South Sandwich Community Design
Creative Approaches to Moderate Density

First Public Presentation
Sandwich Town Hall
June 17, 2019
Development in Sandwich has been limited due to the lack of infrastructure;
Town acceptance of the Water Infrastructure Investment Fund (WIIF) has the potential to unlock opportunities;
The Route 130 Corridor has long been identified for possible development;
Tonight represents a fresh approach in achieving our goal;
Put forward appropriate zoning to support smart growth and economic development
Project Introduction: Community Resiliency by Design

Cape Cod Commission

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Historic Preservation Specialist/Planner

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Community Design Planner

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Special Projects Coordinator
1.7% population growth
Population is projected to grow to a total of 20,761 over the forecast period (2015-2025).

5.2% increase in employment
National, regional and local economic factors combine with projected population increases for this forecasted growth to a total of 9,936.

3.05% increase in households
Growth is faster than population since household size is projected to decrease.

U.S. Census Bureau and Bureau of Economic Analysis; Moody's Analytics; EPR
SINGLE FAMILY HOMES

- US: 63%
- MA: 52%
- Cape Cod: 80%
- Sandwich: 82%
RENTER-OCCUPIED UNITS

- US: 36%
- MA: 38%
- Cape Cod: 21%
- Sandwich: 15%
Household size is projected to further decrease within the region over the next 10 years (Crane, EPR).

<table>
<thead>
<tr>
<th>Location</th>
<th>Household Size</th>
</tr>
</thead>
<tbody>
<tr>
<td>US</td>
<td>2.64 persons/household</td>
</tr>
<tr>
<td>MA</td>
<td>2.54 persons/household</td>
</tr>
<tr>
<td>Cape Cod</td>
<td>2.24 persons/household</td>
</tr>
<tr>
<td>Sandwich</td>
<td>2.6 persons/household</td>
</tr>
</tbody>
</table>
BARNSTABLE COUNTY HOUSING STRESS

Median home value

Home wages can support

Median Household Income

- Median home value
- Home wages can support

Affordable House Price

- $700k
- $600k
- $500k
- $400k
- $300k
- $200k
- $100k

50% 80% 100% 120%

2015

- 26,000 HOUSEHOLDS 80% AMI

2025

- 44,000 HOUSEHOLDS 120% AMI
SANDWICH HOUSING STRESS

Median home value

Home wages can support

Affordable House Price

50% 80% 100% 120%

Median Household Income

2015

Median House Price $325,000

100% MHI Affordable Home Price $312,539
SANDWICH HOUSING STRESS

Median home value

Home wages can support

Median Household Income

Affordable House Price

Median House Price $533,644

100% Affordable Home Price $301,127

2025

Median Household Income

50% 80% 100% 120%

Median House Price

$100k

$200k

$300k

$400k

$500k

$600k

$700k

$100k

$200k

$300k

$400k

$500k

$600k

$700k

$100k

$200k

$300k

$400k

$500k

$600k

$700k
Outline

• Introduction to Union Studio
• Why are we here?
• Demystifying Density and the Missing Middle
  • Visual Preferences
• Next Steps and Discussion
Union Studio was founded in 2001 with one overriding goal: to use our skills as architects and urban designers to make a civic contribution to communities of all types.
To devote our skills as architects and community designers to the creation and repair of neighborhoods and communities of all types.
Which includes the belief that renovating historic structures with care and a new life is crucial to maintaining our architectural and cultural heritage.
And that the **design** of new public places, neighborhoods and buildings must **resonate with the communities they serve** and **enhance our civic life**.
Our passion for community design stems from our belief that many *time-tested principles* for creating healthy places *have been largely forgotten* over the past 50 years.
And that through careful application of the principles of healthy neighborhood design, we can provide a framework for revitalizing our streets and neighborhoods.
Some principles of healthy communities

- Walkable and pedestrian friendly
- Mix of housing types that meets the broad needs of the community
- Public & private outdoor spaces and amenities
- Contextual architectural design and materials
- Equitable connection and access to community resources and amenities
Integrated **mix of uses and types** are the building blocks of complete communities.
Why are we here?

To begin community conversations around strategies and techniques for meeting the increasing demand for housing on Cape Cod...
Why are we here?

And to get input from all of you on ways to do this that will enhance and support the character of your communities (not detract from them)
# Process/Schedule

<table>
<thead>
<tr>
<th>Event</th>
<th>Date</th>
</tr>
</thead>
<tbody>
<tr>
<td>Similar Effort in Falmouth, Orleans, Eastham, and Hyannis</td>
<td>May 2018 – March 2019</td>
</tr>
<tr>
<td>Review Existing Background Studies</td>
<td>April - May</td>
</tr>
<tr>
<td><strong>First Public Presentation</strong></td>
<td><strong>June 17th</strong></td>
</tr>
<tr>
<td>Online Visual Preference Survey</td>
<td>June - July</td>
</tr>
<tr>
<td></td>
<td><a href="http://www.capecodcommission.org/survey">www.capecodcommission.org/survey</a></td>
</tr>
<tr>
<td>Second Public Presentation</td>
<td>Early September</td>
</tr>
<tr>
<td>Framework for Form-Based Regulation</td>
<td>Nearing Completion</td>
</tr>
<tr>
<td>Builder’s Roundtable at OneCape</td>
<td>July 30th, 2019</td>
</tr>
<tr>
<td>Additional Communities?</td>
<td>TBD</td>
</tr>
</tbody>
</table>
Where have we been

So far we’ve worked with 4 communities that have a cross section of conditions found elsewhere on Cape Cod.
Each community has recently completed studies that identify areas where new housing types would be appropriate and have either adopted recent zoning changes in support of mixed-use communities or are considering doing so.
Where have we been

The initial study areas focused on “main street” areas for each community – the “transitional” areas at the edge of single family districts...
Where have we been

... whereas in Hyannis the focus was on “context appropriate infill” in a historic residential district adjacent to “main street”.

Hyannis: East End
Where have we been

First Public Presentations
Eastham/Orleans 6/19
Falmouth 6/20

One Cape Summit
Harwich 8/17

Cape Housing Institute
(Housing Assistance Corp. & Community Development Partners)
Harwich 10/31
Eastham 10/31
Yarmouth 11/1
Mashpee 11/1

Second Public Presentations
Falmouth 10/23
Orleans/Eastham 11/8

Additional Communities - Hyannis
First Presentation 12/18
Second Presentation 2/19

Next Stop... Sandwich

Where have we been

First Public Presentations
Eastham/Orleans 6/19
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Where have we been
The Housing Challenge....

on Cape Cod
Housing Market Analysis released earlier this year by the Cape Cod Commission highlights a number of challenges as it relates to housing supply and demand in the next 10 years (and beyond).

### Barnstable County-Estimated Affordable Gap for Owner Units, 2015

<table>
<thead>
<tr>
<th>% of Median Household Income</th>
<th>50%</th>
<th>80%</th>
<th>100%</th>
<th>120%</th>
<th>&gt;120%</th>
</tr>
</thead>
<tbody>
<tr>
<td>Income [County Average]</td>
<td>$26,125</td>
<td>$57,799</td>
<td>$72,249</td>
<td>$86,699</td>
<td></td>
</tr>
<tr>
<td>Affordable Price [County Average]</td>
<td>$125,043</td>
<td>$212,438</td>
<td>$271,473</td>
<td>$330,618</td>
<td></td>
</tr>
<tr>
<td>Estimated Unit Demand</td>
<td>17,379</td>
<td>12,908</td>
<td>8,477</td>
<td>7,858</td>
<td>32,753</td>
</tr>
<tr>
<td>Estimated Unit Supply</td>
<td>3,041</td>
<td>5,322</td>
<td>10,557</td>
<td>12,521</td>
<td>47,934</td>
</tr>
<tr>
<td>Affordability Gap in Units (demand minus supply)</td>
<td>14,338</td>
<td>7,586</td>
<td>-2,080</td>
<td>-4,663</td>
<td></td>
</tr>
</tbody>
</table>

- **Cumulative Demand**: 17,379
- **Cumulative Supply**: 3,041
- **Cumulative Gap**: 14,338

### Barnstable County-Estimated Affordable Gap for Renter Units, 2015

<table>
<thead>
<tr>
<th>% of Median Household Income</th>
<th>50%</th>
<th>80%</th>
<th>100%</th>
<th>120%</th>
<th>&gt;120%</th>
</tr>
</thead>
<tbody>
<tr>
<td>Income [County Average]</td>
<td>$16,530</td>
<td>$26,447</td>
<td>$33,059</td>
<td>$39,671</td>
<td></td>
</tr>
<tr>
<td>Affordable Rent [County Average]</td>
<td>$413</td>
<td>$661</td>
<td>$826</td>
<td>$992</td>
<td></td>
</tr>
<tr>
<td>Estimated Unit Demand</td>
<td>5,232</td>
<td>3,540</td>
<td>1,978</td>
<td>1,646</td>
<td>9,009</td>
</tr>
<tr>
<td>Estimated Unit Supply</td>
<td>2,363</td>
<td>1,969</td>
<td>1,807</td>
<td>2,407</td>
<td>12,858</td>
</tr>
<tr>
<td>Affordability Gap in Units (demand minus supply)</td>
<td>2,869</td>
<td>1,572</td>
<td>171</td>
<td>-761</td>
<td></td>
</tr>
</tbody>
</table>

- **Cumulative Demand**: 5,232
- **Cumulative Supply**: 2,363
- **Cumulative Gap**: 2,869

*Source: U.S. Census Bureau, American Community Survey; EPR*
Employment growth is expected to add roughly **6,200 additional residents** by 2025.

**Breakdown of employment and population growth from 2005 to 2025**:

<table>
<thead>
<tr>
<th>Year</th>
<th>Total Employment</th>
<th>County Population</th>
</tr>
</thead>
<tbody>
<tr>
<td>2005</td>
<td>125,000</td>
<td>125,000</td>
</tr>
<tr>
<td>2010</td>
<td>130,000</td>
<td>130,000</td>
</tr>
<tr>
<td>2015</td>
<td>135,000</td>
<td>135,000</td>
</tr>
<tr>
<td>2020</td>
<td>140,000</td>
<td>140,000</td>
</tr>
<tr>
<td>2025</td>
<td>150,000</td>
<td>150,000</td>
</tr>
</tbody>
</table>

**Population by Cape Region**:

- **Upper Cape**
  - 2016: 85,703
  - 2020: 86,176
  - 2025: 87,517

- **Mid Cape**
  - 2016: 81,904
  - 2020: 83,094
  - 2025: 85,325

- **Lower Cape**
  - 2016: 34,023
  - 2020: 34,217
  - 2025: 34,841

- **Outer Cape**
  - 2016: 12,646
  - 2020: 12,807
  - 2025: 13,137

**Net Population Growth**:

- **Upper Cape**
  - 2020: 256
  - 2025: 1,598

- **Mid Cape**
  - 2020: 1,181
  - 2025: 3,412

- **Lower Cape**
  - 2020: 84
  - 2025: 708

- **Outer Cape**
  - 2020: 151
  - 2025: 481
But limited supply of housing is driving costs up at rates greater rate than household incomes. Providing limited market rate housing choices for large segments of the working population of Cape Cod

- House prices increasing 5.1%/year
- Rents increasing 3.9%/year
- Owner income increasing 2.0%/year
- Renter income increasing 1.0%/year
Existing housing stock AND new construction have been (and continue to be) largely focused on delivering stand-alone single-family homes

- 82% of homes on Cape Cod are single family (Compared to 60% nationally)
- Less than 20% rental
- Median home size on the Cape has increased faster than the region and the nation!

Leaving the Cape very out of balance when it comes providing housing options to meet diverse community needs
The report concludes with a number of recommendations for closing the gap between housing supply and demand, several of which may be addressed with what we are here to talk about today:

- Adopt housing targets balanced between all 15 municipalities
- Increase the diversity of senior housing
- Increase the diversity of multi-family housing
- Accommodate life stages through better urban design
... but what about South Sandwich?
Sandwich shall direct new commercial, industrial and mixed-use development to its Growth Centers: the Route 6A/Tupper Road/Town Marina Area; the South Sandwich Village Center; the Historic Village/Route 6A Area; and the Sandwich Industrial Park and Zoning District along Route 130.

- Higher density, higher quality, and vertical mix of uses are desired in the SSVC: retail, restaurant, professional offices and services, institutional and public uses, and residential (varied types and income levels)

- New housing (from market rate to basic work force) should be the predominate upper floor use for new mixed-use development as well as moderate density residential uses (i.e. townhouses, garden apartments and congregate housing) in the fringe areas of the SSVC
Related Studies: Housing Production Plan (2010)

Predominant type is expensive single-family detached homes, with limited rental housing and/or multifamily housing available.

Underlying goals to provide adequate and affordable housing for all Sandwich residents:

- To provide a wide range of housing alternatives to meet diverse housing needs
- To ensure that new housing creation is harmonious with the existing community
- To encourage the integration of smart growth principles in the development of housing
Overall goal was to provide development scenarios for the South Sandwich Village area.

Found the status quo (existing auto-oriented commercial pattern) is the least cost effective approach for the town whereas a **mixed-use village area** as called for in the LCP is the best case.

**Related Studies**: Cape Cod Commission RESET and DLTA Studies (2015)
**Study Area: South Sandwich Community Design**

Comp Plan Growth Centers:
- Sandwich Industrial Park
- South Sandwich Village Center
- Along Route 130
Study Area: South Sandwich Community Design

Comp Plan Growth Centers:
- Sandwich Industrial Park
- South Sandwich Village Center
- Along Route 130
So what is all of this beginning to suggest?
So what is all of this beginning to suggest?

DENSITY!!!
Is all density the same?

Can we find options for density that feel “right” for the South Sandwich Community?
What is density?

When discussing housing, this is typically described in terms of how many **residential units** are included per acre of land.
But density can take many forms...
Which one has a higher density?
Which one has a higher density?

**Typical Single Family Home**

- Cape Cod
- 1 unit on 0.25 - 0.5 acre = 2 - 4 du/ac

**Duplex**

- Pleasant Street, Sandwich
- 2 units on 0.12 acres = 16.5 du/ac
Which one has a higher density?
Which one has a higher density?

**Duplex**

_Pleasant Street, Sandwich_

2 units on 0.12 acres = 16.5 du/ac

**Manor House**

_Main Street, Sandwich_

5 units on 0.27 acres = 18 du/ac
Which one has a higher density?
Which one has a higher density?

Manor House
Pleasant Street, Sandwich

3 units on 0.29 acres = 10 du/ac

Manor House
Main Street, Sandwich

5 units on 0.27 acres = 18 du/ac
Which one has a higher density?
Which one has a higher density?

**Stacked Flats**
Glenwood Ave & Chancery Lane, Falmouth
8 units on 0.4 acres = 20 du/ac

**Walk Up**
South Street, Hyannis
11 units on 0.49 acres = 22 du/ac
What are some creative approaches to moderate/transitional density?
There are a whole range of building types that have been largely underutilized that scale between single family and the commercial core: what some have called the “Missing Middle”.
These housing types were common in pre-1940’s walkable neighborhoods
These types provided denser housing options in forms that were able to integrate into the primarily single family residential areas.
Why is the “missing middle” missing?

- Most zoning ordinances were written post-WWII and focused on the single family house and apartment complex as the two dominant housing types.

- As a result, financing is still largely structured based on those two forms.

- In addition, local residents tend to resist “new” types of development, even if those types are rooted in historical patterns.
So why is there a renewed interest now?

- Empty nesters and young professionals looking for options in historic cores/mixed-use areas
- Looking for new models to help provide more affordable housing
- Industry looking for new ways to develop in smaller increments
- Demographic shift to "right-sized" units and communal living

All of which the **Missing Middle** can help address
Missing Middle Building Types
What do we mean by “building types”?
Basically a means of categorizing units of a similar scale, arrangement, and disposition.
**Cottages**: Small scale single family detached units

- Typically 1 – 2 Stories
- May be attached, but typically detached
- Density achieved by arranging cottages in clusters, or “cottage courts”
- 8 – 15 dwelling units per acre
**Cottages:** Small scale single family detached units

**Chases Ocean Grove**

*Old Wharf Road, Dennisport*

55 units on 3.6 acres = 15 du/ac
Cottages: Small scale single family detached units

Heritage Sands
Old Wharf Road, Dennisport

64 units (+ Community Building) on 8 acres = 8 du/ac
Cottages: Small scale single family detached units
Cottages: Small scale single family detached units

Ploughed Neck Road, Sandwich

Pine Grove Cottages, Sandwich
Cottages: Small scale single family detached units

Which image feels more appropriate here?
Cottages: Small scale single family detached units

Which image feels more appropriate here?
Duplexes: Single family semi-detached units

- Typically 1 – 2 stories
- Two single family homes that share a common “party wall”
- 5 – 10 dwelling units per acre
**Duplexes: Single family semi-detached units**

**148-150 Main Street**
Main Street, Sandwich
Built in 1857

2 units on 0.6 acres (0.24 if both small lot size) = 3.5 du/ac (8 du/ac)
Duplexes: Single family semi-detached units

10 Pleasant Street
Pleasant Street, Sandwich
Built in 1849

2 units on 0.12 acres = 16.5 du/ac
Duplexes: Single family semi-detached units

Bourne, MA
Eastham, MA
Sweetbriar, RI
Tiverton, RI
Brewster, MA
West Falmouth, MA
Duplexes: Single family semi-detached units

Which image feels more appropriate here?
Duplexes: Single family semi-detached units

Which image feels more appropriate here?
**Townhouses: Single family attached units**

- Typically 1.5 – 2 stories
- Series of single family homes that share multiple common “party walls”
- Can be designed to look like individual units or as a single larger building
- 10 – 15 dwelling units per acre
Townhouses: Single family attached units

2-4 State Street
State Street, Sandwich
Built 1835, 1850

4 units on 0.34 acres = 12 du/ac
Townhouses: Single family attached units

2-12 Church Street
Church Street, Sandwich
Built ca. 1860

6 units on 0.45 acres =
13 du/ac
Townhouses: Single family attached units

- Providence, RI
- Sandywoods Farm, RI
- Falmouth, MA
- Wellesley, MA
- Providence, RI
Townhouses: Single family attached units

Which image feels more appropriate here?
Townhouses: Single family attached units

Which image feels more appropriate here?
Double Decker: Stacked Duplex

- Typically 2 or 3 stories
- First floor flat with single story flat or two story townhouse above
- Can be designed with individual entries
- 10 – 15 dwelling units per acre
Double Decker: Stacked Duplex

Stacked Flats
Glenwood Ave & Chancery Lane, Falmouth

8 units on 0.4 acres =
20 du/ac (15 du/ac if 6 units)
Double Decker: Stacked Duplex

Sandwich, MA

Provincetown, MA

Providence, RI

Providence, RI

Provincetown, MA
Double Decker: Stacked Duplex

Which image feels more appropriate here?
Double Decker: Stacked Duplex

Which image feels more appropriate here?
**Manor House:** Small-scale multifamily that looks like a large home

- Typically 2 – 3 stories
- Typically 4 – 6 units per building
- Designed to look like a single large home
- 10 – 20 dwelling units per acre
Manor House: Small-scale multifamily that looks like a large home

12 Pleasant Street
Pleasant Street, Sandwich
Built 1850

3 units on 0.29 acres = 10 du/ac
Manor House: Small-scale multifamily that looks like a large home

141 Main Street
Main Street, Sandwich
Built 1857

5 units on 0.27 acres = 18 du/ac
Manor House: Small-scale multifamily that looks like a large home
Manor House: Small-scale multifamily that looks like a large home

Which image feels more appropriate here?
Manor House: Small-scale multifamily that looks like a large home

Which image feels more appropriate here?
Walk-ups: Small scale multifamily, typically with shared circulation

- Typically 2 – 3 stories
- Typically 4 – 12 units per building
- Series of flats with shared circulation
- May be a stand-alone building or combined
- 15 – 25 dwelling units per acre
Walk-ups: Small scale multifamily, typically with shared circulation

The 1883 Block
Jarves Street, Sandwich
Built 1883

12 units on 0.18 acres =
66 (!) du/ac
**Walk-ups:** Small scale multifamily, typically with shared circulation

**Harbor House**
South Street, Hyannis

11 units on 0.49 acres =
22 du/ac
**Walk-ups:** Small scale multifamily, typically with shared circulation
Walk-ups: Small scale multifamily, typically with shared circulation

Which image feels more appropriate here?
**Walk-ups:** Small scale multifamily, typically with shared circulation

Which image feels more appropriate here?
Mixed-Use: Variations that include commercial on first floor

Manor House with Commercial

Townhouses with Commercial

Walk-ups with Commercial

These forms can host a variety of uses.
Which brings us to the ultimate question: when thinking about how best to incorporate moderate forms of density in the South Sandwich Community...

Comp Plan Growth Centers:
- Sandwich Industrial Park
- South Sandwich Village Center
- Along Route 130
... could any (or all) of these options fit in to your community?

Cottage

Duplex

Townhouse

Double Decker

Manor House

Walk-ups
Next Steps

South Sandwich Community Design

Visual Preference Survey
www.capecodcommission.org/survey

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Early September

Form-based Code Framework

Developers’ Roundtable
At OneCape

www.capecodcommission.org/crbd