

Vermont 802 Homes

Community Partner Steering Committee

March 27, 2026



Home Designs

Big Picture Process + Assumptions

1. Mapping/Applicability of Types

- a. Infill Site Alignment - Demonstrate/test whether these types (+their associated parking) can fit on a variety of sites (within the zoning requirements?) - Is there enough variety in form?

2. Ownership v Rental

- a. For both fire-code and design reasons should we lock each type to either rental or ownership?

3. Optimization for Modular v Pods v Panelized v Stick-Built

- a. Do all types need to be optimized for all construction methods?
- b. Are there design adjustments that would create more efficiencies for pod, panel and bulk purchasing?

4. Regulatory

- a. State Permits: Expedited process for wastewater, water, etc for these home designs?
- b. Zoning: Expedited municipal permitting
- c. Short Term Rentals: Ways to disincentivize through design? Regulation?

Design Revisions for all Typologies

1. Balancing Livability & Affordability

- Consider potential locations for **covered parking for all age-in-place/accessible units**
 - Develop simple carport typology (with storage?)
- Audit all **first level units to see if they can be made visitable or fully-accessible**
- Audit all types (especially starter homes) for **work from home spaces**
- Think through likely **relationships to outdoor living spaces**, incorporate thoughtful door locations
- Evaluate what additional construction efficiencies can be found without compromising livability (e.g. closets > wardrobes)

2. Off-Site & Technical Assumptions

- Basements vs. Crawl Spaces vs. Slabs on Grade
 - Current thinking is we will attempt to accommodate full basements with interior and exterior access where possible. Alternative will be a MEP external closet + crawlspace or slab on grade
 - Continue to balance: flooding risk, ease of modular construction, added costs, storage
- Check all **floor-to-floor heights** to make sure they **work for modular construction**
 - This will impact stair runs
- Consider advantages of single, **combined MEP spaces for multifamily types** - rather than MEP closets inside individual units
 - Location: Should MEP be located in basement (flooding risk), attics, or external to the building?

3. Code Review (Ongoing)

- Understand whether **having a rental unit makes sprinklers required**
 - If that is the case, study whether our “sprinkler-avoidance trade-offs” (ie no common areas) are still worth including

Criteria for Narrowing to 10 Home Designs

1. **Delivers on Homes for All Mission**

Typologies that the market isn't already providing, prioritizing alignment with the project's core mission to create affordable-by-design homes that fill gaps in the market, align with vernacular Vermont design norms at the single-family scale (up to 2.5 stories), and are compatible with off-site construction methods.

2. **Unique Contribution to Variety** (both of shapes/sizes + in unit type offerings)

Is not duplicative of any other typologies in terms of the mix of programmatic, demographic, occupancy, and infill site alignment.

Unique contribution to one or both:

- Building and unit mix that meets a wide range of demographic needs
- Dimensional variety that aligns with common infill site conditions

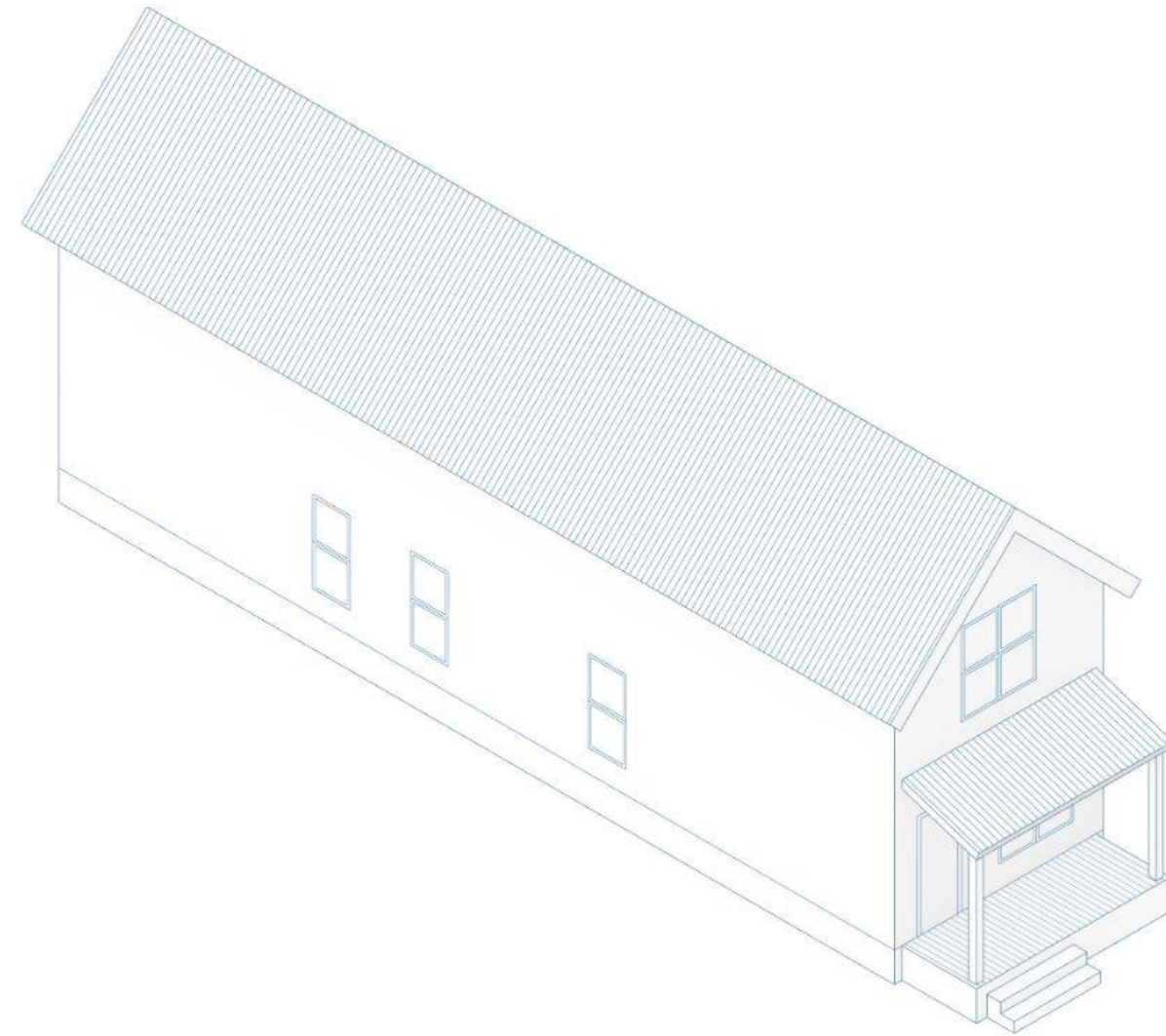
3. **Design Quality**

Unit designs already or have the potential to offer high quality of life with built-in features aligned to liveability and lifestyle preferences for Vermonters.

Railroad Flat

Narrow ADU

# of Units	1
Bedrooms	2
Bathrooms	2
Building Dims	14' x 56'
# of Stories	1.5 stories
Overall GSF	1,189 SF



Franklin Street - Montpelier



Lafountain St - Burlington

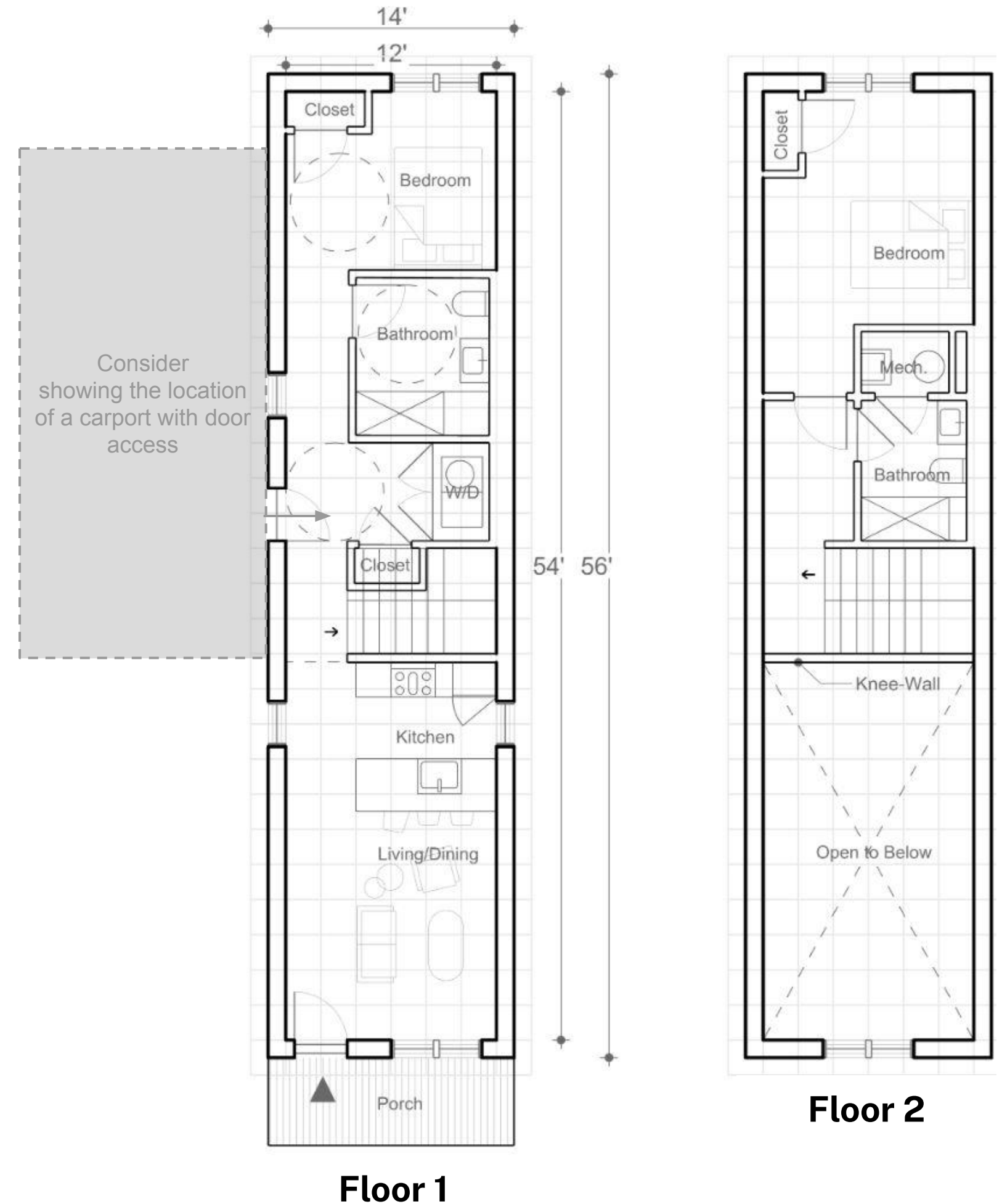
Railroad Flat

Narrow ADU

# of Units	1
Bedrooms	2
Bathrooms	2
Building Dims	14' x 56'
# of Stories	1.5 stories
Overall GSF	1,189 SF

Typology specific revisions:

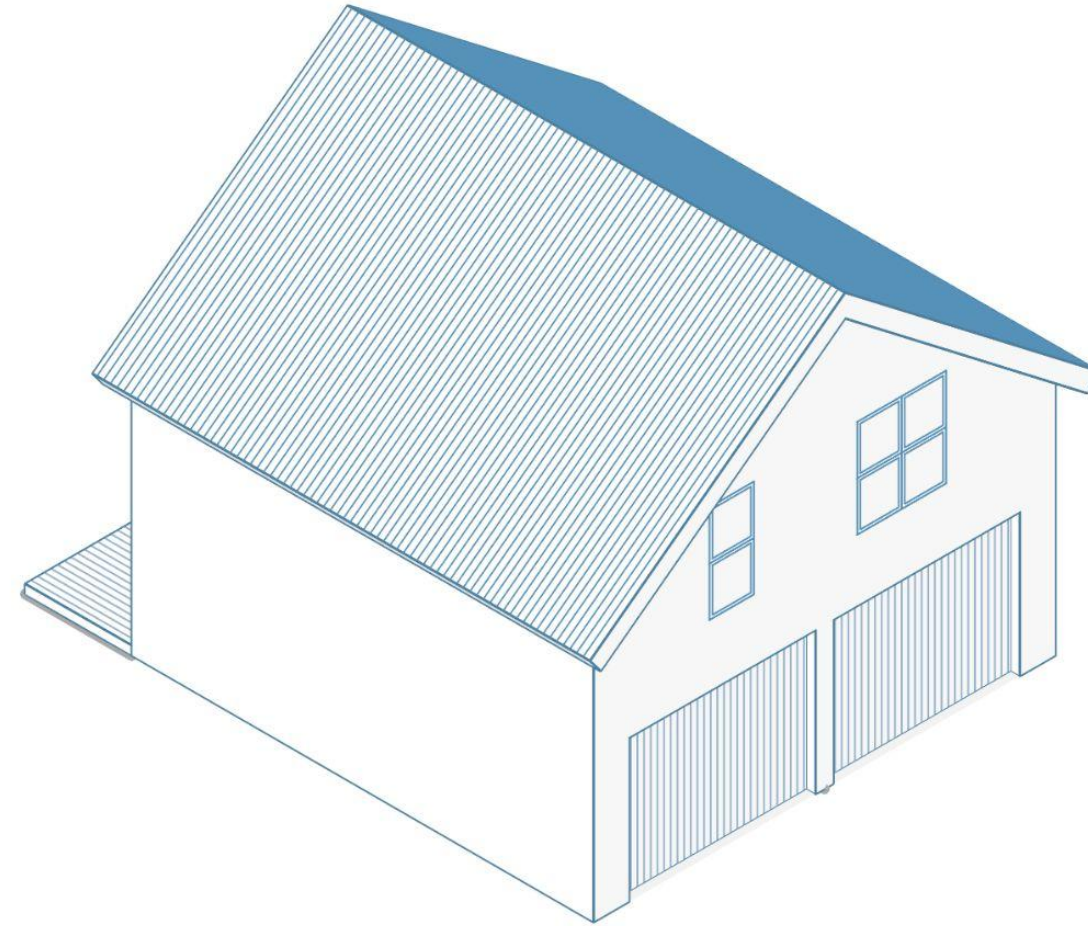
1. Carport and side entry door
2. Incorporate side-by-side washer/dryer
3. Add entry closet
4. Explore flipping upper story to borrow light from staircase rear wall
5. Basement access?
6. Many comments that “open-to-below” is wasted space, and people would prefer additional storage, bedroom or flexible work-from-home/hobby room on the second floor



Patio Cottage

Square ADU with One-Car Garage

# of Units	1
Bedrooms	2
Bathrooms	1.5
Building Dims	26' x 30'
# of Stories	1.5 stories
GSF (excl. garage)	1070 SF



Highland Ave, Manchester VT



Pleasant St, Essex Junction VT

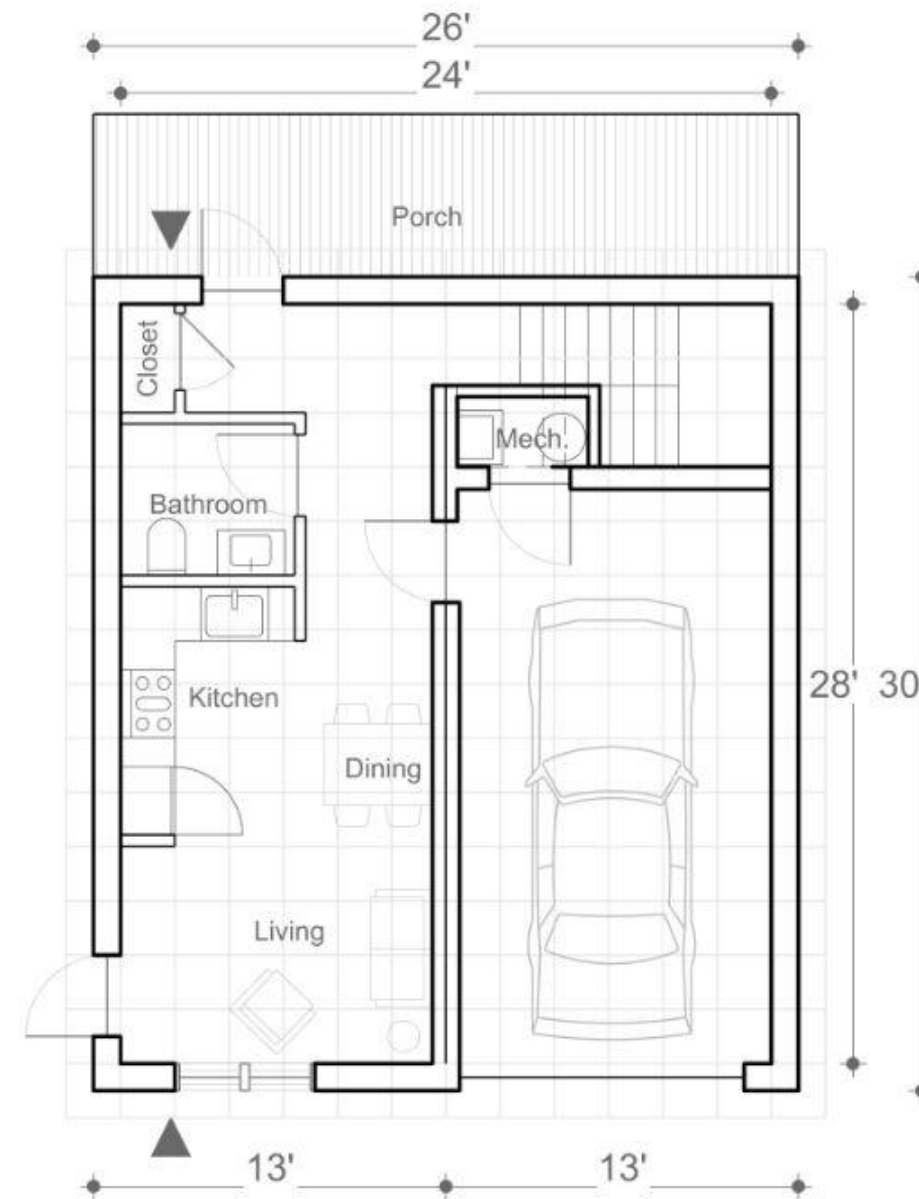
Patio Cottage

Square ADU with One-Car Garage

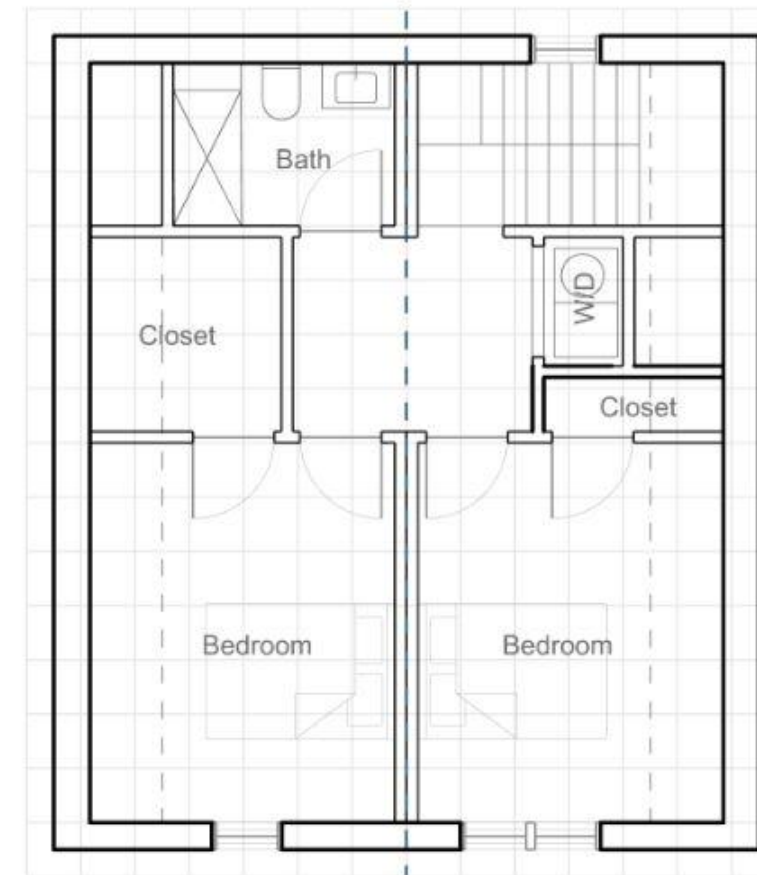
# of Units	1
Bedrooms	2
Bathrooms	1.5
Building Dims	26' x 30'
# of Stories	1.5 stories
GSF (excl. garage)	1070 SF

Typology specific revisions:

1. Need to address that this type necessitates a slab on grade (for the parking space)
2. Explore direct access to garage from interior



Floor 1



Floor 2

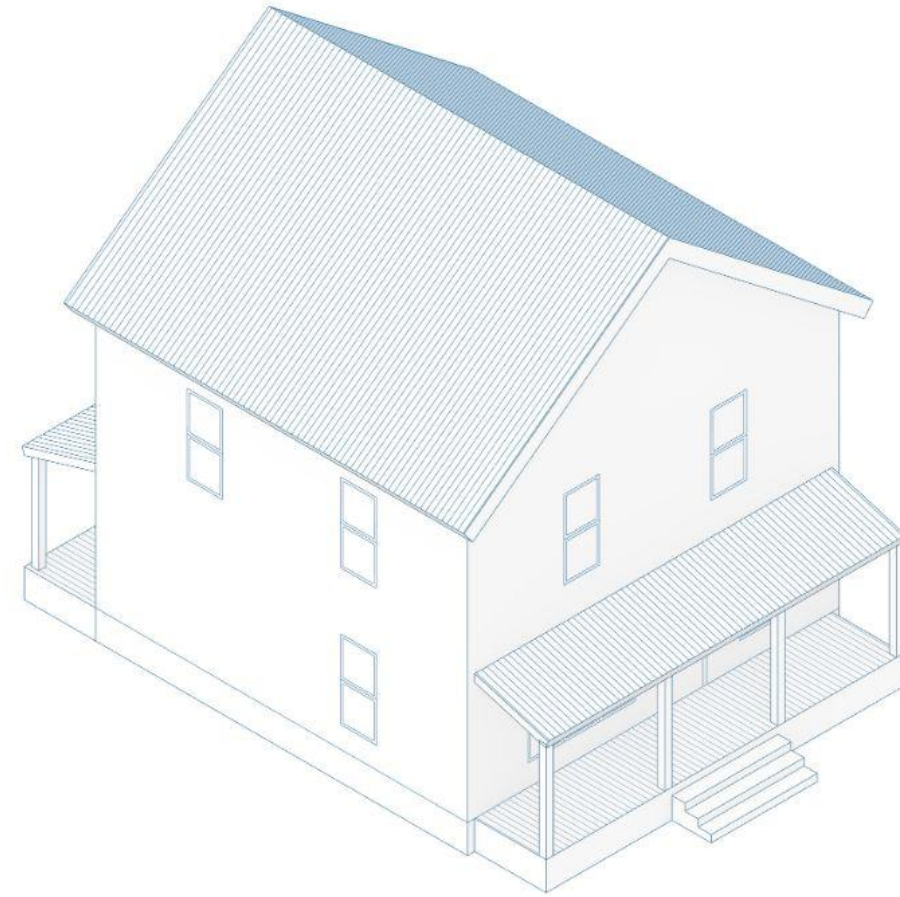
Why?

1. Offsite and templated on-site garage ADU designs exist already in the private market
2. Inherent tension between garage value for age-in-place vs. single story living compatibility due to footprint and configuration for site compatibility
3. Limitations for volumetric modular due to inclusion of slab-on-grade for parking spot

Four Square

Square ADU / Starter Home

# of Units	1
Bedrooms	3
Bathrooms	1.5
Building Dims	26' x 26'
# of Stories	2.5 stories
GSF (excl/incl attic)	1,350 SF



Highland Ave - Manchester



Victory Circle, Hartford VT

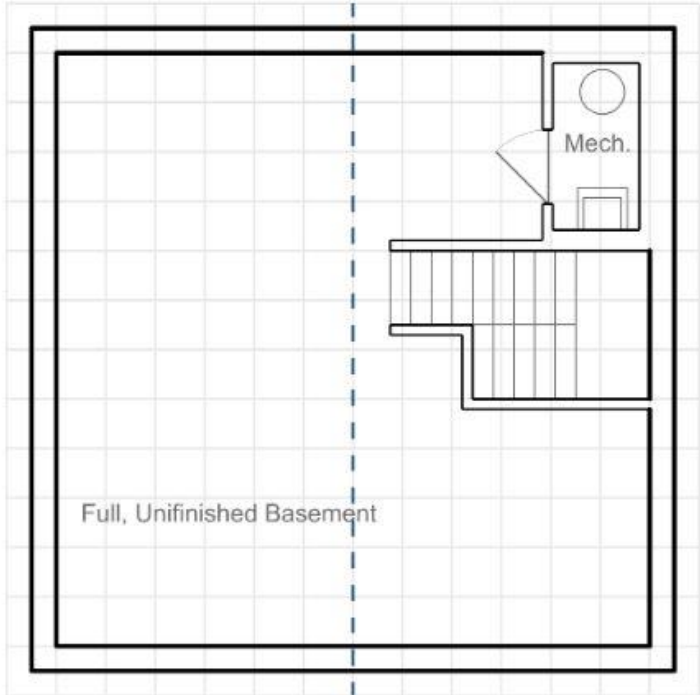
Four Square

Square ADU / Starter Home

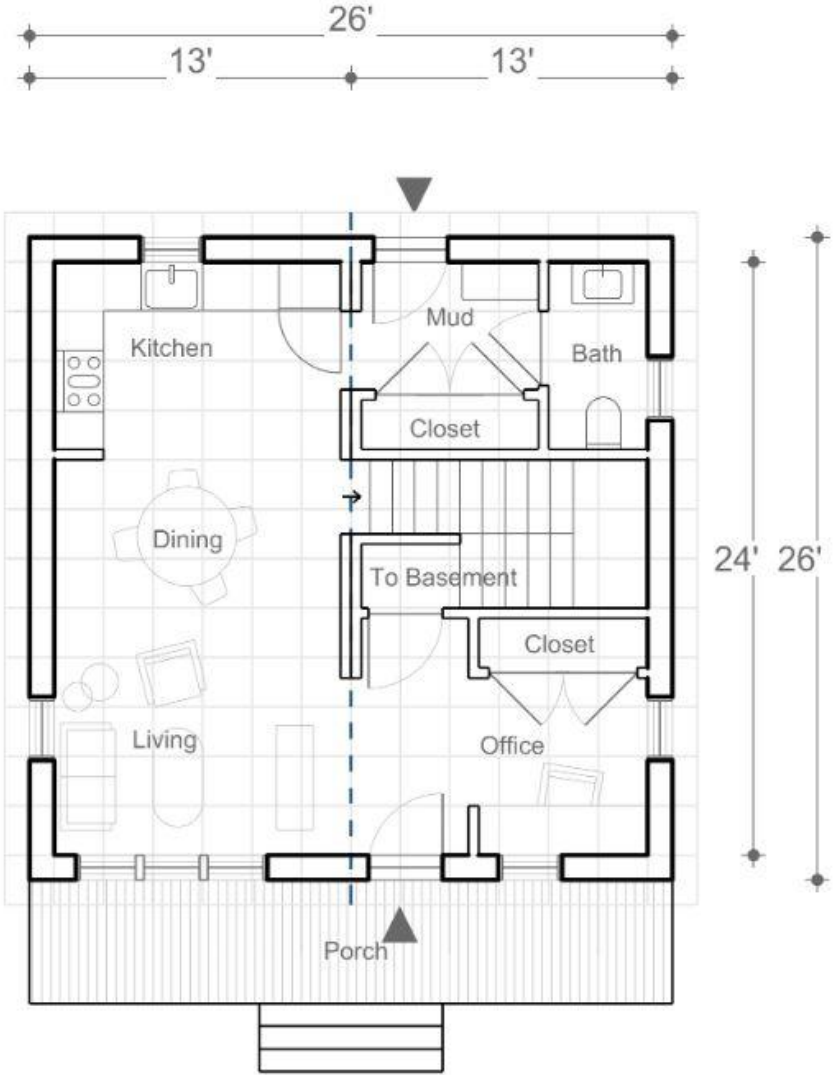
# of Units	1
Bedrooms	3
Bathrooms	1.5
Building Dims	26' x 26'
# of Stories	2.5 stories
GSF (excl/incl attic)	1,350 SF

Typology specific revisions:

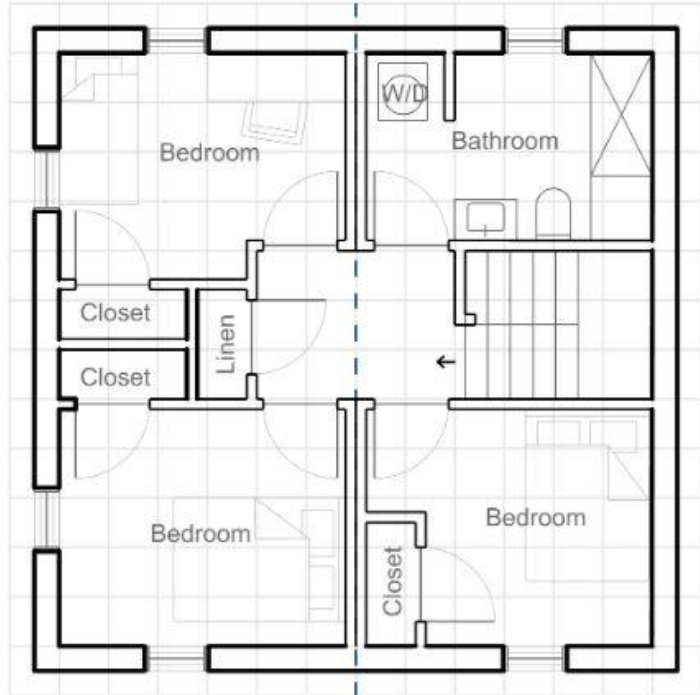
- 1. None



Basement
(unfinished)



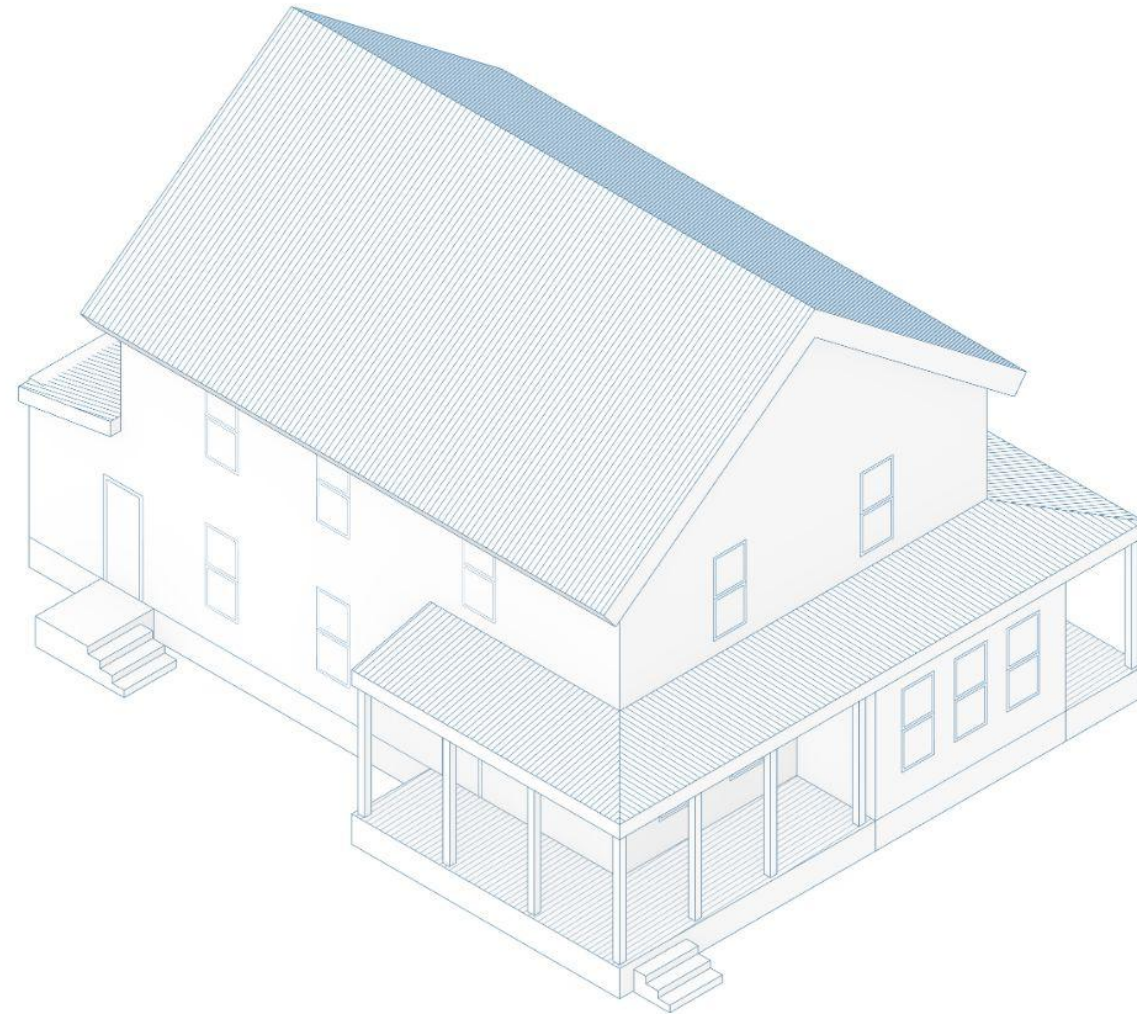
Floor 1



Floor 2

Paired Starter Home Duplex

# of Units	2
Bedrooms	2 / 2
Bathrooms	1.5 / 1.5
Building Dims	28' x 50'
# of Stories	2
GSF	2,269 SF



Hyde Park Ave - Roslindale (Boston) MA



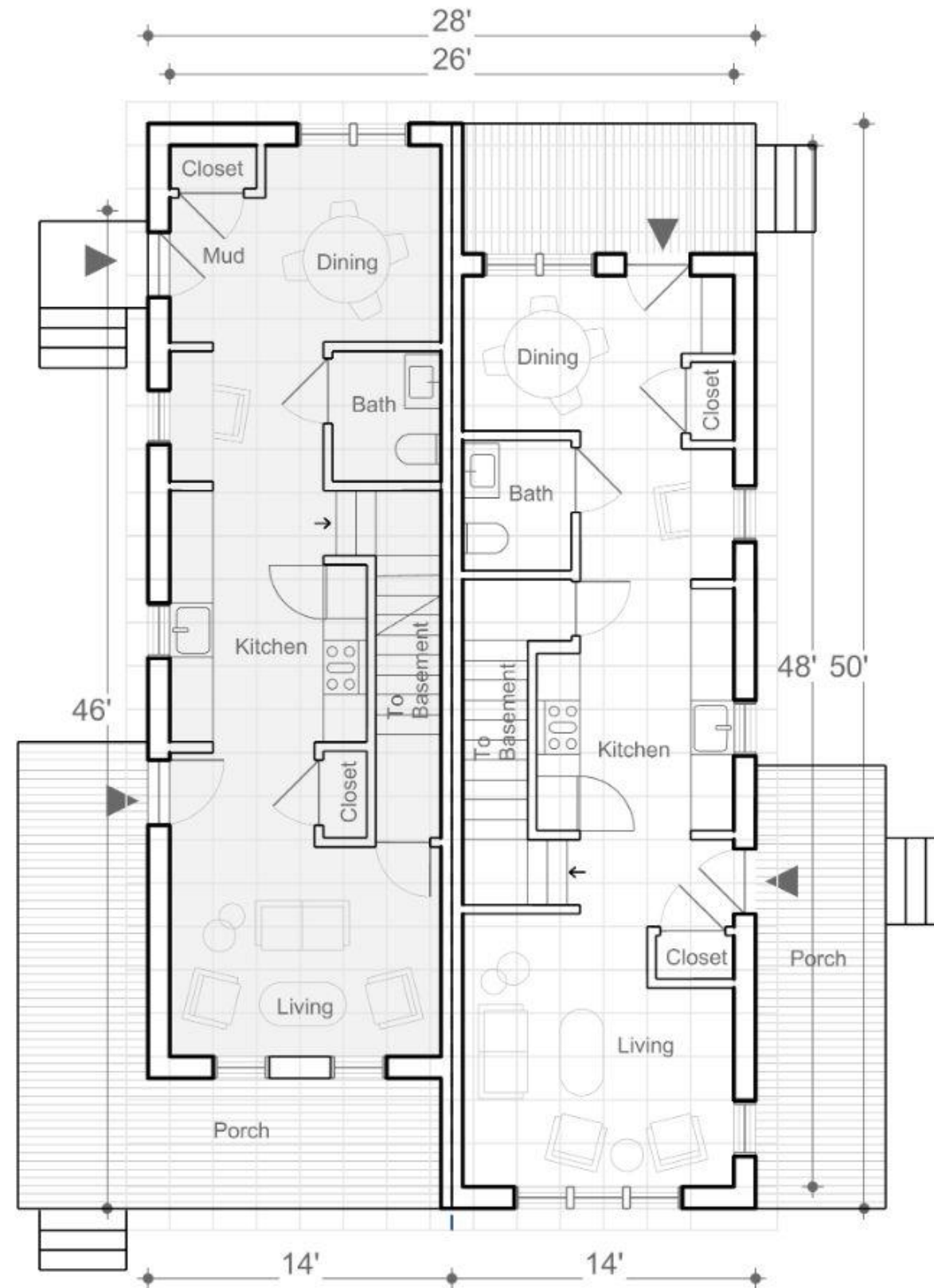
Hickory St, Rutland VT

Paired Starter Home Duplex

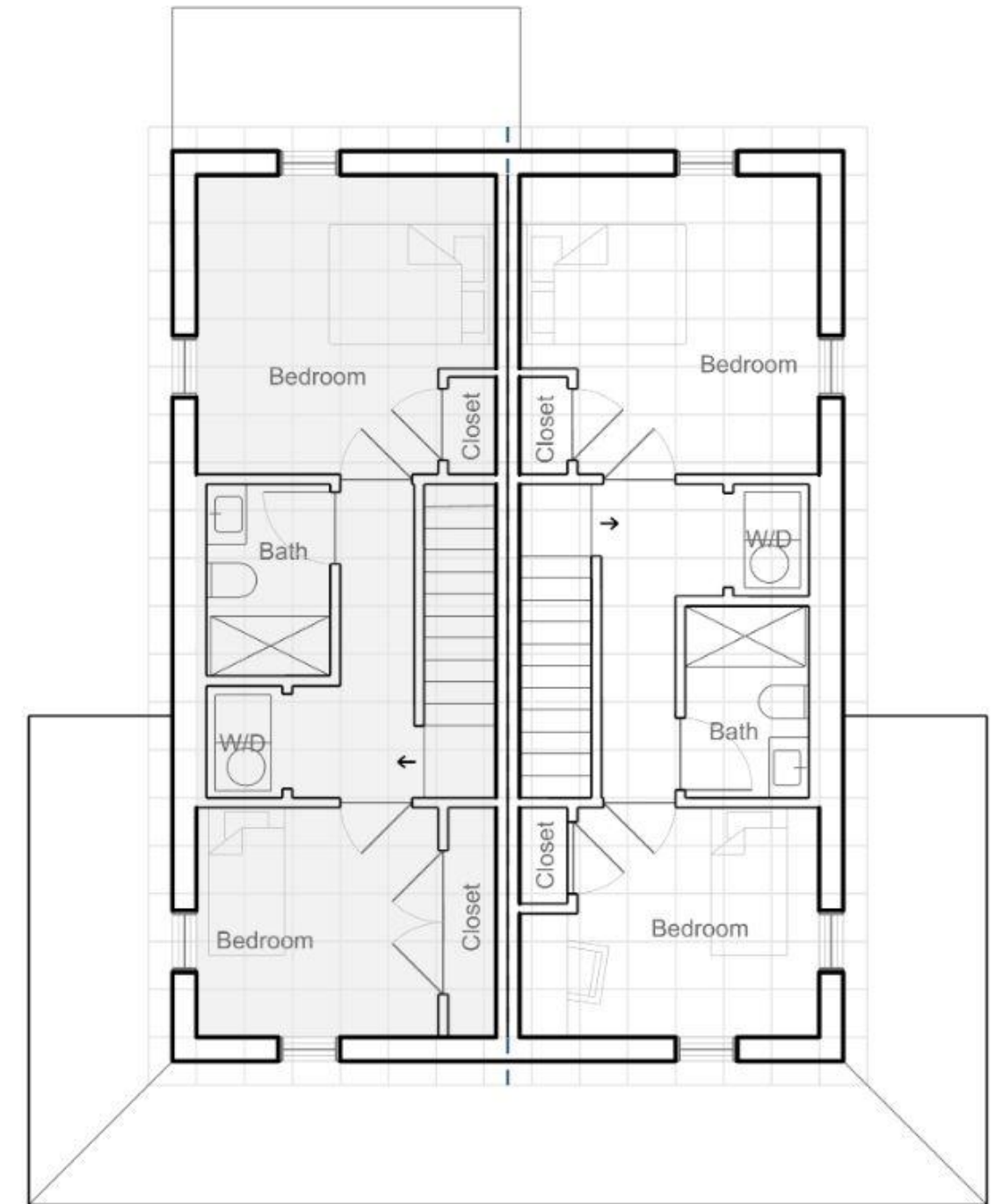
# of Units	2
Bedrooms	2 / 2
Bathrooms	1.5 / 1.5
Building Dims	28' x 50'
# of Stories	2
GSF	2,269 SF

Typology specific revisions:

1. Make ground floor of both ground floor units 4'-6' longer to add WFH niches
2. Move all entries to the sides
3. Allow both units to access basements



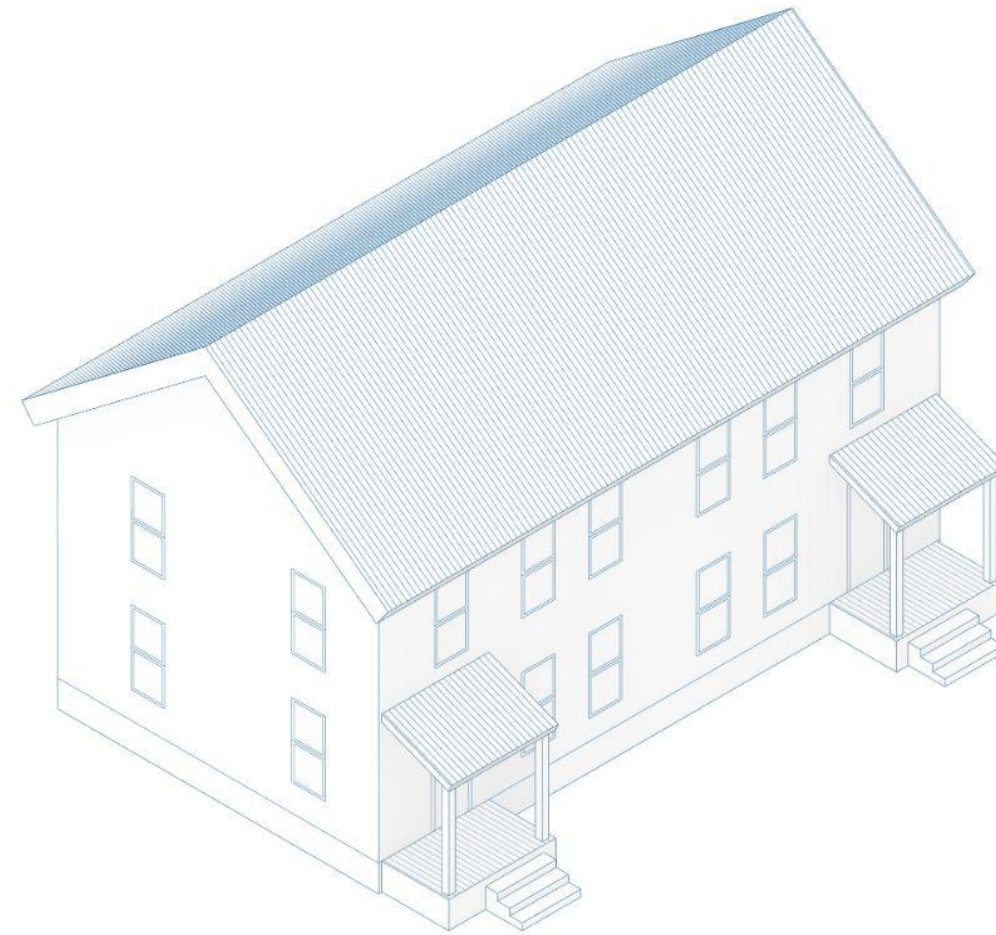
Floor 1



Floor 2

Side-by-Side 2 Bed Duplex

# of Units	2
Bedrooms	2 / 2
Bathrooms	1.5 / 1.5
Building Dims	42' x 24'
# of Stories	2
GSF (base/alts)	2,016 SF



Grove St, Essex Junction



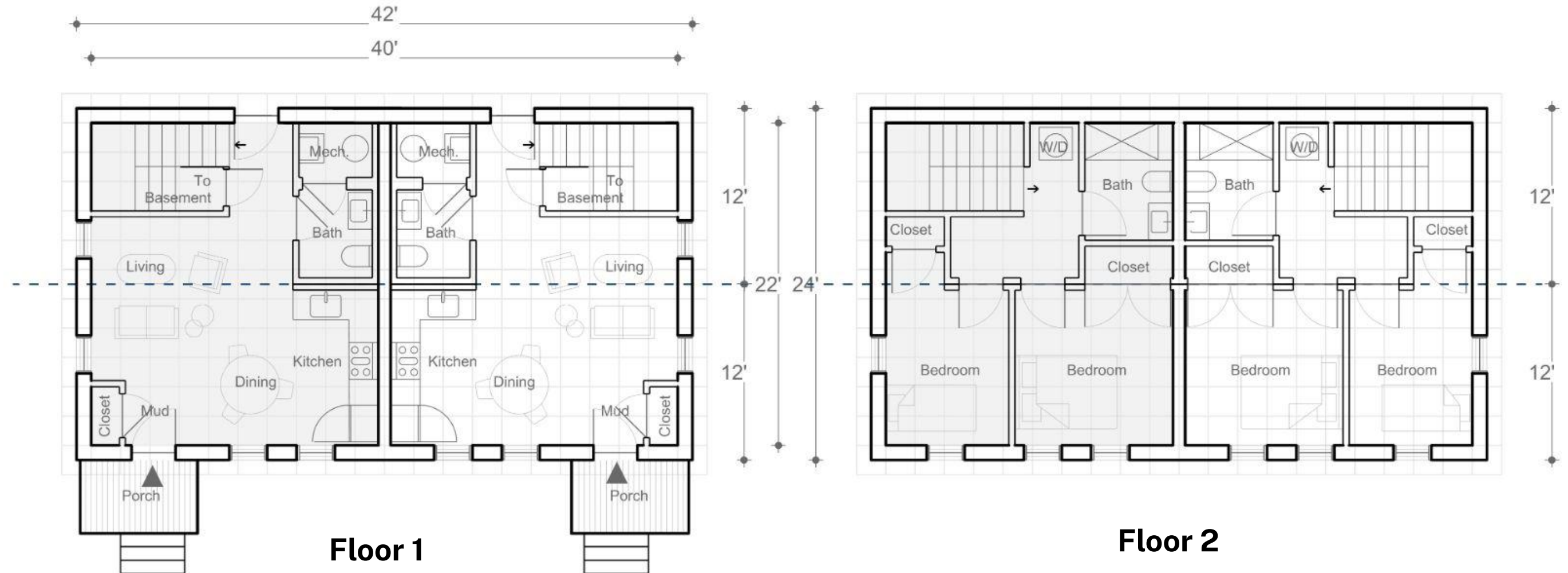
St Paul Street - Montpelier

Side-by-Side 2 Bed Duplex

# of Units	2
Bedrooms	2 / 2
Bathrooms	1.5 / 1.5
Building Dims	42' x 24'
# of Stories	2
GSF (base/alts)	2,016 SF

Typology specific revisions:

1. Consider ways to better align the 2nd floor to modular construction (orient marriage line horizontally?)

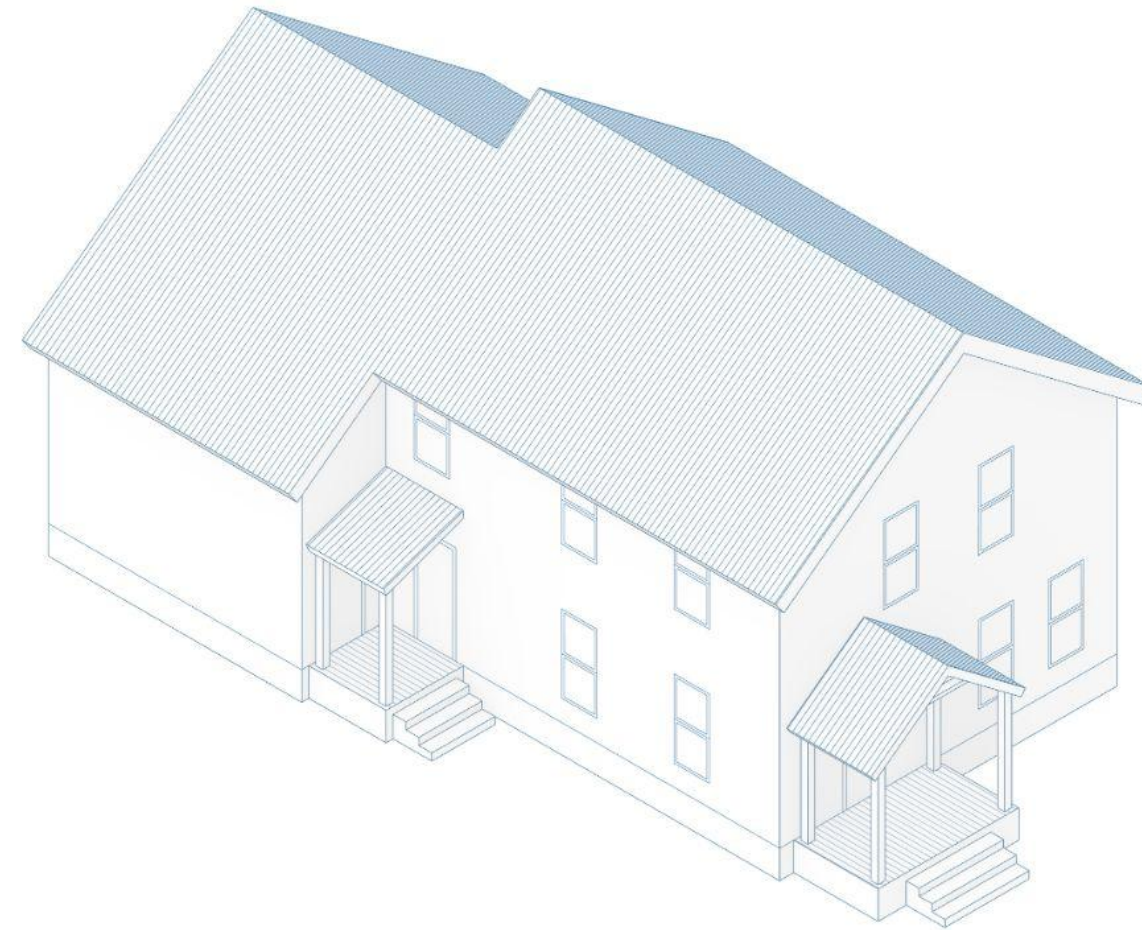


Back to Back Duplex

# of Units	2
Bedrooms	3 / 1
Bathrooms	1.5 / 1
Building Dims	30' x 46'
# of Stories	2 / 1.5
GSF	2,188 SF

Typology specific revisions:

1. None



Arlington Street - Essex Junction



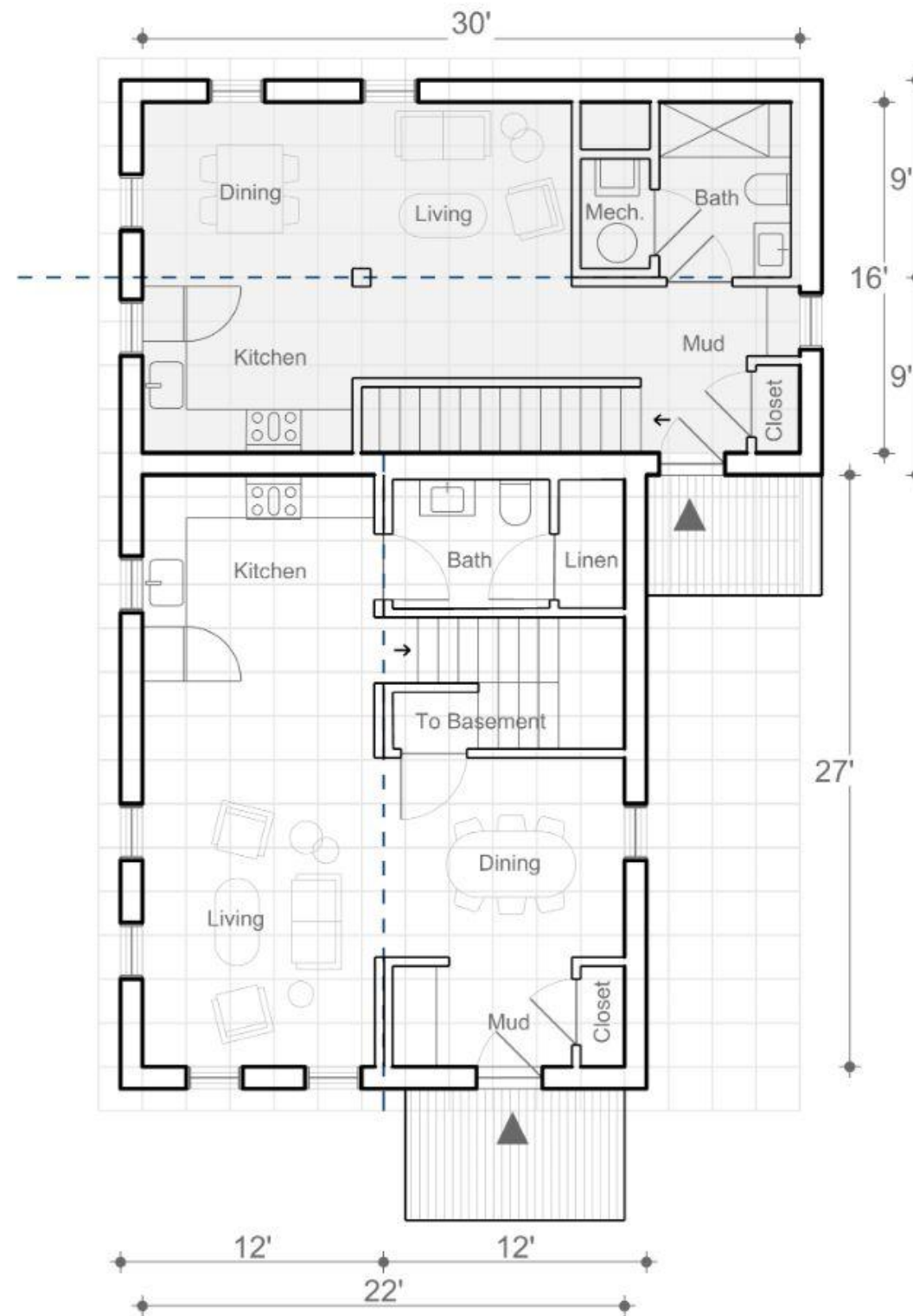
Main St, Essex Junction

Back to Back Duplex

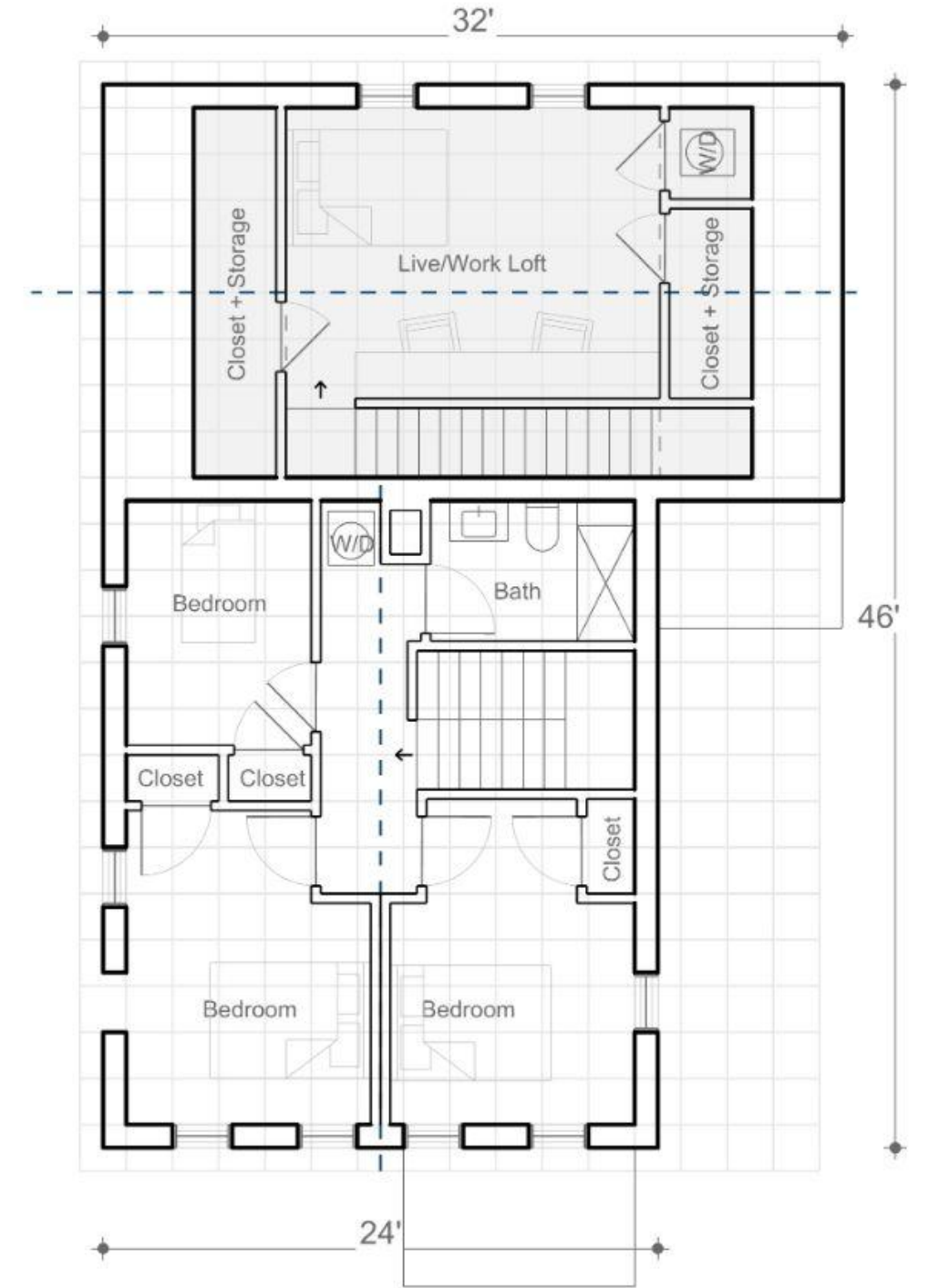
# of Units	2
Bedrooms	3 / 1
Bathrooms	1.5 / 1
Building Dims	30' x 46'
# of Stories	2 / 1.5
GSF	2,188 SF

Typology specific revisions:

- None



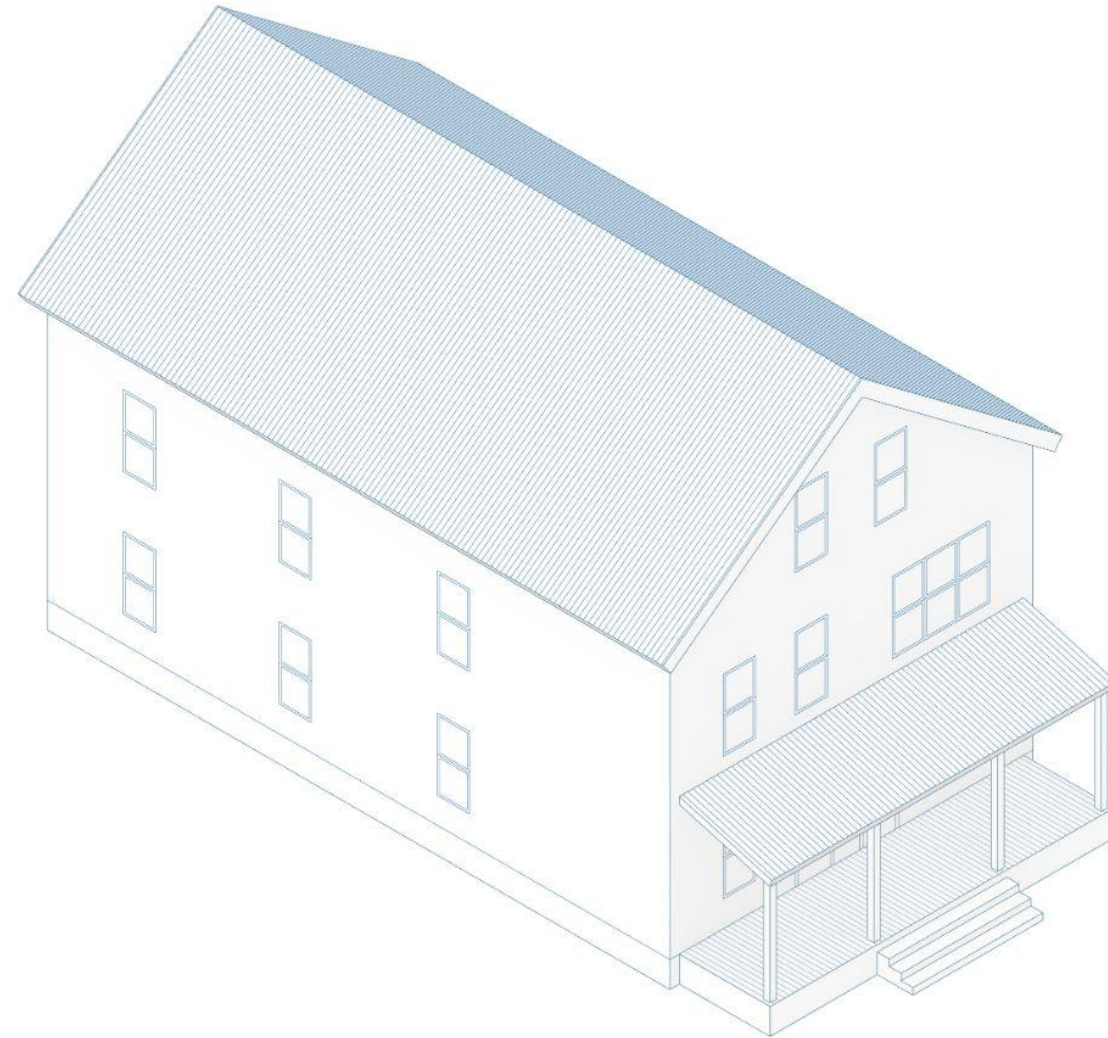
Floor 1



Floor 2

Intergenerational Triple Decker Duplex

# of Units	2
Bedrooms	2 / 3+
Bathrooms	1 / 2
Building Dims	28 x 48'
# of Stories	2.5
GSF	3,150 SF



Hartford Ave - Hartford



Granite St, Barre

Intergenerational Triple Decker Duplex

# of Units	2
Bedrooms	2 / 3+
Bathrooms	1 / 2
Building Dims	28 x 48'
# of Stories	2.5
GSF	3,150 SF

Typology specific revisions:

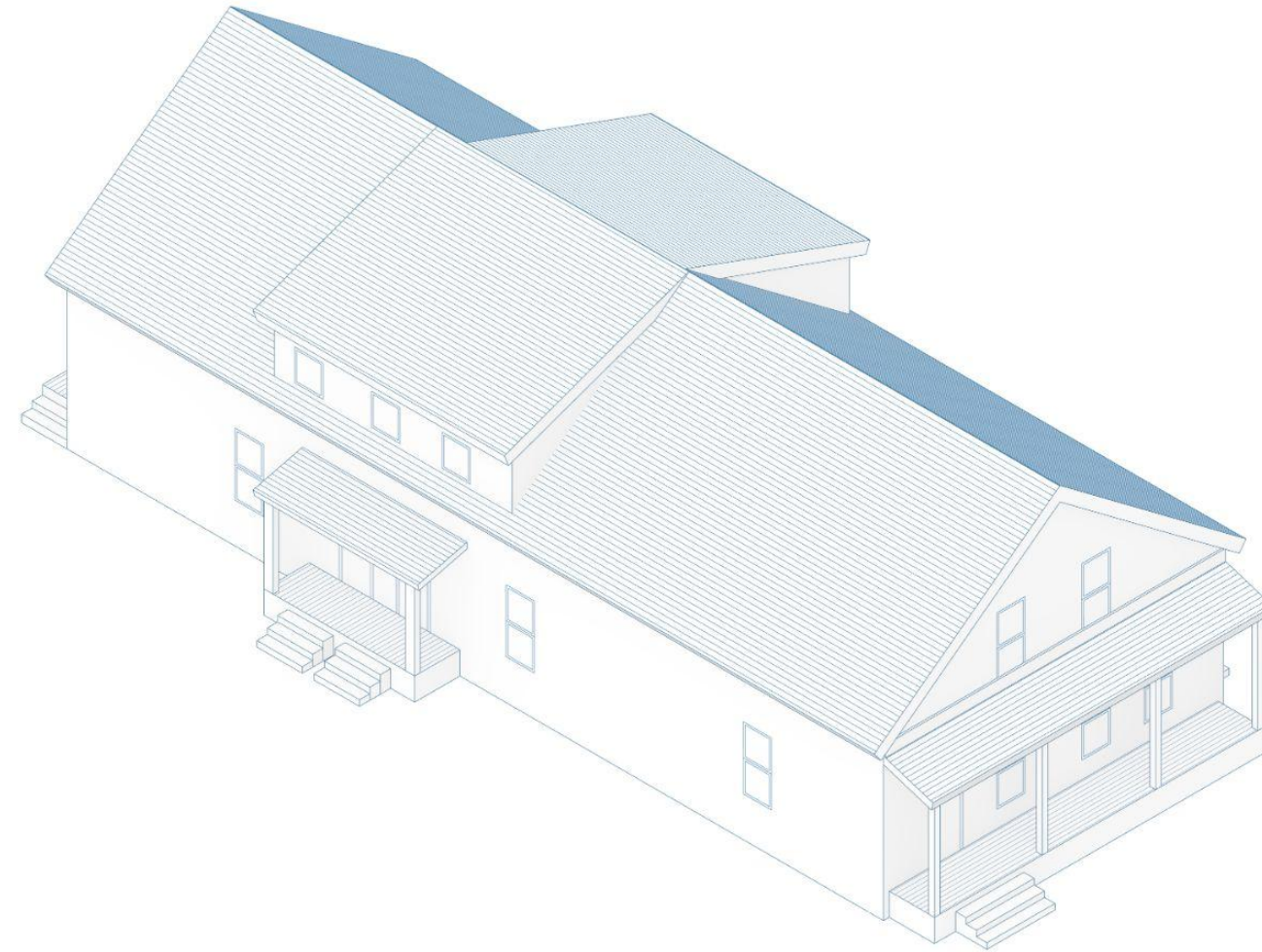
1. Test accessible layout for level 1
2. Test full width balconies on all levels
3. Continue to evaluate optimal location of stair and front-facing room light exposure and functionality
4. Continue to evaluate best way to navigate life safety code constraints on top floor



Village 4

Four-Plex

# of Units	4
Bedrooms	2/2/1/1
Bathrooms	1.5/1.5/1/1
Building Dims	30' x 74'
# of Stories	1.5
GSF	3,590 SF



School Street - Randolph



N Windsor St, South Royalton

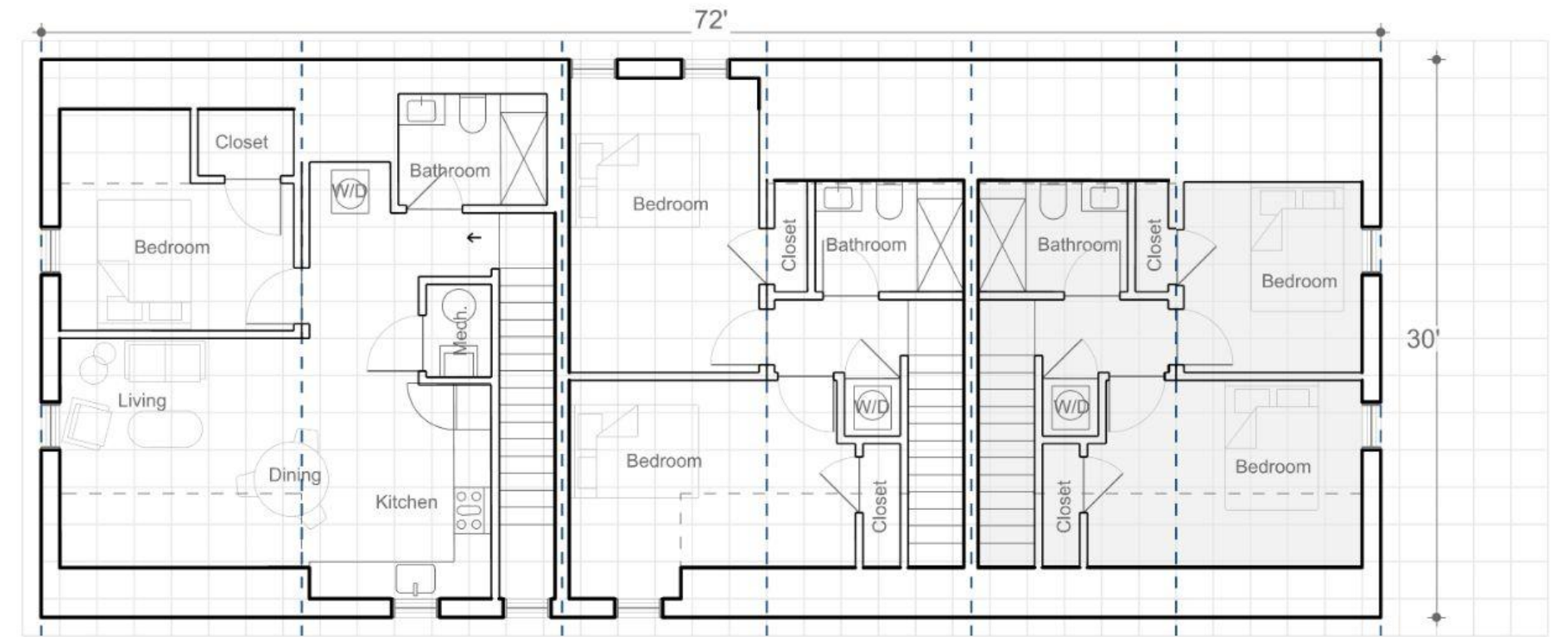
Village 4

Four-Plex

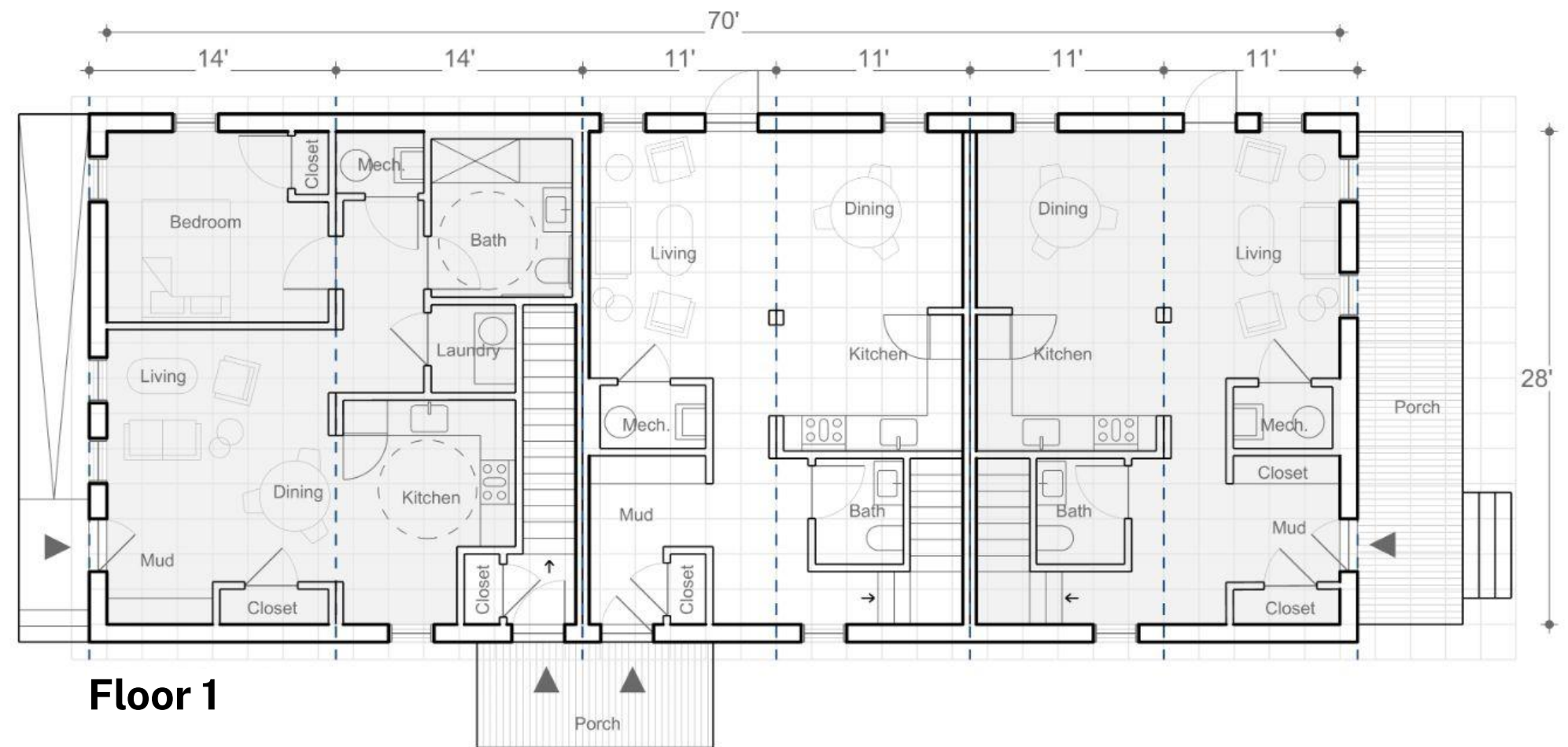
# of Units	4
Bedrooms	2/2/1/1
Bathrooms	1.5/1.5/1/1
Building Dims	30' x 74'
# of Stories	1.5
GSF	3,590 SF

Typology specific revisions:

1. Basement access
2. Modular demising lines are not quite working on the second story
3. Align dormers to modular demising lines and align across roofline
4. Improved layout for accessible first story unit and second story rear unit roofline



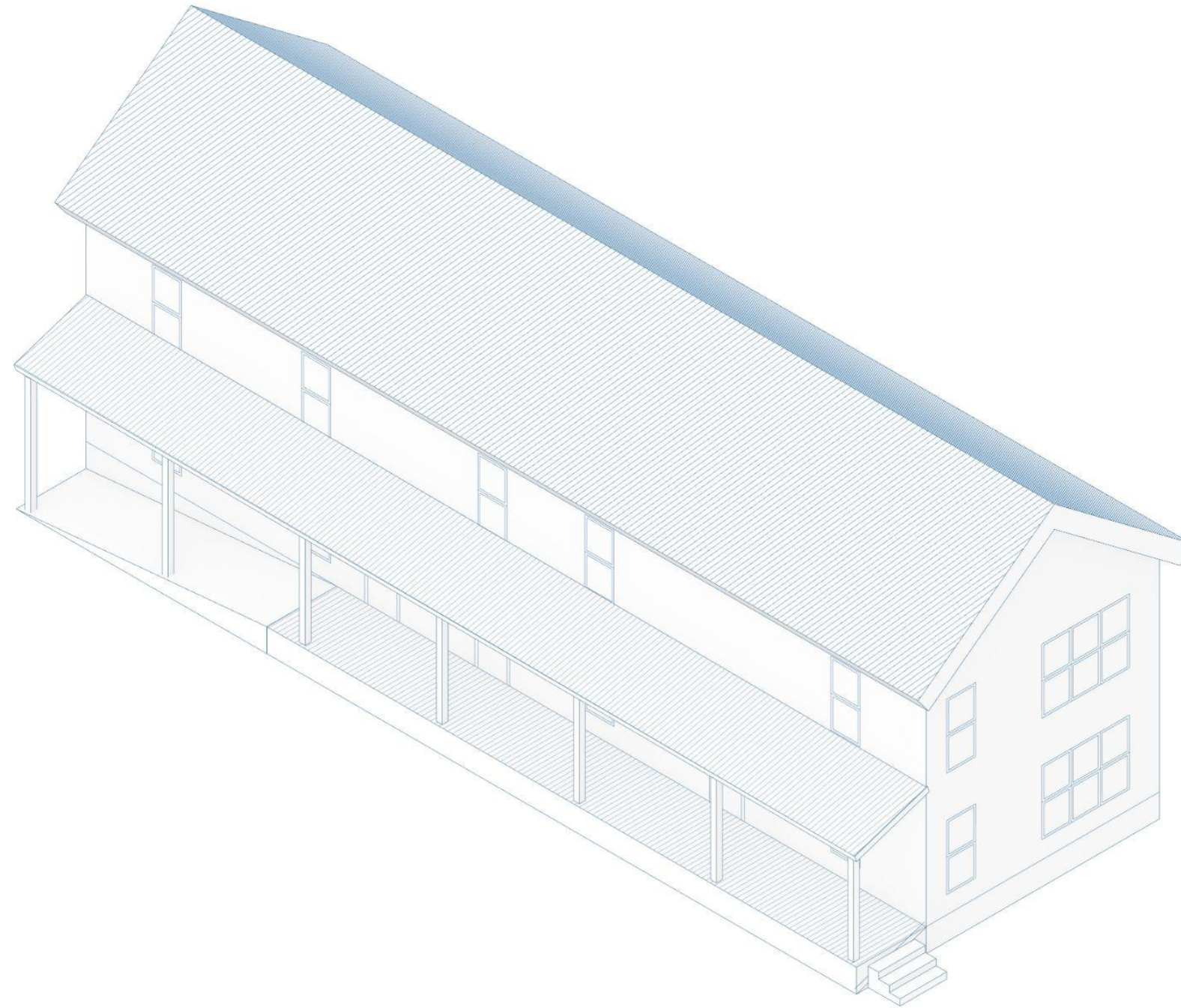
Floor 2



Floor 1

Narrow Lot Four-Plex

# of Units	4
Bedrooms	1/1/1/stu
Bathrooms	1/1/1/1
Building Dims	20' x 72'
# of Stories	2
GSF	2,658 SF



Spring Street - Montpelier



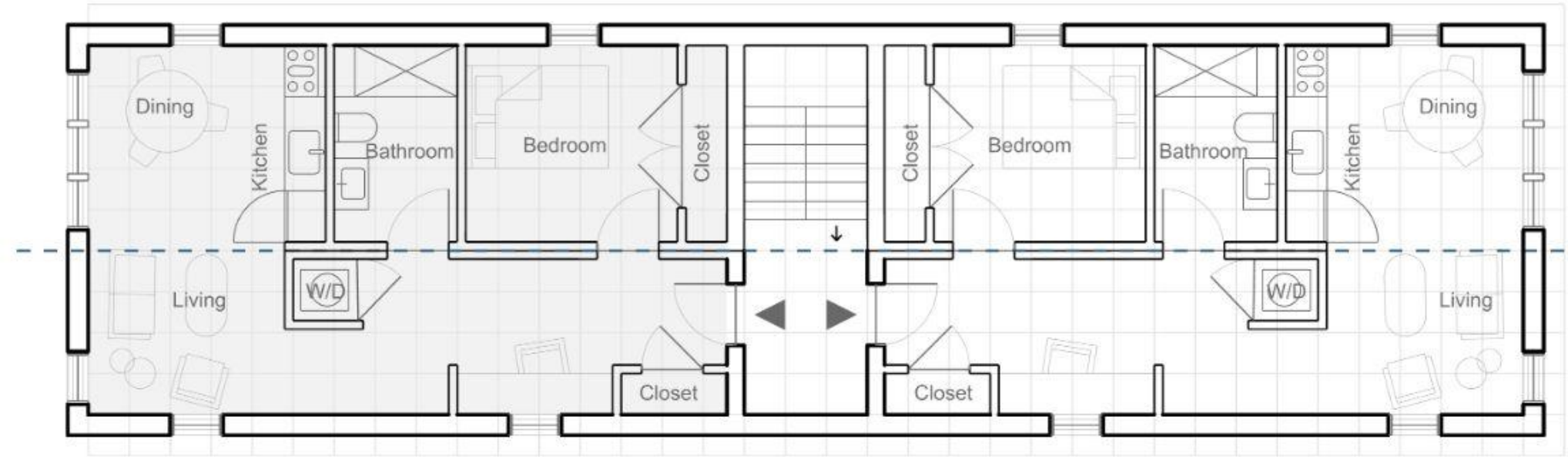
Myrtle St, Bellows Falls

Narrow Lot Four-Plex

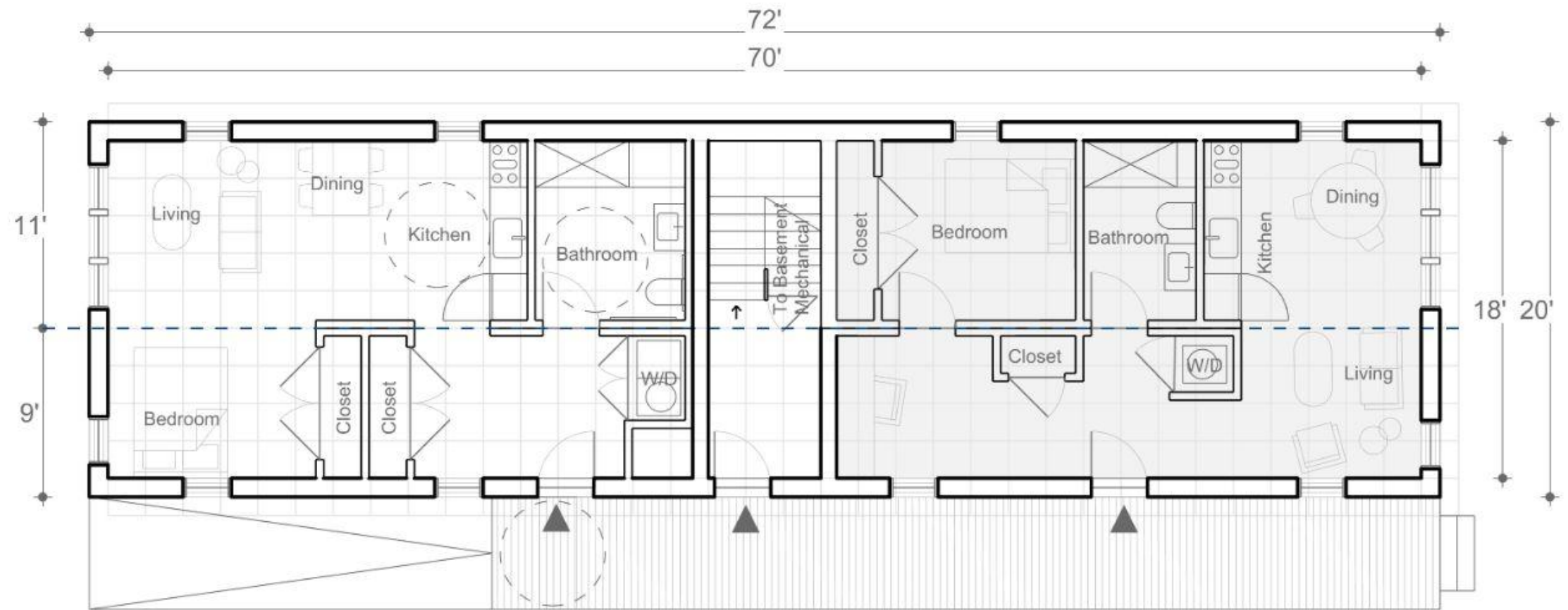
# of Units	4
Bedrooms	1/1/1/stu
Bathrooms	1/1/1/1
Building Dims	20' x 72'
# of Stories	2
GSF	2,658 SF

Typology specific revisions:

1. Move all mechanical space to attic or basement
2. Shift to one shared stair, ensure alignment of stair with modular constraints/demising line
3. Consider best way to add cover to ramp, study full length side porch
4. Explore accessible units for both ground floor units



Floor 2

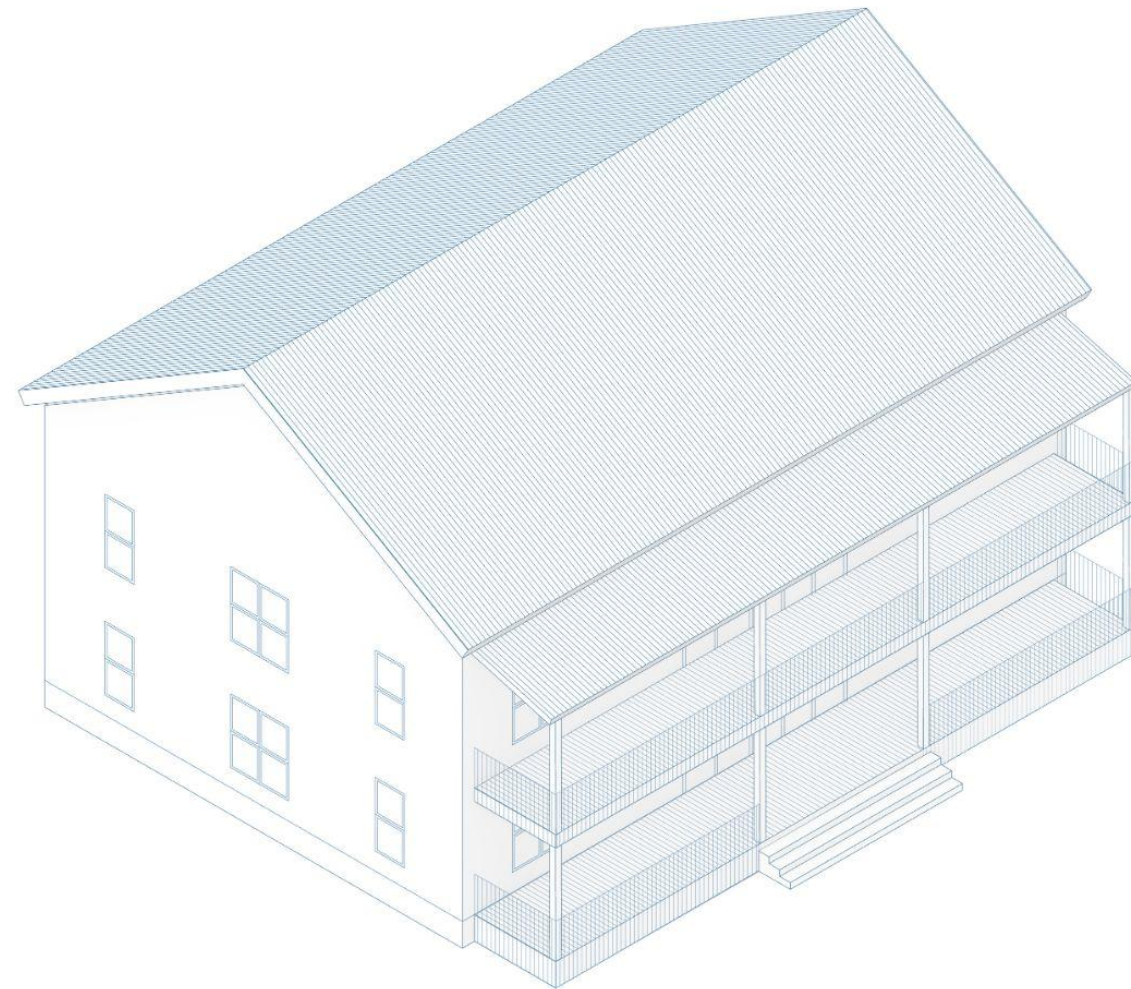


Floor 1

Stackable

Four-Plex / Six-Plex?

# of Units	4
Bedrooms	2/2/2/2
Bathrooms	1/1/1/1
Building Dims	36' x 52'
# of Stories	2
GSF	3,657 SF



Hartford Ave - Wilder (Hartford)



Jefferson St, Barre St

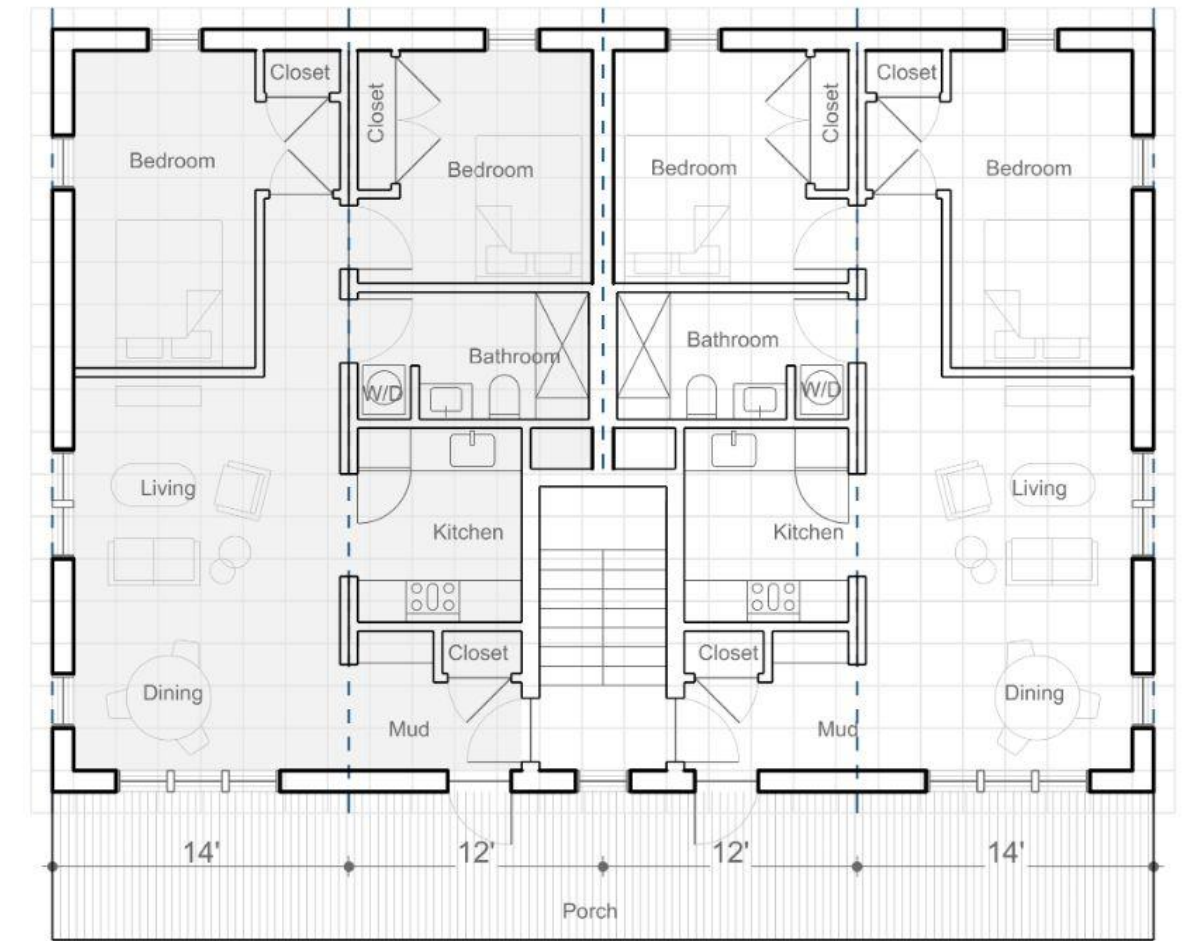
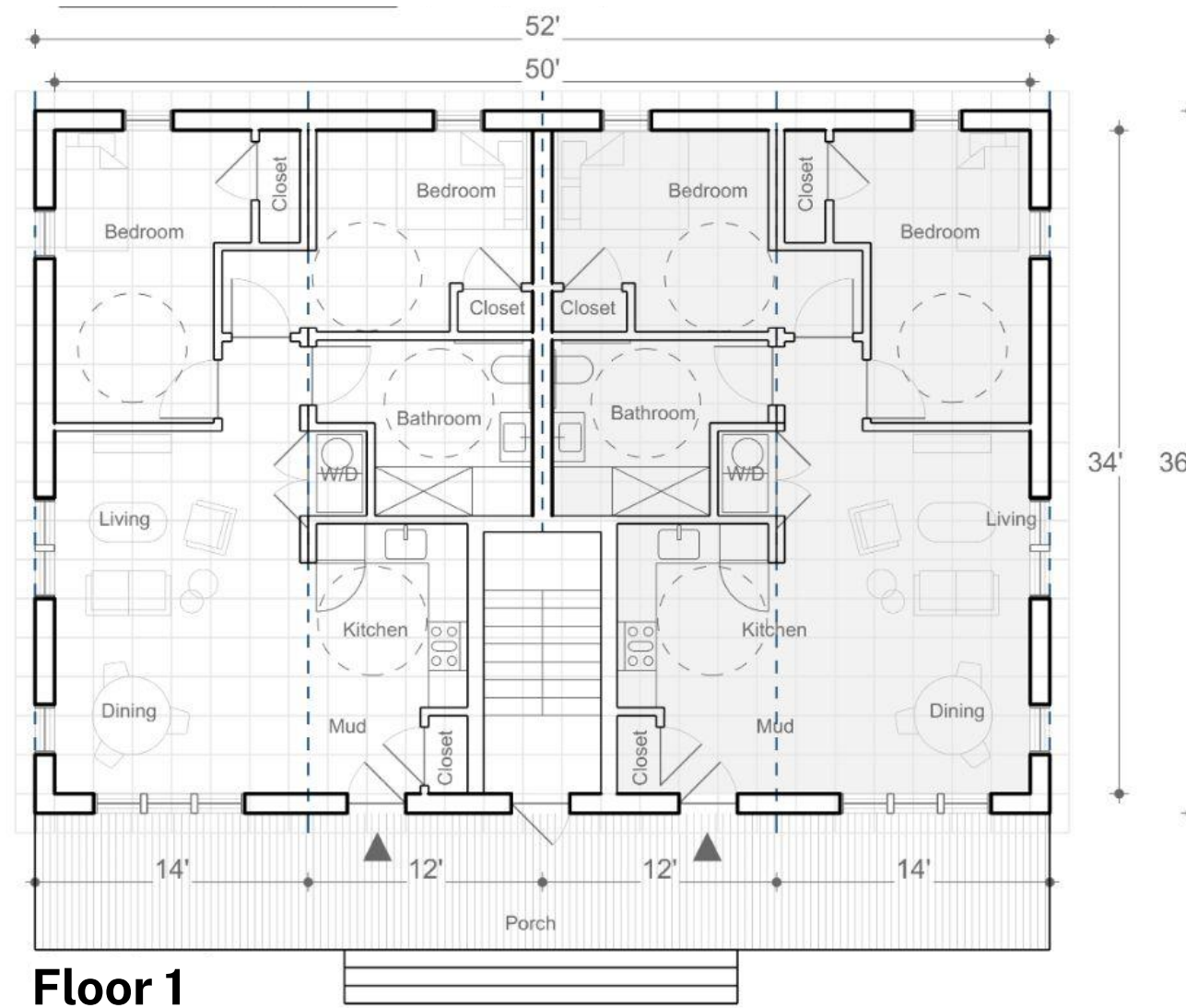
Stackable

Four-Plex / Six-Plex?

# of Units	4
Bedrooms	2/2/2/2
Bathrooms	1/1/1/1
Building Dims	36' x 52'
# of Stories	2
GSF	3,657 SF

Typology specific revisions:

1. Test accessible layout for ground floor units
2. Determine best location for MEP
3. Explore stair configuration alternatives: If sprinklers are required anyways, would we rather have an interior stair? Prefer less prominent stair locations to emphasize full-width front porch
4. Explore ways to gain natural light in kitchen
5. Improve bedroom layouts
6. Continue studying code implications of adding third floor

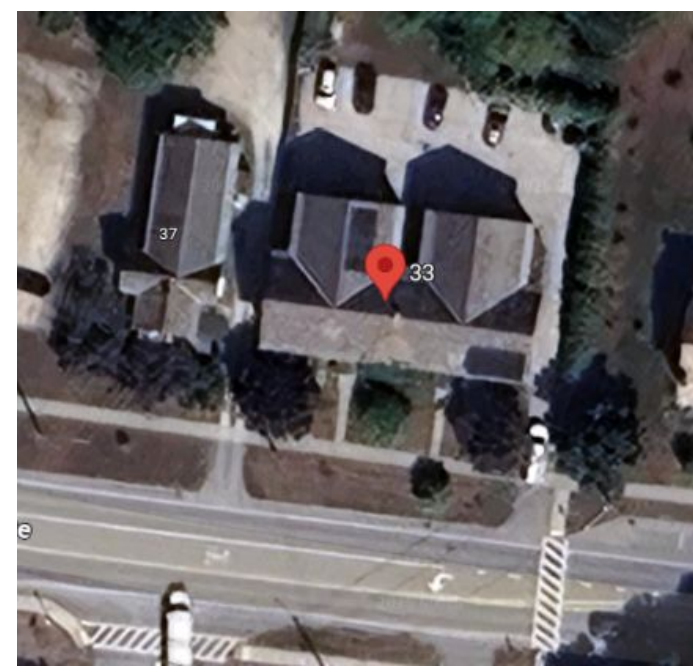


Upper Floors

Townhouse Re-Imagined

2+ Unit Aggregated

# of Units	2+
Bedrooms	2
Bathrooms	1
Building Dims	14' x 44'
# of Stories	2
GSF	1,232 SF



35 Conant Square, Brandon VT

Typology specific revisions:

1. Consider alternative module alignments and configurations so that the interior space can be more livable
2. Explore narrow front volume with pitch roof parallel to street and rear flat roof volumes (potentially with a deck) with carve-outs to allow light and air into interior living spaces



Huntington Homes Morin Townhome



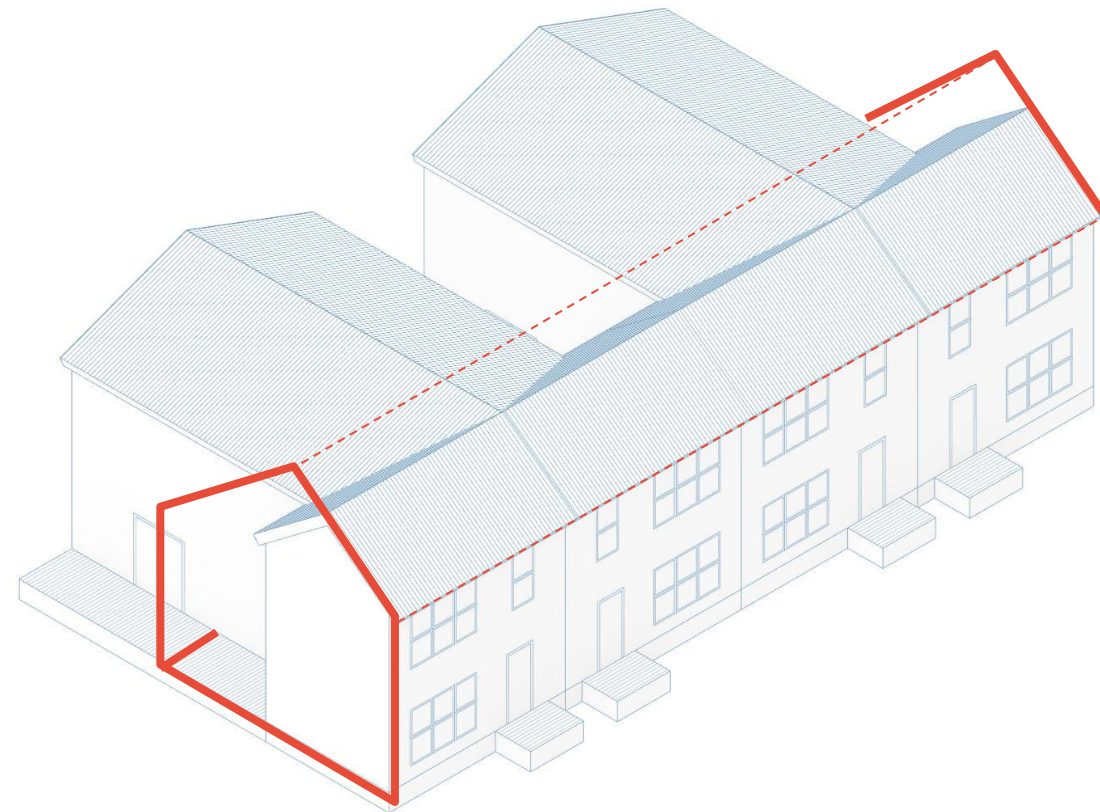
Townhouse

2+ Unit Aggregated

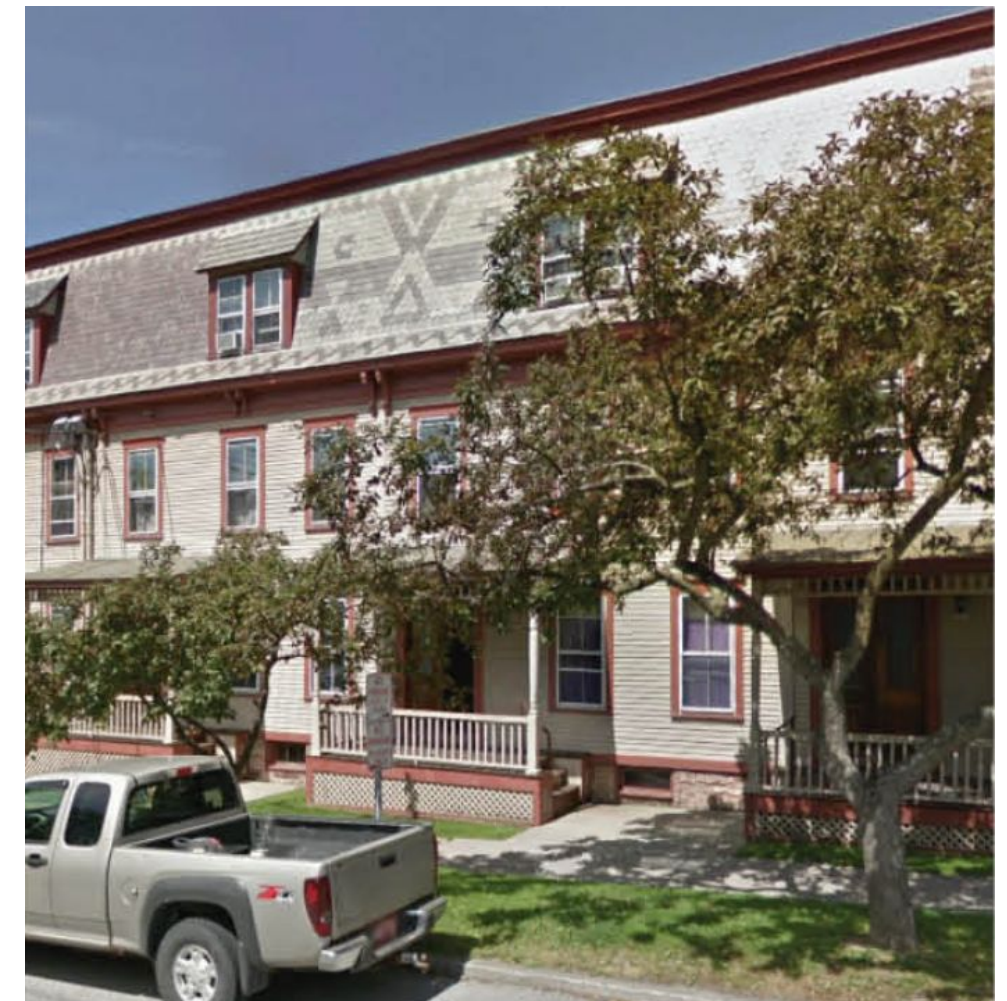
# of Units	2+
Bedrooms	2
Bathrooms	1
Building Dims	14' x 44'
# of Stories	2
GSF	1,232 SF

Typology specific revisions:

1. Consider alternative module alignments and configurations so that the interior space can be more livable -consider making it 2 modules wide (18', 20')
2. Explore narrow front volume with pitch roof parallel to street and rear flat roof volumes (potentially with a deck) with carve-outs to allow light and air into interior living spaces
3. Explore adding space in the middle for additional "mudroom" and MEP space on ground floor that could improve living room quality and function and improved front bedroom layout on the upper floor



Conant Square, Brandon VT



Maple St, Burlington VT

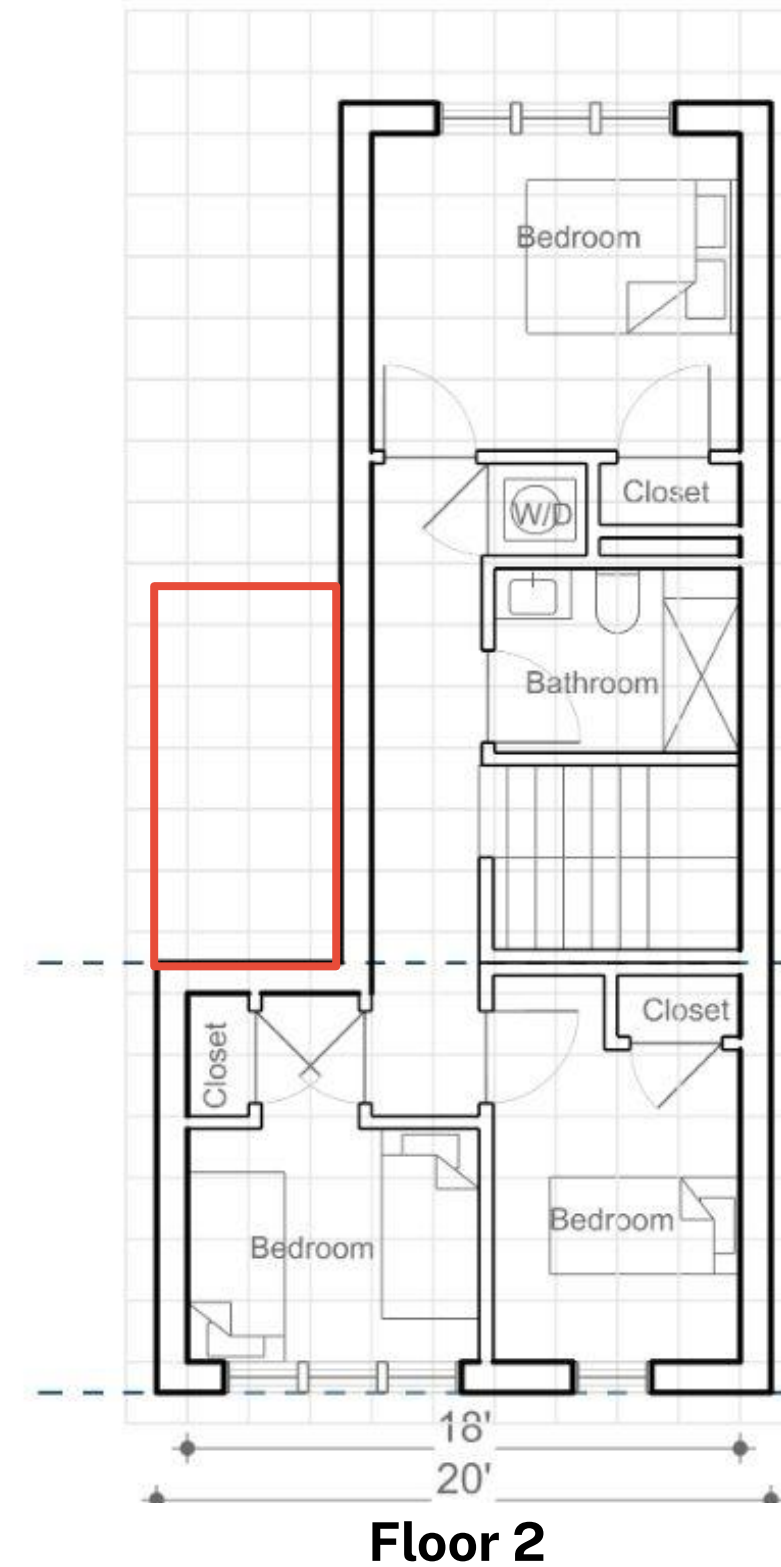
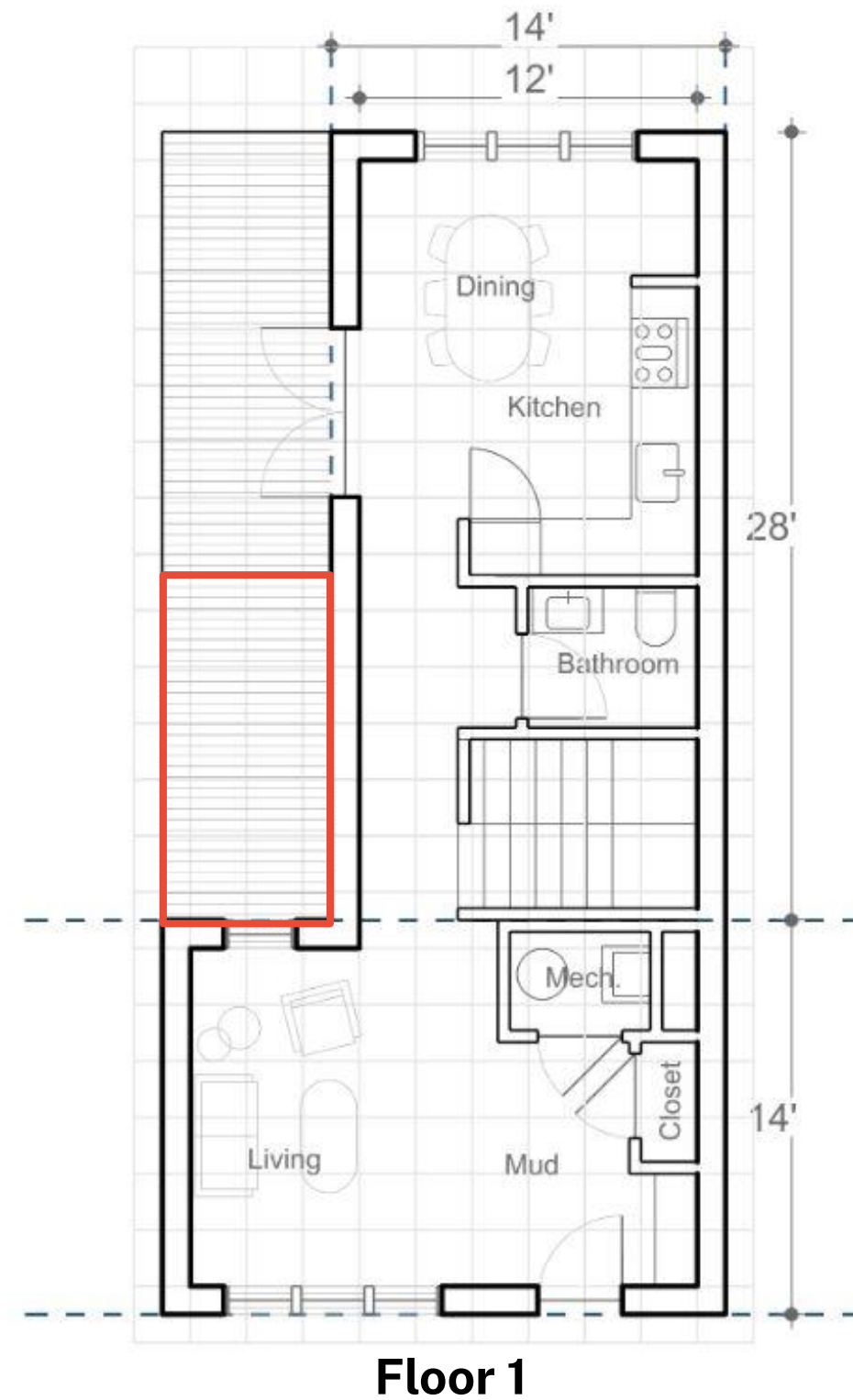
Townhouse

2+ Unit Aggregated

# of Units	1
Bedrooms	3
Bathrooms	1.5
Building Dims	20' x 42'
# of Stories	2
GSF	1,283 SF

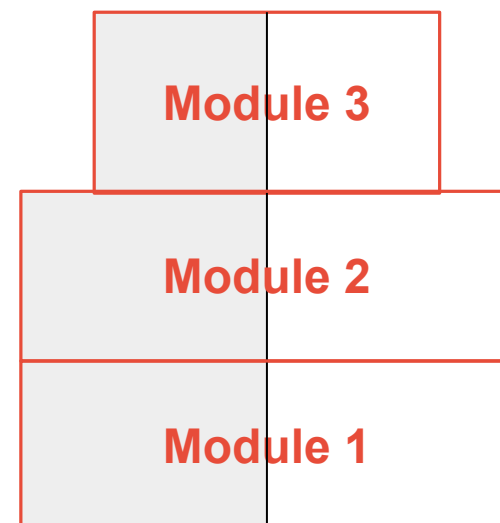
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3. Explore adding space in the middle for additional "mudroom" and MEP space on ground floor that could improve front room quality and function and upper floor front bedroom layout



Why?

1. Lower quality living space due to lack of side window exposure, challenges of accommodating vertical circulation with current building code and offsite volumetric modular constraints
2. Distinguish from existing offsite volumetric modular townhome models by making it narrower and balancing usable open space and parking in site planning for new neighborhoods



Proposed Tools / Resources

Development-Ready Community Resources

Already in Progress

IN-PROGRESS

State Development-Ready Policy Reform

Updating Statewide legislation and regulations to enable missing middle housing production.

- Home Act to reduce parking minimums, enable density existing neighborhoods
- Building and life safety code updates, single stair reform
- Act 181 and Act 250 reform to ease housing regulation

IN-PROGRESS

Model Bylaws

Providing guidance and templates to help communities update their bylaws to enable missing middle housing production.

- Enabling Better Places - A Zoning Guide for Vermont Neighborhoods
 - State Planning Manual
 - Update in process
- ROOT Zones / Right-to-Build Zones
 - Let's Build Homes
 - Under Development

IN-PROGRESS

Lending & Finance Support Package

Making it easier to finance missing middle home construction.

- Pricing and pro-forma resources, financing best practices
- Conversations with banking community to establish pilot programs for builders utilizing the 802 Homes catalog or offsite construction

Development-Ready Community Resources

Proposed resources to co-develop with you in order to facilitate implementation momentum.

DESIGN GUIDE

802 Homes Catalog - Companion Design Guide

A consolidated resource in three parts:

1. **VT Precedent Pool:** consolidated documentation of existing missing middle homes grouped according to patterns and functionality with clear discussion of vernacular New England and Vermont-specific design features.
2. **Infill Site Matching & Design Principles:** candidate site identification, matching typical infill site types to 802 Homes designs, case studies, and new neighborhood design principles
3. **Universal Design & Age-in-Place Compatibility:** specifics TBD, depending on nature of AARP funding/partnership

This would build upon the Phase 1 Toolkit community infill design work.

HOUSING CAPACITY WEBMAP

Demonstration Infill Housing Capacity Mapping

Web-map viewer / static maps for our three communities using the infill suitability guidance already demonstrated in the Homes for All Toolkit.

- Meets Environmental & Infrastructure Conditions
- Meets Regulatory Conditions
- Meets Design Conditions

Goal would be to illustrate just how much capacity there actually is in the partner communities to combat skepticism and demonstrate applicability for other communities.

- Example of similar Utile work-product: [Cape Cod Commission Housing Suitability Analysis](#)

PROCESS GUIDES

Development-Ready Best Practices

Aspirational tool applied to communities around the state in the pursuit of development-readiness, drawing inspiration from the [Build Maine Development Ready Communities](#) framework.

- Municipal Investment Prioritization & Alignment
- As-of-Right Development Standards Best Practices
- Development Review & Permitting Best Practices

Streamlined 802 Homes Catalog Permitting Guide

This would be the basis on which municipalities provide zoning (and any other required permits) for the 802 Homes. This would build off the checklist above and would leverage the audits done with the three partner/pilot communities.

Development-Ready Community Resources

Other Ideas Not Prioritized for 802 Homes Scope

UNDER CONSIDERATION

Statewide Housing Infill Site Suitability Mapping Tool

Partner with VCGI and UVM to create a statewide searchable web-map tool using the infill suitability guidance already demonstrated in the Homes for All Toolkit and leveraging the existing [VT Parcel Viewer app](#) and [Natural Resources Atlas](#).

UNDER CONSIDERATION

Municipal Project Implementation Guidance

Might be most effective as technical assistance 1:1 with developer rather than a static resource due to how frequently this changes.

- Leveraging programs to expand infrastructure capacity (CHIP, VSIF, etc.)
- Local housing incentives: short-term rental registries, local options tax,
- Best practices for town-led housing projects: Housing trust funds, writing a successful RFP, purchasing land, PPPs, etc.

Design Guide

802 Homes Catalog - Companion Design Guide

Companion Design Guide

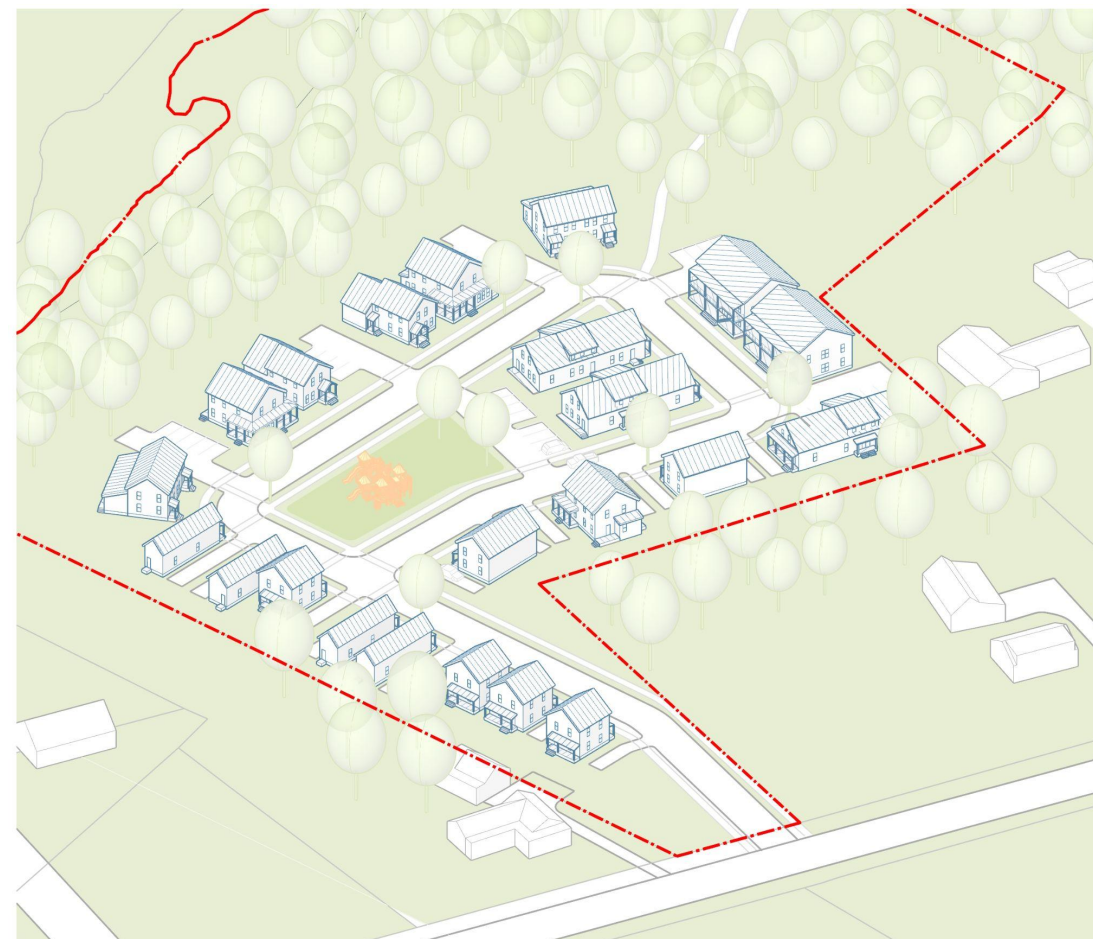
Vermont Precedent Pool

Consolidated documentation of existing missing middle homes grouped according to patterns and functionality with clear discussion of vernacular New England and Vermont-specific design features.



Infill Site Matching & Design Principles

Candidate site identification, matching typical infill site types to 802 Homes designs, case studies, and new neighborhood design principles.



Universal Design & Age-in-Place Compatibility

Discussion of the importance of Universal Design within the context of Missing Middle Housing and Vermont's housing stock, and how Universal Design and age-in-place functionality is accommodated within 802 Homes.

Specifics TBD, depending on nature of AARP funding/partnership.

1. Aligned to environmental and infrastructure capacity.
2. Well connected to existing downtowns and village centers.
3. Sufficient developable area to support new housing.
4. Sensitive to existing context and development patterns.
5. Balances privacy and community by design.

Housing Capacity Webmap

Demonstration Infill Housing Capacity Mapping

Tool: Infill Site Identification WebMap

What makes a good infill site? Method for identifying infill focus areas and evaluating sites within them

Sites that can support sustainable, resilient, community-oriented infill development generally fulfill the following criteria:

1 Meets Environmental & Infrastructure Conditions

- Outside **FEMA flood zone and river corridors**
- Outside **steep slope and high priority conservation areas**
- Has access to **municipal water and sewer**, where available
- Has or could have direct access to a **public right-of-way**

2 Meets Regulatory Conditions

- Parcel is (or will be) zoned to allow missing middle housing developments
- Is eligible for HOME Act provisions, where possible

3 Meets Design Conditions

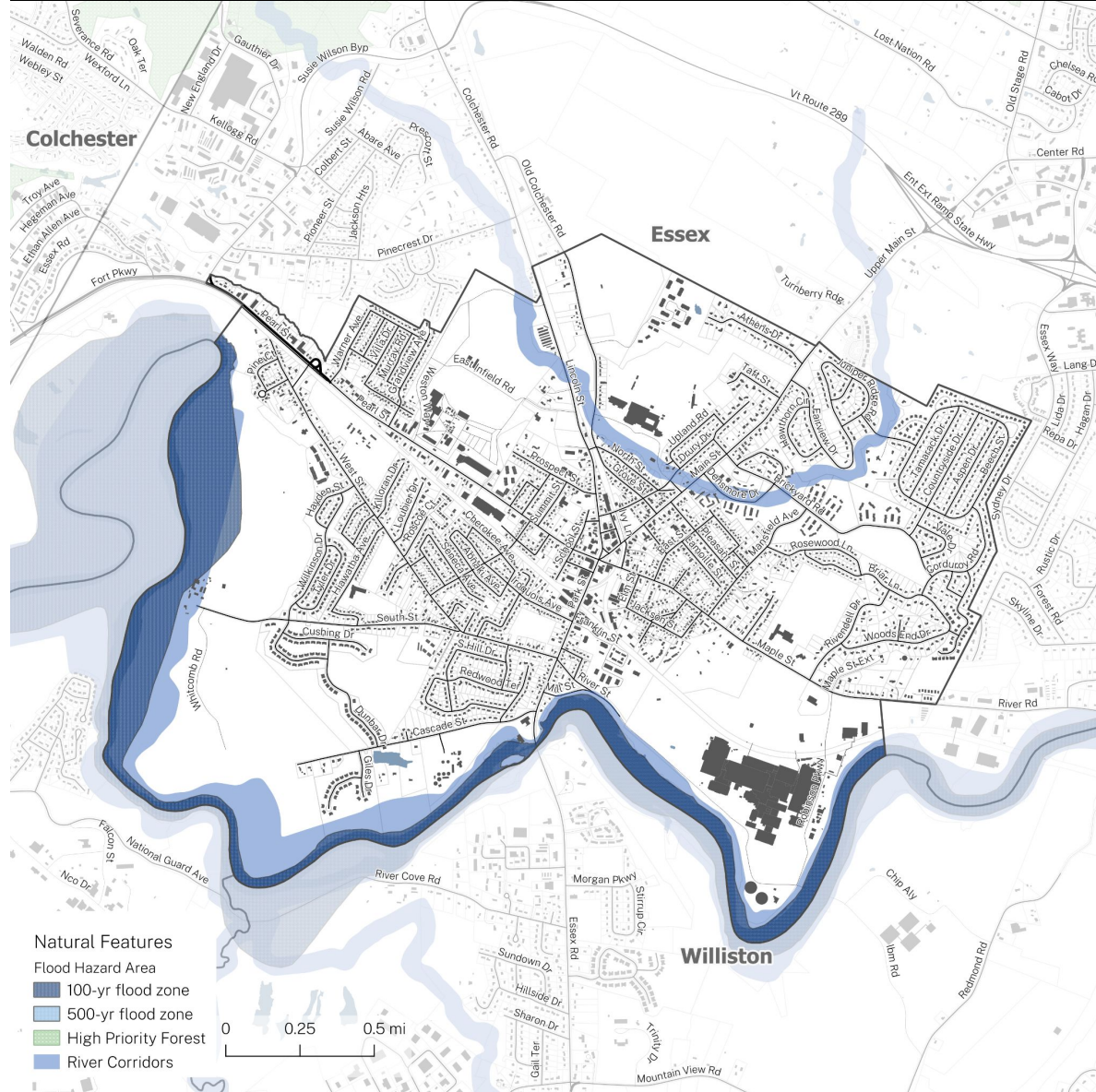
- Parcel is vacant or has **significant developable area** excluding existing buildings, infrastructure, and environmental constraints
- The size and shape of the developable parcel area **can at least fit the smallest proposed missing middle home prototype spatially**, mostly based on developable width of the parcel

We've replicated this analysis for your communities based on available GIS data. We will be deepening our regulatory analysis based on audit.

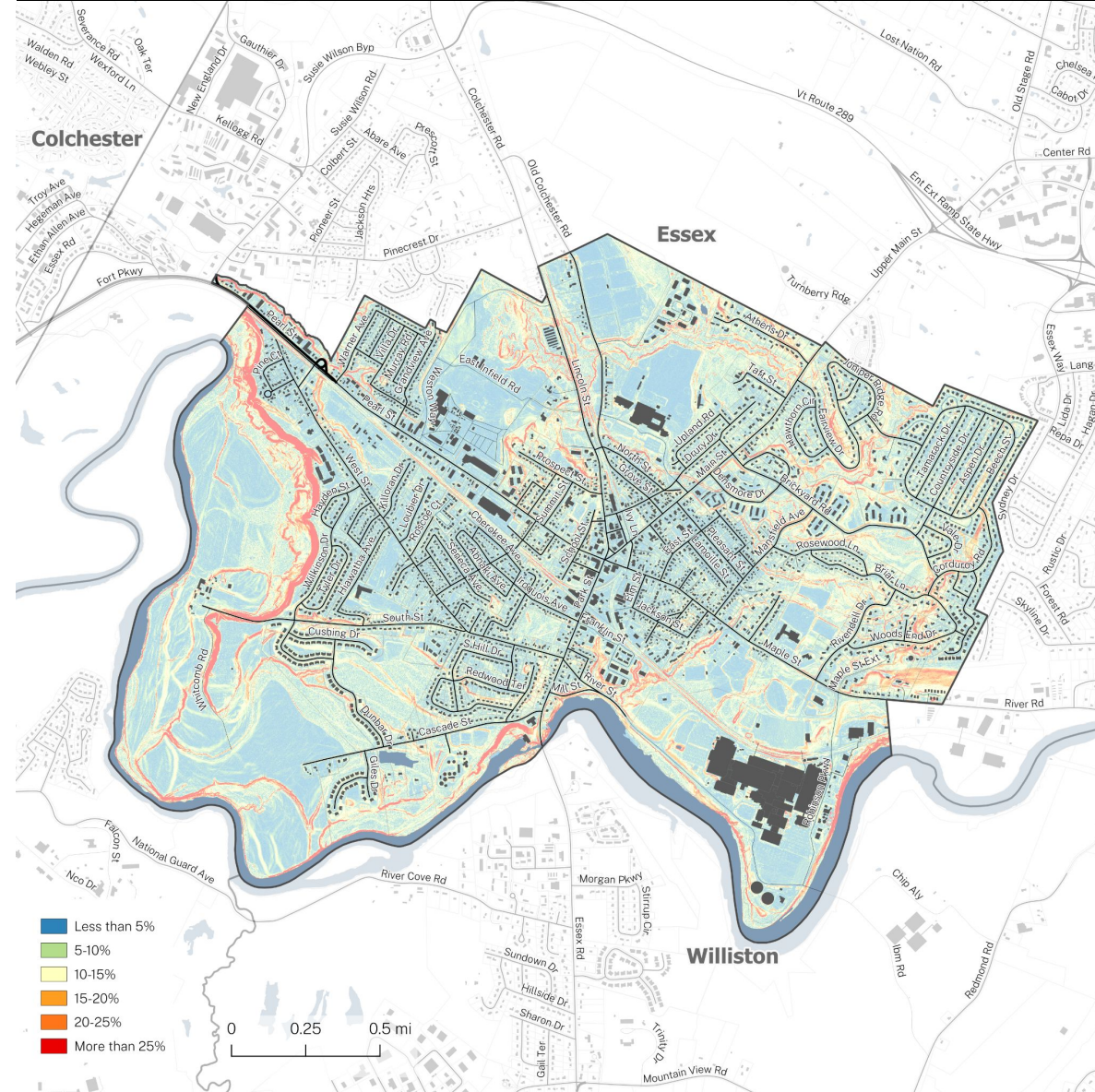
Mapping Your Communities: Essex Junction

Population: 10,590 Area: 4.74 sq miles

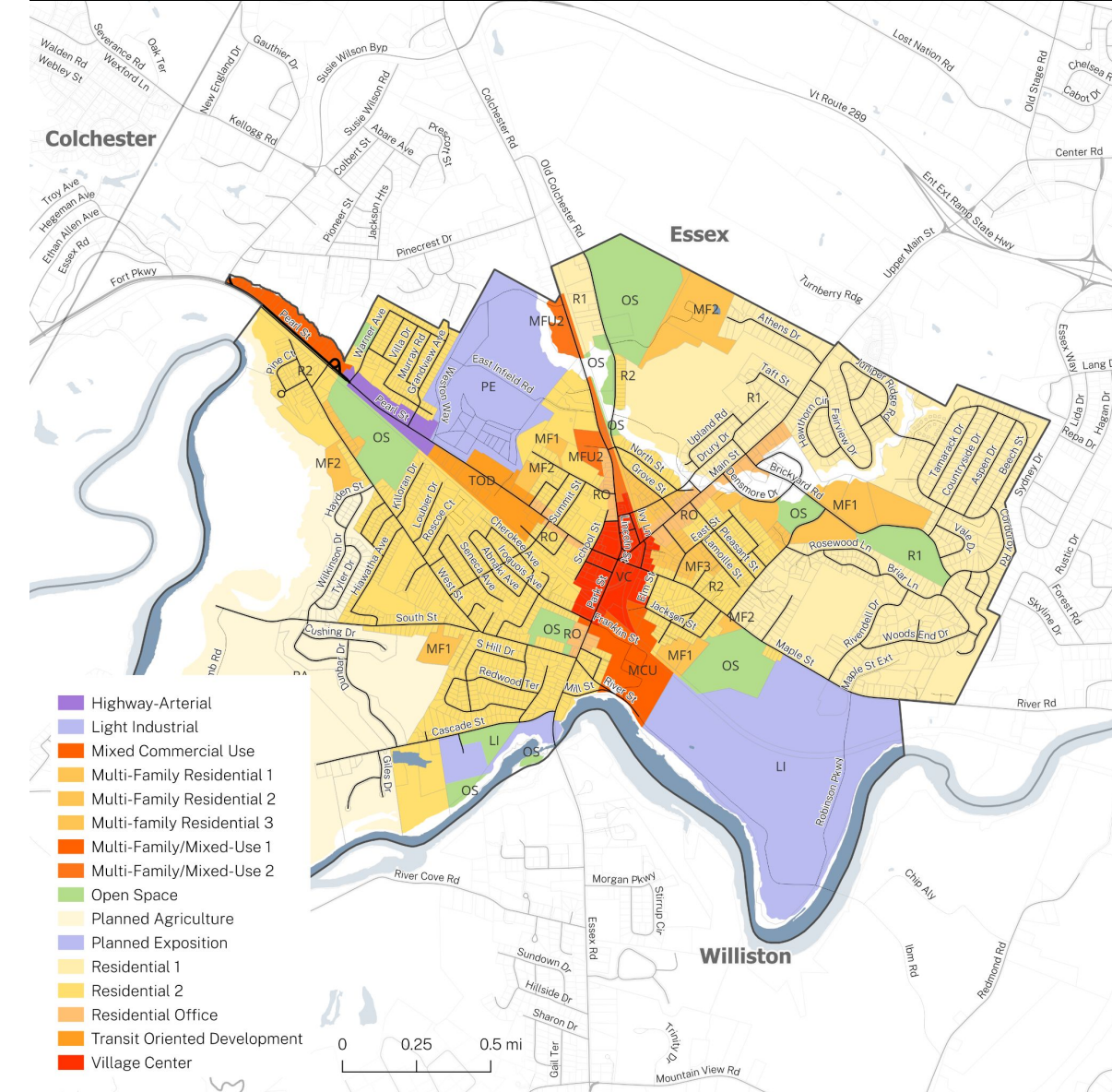
Flooding & Conservation Analysis



Slope Analysis



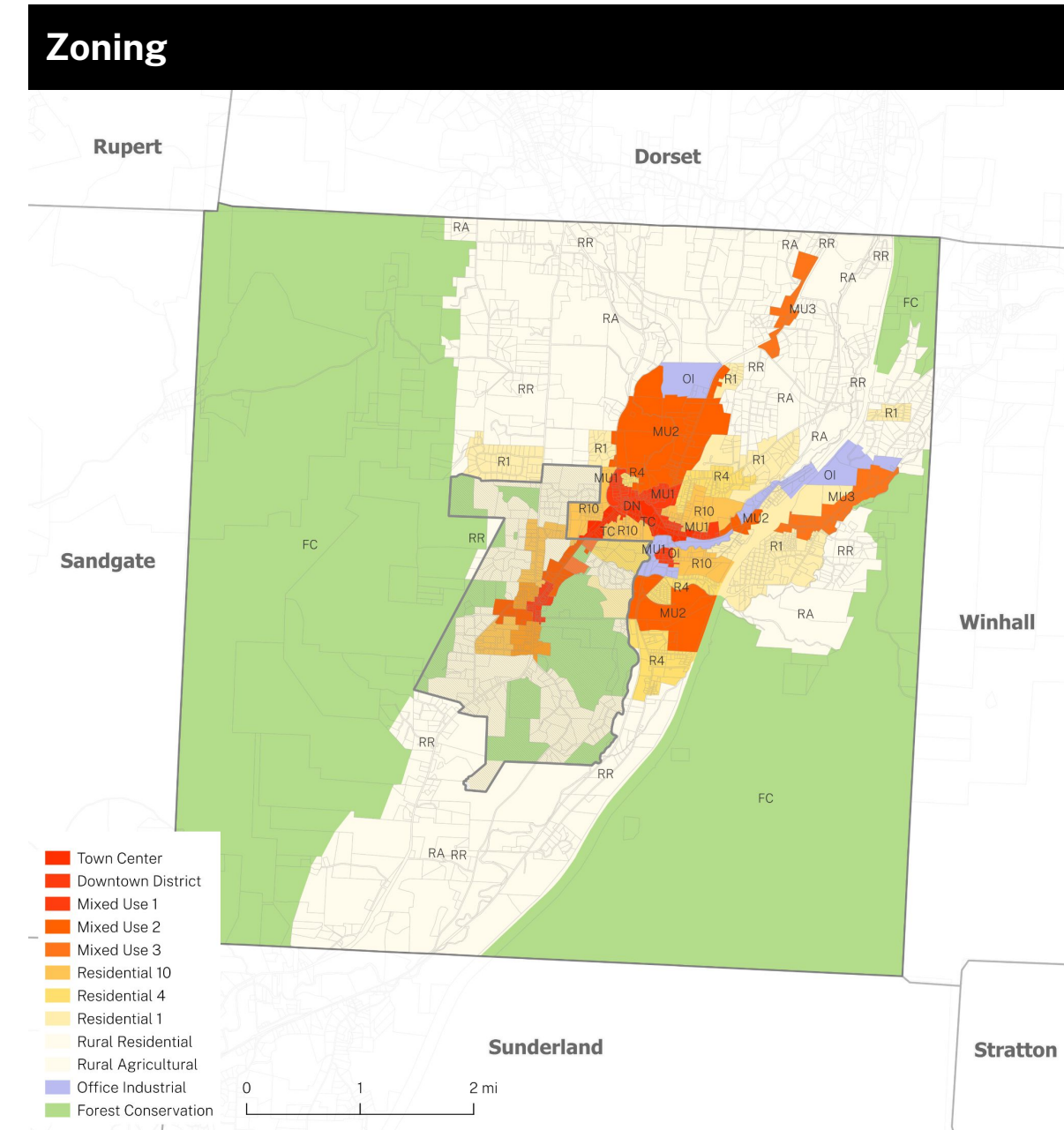
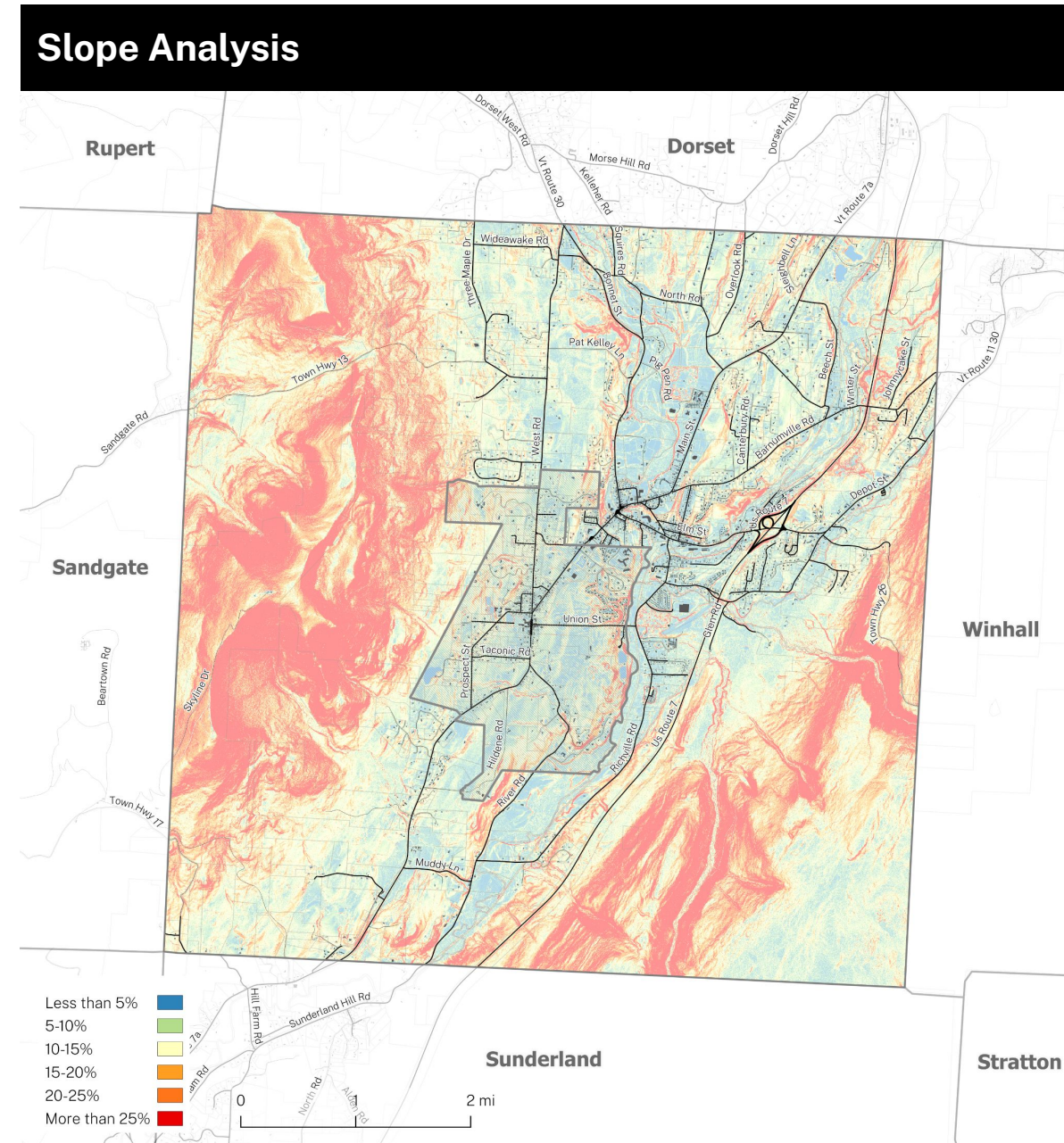
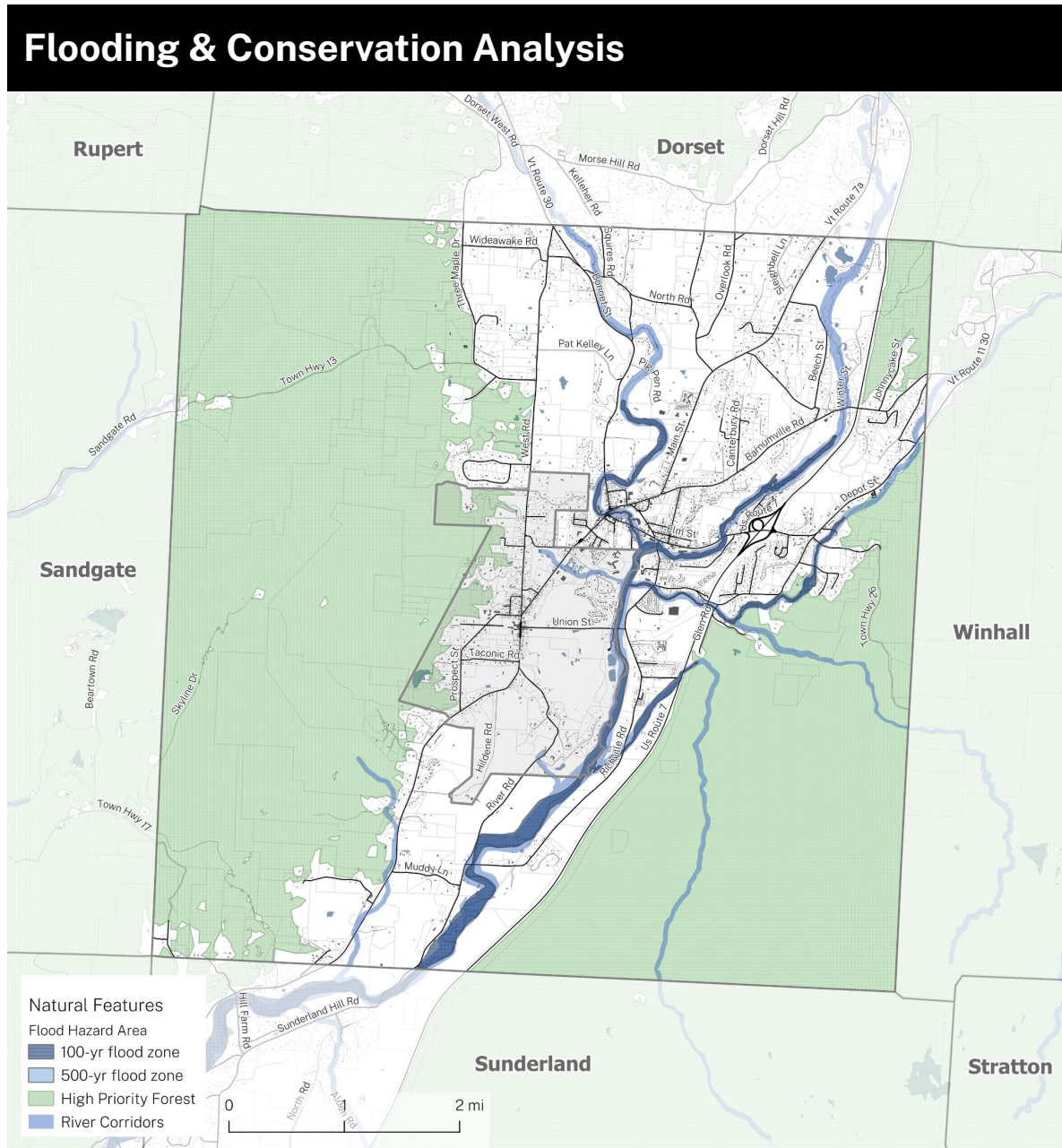
Zoning



[Link to Miro](#)

Mapping Your Communities: Manchester

Population: 3,701 Area: 42.2 sq miles



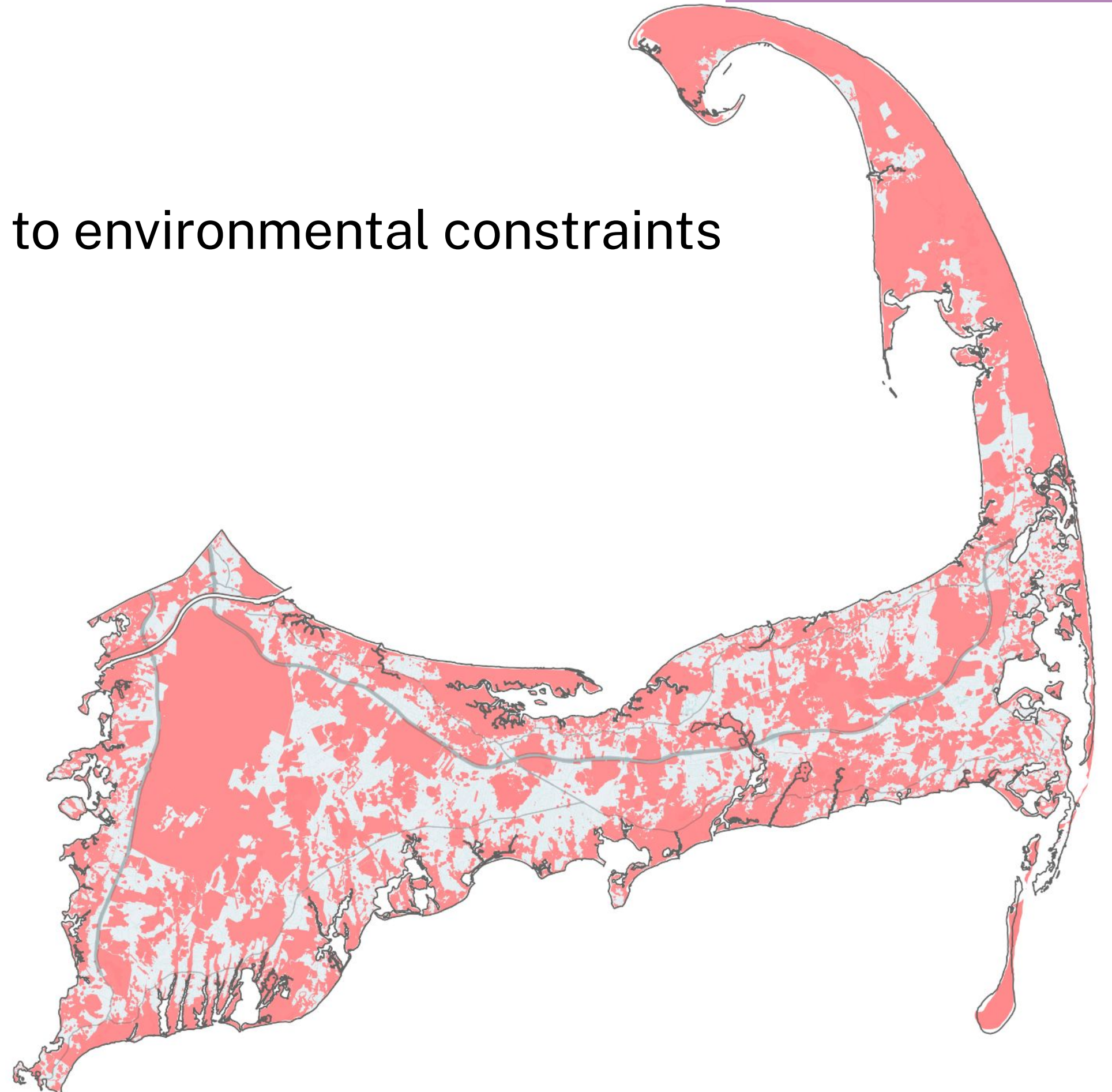
[Link to Miro](#)

Webmap Step 1: Map Constraints

Precedent: Cape Cod Housing Suitability Mapping

67% of the Cape is undevelopable due to environmental constraints

- Protected and Recreational Open Space
- MassDEP Wetlands
- NHESP Certified Vernal Pools
- FEMA National Flood Hazard Layer
- Hurricane Surge Inundation Zones
- NHESP Priority Habitats of Rare Species
- BioMap Project Conservation Layers

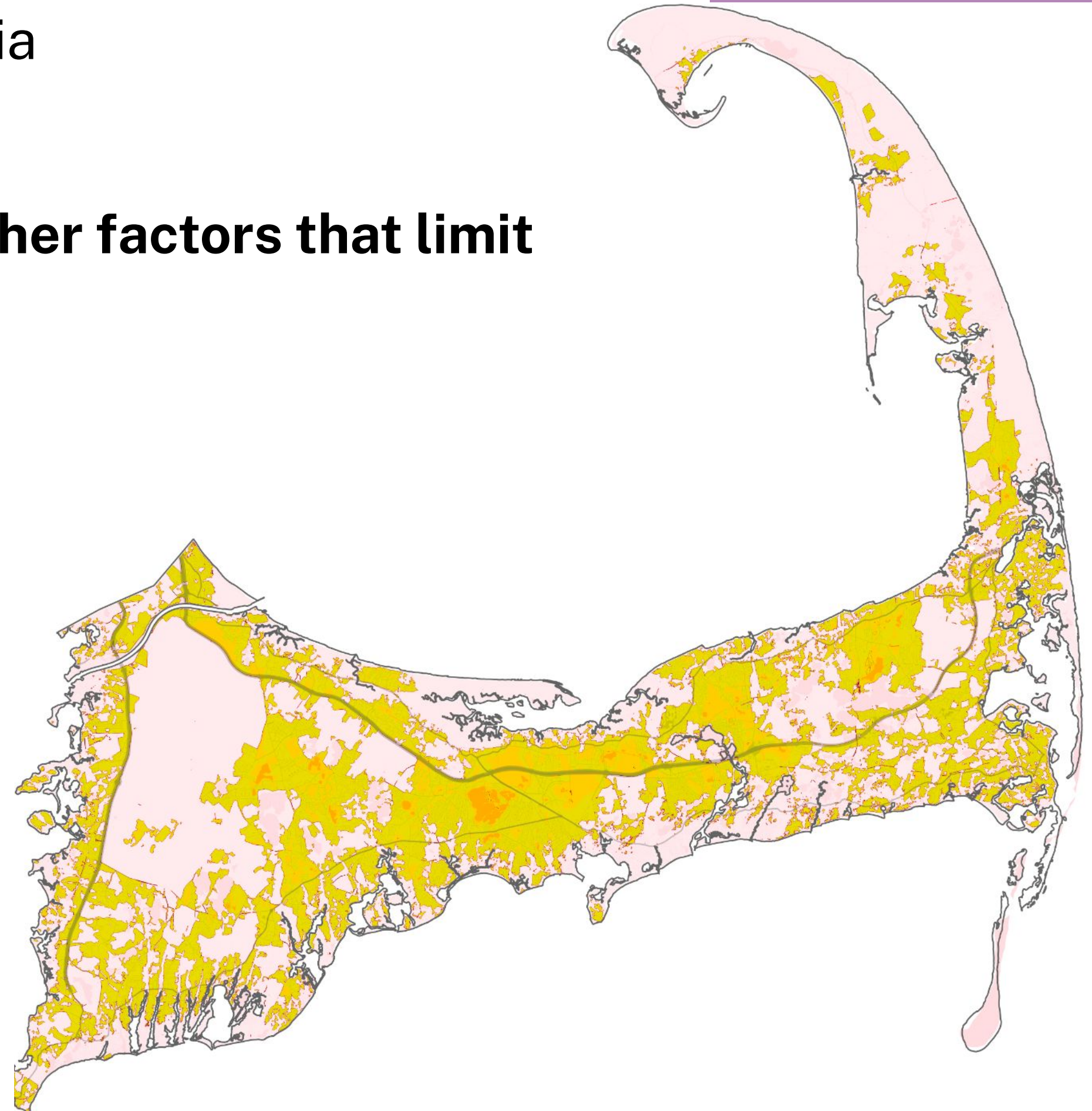


Webmap Step 2: Establish Viability Criteria

Precedent: Cape Cod Housing Suitability Mapping

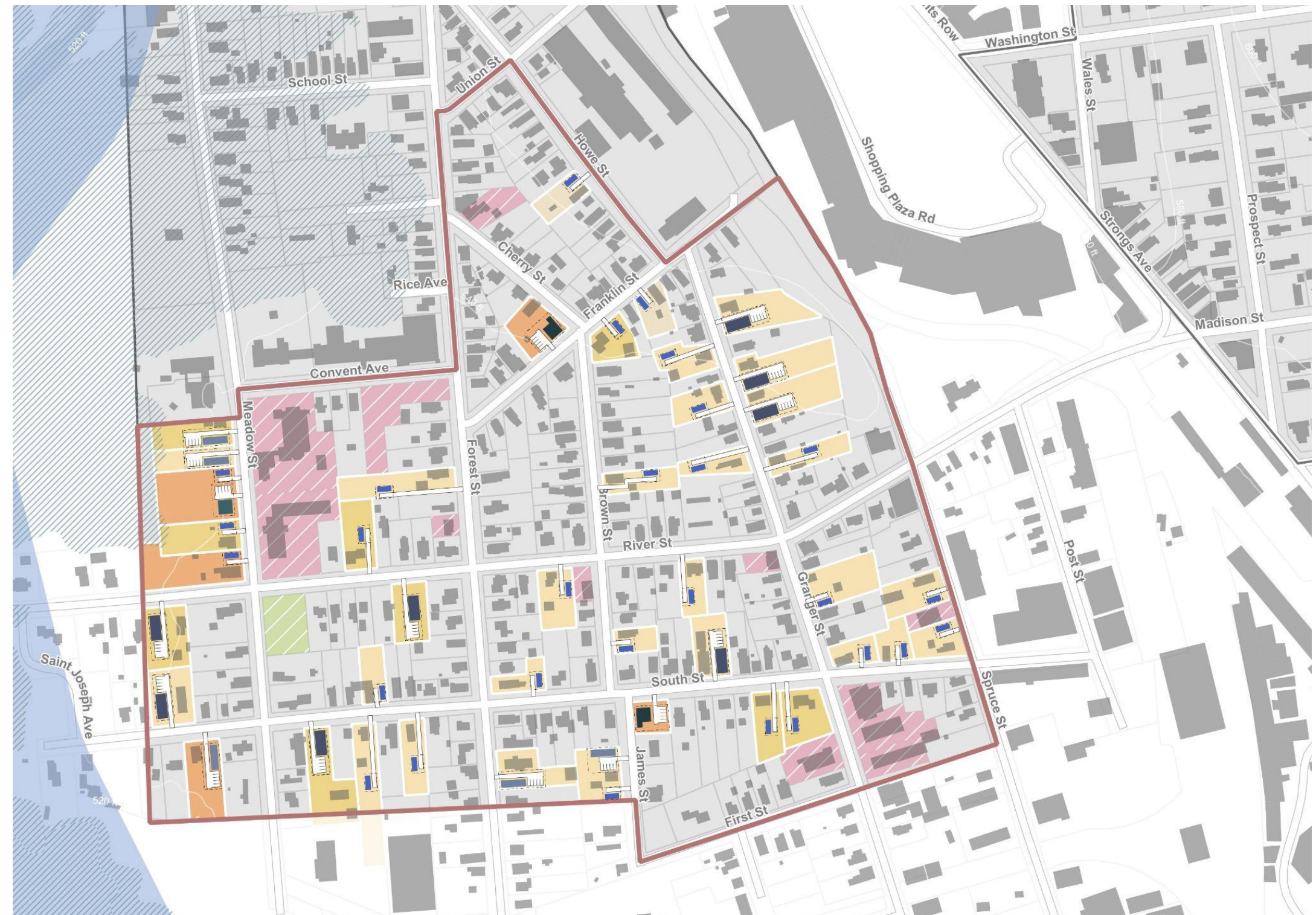
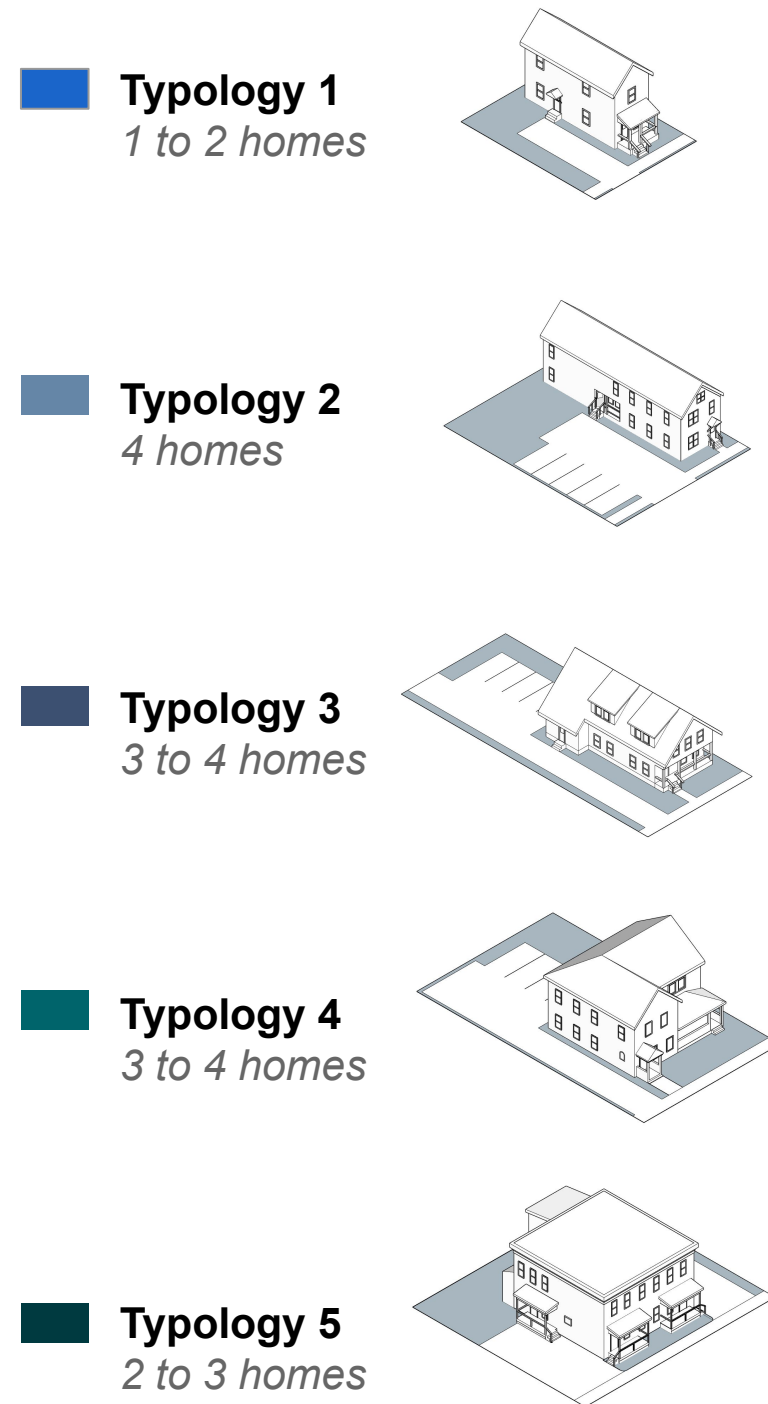
Show spectrum of viability based on other factors that limit housing development

- Current zoning
- Type of ownership (public/private)
- Land value
- Pollution status
- Historic building status
- Infrastructure (sewer, transit, etc)
- Developable area / unit capacity



Webmap Step 3: Estimate Unit Capacity

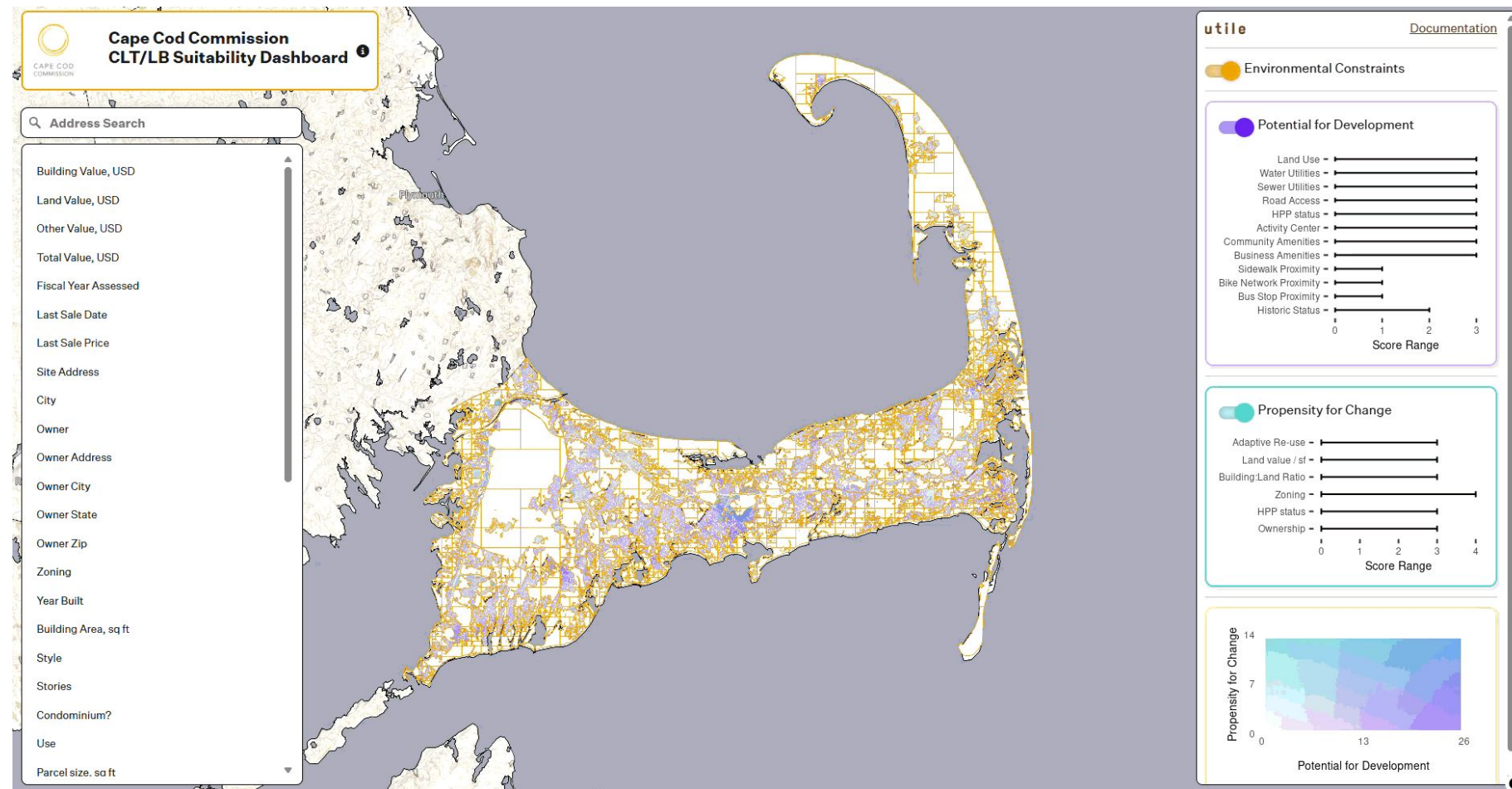
Phase 1 infill test-fitting



Webmap Result

Precedent: Cape Cod Housing Suitability Mapping

Dashboard



Documentation

Cape Cod CLT/LB Real Estate Strategy

GIS Analysis Documentation

How to use this document

1 Processing Barnstable County Property Tax Parcels

The [MassGIS repository of Property Tax parcel data](#) for each municipality provides the base spatial layer for our analysis of Cape Cod parcels (and also provides many of the parcel data fields, e.g. Land Use Code, Age of buildings, that feed into our suitability analysis). Since the data cleaning process for this step is more tabular than spatial, we used [GeoPandas](#) to clean, process, and merge the data into our Master Parcel Layer before bringing into QGIS for subsequent steps.

To run this script, you will need the following libraries.

► Code

The `get_parcel` definition takes 2 arguments: 1) `munis` (your list of MA municipalities), and 2) `combine` (`True` if you want to output each municipality as its own layer or `False` if you want to combine them into one layer. The function then performs the following steps in a chain.

► Code

2 Processing Environmental Constraints Layer

The following layers were used as inputs to create a [Comprehensive Constraint Layer](#) covering areas of the Cape that are **off limits** for development. This combined layer's area was then subtracted from the Cape's Master Parcel layer to calculate developable square footage for each parcel on the Cape.

- [Protected and Recreational Open Space](#)¹
- [MassDEP Wetlands](#)²
- [NHESP Certified Vernal Pools](#)³

On this page

- 1 Processing Barnstable County Property Tax Parcels
- 2 Processing Environmental Constraints Layer
- 3 Processing Master Parcel Layer
- 4 Real Estate Suitability Analysis

¹ MassGIS (January 2025)

² MassGIS (December 2017)

³ MassGIS (Updated continually)

⁴ MassGIS (July 2023)

Process Guides

Development-Ready Community Best Practices

Streamlined 802 Homes Catalog Permitting Guide

Development-Ready Best Practices

Precedent: [Build Maine Development Ready Communities framework](#)

Municipal Investment Prioritization & Alignment

Link to tools/resources (like CHIP)

- **Clear Planning Direction**
 - Comprehensive Plan completed in the last decade with clear spatial growth framework to direct infill development and density
 - Identification of priority infill sites and redevelopment support (technical assistance, clear vision, proactive infrastructure and legal site preparation work, strong community process management)
- **Infrastructure Network Assessment & Investment**
 - Understand capacity
 - Gaps and priorities are clearly identified
 - Funding strategies are being pursued for priority projects

As-of-Right Development Standards Best Practices

Zoning reform and model bylaws to enable a flexible by-right approach to enabling development. Emphasize importance, guiding principles, refer to other resources like Enabling Better Places.

- Density & Housing Typology Alignment (use, density and dimensional standards)
- Transportation & Parking Standards (parking ratios, emergency access, curb cuts, frontage, and drive aisle standards)
- Fire & Life Safety Code (for local jurisdictions)
- Neighborhood design standards and Complete Streets provisions
- Model ordinance language for incorporating off-site and pre-permitted designs (including site placement/orientation of pre-permitted homes)

Development Review & Permitting Best Practices

Processes as well as standards make the difference.

- **Staff, Board, and Committee Competence**
 - Clear expectations
 - Strong resources
 - Training and Professional Development
- **Efficient, Aligned Process**
 - Contained and Constructive Neighborhood Engagement
 - Unified Site Plan Review & Permitting
 - Accountability - clear roles and standards, prompt action, project tracking and transparency
- **Streamlined Permitting Tracks**
 - Offsite
 - Expanding Administrative Approvals

Streamlined 802 Homes Catalog Permitting Guide

Purpose

This would be the basis on which municipalities provide zoning permits (and any other required permits) for the 802 Homes. This would build off the best practices above and would leverage the audits done with the three partner/pilot communities.

Step 1. Permitting Audits

Municipal Permit Audit that:

- 1) takes the test sites through the existing permitting process to clearly document the steps and information required for all municipal permits to build and occupy an 802 Home;
- 2) identifies must-have information/documentation for permitting 802 Homes (and what can be eliminated);
- 3) identifies potential changes to the municipal regulations to streamline permitting of 802 Homes and create favorable conditions for infill development

State Permit Audit that takes the test sites through the required state permitting process and identifies opportunities for streamlining the state permit process.

Step 2. 802 Homes Permit Guide

Clearly outline all permitting approvals required to deliver and occupy an 802 Home, how those approvals are granted, and expected timeline for each type of approval.

Develop a checklist-style guide that clearly indicates required documentation and level of detail (e.g. site plan with setbacks, dimensional standards, water/wastewater service, etc.) required for approval of 802 Homes designs.

Thank You!

