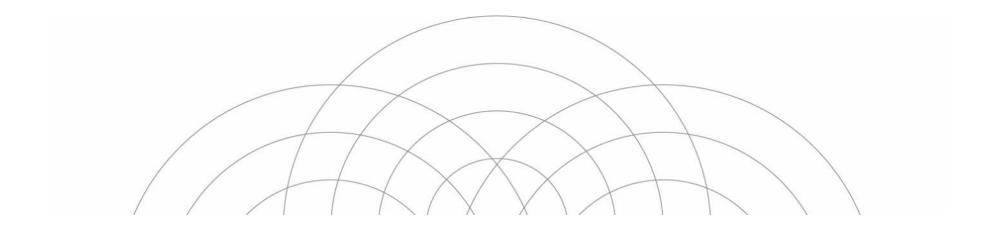


# Creative Approaches to Moderate Density

## Filling the Missing Middle on Cape Cod

### Second Public Presentations

Falmouth Eastham/Orleans
October 23, 2018 November 8, 2018



### Project Introduction: Community Resiliency by Design



Heather Harper
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Senior Associate



**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.



















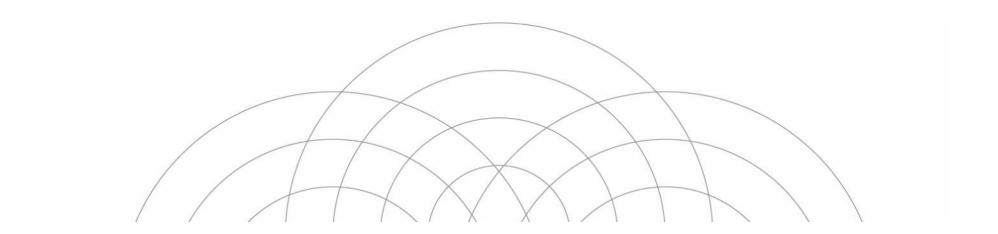


## **Outline**

- Recap of First Public Presentations
- Input from First Public Presentations
- Input from Visual Preference Survey
- Proposed Building Types
- Illustrative Case Studies
- Next Steps and Discussion



# Recap of First Public Presentations



# 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

Review Existing Background Studies

May

Community Engagement and Design Development
First Public Presentations

June 19th and 20th

Online Visual Preference Survey

<del>July - August</del> July - October

Presentation at One Cape Summit

August 17th

Final Conceptual Designs

Second Public Presentations

September

October - November

Develop Framework for Form-Based Regulation

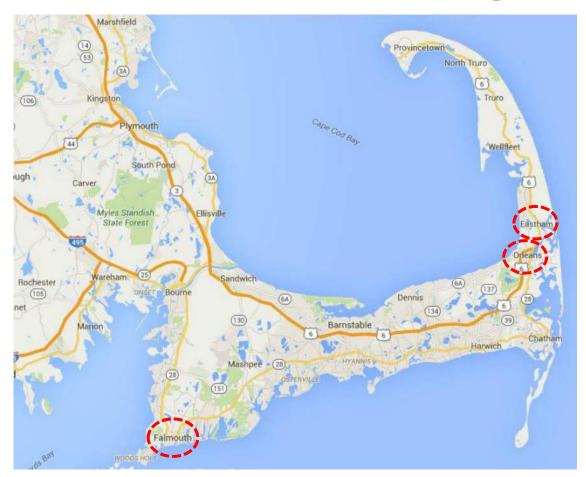
Fall

**Additional Communities** 

Time TBD



# Where we are starting



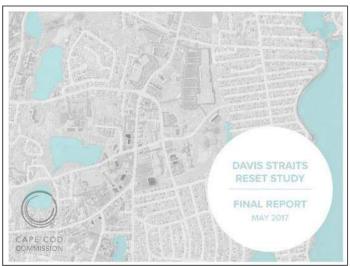
We are beginning with 3 communities (hoping to add more) – that have a cross section of conditions found elsewhere on Cape Cod.



# Where we are starting

Each community has recently completed studies that identify areas where new housing types would be appropriate

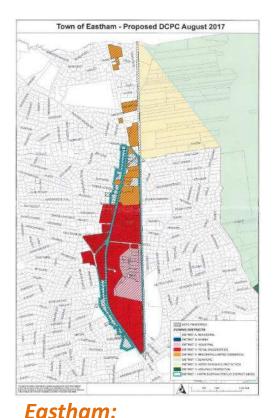


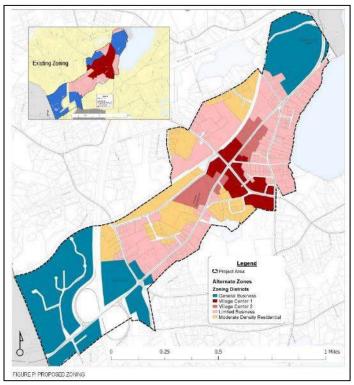


Eastham and Orleans have also adopted recent zoning changes that provide new opportunities for housing and mixed use development.



# Where we are starting







Route 6 / Brackett Rd Area

UNION STUDIO

**Orleans:**Village Center

**Falmouth:**Davis Straits Area

The study areas focus on the "main street" areas or commercial core of each community — the "transitional" areas at the edge of the single family districts...

# What do we hope to deliver?

To develop a series of moderate density prototypes — based on local precedent and community input...



...that could be used to address housing challenges in variety of places on the Cape and in each community.

Develop the framework (starting point) for form based regulations to assist your town boards as they review new development proposals.



To help guide new development in ways that support the character of your community.

Share our initial findings during the One Cape Summit this August



As well as a final series of public meetings and workshops in the fall to review specific recommendations and regulatory goals for each community.



### The Housing Challenge on Cape Cod

REGIONAL HOUSING MARKET ANALYSIS AND 10-YEAR FORECAST OF HOUSING SUPPLY AND DEMAND

BARNSTABLE COUNTY, MASSACHUSETTS

JUNE 30<sup>TH</sup> 2017





Submitted to Barnstable County and the Cape Cod Commission



Prepared by





Burlington Vermont www.craneassociates.us 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).

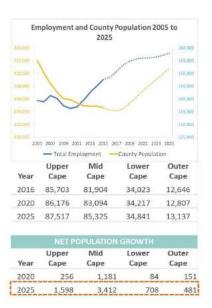
% of Median Household Income	50%	80%	100%	120%	>120%
Income (County Average)	\$36,125	\$57,799	\$72,249	\$86,699	
Affordable Price (County Average)	\$125,043	\$212,438	\$271,473	\$330,618	
Estimated Unit Demand	17,379	12,908	8,477	7,858	32,753
Estimated Unit Supply	3,041	5,322	10,557	12,521	47,934
Affordability Gap in Units (demand minus supply)	14,338	7,586	-2,080	-4,663	
Cumulative Demand	17,379	30,287	38,764	46,622	79,375
Cumulative Supply	3,041	8,363	18,920	31,441	79,375
Cumulative Gap	14,338	21,924	19,844	15,181	
Barnstable County-Estimated Affordable Gap for Re	nter Units, 20	15			
% of Median Household Income	50%	80%	100%	120%	>120%
Income (County Average)	\$16,530	\$26,447	\$33,059	\$39,671	
Affordable Rent (County Average)	\$413	\$661	\$826	\$992	
Estimated Unit Demand	5,232	3,540	1,978	1,646	9,009
Estimated Unit Supply	2,363	1,969	1,807	2,407	12,858
Affordability Gap in Units (demand minus supply)	2,869	1,572	171	-761	
Cumulative Demand	5,232	8,772	10,750	12,396	21,405
Cumulative Supply	2.363	4,332	6.139	8.546	21,405
Cumulative Gap	2,869	4,441	4.611	3.850	



Employment growth is expected to add roughly 6,200 additional residents by 2025.







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



Existing housing stock AND new construction have been (and continue to be) largely focused on delivering stand alone single family homes







 Median home size on cape has increased faster than the

region and the nation!

 82% of homes on cape cod are single family (Compared to

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:

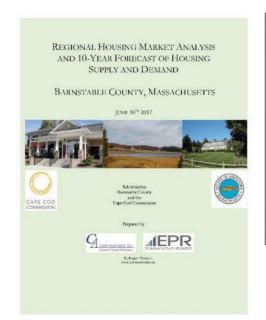
- Adopt housing targets balanced between all 15 municipalities
- Increase the diversity of senior housing
- Increase the diversity of multifamily housing
- Accommodate life stages through better urban design



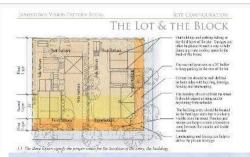




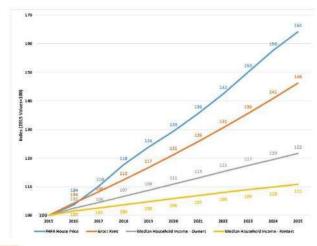
### So what is all of this beginning to suggest?















### So what is all of this beginning to suggest?

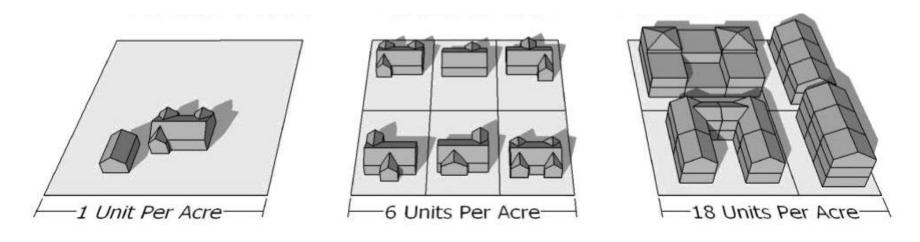






## Is all density the same?

# Can we find options for density that feel "right" for our communities?



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?



Mansion Apartments
West Falmouth Highway, Falmouth

5 units on 0.5 acres = 10 du/ac



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

Bayberry Village

Old Colony Way, Orleans

42 units on 4 acres = 10 du/ac





**Beechwood Condos** 

Route 28, Falmouth

10 units on 2 acres = 5 du/ac

Duplex Cluster
Old Dack Road, West Falmouth

6 units on 0.8 acres = 7.5 du/ac





**Mansion Apartments** 

West Falmouth Highway, Falmouth

5 units on 0.5 acres = 10 du/ac





### Rock Harbor Village

Old, Orleans

100 units on 6 acres = 16 du/ac

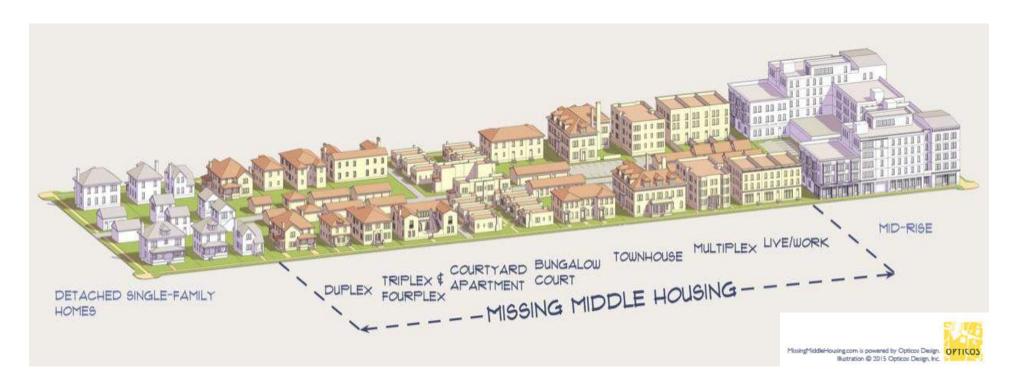


22 du/ac





# 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
- 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

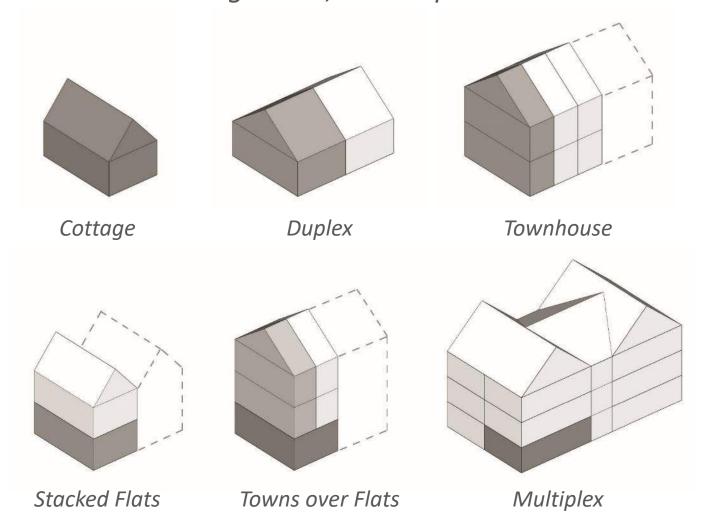
### All of which the Missing Middle can help address





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



Old Wharf Road, Dennisport

64 units (+ Community Building) on 8 acres =



















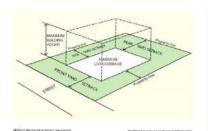






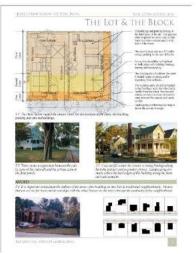


### Form based regulations vs purely metric based regulation

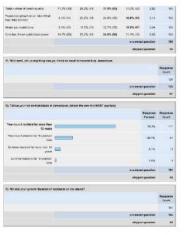


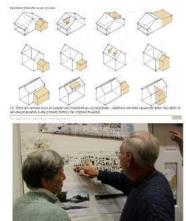
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### Based on a community input and analysis (workshops, visual preference surveys etc.)





### Based on a community input and analysis (understanding and documenting the context)



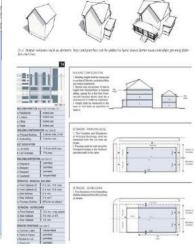






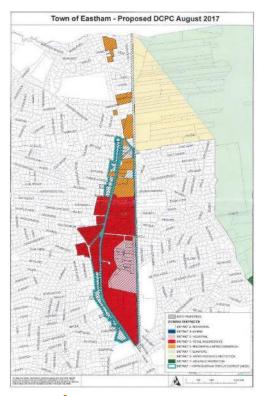
### Translated into a regulating set of tools that focus on describing what the community wants to FEEL like

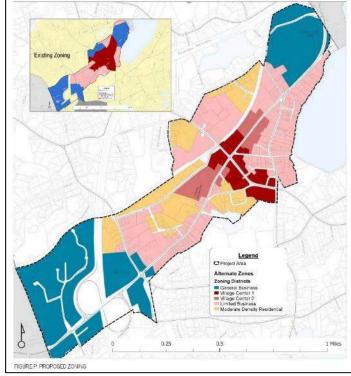






Which brings us to the ultimate question: When thinking about how best to incorporate moderate forms of transitional density in these areas...







Eastham:
Route 6 / Brackett Rd Area

**Orleans:**Village Center

Falmouth: Davis Straits Area



### ... could any (or all) of these options fit in your community?







Cottage



*Townhouse* 







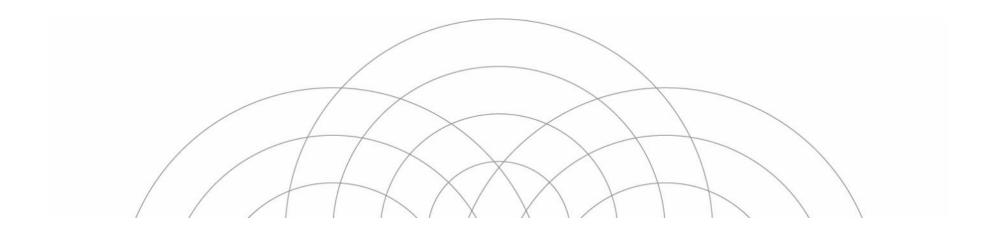
Towns over Flats



Multiplex



# Input from First Public Presentations



### Input from First Public Presentations:

### When discussing matters of style:

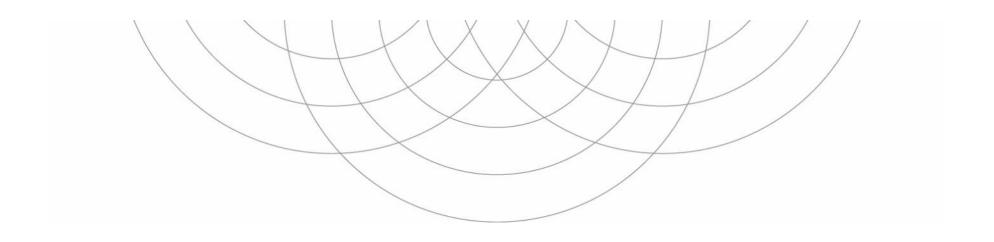
- Participants in Falmouth trended towards more traditional looking architecture
- Participants in Eastham trended towards more contemporary looking architecture
- Participants in Orleans were relatively flexible when it came to style

### When discussing matters of scale:

- Participants in Falmouth were more accepting of larger scale structures (up to four stories) in their study area
- Participants in Eastham were less accepting of larger scale structures (limit of two stories or so) in their study area
- Participants in Orleans were relatively flexible when it came to scale

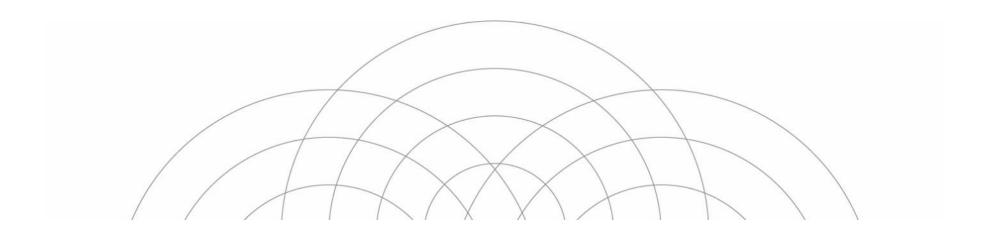
When discussing density more generally, most participants in all locations agreed it was more of an issue of good design than numerical units per acre.





# Input from Visual Preference Survey

(thru October 11, 2018)



### Do you think a building of this **scale** would be a good fit within the study area?

Single Family









Townhouse









Multi-Family











### Do you think a building of this **scale** would be a good fit within the study area?



Question 2	Falmouth (261)	Orleans (84)	Eastham (105)	Combined (483)
Definitely a good fit	13%	8%	31%	15%
Could be a good fit	26%	32%	43%	32%
Probably not a good fit	31%	32%	15%	27%
Definitely not a good fit	31%	27%	12%	26%



Question 3	Falmouth (254)	Orleans (84)	Eastham (105)	Combined (476)
Definitely a good fit	20%	26%	41%	26%
Could be a good fit	47%	46%	46%	47%
Probably not a good fit	19%	13%	8%	15%
Definitely not a good fit	14%	14%	6%	12%





Question 4	Falmouth (258)	Orleans (86)	Eastham (105)	Combined (484)
Definitely a good fit	28%	24%	16%	23%
Could be a good fit	55%	52%	40%	51%
Probably not a good fit	10%	17%	32%	17%
Definitely not a good fit	7%	6%	11%	8%



Question 5	Falmouth (259)	Orleans (85)	Eastham (104)	Combined (482)
Definitely a good fit	19%	14%	8%	15%
Could be a good fit	35%	34%	18%	30%
Probably not a good fit	25%	27%	29%	27%
Definitely not a good fit	21%	25%	45%	28%



#### What combination of housing types work together in the project area?



Image One: 1 story



Image Three: 2 story



Image Two: 1.5 story



Image Four: 2.5 story

Question 6	Falmouth (556)	Orleans (178)	Eastham (215)	Combined (1021)
Image One	15%	16%	28%	18%
Image Two	29%	30%	40%	31%
Image Three	35%	35%	23%	32%
Image Four	21%	19%	9%	18%

Average 2.12 Types/Survey





Question 7	Falmouth (249)	Orleans (83)	Eastham (101)	Combined (461)
Definitely a good fit	29%	34%	37%	32%
Could be a good fit	49%	51%	43%	47%
Probably not a good fit	17%	8%	8%	13%
Definitely not a good fit	5%	7%	13%	8%



Question 8	Falmouth (249)	Orleans (84)	Eastham (100)	Combined (464)
Definitely a good fit	12%	21%	6%	13%
Could be a good fit	46%	45%	37%	47%
Probably not a good fit	17%	29%	31%	26%
Definitely not a good fit	5%	5%	26%	18%





Question 9	Falmouth (249)	Orleans (83)	Eastham (99)	Combined (460)
Definitely a good fit	14%	12%	7%	12%
Could be a good fit	25%	24%	16%	23%
Probably not a good fit	27%	41%	20%	28%
Definitely not a good fit	33%	23%	57%	37%



Question 10	Falmouth (245)	Orleans (83)	Eastham (96)	Combined (453)
Definitely a good fit	12%	7%	5%	10%
Could be a good fit	18%	18%	5%	15%
Probably not a good fit	28%	29%	28%	28%
Definitely not a good fit	42%	46%	61%	48%



#### What combination of housing types work together in the project area?





**Falmouth** Orleans Eastham Question 11 (453) (154) Image One 39% 41% 58% 27% 29% 28% Image Two Image Three 19% 18% 10%

14%

12%

Image Four

Image one: 1.5 story



Image three: 2.5 story

Image two: 2 story



Image four: 3 story

Average 1.77 Types/Survey

5%

Combined

(814)

43%

28%

17%

12%





Question 15	Falmouth (235)	Orleans (77)	Eastham (102)	Combined (444)
Definitely a good fit	17%	10%	7%	13%
Could be a good fit	34%	40%	19%	31%
Probably not a good fit	26%	22%	21%	24%
Definitely not a good fit	23%	27%	54%	32%



Question 12	Falmouth (236)	Orleans (79)	Eastham (101)	Combined (446)
Definitely a good fit	16%	10%	4%	11%
Could be a good fit	33%	27%	18%	28%
Probably not a good fit	25%	29%	24%	25%
Definitely not a good fit	26%	34%	54%	36%





Question 14	Falmouth (235)	Orleans (76)	Eastham (102)	Combined (443)
Definitely a good fit	6%	3%	7%	4%
Could be a good fit	22%	22%	19%	19%
Probably not a good fit	30%	33%	21%	27%
Definitely not a good fit	42%	42%	54%	49%



Question 13	Falmouth (236)	Orleans (78)	Eastham (100)	Combined (444)
Definitely a good fit	7%	3%	2%	5%
Could be a good fit	14%	18%	5%	13%
Probably not a good fit	33%	33%	18%	30%
Definitely not a good fit	46%	46%	75%	53%



#### What combination of housing types work together in the project area?



Image two: 3.5 story







Image four: 3.5 story

Question 16	Falmouth (320)	Orleans (107)	Eastham (81)	Combined (548)
Image One	44%	42%	53%	45%
Image Two	30%	27%	25%	28%
Image Three	17%	15%	15%	16%
Image Four	9%	16%	9%	11%

Average 1.23 Types/Survey



Traditional ←-----> Contemporary

Single Family









Townhouse









Multi-Family













Question 27	Falmouth (227)	Orleans (74)	Eastham (96)	Combined (425)
Definitely a good fit	14%	12%	17%	14%
Could be a good fit	28%	47%	63%	40%
Probably not a good fit	29%	24%	9%	24%
Definitely not a good fit	29%	16%	11%	22%



Question 21	Falmouth (227)	Orleans (75)	Eastham (96)	Combined (425)
Definitely a good fit	34%	35%	44%	36%
Could be a good fit	47%	49%	51%	49%
Probably not a good fit	13%	13%	1%	10%
Definitely not a good fit	6%	3%	4%	5%





Question 18	Falmouth (225)	Orleans (70)	Eastham (95)	Combined (418)
Definitely a good fit	14%	21%	35%	20%
Could be a good fit	29%	33%	51%	35%
Probably not a good fit	25%	26%	9%	21%
Definitely not a good fit	32%	20%	5%	24%



Question 24	Falmouth (225)	Orleans (74)	Eastham (95)	Combined (422)
Definitely a good fit	4%	1%	6%	4%
Could be a good fit	12%	20%	28%	18%
Probably not a good fit	28%	30%	25%	27%
Definitely not a good fit	56%	49%	40%	52%





Question 17	Falmouth (223)	Orleans (70)	Eastham (95)	Combined (415)
Definitely a good fit	12%	11%	4%	9%
Could be a good fit	34%	30%	16%	29%
Probably not a good fit	33%	40%	34%	34%
Definitely not a good fit	22%	19%	46%	27%



Question 23	Falmouth (227)	Orleans (74)	Eastham (95)	Combined (424)
Definitely a good fit	12%	12%	13%	12%
Could be a good fit	47%	59%	47%	49%
Probably not a good fit	19%	15%	15%	18%
Definitely not a good fit	22%	14%	25%	21%





Question 26	Falmouth (226)	Orleans (74)	Eastham (94)	Combined (422)
Definitely a good fit	7%	5%	3%	5%
Could be a good fit	31%	27%	20%	28%
Probably not a good fit	30%	35%	23%	29%
Definitely not a good fit	32%	32%	53%	38%



Question 20	Falmouth (225)	Orleans (75)	Eastham (96)	Combined (424)
Definitely a good fit	1%	0%	2%	1%
Could be a good fit	5%	5%	4%	5%
Probably not a good fit	17%	17%	9%	15%
Definitely not a good fit	77%	77%	84%	79%





Question 25	Falmouth (227)	Orleans (74)	Eastham (96)	Combined (425)
Definitely a good fit	4%	9%	6%	5%
Could be a good fit	23%	31%	18%	23%
Probably not a good fit	29%	32%	29%	30%
Definitely not a good fit	44%	27%	47%	42%



Question 19	Falmouth (221)	Orleans (72)	Eastham (95)	Combined (415)
Definitely a good fit	17%	10%	6%	12%
Could be a good fit	47%	36%	26%	40%
Probably not a good fit	18%	31%	27%	24%
Definitely not a good fit	17%	24%	40%	24%





Question 22	Falmouth (225)	Orleans (74)	Eastham (96)	Combined (423)
Definitely a good fit	3%	3%	1%	3%
Could be a good fit	21%	20%	21%	21%
Probably not a good fit	34%	27%	22%	29%
Definitely not a good fit	42%	50%	56%	48%



Question 28	Falmouth (227)	Orleans (74)	Eastham (95)	Combined (422)
Definitely a good fit	2%	0%	0%	1%
Could be a good fit	7%	8%	2%	5%
Probably not a good fit	20%	16%	18%	18%
Definitely not a good fit	71%	76%	80%	75%



#### Visual Preference Survey Takeaways:

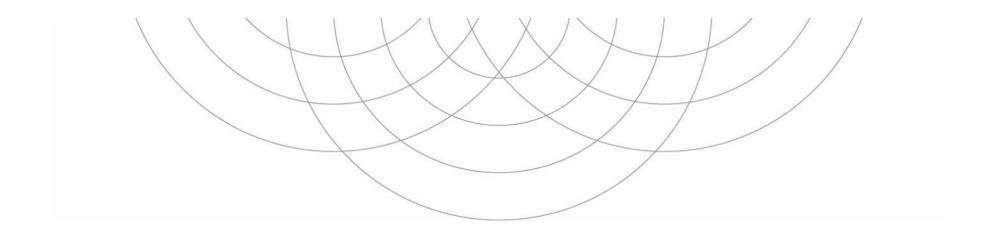
Generally speaking, respondents in Eastham are most comfortable in a range from 1 to 2 stories whereas respondents in Falmouth and Orleans are most comfortable in a range from 1.5 stories to 2.5 stories. In all three, respondents are generally not comfortable with buildings of 3 or more stories.

In all three communities, respondents are most drawn towards traditional buildings with simple detailing. In all three communities, respondents were least receptive to very contemporary buildings.

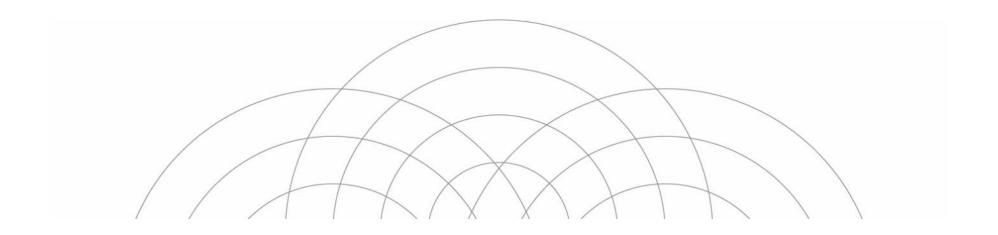
As per input from the first public presentations, at first Eastham would seem most receptive of the three to more contemporary styles, but this changed as buildings grew in scale (likely due to respondents strong scale bias).

In general, style preferences for Falmouth and Orleans were similar – if anything Orleans was slightly more comfortable with more ornate versions of traditional styles than Falmouth.

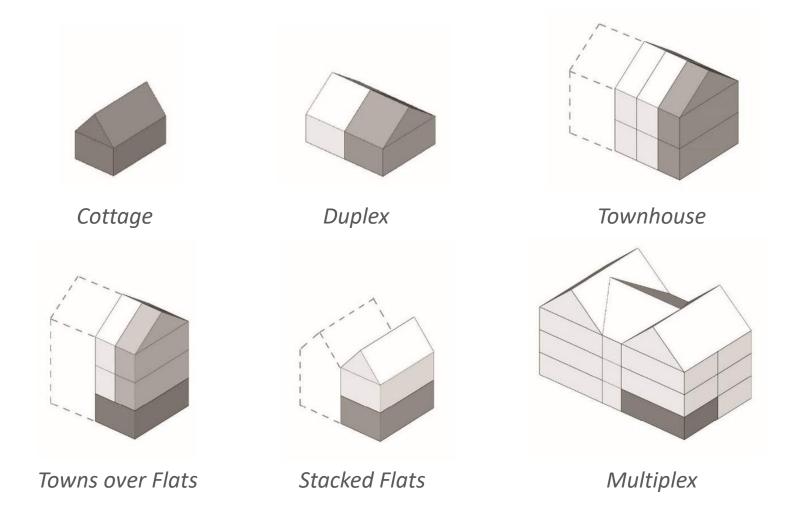




# **Proposed Building Types**



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## **Proposed Building Types**



Cottage



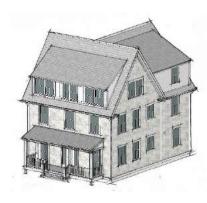
Duplex



*Townhouse* 



Towns over Flats
Double Decker

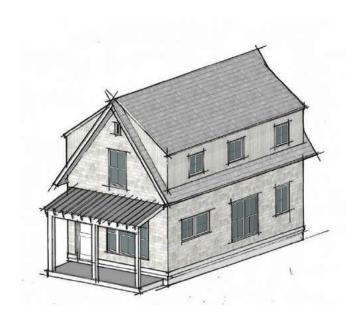


Stacked Flats Manor House



Multiplex
Walk-ups



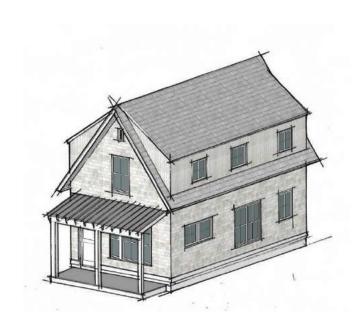




- Typically 1-2 Stories
- May be attached, but typically detached
- Density achieved by arranging cottages in clusters, or "cottage courts"
- 8 − 15 dwelling units per acre





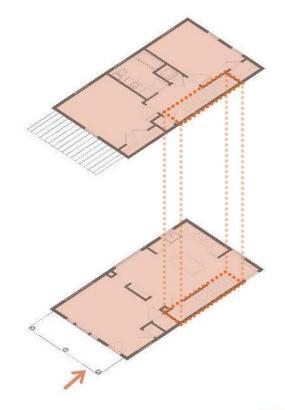






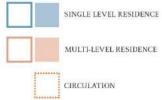


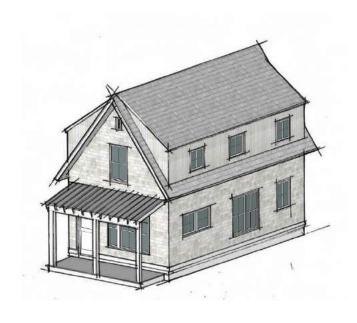














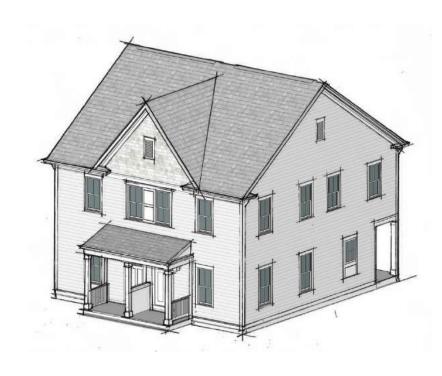








## Duplexes: Side-by-side single family semi-detached units



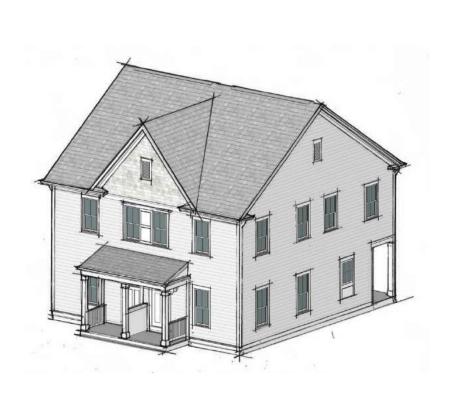


- Typically 1-2 stories
- Two single family homes that share a common "party wall"
- 5 − 10 dwelling units per acre



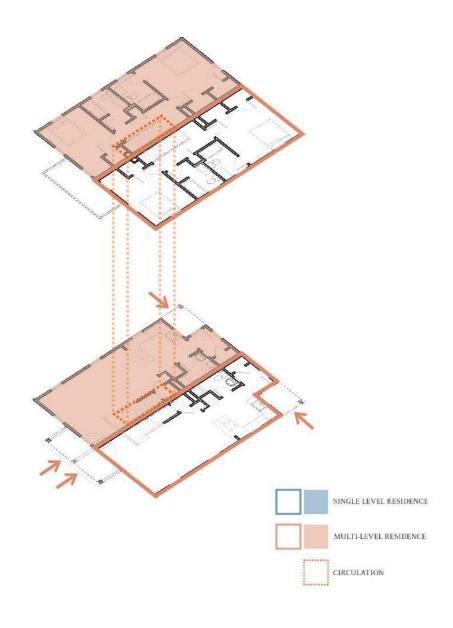


# Duplexes: Side-by-side single family semi-detached units

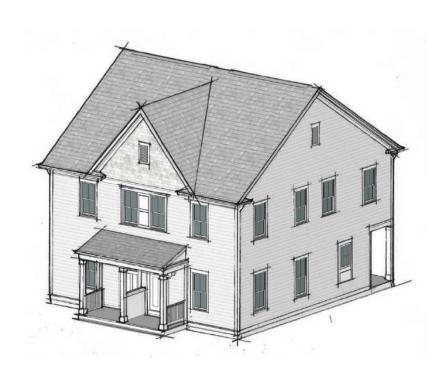








# Duplexes: Side-by-side single family semi-detached units













## Townhouses: Single family attached units





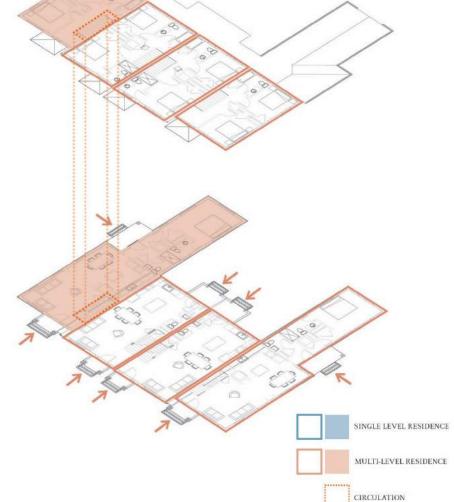
- Typically 2 3 stories
- Series of single family homes that share multiple common "party walls"
- Can be designed to look like individual units or as a single larger building
- 6 − 12 dwelling units per acre





## Townhouses: Single family attached units









# Townhouses: Single family attached units





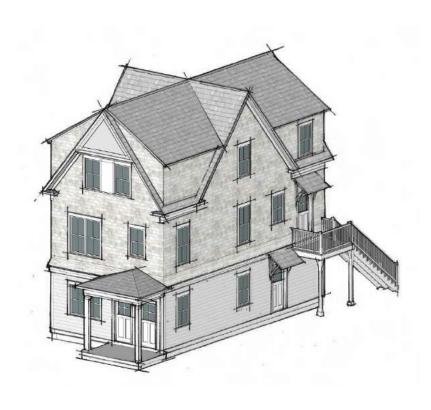








## **Double Decker: Stacked Duplex**





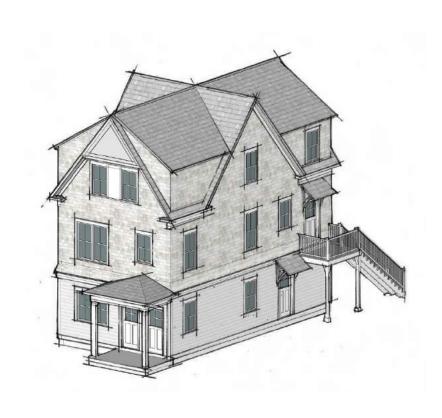




- Typically 2 or 3 stories
- First floor flat with single story flat or two story townhouse above
- Can be designed with individual entries
- 10 − 15 dwelling units per acre

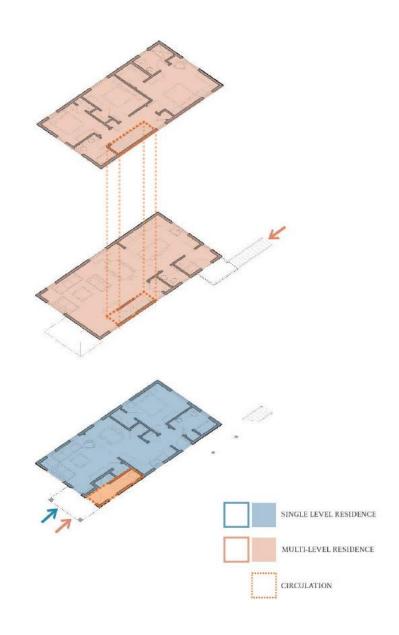


## **Double Decker: Stacked Duplex**

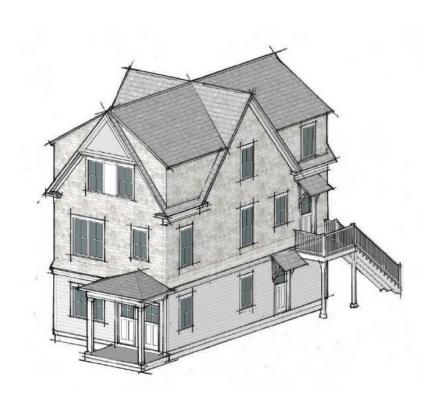








## **Double Decker: Stacked Duplex**







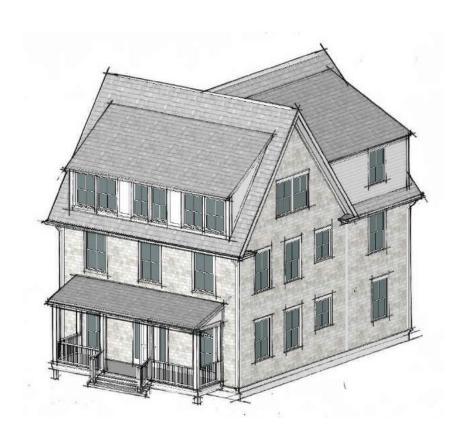








## Manor House: Small-scale multifamily that looks like a large home



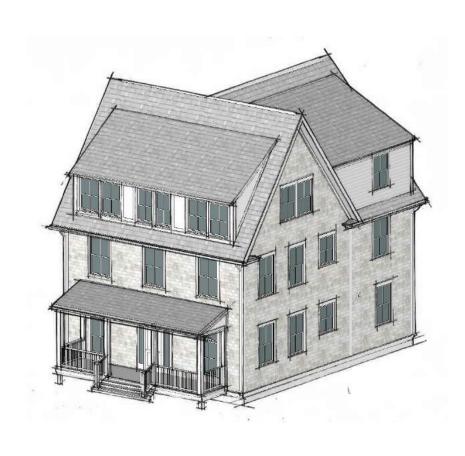




- Typically 2 3 stories
- Typically 4 6 units per building
- Designed to look like a single large home
- 10 20 dwelling units per acre

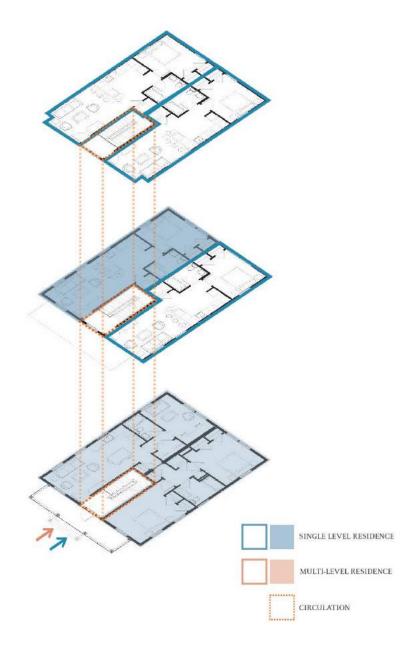


## Manor House: Small-scale multifamily that looks like a large home









## Manor House: Small-scale multifamily that looks like a large home













## Walk-up: Mid-scale multifamily with single circulation core





- Typically 2 3 stories
- Typically 8 12 units per building
- Series of flats with single, central circulation core
- 15 25 dwelling units per acre



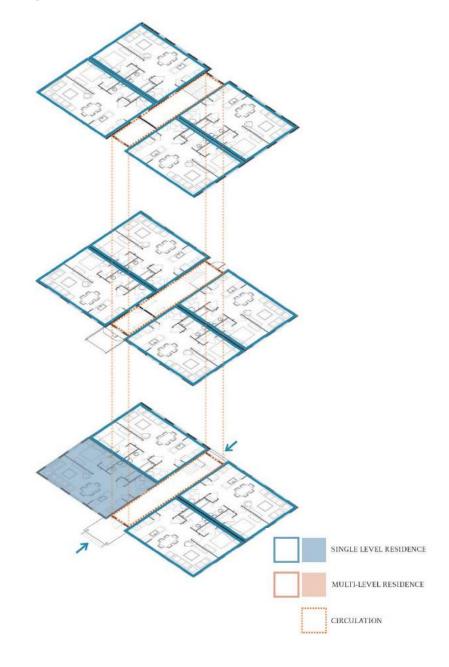


## Walk-up: Mid-scale multifamily with single circulation core









## Walk-up: Mid-scale multifamily with single circulation core



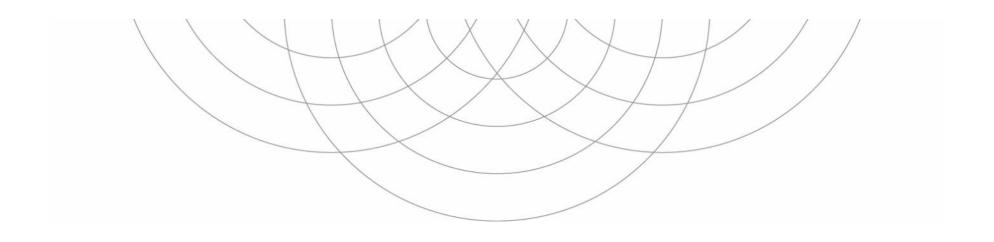




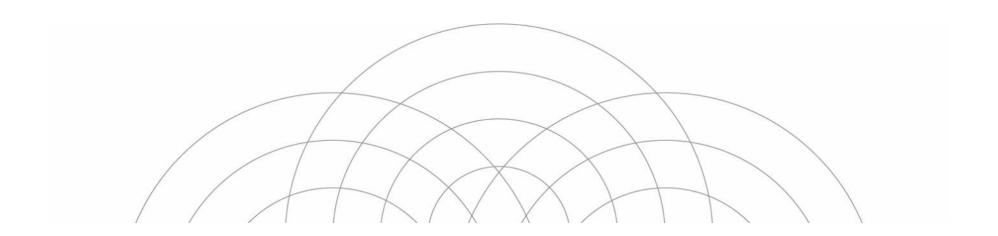








## Illustrative Case Studies



## Illustrative Case Studies: Falmouth





#### Illustrative Case Studies: Falmouth





#### Illustrative Case Studies: Falmouth





#### Illustrative Case Studies: Eastham





#### Illustrative Case Studies: Eastham – Commercial on Route 6





#### Illustrative Case Studies: Eastham – Mixed Use on Route 6





#### Illustrative Case Studies: Eastham – Residential on Route 6



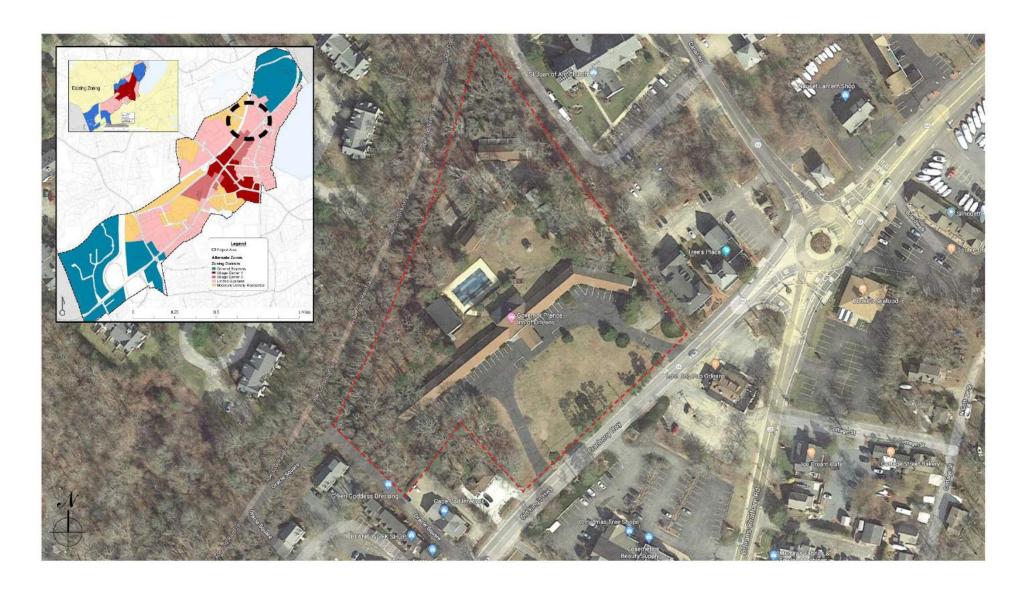


## Illustrative Case Studies: Eastham





## Illustrative Case Studies: Orleans





#### Illustrative Case Studies: Orleans





## Illustrative Case Studies: Orleans





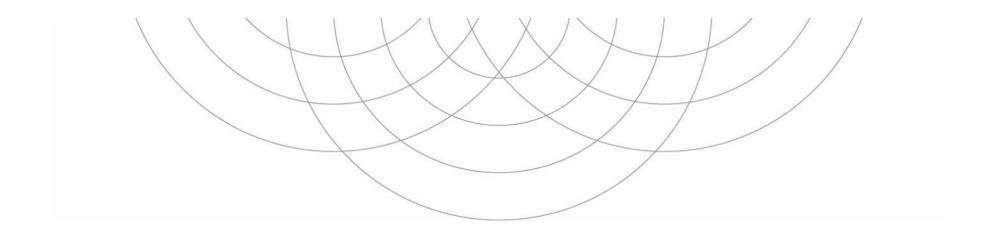
## Illustrative Case Studies: Density Comparison



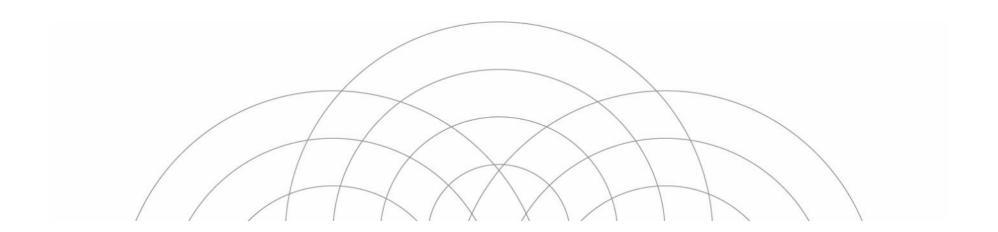




20 du/acre 14 du/acre 10 du/acre



# Next Steps and Discussion



## **Next Steps**

Form-based Code Model







Pro Forma and Envision Tomorrow

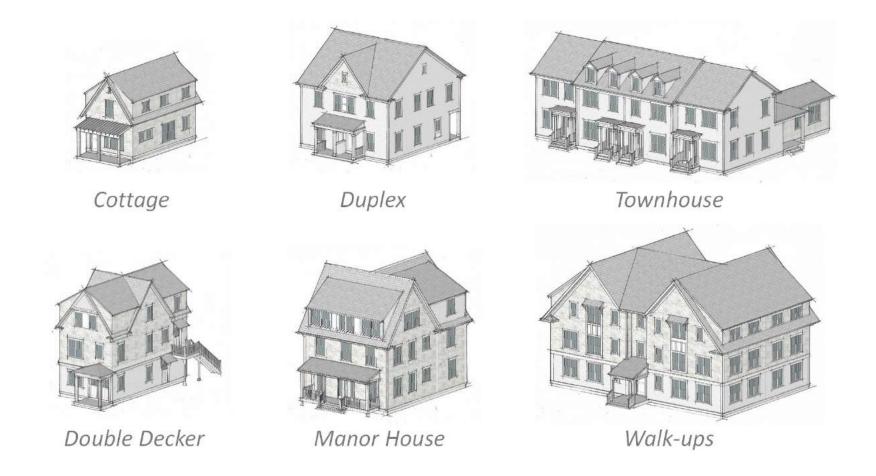
Hyannis Study Area





www.capecodcommission.org/crbd

#### **Discussion**



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