in 2001

ARCHITECTURE & COMMUNITY DESIGN

We are a mission-based firm committed to designing sustainable places that will be loved for generations

Providence, RI

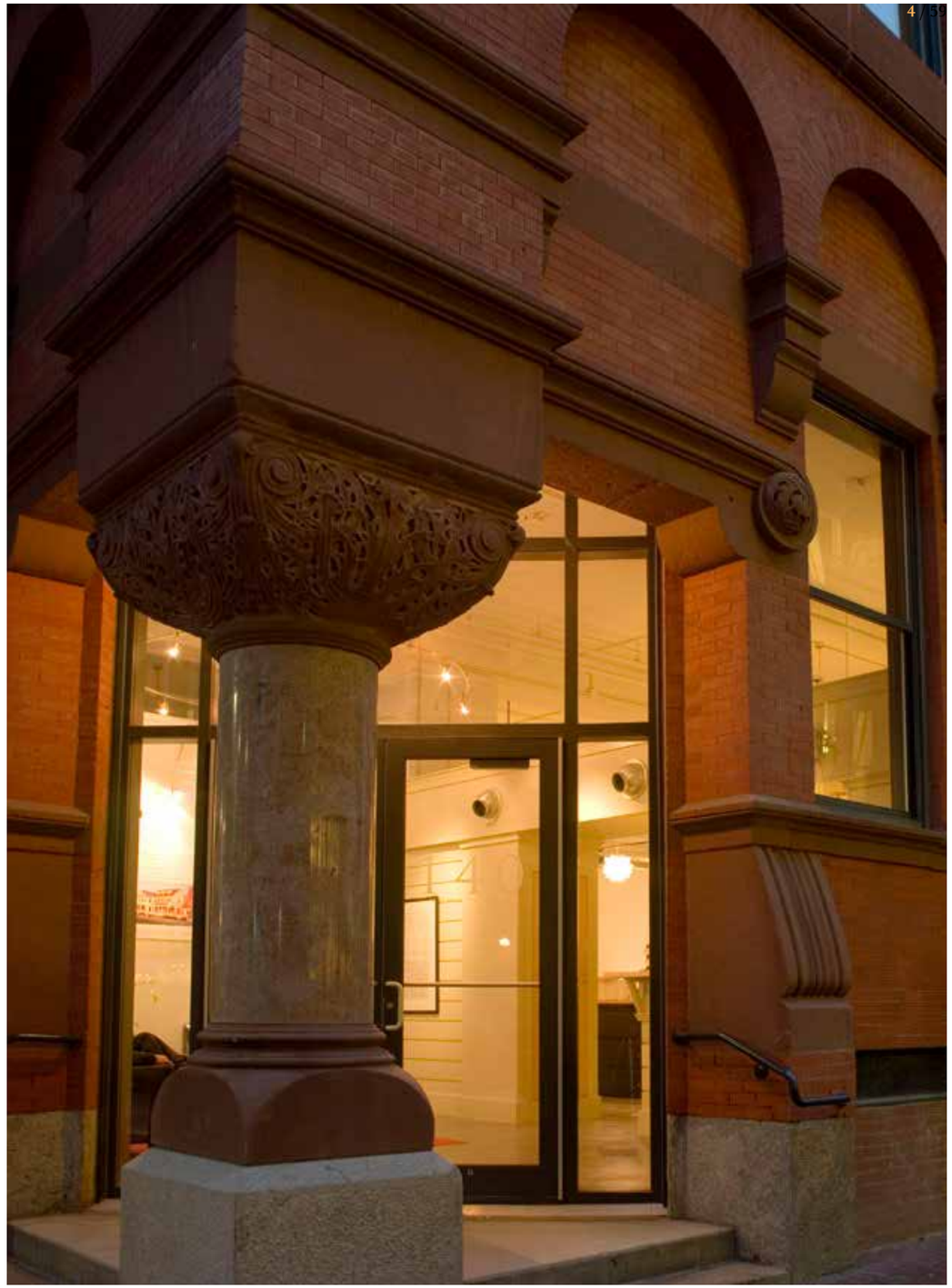
NEW ENGLAND BASED, NATIONAL REACH

Union Studio has worked on projects across the U.S. and Canada. *(Texas, Arkansas, Oregon, Washington State, Michigan, Virginia, New York and throughout New England including the cape and islands)*

28 Employees

ARCHITECTS, PLANNERS, DESIGNERS

Our passion for building strong communities starts here in our studio, among our friends and colleagues

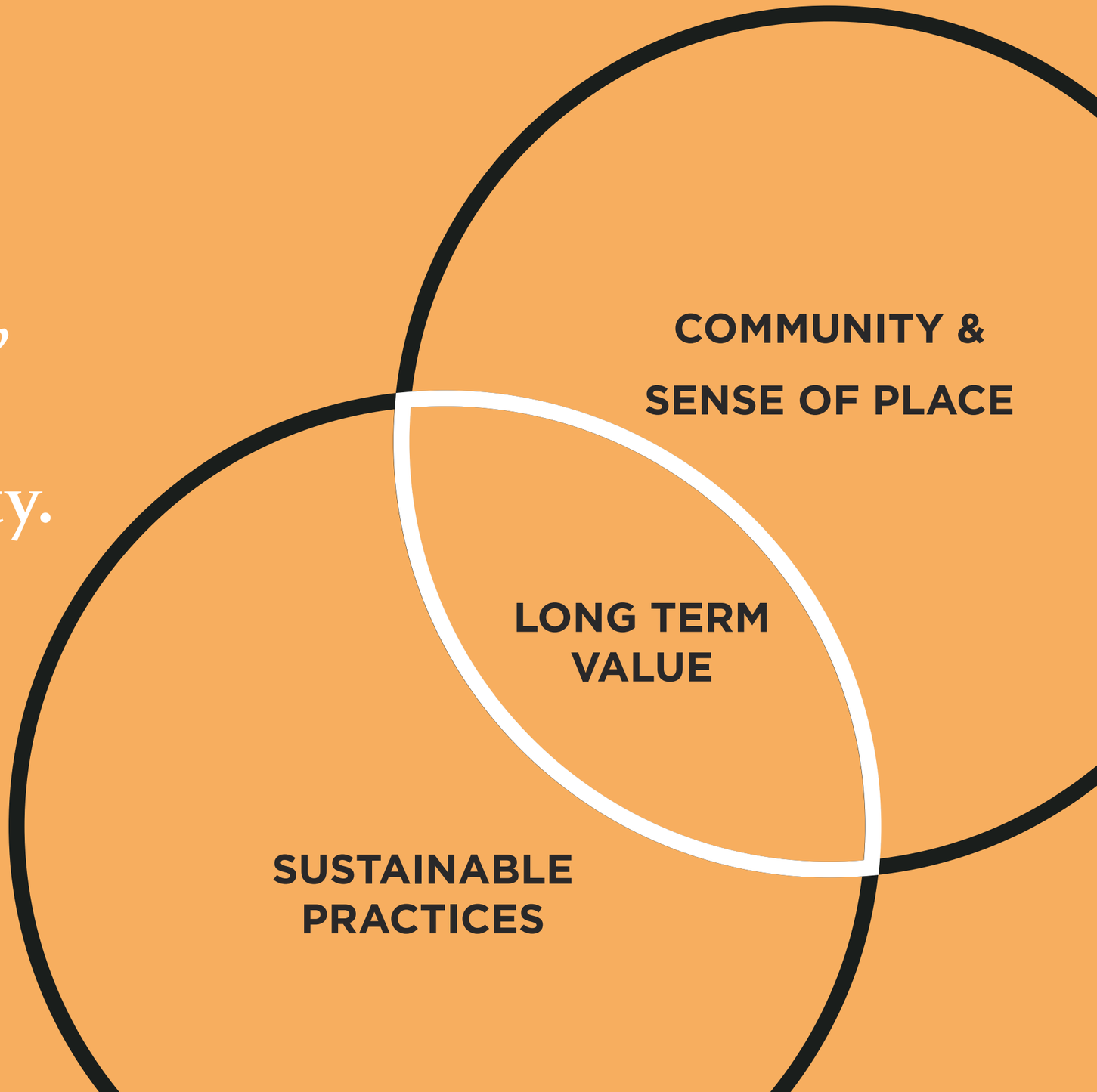


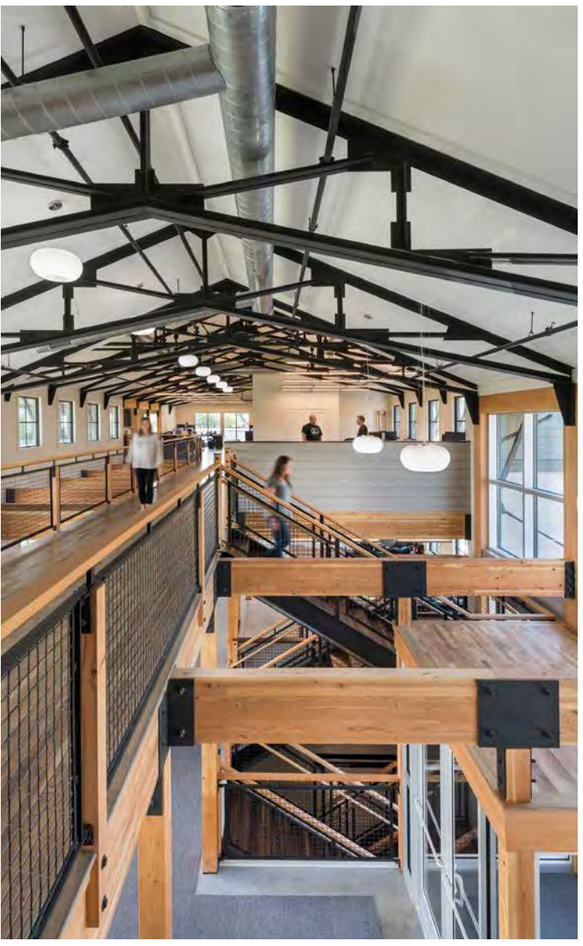
Union Studio was founded in 2001 with one overriding goal:

To use our skills as architects and urban designers to combat sprawl and make a civic contribution to communities of all types.

UNION STUDIO

We are driven by values, including good growth — where people, communities, and the environment live in unity.





PLATT ROAD

TIVERTON PUBLIC LIBRARY

SECTION 2

What is Traditional Neighborhood Design (TND)?

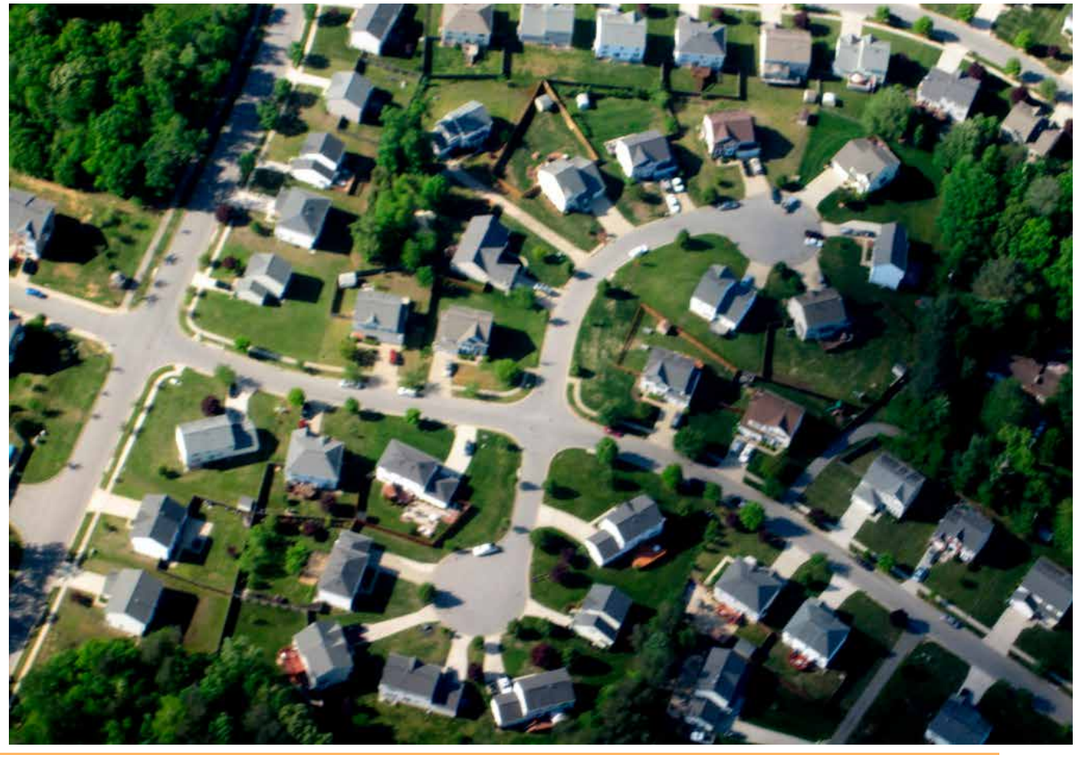
TND: "A compact, mixed use neighborhood where residential, commercial and civic buildings are within close proximity to each other. It is a planning concept based on traditional small town neighborhoods."

The variety of uses encourages businesses, civic buildings and commercial establishments to be located within walking distance of mixed income residential neighborhoods and served by a network of paths, streets and lanes designed for pedestrians as well as vehicles.

Traditional main/high street incorporating:

- mixed use office & retail
- residential areas of flats & houses
- secondary school

CHRISTYS
SEABURY PHARMACY



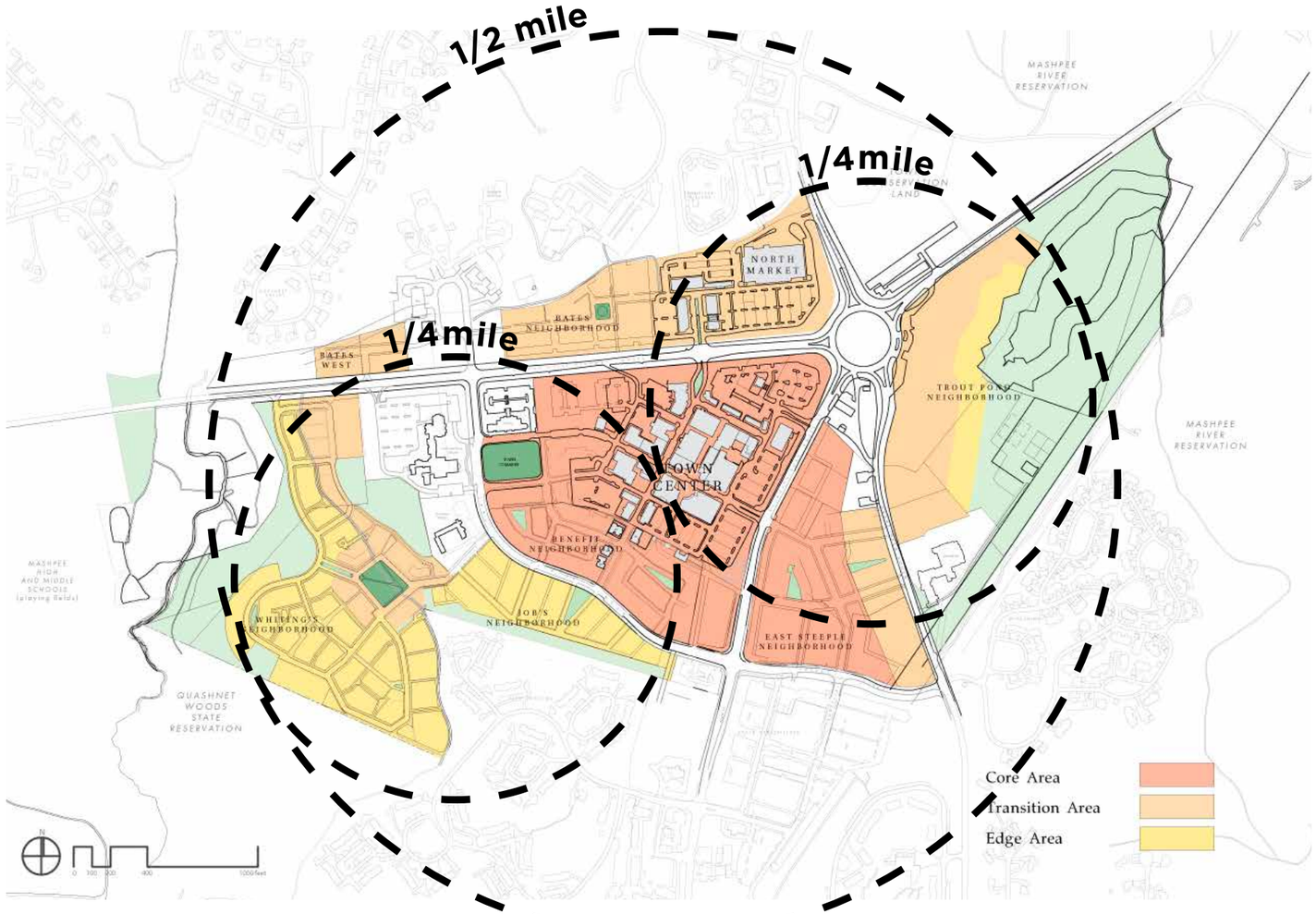
Conventional Suburban Development Patterns

- Separated / segregated land uses
- Separate, not integrated, housing types
- Larger block and lot sizes
- Automobile Dependent
- Expensive infrastructure per “unit”
- Minimal pedestrian and bike infrastructure / connectivity

Traditional neighborhood design seeks to mix and connect many of these uses into a single vibrant place

Traditional Neighorborhood Development Goals

- Defined by walkable distances



Traditional Neighorborhood Development (TND)

- Defined by walkable distances
- Mixed-Use, **Mixed-Income** housing options

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- Compact, village-like residential neighborhoods

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- Common / public open space

Traditional Neighorborhood Development (TND)

- Defined by walkable distances
- Mixed-Use, Mixed-Income housing options
- Compact, village-like residential neighborhoods
- Common / public open space
- Accomodates pedestrians, bikes, and transit

J.CREW
J.CREW
J.CREW

Benefits of TND

- Concentates compact residential where infrastructure already exists
- Increased density means less land is used per resident - conserving valuable open space and habitat
- Safe, walkable & bikeable streets
- Variety of housing options / choice and affordability
- Connectivity and mix of uses creating a true sense of place

SECTION 3

Why TND on the Cape and in Mashpee?

UNION STUDIO

CASE STUDY: HOUSING ON CAPE COD
MISSING MIDDLE
UNION STUDIO
unionstudioarch.com
UNION STUDIO
Barnstable County
36.46%
Source: Quinn and Coxe, "Housing on Cape Cod: The High Cost of Doing Nothing."
161,632
Total Homes in Barnstable County
Source: US Census Bureau, American Community Survey
19%
plan to convert 2nd home to primary residence within the next 20 years
Source: US Census Bureau, American Community Survey
AFFORDABLE HOUSING SHORTAGE 29
UNION STUDIO
Interior Side Setback
Corner Side Setback
Front Setback
STREET
STREET
Figure 3-5. Conventional Residential Zoning Setbacks
Source: Union Studio
62%
USA
52%
MASSACHUSETTS
82%
CAPE COD
Source: US Census Bureau, American Community Survey
AFFORDABLE HOUSING SHORTAGE 27

Cape Cod's Housing Challenge

*82% of the housing stock on Cape Cod is **detached single-family homes**.*

Predominant large lot development creates fewer new homes than are needed - and at higher prices.

***Seasonal homes** make up an increasing amount of housing stock, of which **72% are vacant most of the year**, Resulting in fewer and fewer residential options for many local residents.*

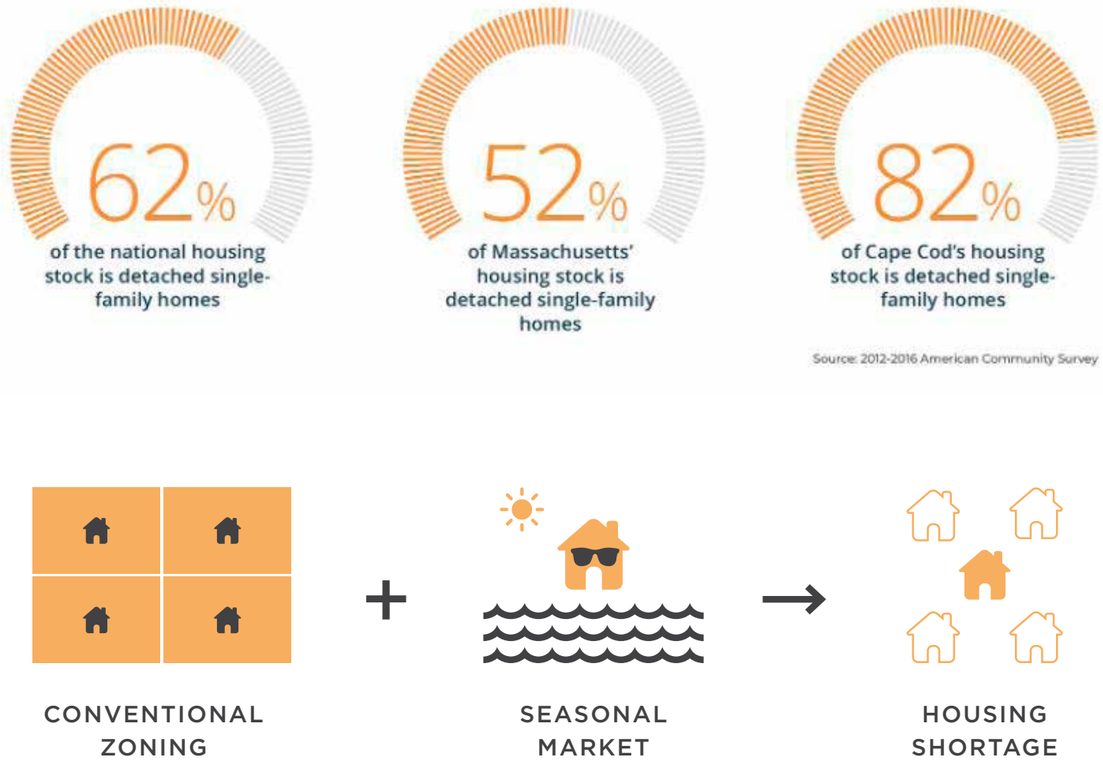


Figure 3-1. Major causes of Cape Cod's housing shortage

Source: Quinn and Coxe, "Housing on Cod: The High Cost of Doing Nothing." Housing Assistance Corporation. 2018.

Median home prices have been increasing year after year but household income is not increasing at the same pace - leaving many unable to live and work on Cape Cod.

UNION STUDIO

The Grass is Cheaper Across the Canal

25% of Cape Cod's year-round workers commute over the bridges.[66]

CONSEQUENCE 01: LOCALS CANNOT AFFORD TO LIVE ON CAPE COD

One of the most detrimental consequences of the housing shortage on Cape Cod is that locals are moving away. People are forced to pay over 30% of their income on housing, meaning housing is no longer affordable and many households are financially over-

in easy commuting distance from the bridge. Currently, around 25% of Cape Cod's year-round workers commute over the bridges.[67] To compensate, many businesses on the lower- and outer-Cape have needed to close during the winter and even reduce hours during the summer. This puts a strain on the local population as they have to drive further, often to Hyannis, for basic services.[68]

Figure 3-5. Conventional Residential Zoning Setbacks

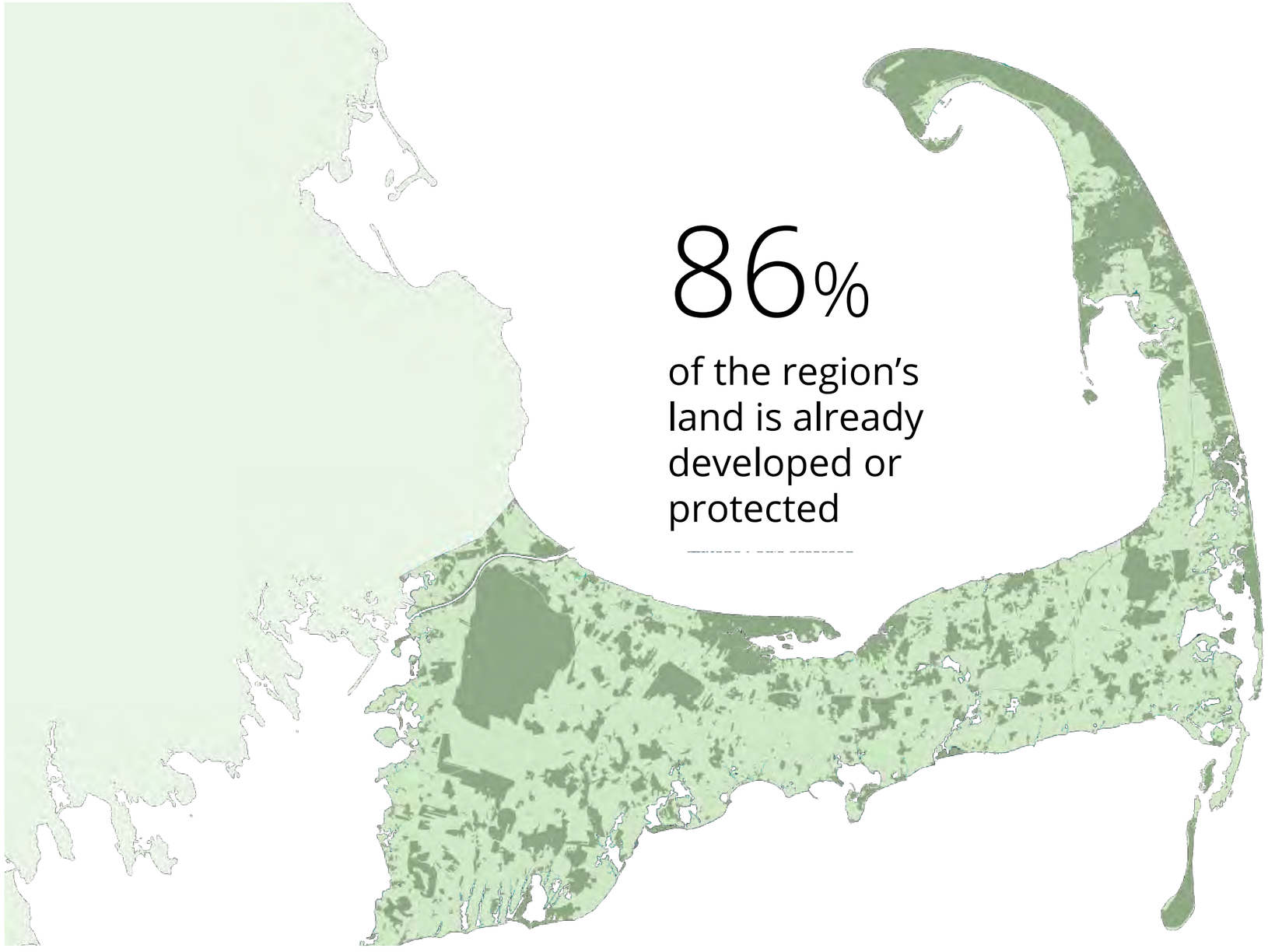
Source: Union Studio

Figure 3-6. Percentage of Housing Stock that is Detached Single-Family Homes

Source: US Census Bureau, American Community Survey

Figure 3-7. Median Household Income vs. Median House Value

Source: Quinn and Coxe, "Housing on Cape Cod: The High Cost of Doing Nothing."



Source: Cape Cod Commission

With little remaining undeveloped or unprotected land, Cape Cod's housing challenge cannot be met by conventional large lot residential development...

Alternative strategies are important to consider in the right places...

Source: Cape Cod Commission

Cape Cod Commission Regional Policy Plan

PLACETYPES

NATURAL AREAS

Natural Areas are generally the region's least developed and most sensitive areas.

RURAL DEVELOPMENT AREAS

Rural Development Areas are defined by a high percentage of open lands and sparse building development patterns that contribute to the unique rural and scenic character of the region.

SUBURBAN DEVELOPMENT AREAS

Suburban Development Areas include residential neighborhoods built primarily between the 1950s and 1990s as well as automobile-oriented commercial and light industrial development established during the same time period.

HISTORIC AREAS

Historic Areas consist of concentrations of historic structures, including local and/or National Register districts located in a small-scale village setting.

MARITIME AREAS

Maritime Areas are clusters of commercial and mixed-use development that contribute to Cape Cod's working waterfronts and harbors.

COMMUNITY ACTIVITY CENTERS

Community Activity Centers are areas with a concentration of business activity, community activity, and a compact built environment. Buildings are generally smaller in scale and connected by a network of streets, ways or alleys.

INDUSTRIAL ACTIVITY CENTERS

Industrial Activity Centers are lands containing industrial uses that are suitable for future industrial activity as well as emerging industries.

MILITARY AND TRANSPORTATION AREAS

Military and Transportation Areas consist of large land areas developed with and devoted to infrastructure such as airports, transfer stations, waste disposal facilities, and Joint Base Cape Cod.

Cape Cod Community Activity Centers

Mashpee was identified as one of several community activity centers where infrastructure and existing activity would support an investment in mixed use and mixed income development.

Cape Cod Commission Regional Policy Plan

COMMUNITY ACTIVITY CENTER PLACETYPE STRATEGIES

1. Encourage mixed-use commercial and residential development in a compact form to support a vibrant downtown area
2. Encourage development at a human scale the facilitates interaction and a sense of community

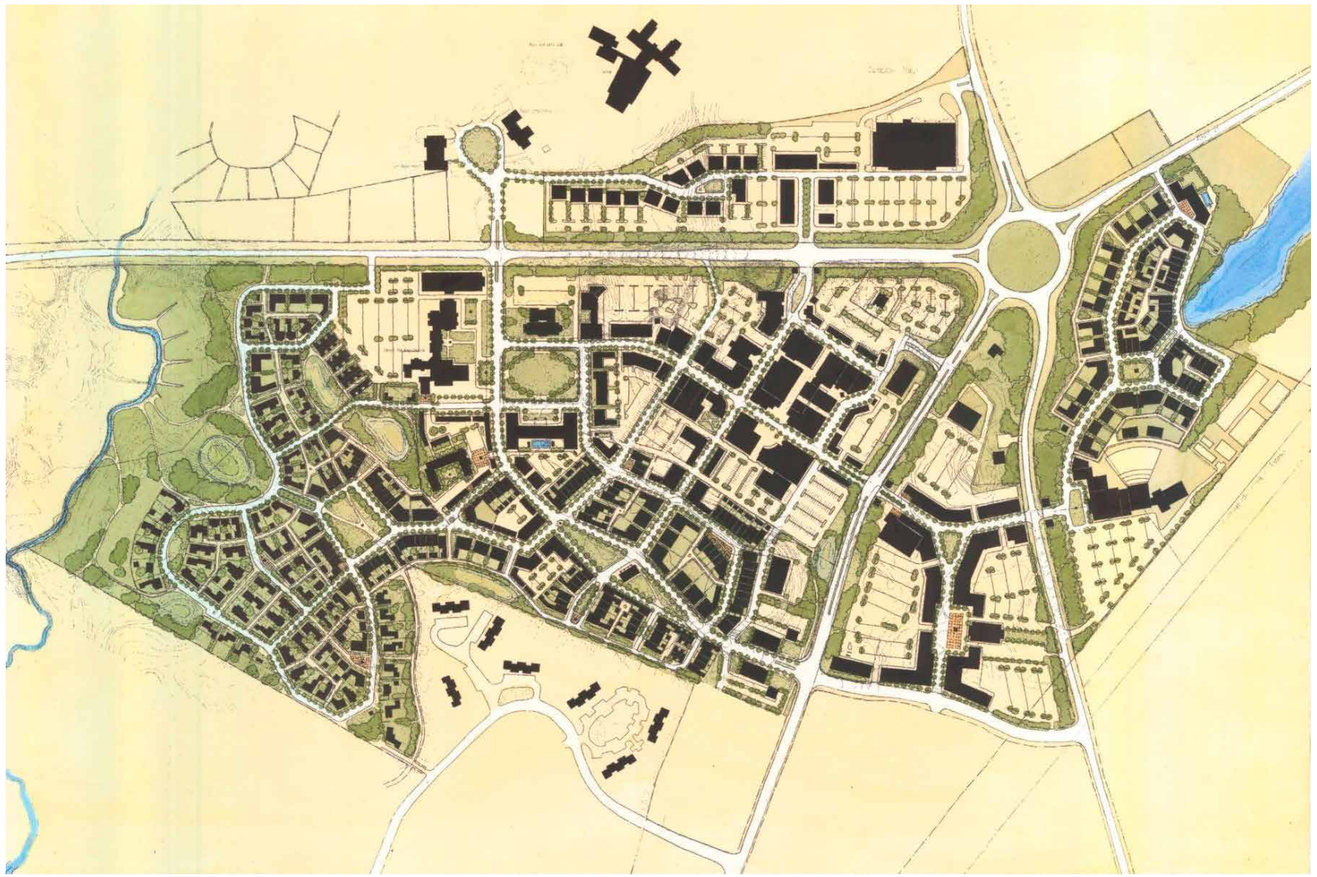
Cape Cod Commission Regional Policy Plan

COMMUNITY ACTIVITY CENTER PLACETYPE STRATEGIES

3. Develop infrastructure necessary to support greater density and mix of uses, including access to transit
4. Integrate pocket parks and create streetscapes that enhance the built environment and provide community gathering places

Mashpee Commons

DESIGNED FROM THE BEGINNING AS A TRADITIONAL NEIGHBORHOOD DEVELOPMENT



1986 PLAN

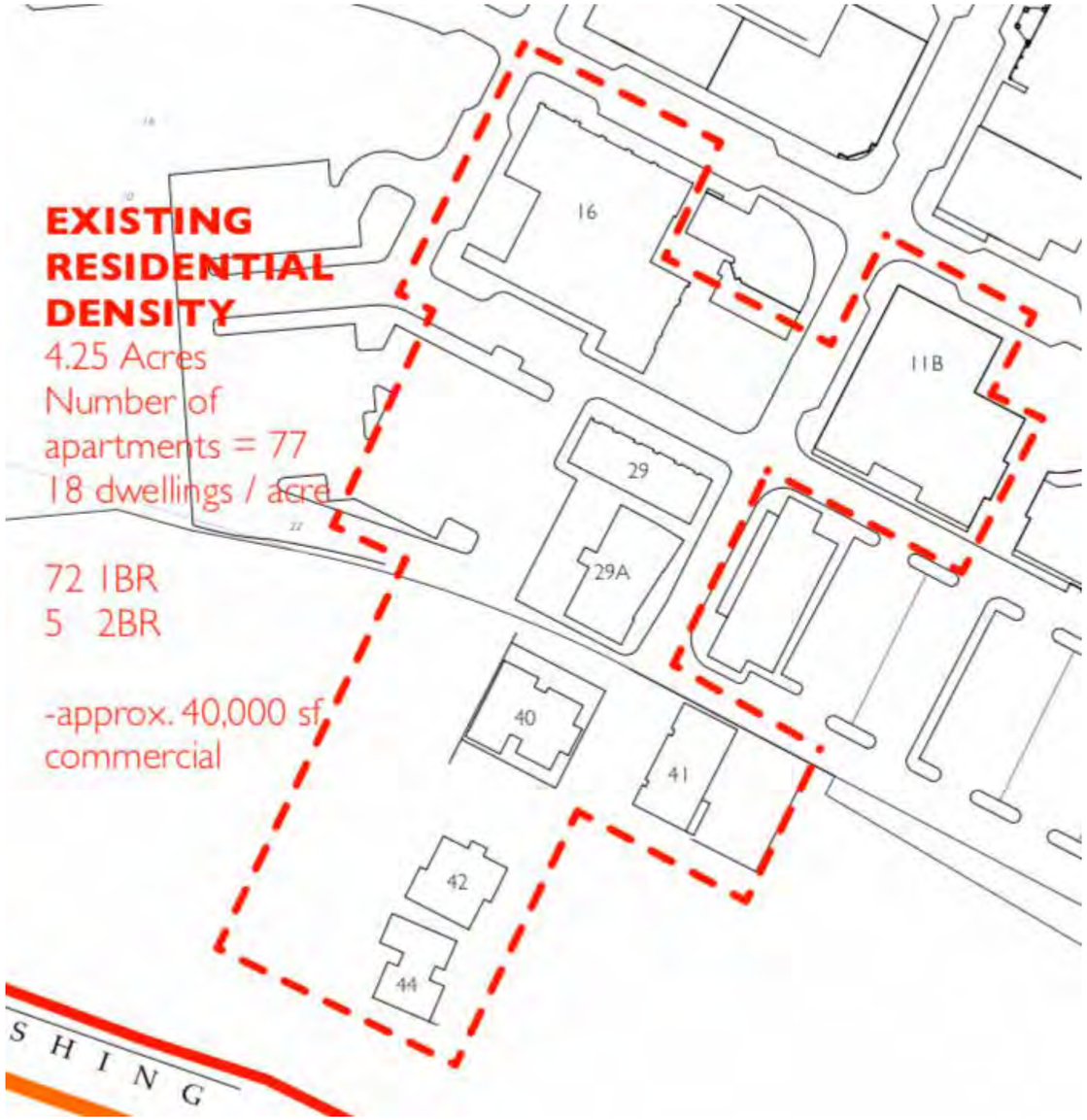
Mashpee Commons was envisioned as a mixed use, mixed income community almost 30 years ago...and the vision has remained to today.

SECTION 4

Traditional Neighborhood Design Density, lot coverage and setbacks at Mashpee Commons.

Understanding Density in Mashpee Commons

CURRENT RESIDENTIAL DENSITY “AS BUILT” IN MASHPEE COMMONS



Understanding Density in Mashpee Commons

PROPOSED OVERALL DENSITY (INCLUDING WHAT IS ALREADY BUILT)

Core Area Test-Fit (Approximately 58 Acres)

Number of Stories	Quantity of Building Type as a Percentage	Footprint	Commercial Square Footage	Residential Units
1 1 Commercial, 0 Residential	5%	3,000-10,000	11,000	0
2 1 Commercial, 1 Residential; OR 2 Residential; OR 2 Commercial	15%	5,000-10,000	19,000	112
3 (2.5) 1 Commercial, 2 Residential; OR 3 Residential; OR 3 Commercial	35%	5,000-15,000	63,000	237
4 (3.5) 1 Commercial, 3 Residential; OR 4 Residential; OR 4 Commercial	40%	10,000-25,000	95,000	424
5 (4.5) 1 Commercial, 4 Residential; OR 5 Residential; OR 5 Commercial	5%	25,000-45,000	225,000	180
		Test-Fit Example	413,000	953
		Existing:	260,464	77
		Total:	673,464	1,030
			DU/Acre:	17.8

Transition Area Test-Fit (Approximately 52 Acres)

Number of Stories	Quantity of Building Type as a Percentage	Footprint	Commercial Square Footage	Residential Units
1 1 Commercial, 0 Residential	15%	3,000-10,000	10,000	0
2 1 Commercial, 1 Residential; OR 2 Residential; OR 2 Commercial	35%	5,000-10,000	52,000	160
3 (2.5) 1 Commercial, 2 Residential; OR 3 Residential; OR 3 Commercial	40%	5,000-15,000	134,000	200
4 (3.5) 1 Commercial, 3 Residential; OR 4 Residential; OR 4 Commercial	10%	10,000-25,000	112,000	100
		Test-Fit Example	308,000	460
		Existing:	100,808	0
		Total:	408,808	460
			DU/Acre:	8.9

Edge Area Test-Fit (Approximately 77 Acres)

Number of Stories	Quantity of Building Type as a Percentage	Footprint	Commercial Square Footage	Residential Units
1 1 Residential	20%	3,000-10,000	0	45
2 2 Residential	60%	5,000-10,000	0	150
3 (2.5) 3 Residential	20%	5,000-15,000	0	25
		Test-Fit Example	0	220
		Existing:	0	0
		Total:	0	220
			DU/Acre:	2.9

Density Calculations: Core Area

Core Area Test-Fit (Approximately 58 Acres)				
Number of Stories	Quantity of Building Type as a Percentage	Footprint	Commercial Square Footage	Residential Units
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Density Calculations: Transition Area

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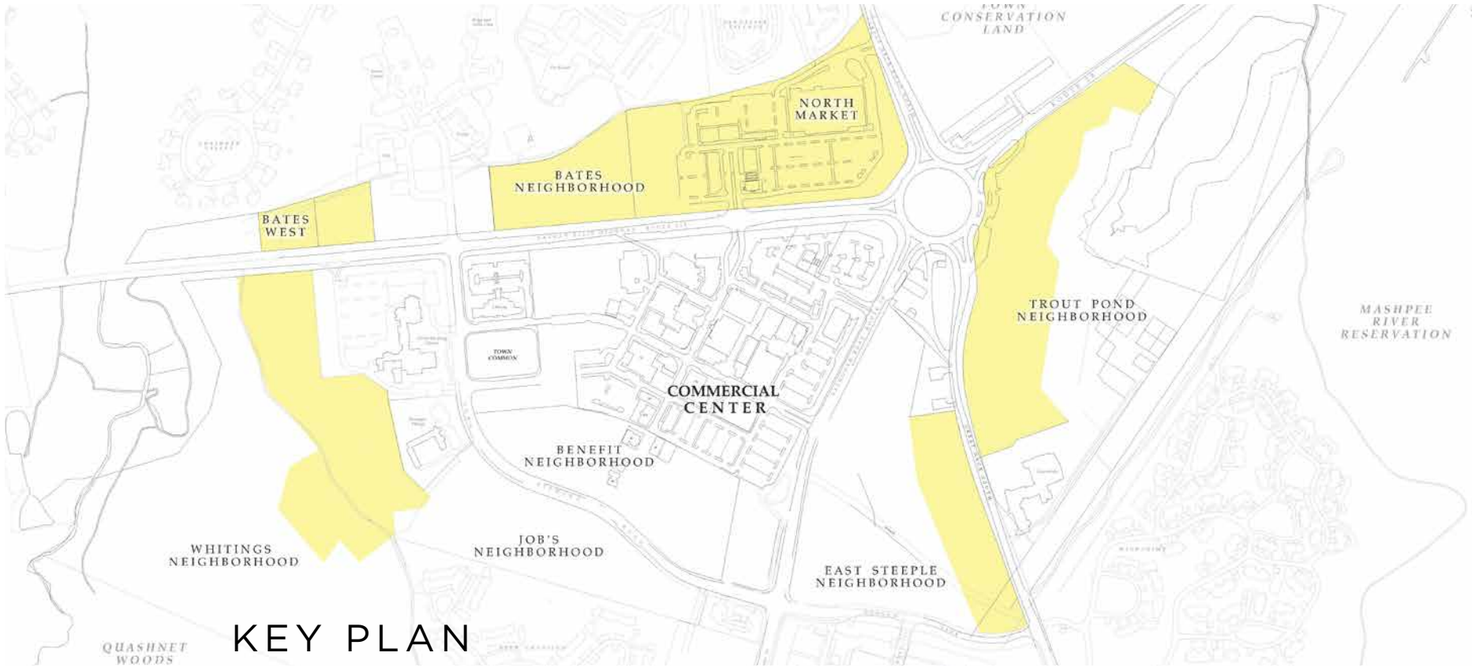

Density Calculations: Edge Area

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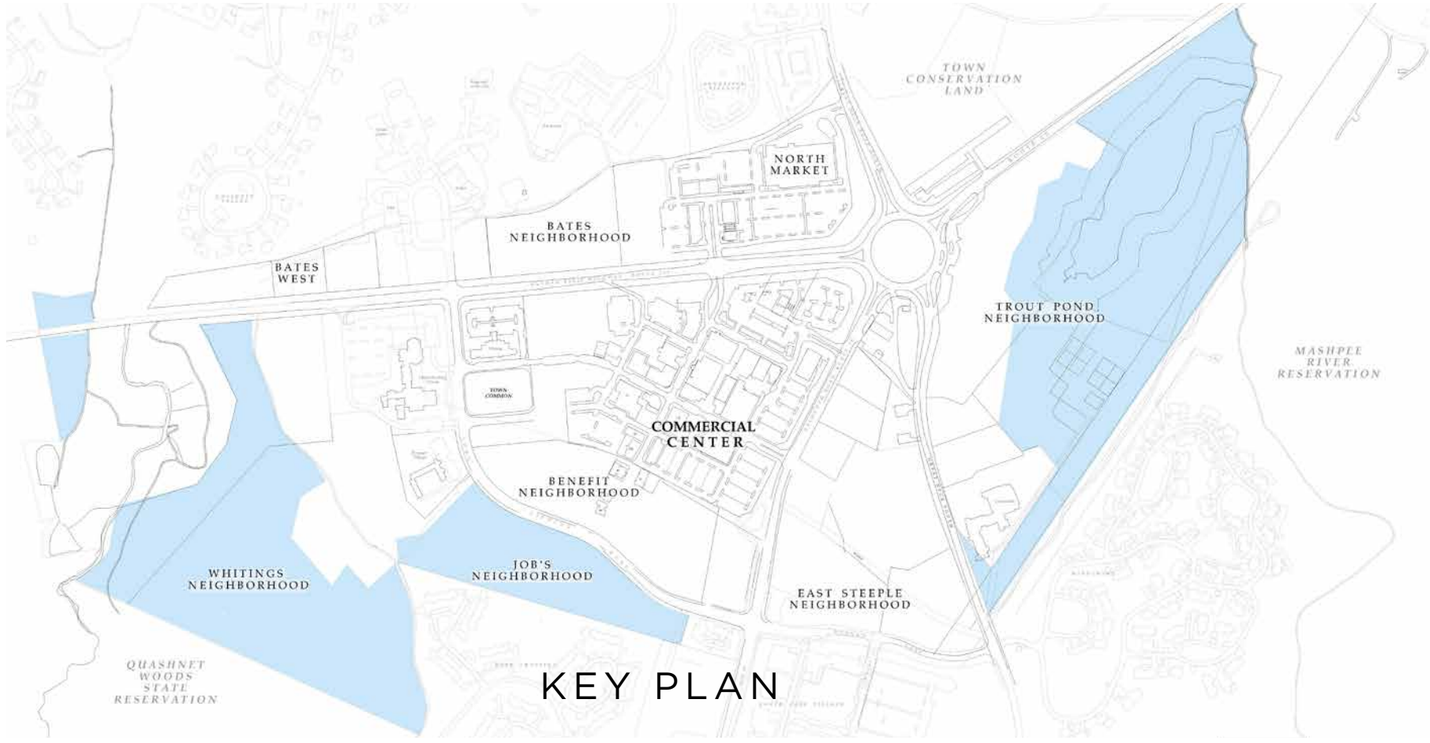
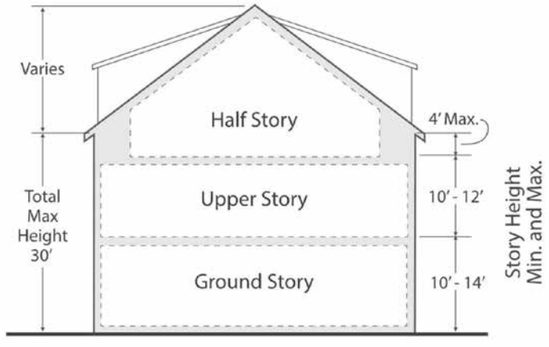
2 2 Residential	60%	5,000-10,000	0	150
3 (2.5) 3 Residential	20%	5,000-15,000	0	25
		Test-Fit Example	0	220
		Existing:	0	0
		Total:	0	220
			DU/Acre:	2.9



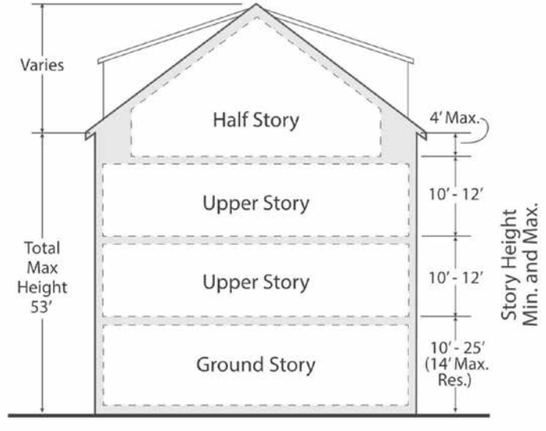
KEY PLAN

Maximum Building Heights

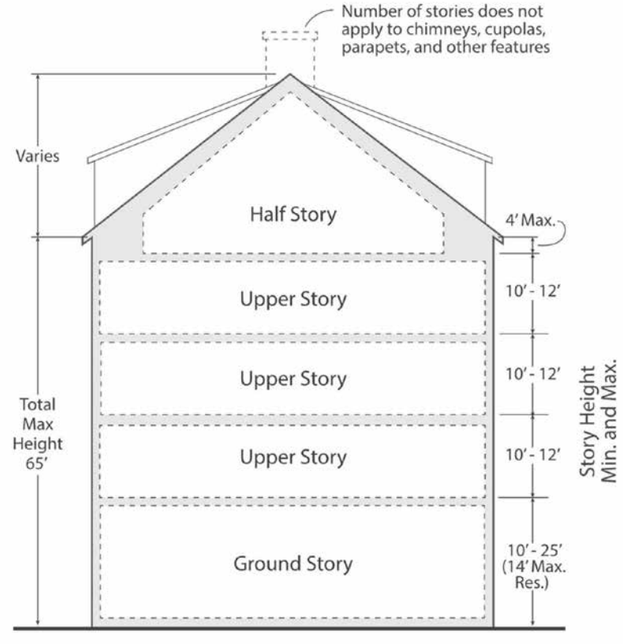
BY DISTRICT



EDGE AREA
2.5 STORIES MAXIMUM



TRANSITION AREA
3.5 STORIES MAXIMUM



CORE AREA
4.5 STORIES MAXIMUM

EDGE AREA ····· TRANSITION AREA ····· CORE AREA

Proposed Building Heights - Core

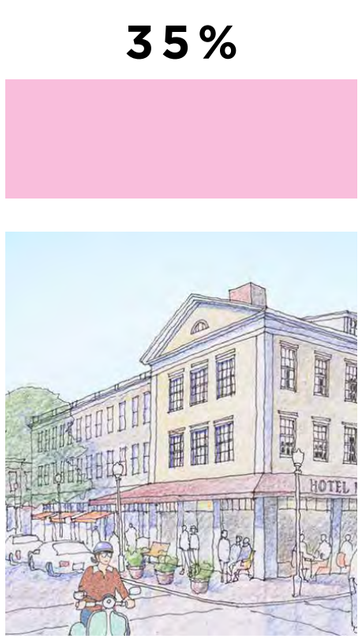
VARIETY OF HEIGHT AND PERCENTAGES

5%

1-FLOOR

15%

2-FLOORS

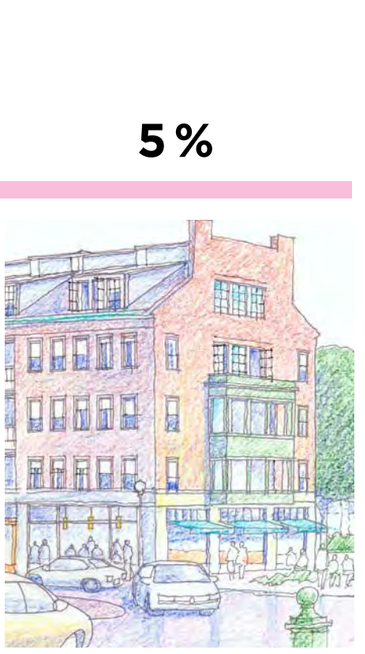


35%

3-FLOORS

40%

4-FLOORS
(3.5 STORY)



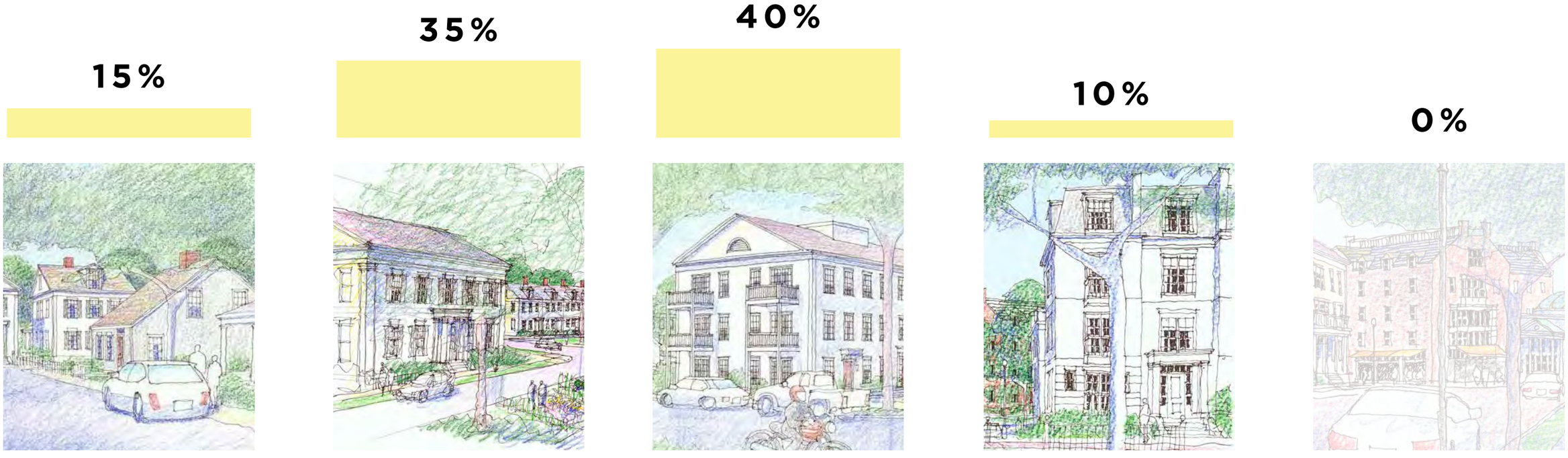
5%

5 FLOORS
(4.5 STORY)

As the core grows, much of the new development will be of a scale already familiar to the center of Mashpee Commons.

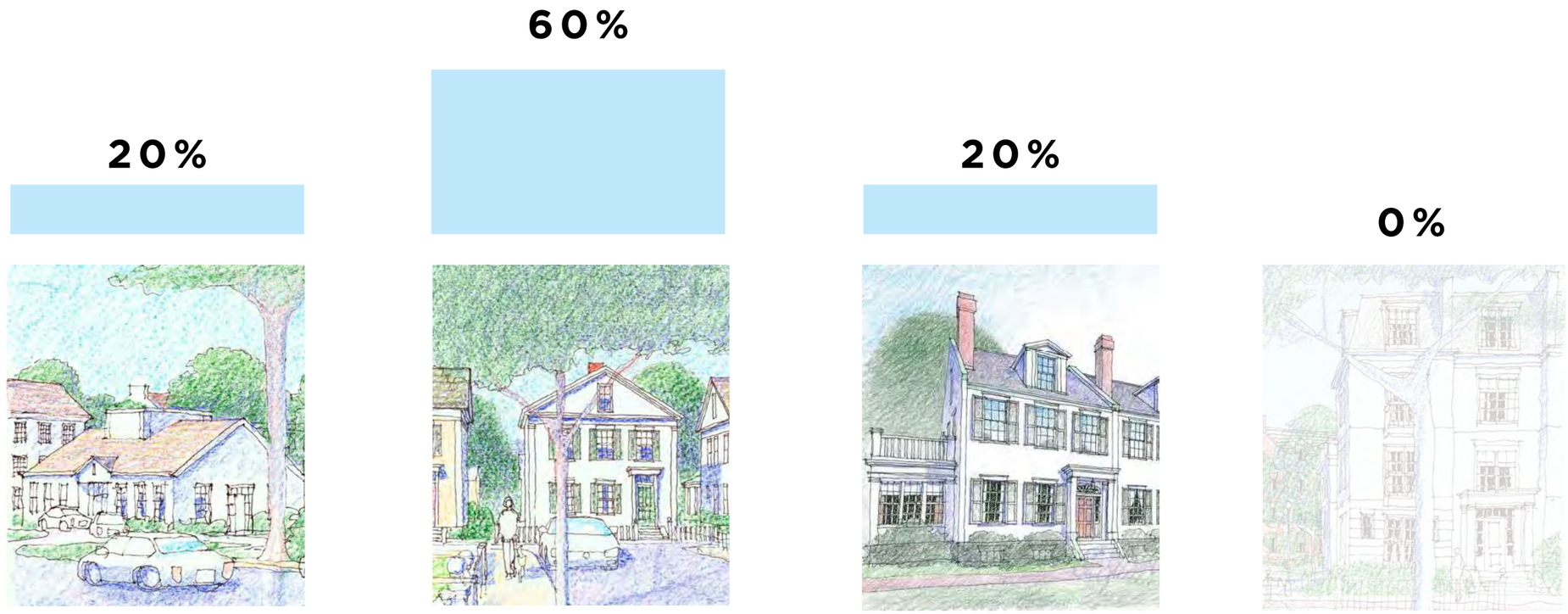
Proposed Building Heights - Transition

VARIETY OF HEIGHT AND PERCENTAGES



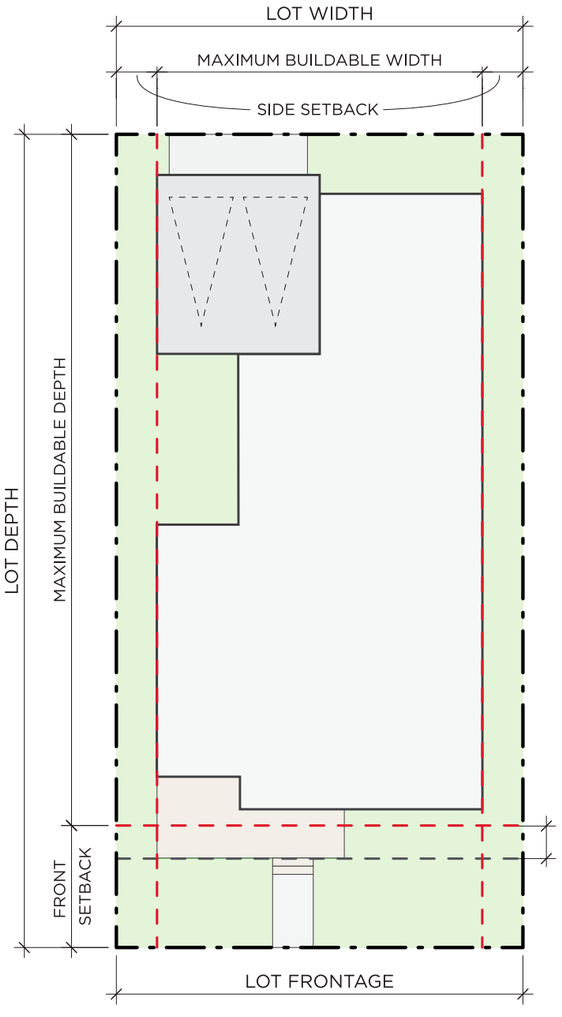
Proposed Building Heights - Edge

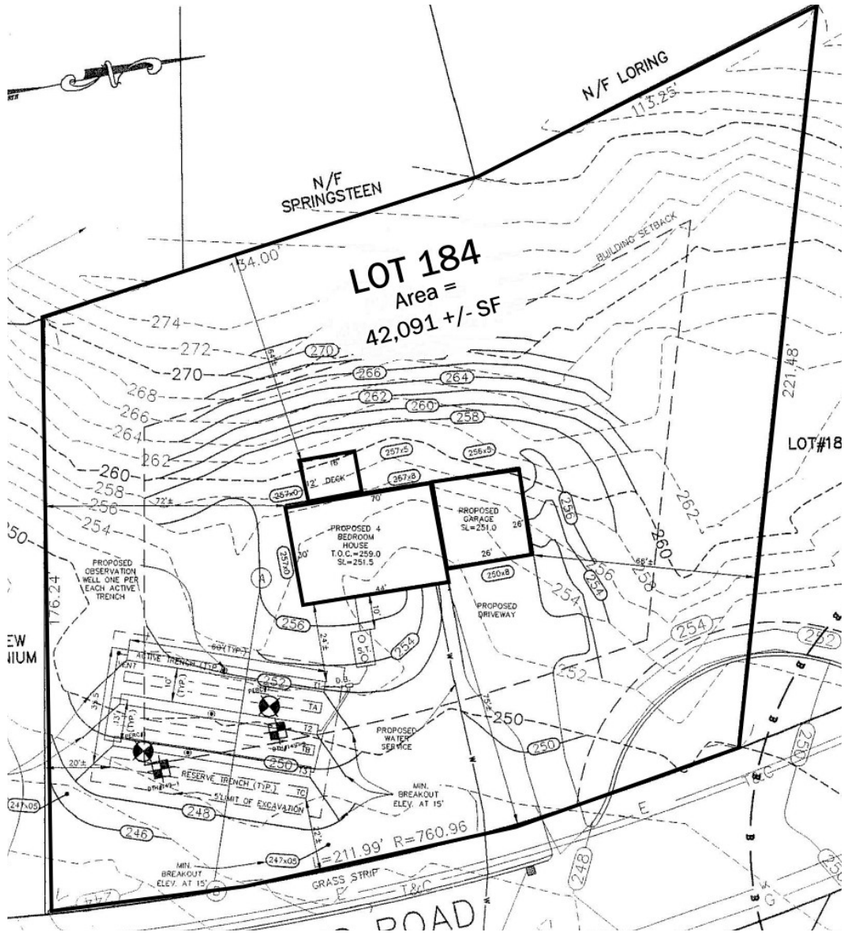
VARIETY OF HEIGHT AND PERCENTAGES

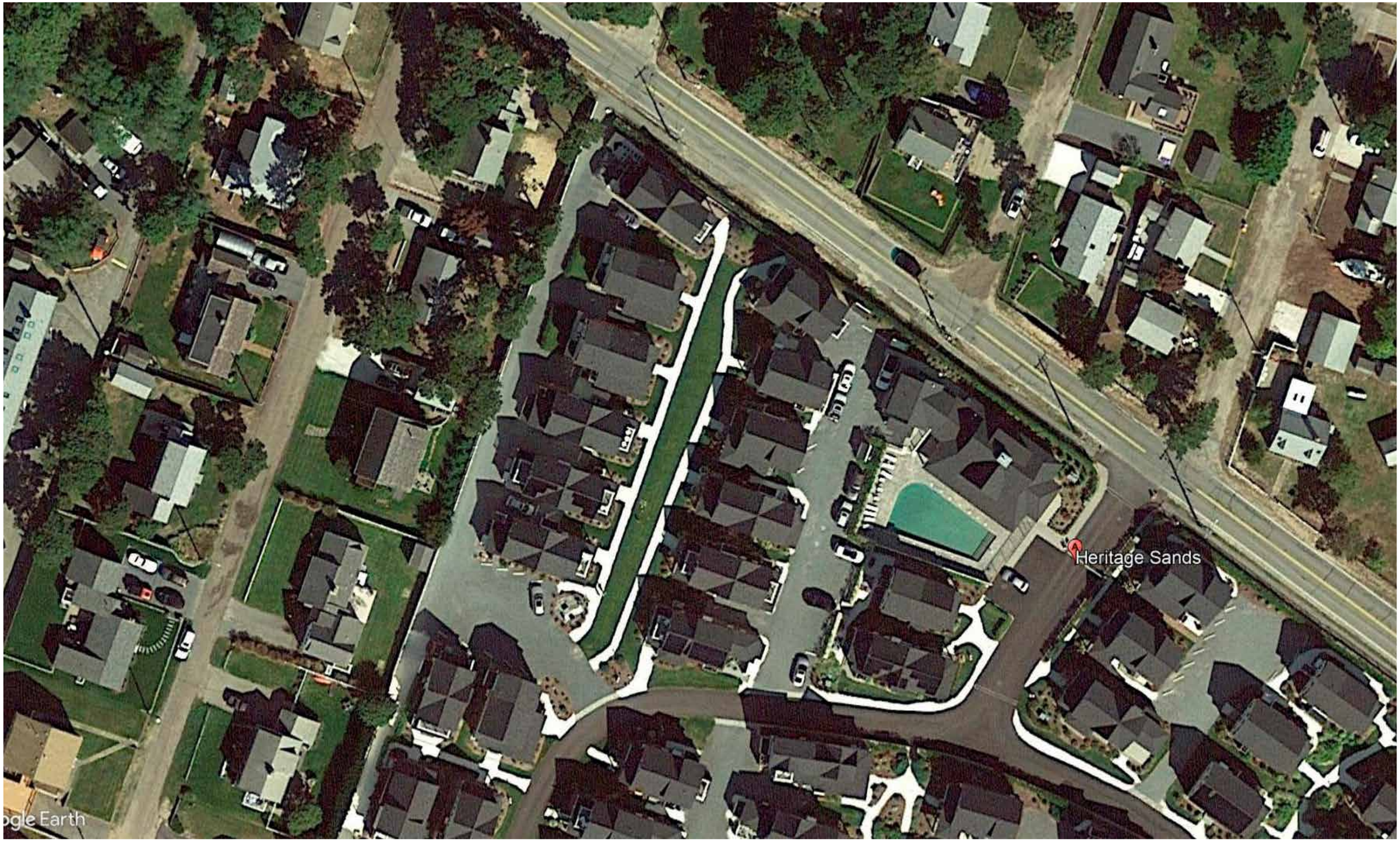


Proposed Lot Coverage & Setbacks

HOW TND LOTS AND PLANNING DIFFER FROM TYPICAL ZONING






Heritage Sands
ogle Earth

ogle Earth

Proposed Lot Coverage & Setbacks: Residential

CONVENTIONAL LOTS AND SETBACKS

TND LOTS AND SETBACKS

Proposed Lot Coverage & Setbacks: Residential

CONVENTIONAL LOTS AND SETBACKS

R-3
Minimum Lot Size: 40,000sf
Minimum Frontage: 150’
Minimum Front Setback to Lot Line: 40’
Minimum Rear & Side Setback to Lot Line: 15’
Maximum Lot Coverage: 20%

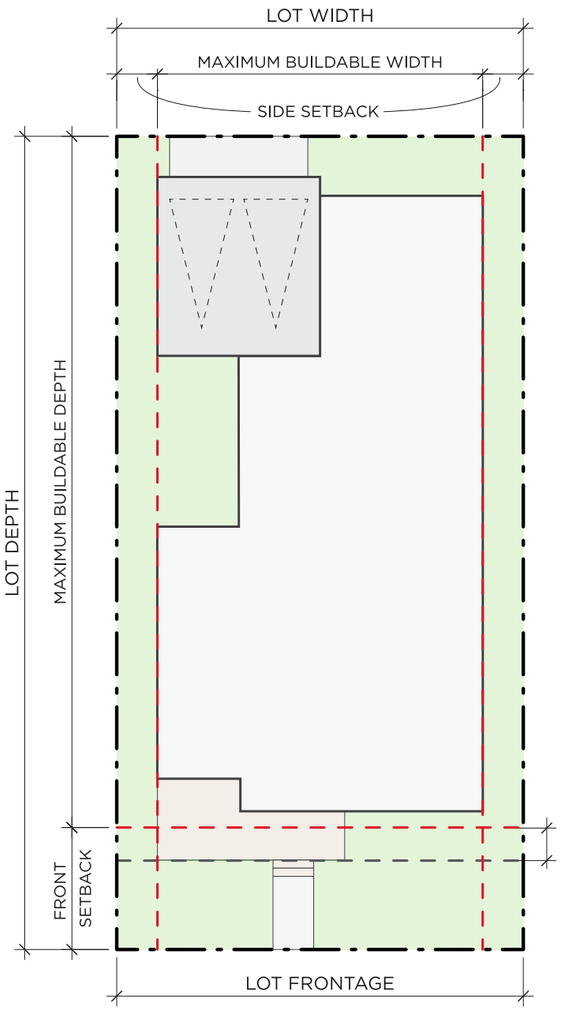
(NOTE: 20% of 40,000 SF = 8,000 SF of allowable lot coverage)

R-5
Minimum Lot Size: **80,000sf**
Minimum Frontage: 150’
Minimum Front Setback to Lot Line: 40’
Minimum Rear & Side Setback to Lot Line: 15’
Maximum Lot Coverage: 20%

(NOTE: 20% of 80,000 SF = 16,000 SF of allowable lot coverage)

Proposed Lot Coverage & Setbacks: Single Family

TND LOTS AND SETBACKS (MASHPEE COMMONS CAC OVERLAY)



MASHPEE COMMONS CAC

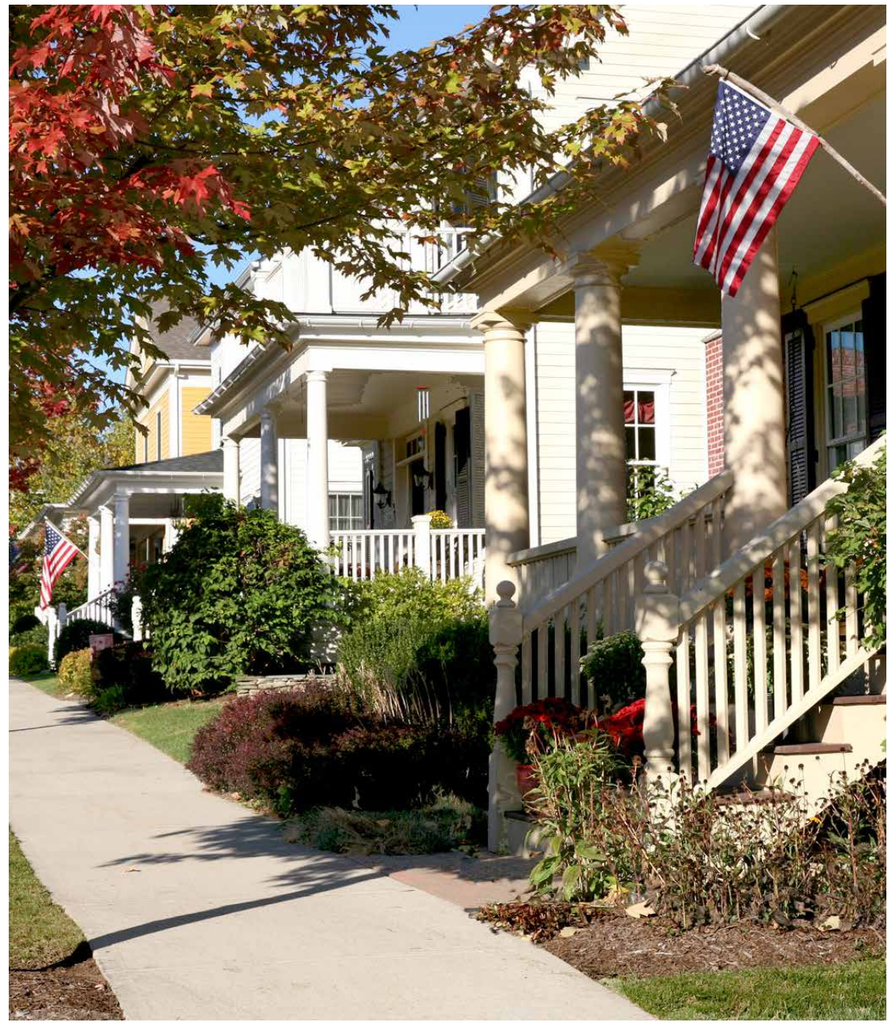
Minimum Lot Size: 2,500 - 3,600 SF
(vs. 40,000 SF in R-3)

Minimum Front Setback: 5’ to 15’
(vs 40’ in R-3)

Minimum Rear & Side Setback: 5’
(vs 15’ in R-3)

Maximum Lot Coverage: 60%
(vs 20%)

NOTE: 60% coverage = 1,500 SF - 2,160 SF of lot coverage vs 8,000 allowable in R-3



Proposed Lot Coverage & Setbacks: Single Family

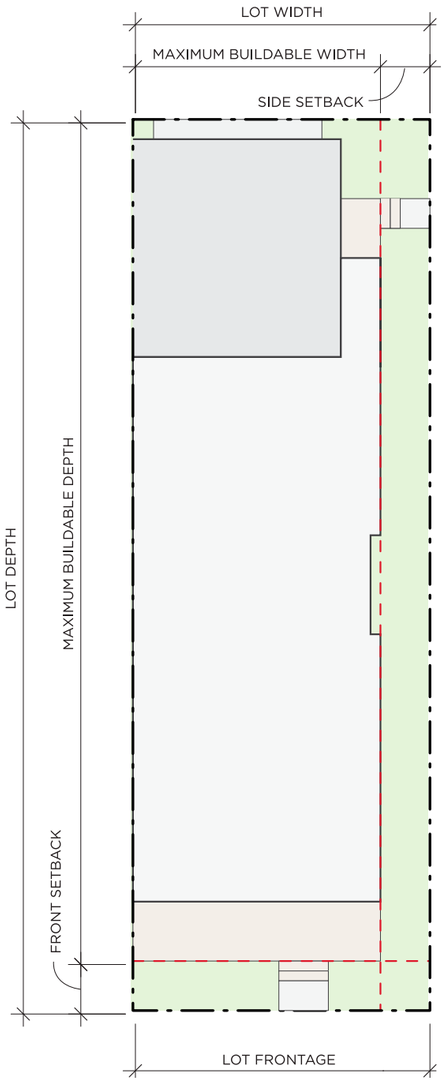
LOTS OFFER FLEXIBILITY TO PROVIDE HOUSING ALTERNATIVES: COTTAGES

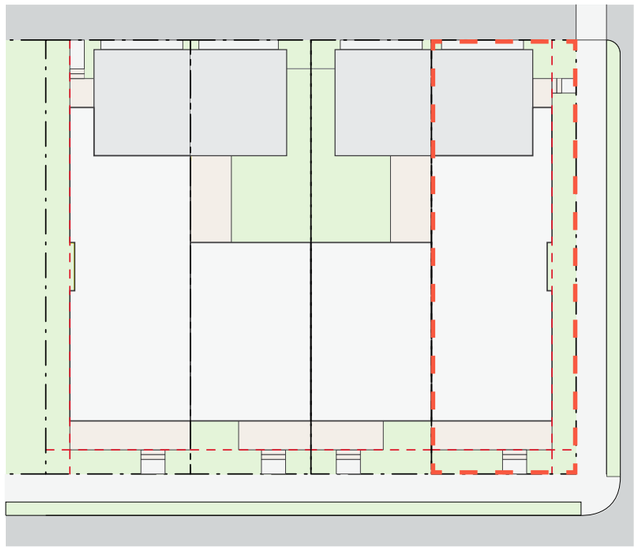
Proposed Lot Coverage & Setbacks: Single Family

LOTS OFFER FLEXIBILITY TO PROVIDE HOUSING ALTERNATIVES: LARGER HOMES

Proposed Lot Coverage & Setbacks: Townhomes

TND LOTS AND SETBACKS (MASHPEE COMMONS CAC OVERLAY)





MASHPEE CAC: TOWNHOMES
Minimum Lot Size: **1,760 - 1,980**
Minimum Frontage: 16’ - 22’
Minimum Front Setback: 0’ (core) to 15’ (edge)
Min. Rear & Side Setback: 0’ - 15’
Maximum Lot Coverage: 70% (edge) to 100% (core)

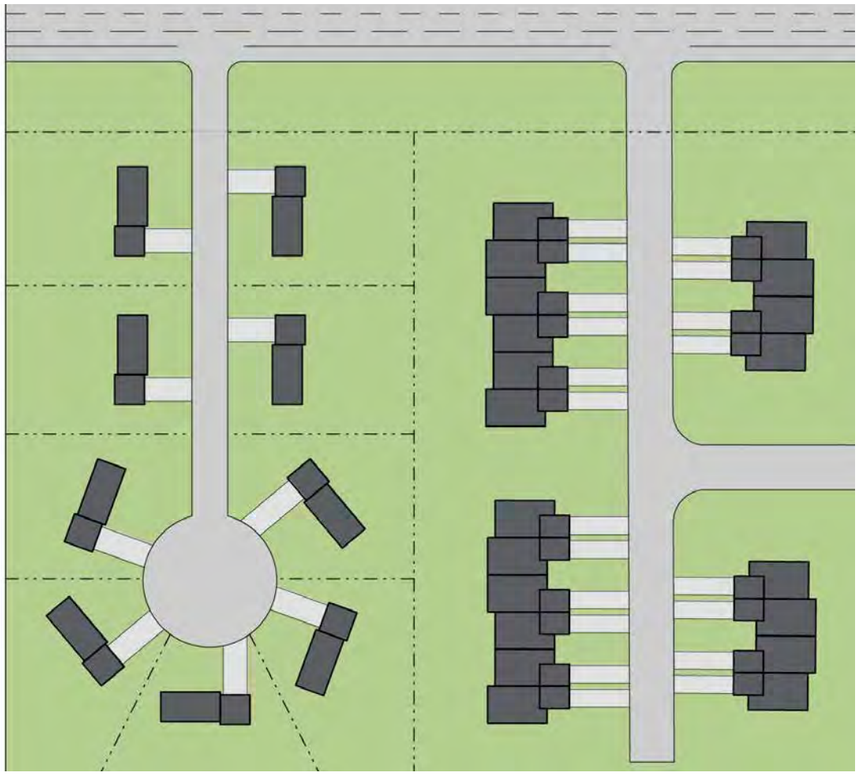
Proposed Lot Coverage & Setbacks: Residential

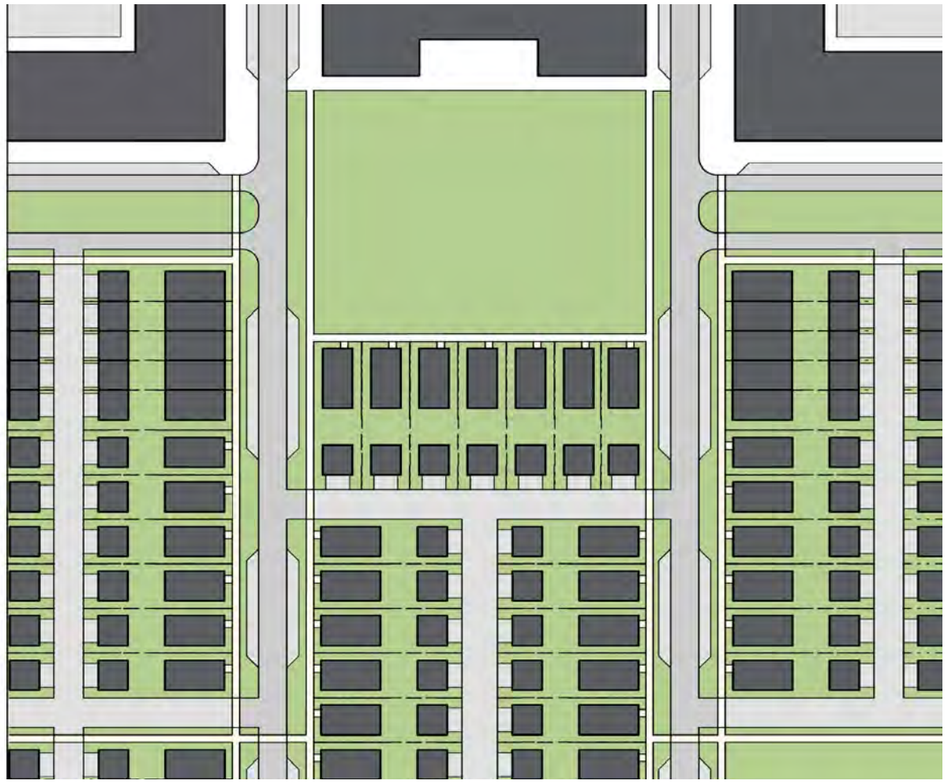
CONVENTIONAL LOTS AND SETBACKS

TND LOTS AND SETBACKS

Proposed Lot Coverage & Setbacks: Alleys

ALLEYS ARE CRITICAL COMPONENTS OF TND STREET CHARACTER AND DENSITY





Think of "Alleys" as shared driveways that run behind buildings. Placing garages / parking at the back of the lot rather than the front

Proposed Lot Coverage & Setbacks: Alleys

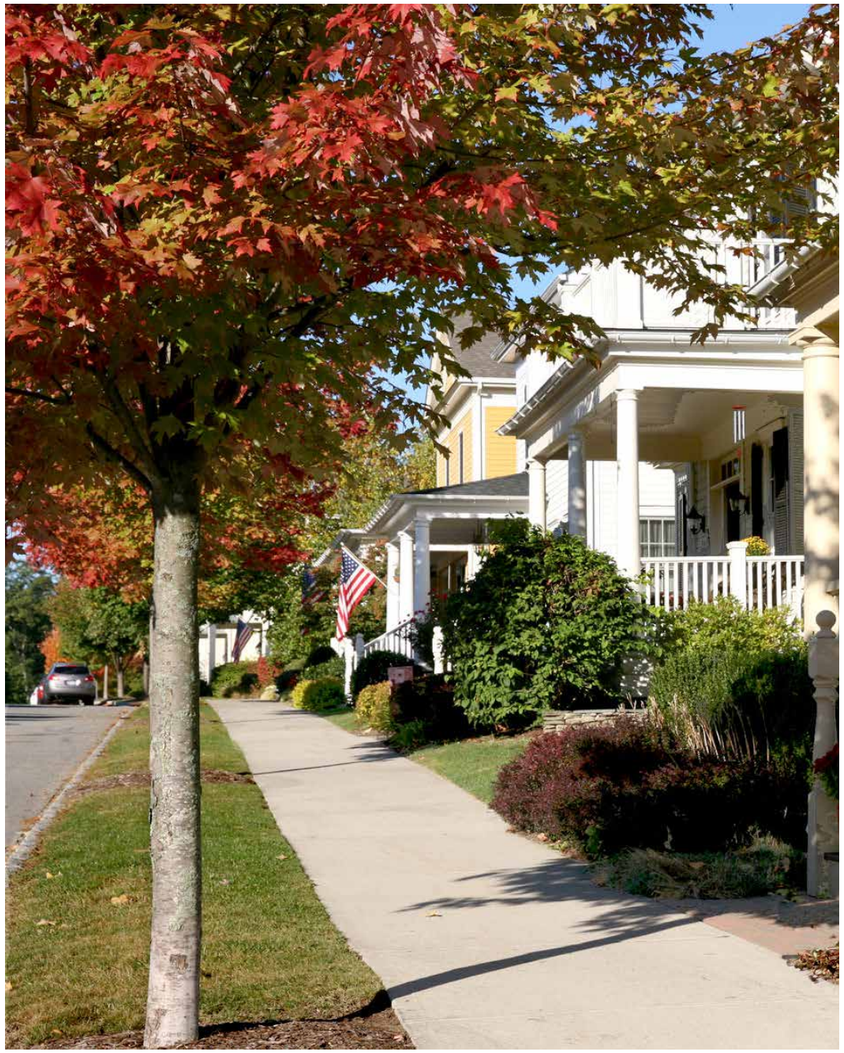
ALLEYS ARE CRITICAL COMPONENTS OF TND STREET CHARACTER AND DENSITY

MASHPEE COMMONS CAC

Width: Varies

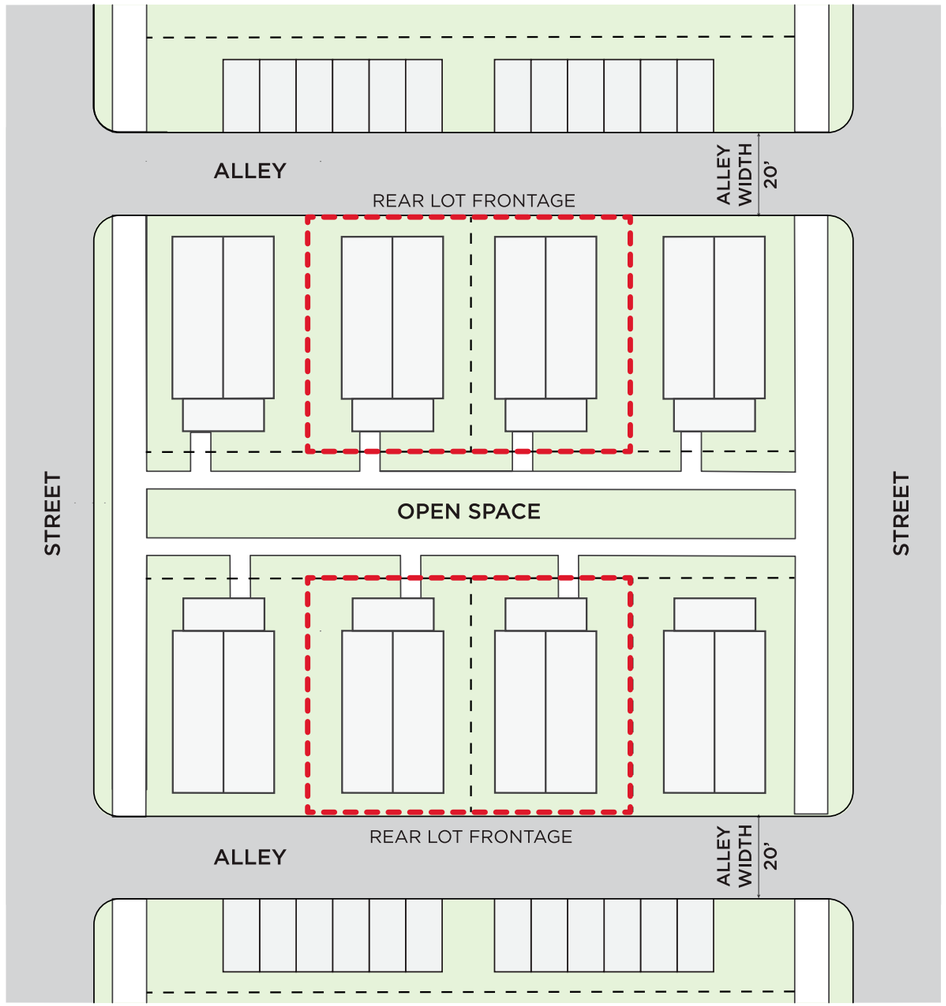
Alley Setbacks:
Minimum Side Setback: 4’ to 5’

Minimum Rear Setback: 0’
(if alley is wide enough - garages could be up to alley ROW edge - hence 0’ setback)



Proposed Lot Coverage & Setbacks: Alleys

ALLEYS WHERE HOMES FRONT A GREEN OR OPEN SPACE



Proposed Lot Coverage & Setbacks: Commercial

CONVENTIONAL COMMERCIAL

WALKABLE MIXED-USE COMMERCIAL

Proposed Lot Coverage & Setbacks: Commercial

RESULT OF CONVENTIONAL COMMERCIAL ZONING

C-1
Minimum Lot Size: 40,000sf
Minimum Frontage: 200’
Minimum Front Setback to Lot Line: 40’
Minimum Rear Setback to Lot Line: 40’ (50’)
Minimum Side Setback to Lot Line: 20’ (50’ to res)
Maximum Lot Coverage: 25%

Side setbacks alone suggest that there must be 80’ minimum between commercial buildings/lots and these buildings must be set 40’ back from the sidewalk. These patterns are inherently independent and more car dependent...

Proposed Lot Coverage & Setbacks: Commercial

WALKABLE MIXED USE COMMERCIAL ZONING

MASHPEE CAC CORE

Minimum Lot Size: None
Minimum Frontage: 16’ (townhouse)
Minimum Front Setback to Lot Line: 0’
Minimum Rear Setback to Lot Line: 5’ (or 0’ to alley)
Minimum Side Setback to Lot Line: 0’ (or 5’ to open space)

NOTE: Parking can be remote from building lots

SIENA

THANK YOU

Questions

UNION STUDIO