An aerial, isometric illustration of a city grid. The buildings are rendered in white and light gray, with some green roofs. Green spaces, parks, and sports fields are interspersed throughout the urban layout. In the upper right, a body of water is visible with numerous small sailboats and a larger motorboat. A large, gray blimp with the word "utile" written on its side is floating in the sky above the city.

Belmont Form-based Zoning Framework

May 14, 2024

Presentation to Planning Board
Case Study Parcel Test-fits
Subdistrict Zoning Recommendations

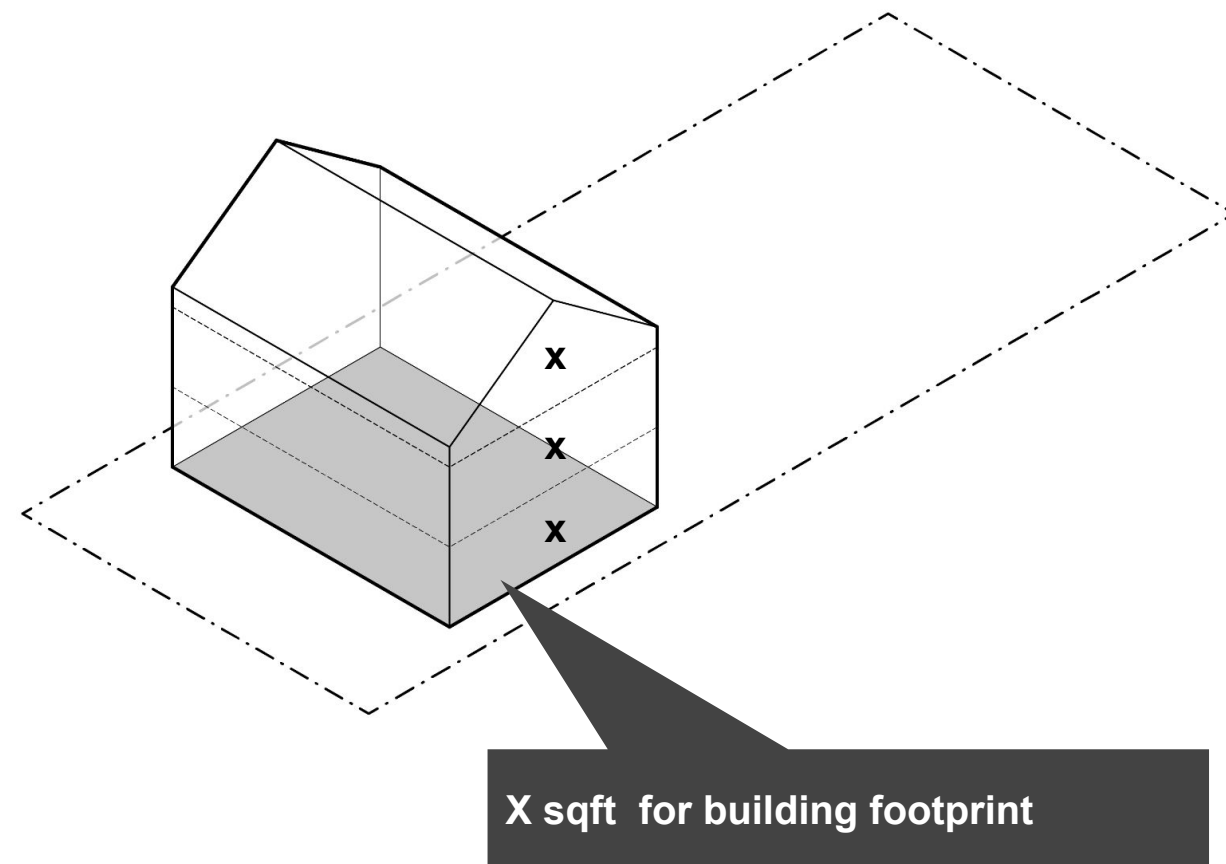
Approach: Case Study Test-fits

- Identified desired character and typologies for each MBTA Communities subdistrict based on Advisory Committee report
- Case study test-fit site for each subdistrict to test zoning parameters
 - Existing conditions and zoning analysis
 - “Stress test”: Visualize maximum achievable density
 - Under **current** zoning with special permit
 - Under **proposed** overlay zoning
- Refine zoning parameters and develop eye-level before and after visualizations



Today's presentation

Approach: Form-based Zoning Parameters



Proposed *Primary* Tools:

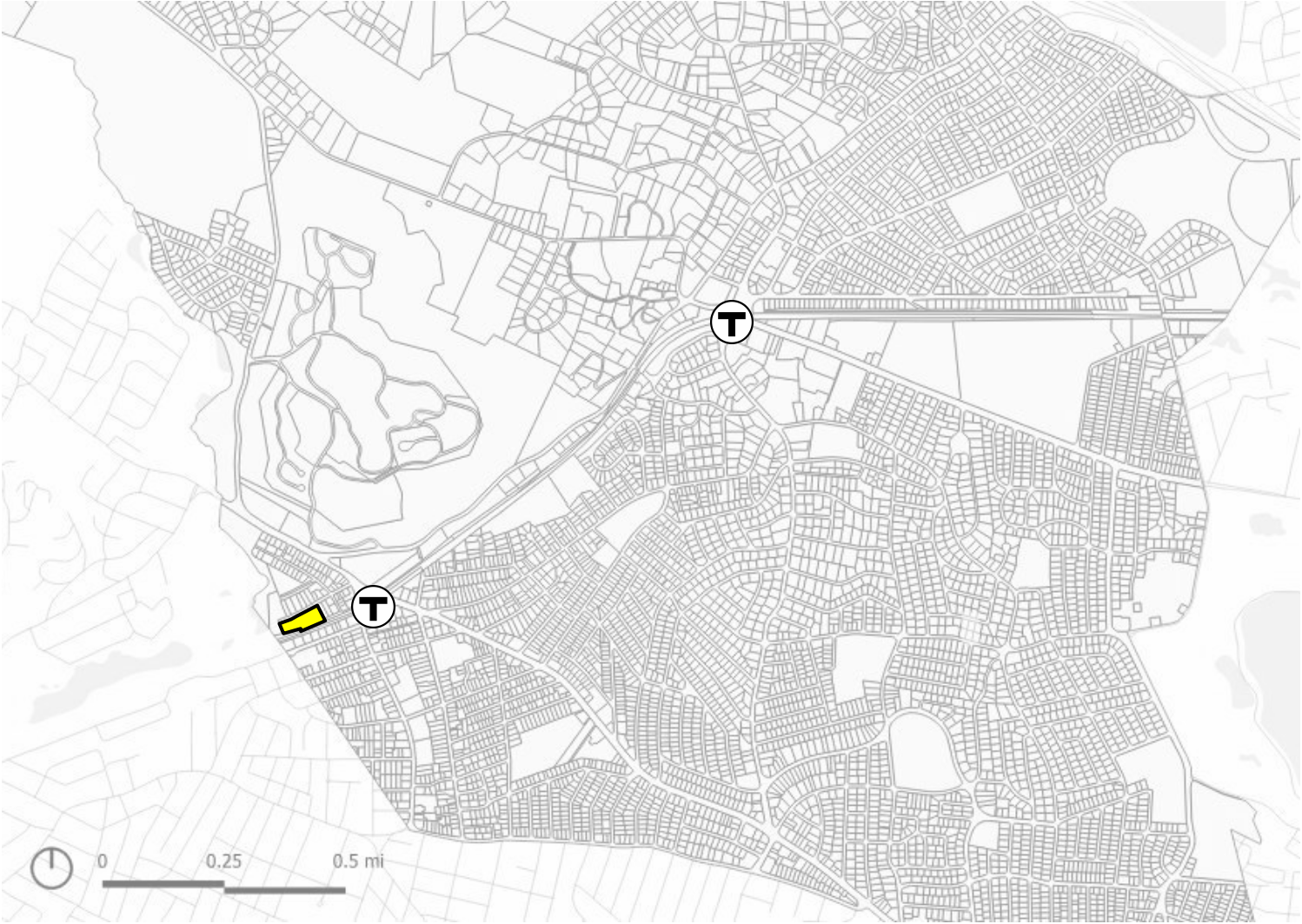
- Maximum building footprint
- Maximum number of stories

Test-fit Sites: Overview

District	Desired Character / Typologies (MBTA Communities Advisory Committee Report)	Test-fit Site	Current Zoning
Subdistrict 1 (SD1)	3 to 3.5 story triple-deckers, six-plexes, and eight-plexes	39-41 Channing Street	General Residence (GR)
Subdistrict 2 (SD2)	3 to 3.5 story townhouses and apartment blocks (8/12/16)	38-52 Moraine Street	General Residence (GR)
Subdistrict 3A (SD3A)	Belmont Housing Authority Subdistrict (Sherman Gardens): Moderate-scale residential, conceptual development plan allowing phasing	N/A	
Subdistrict 3B (SD3B)	Belmont Housing Authority Subdistrict: Mix of mid-rise and low-rise buildings on a campus like property	N/A	
Subdistrict 4 (SD4) Mandatory Mixed Use	3 to 4 story mandatory mixed-use buildings with street retail storefronts and apartments on upper floors	472-494 Trapelo Road	Local Business I (LBI)
Subdistrict 5 (SD5)	3 to 5 story apartment blocks with maximum height available through density bonuses only	41-43 White Street	Local Business I (LBI)

Subdistrict 2 Case Study

Test-fit Site: 38-52 Moraine St



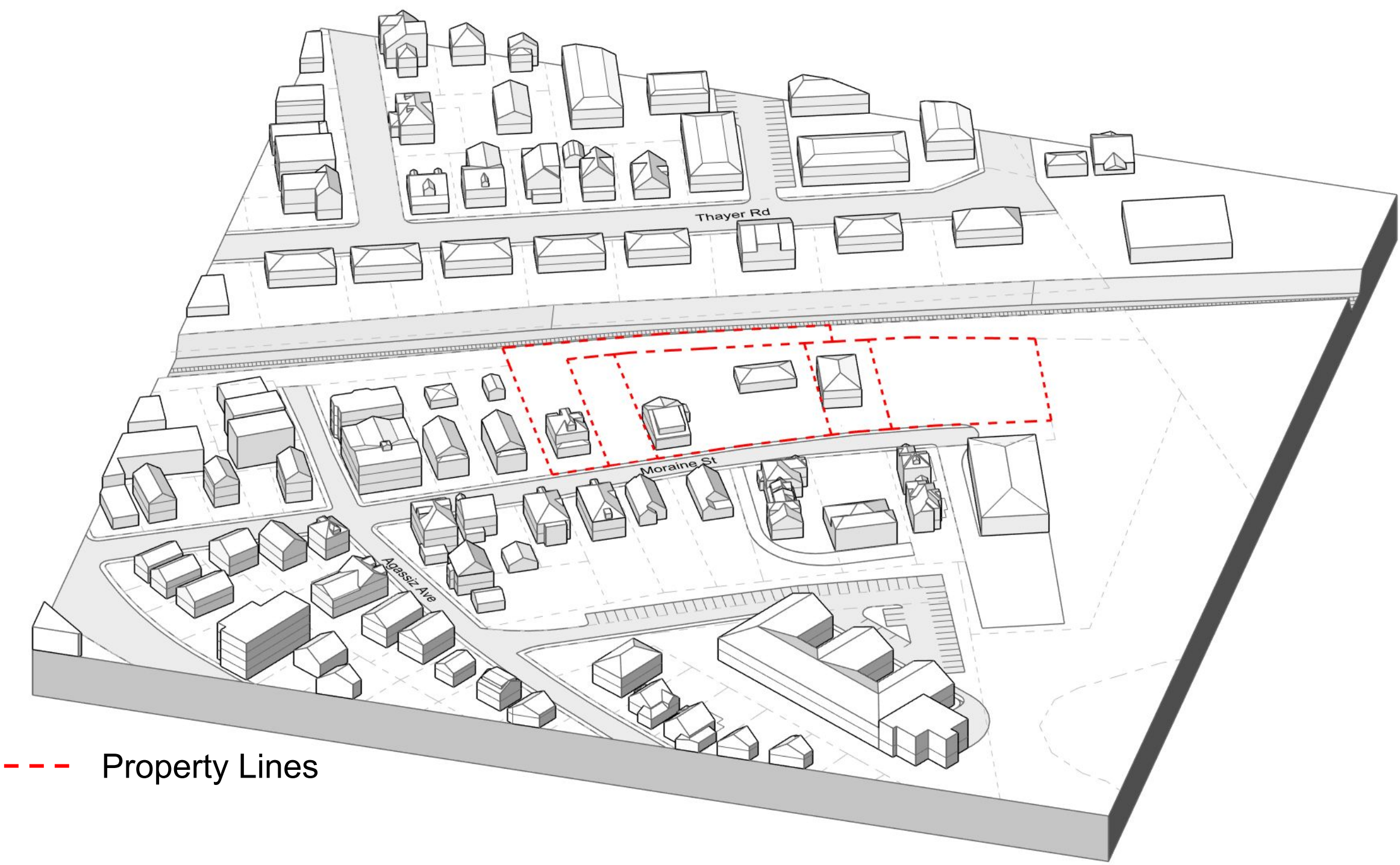
Test-fit Site: **38-52 Moraine St**
Existing Zoning: **General Residence**

Proposed Zoning: **Subdistrict 2**
Desired Character: **3 to 3.5 story townhouses
& apartment blocks (8/12/16)**

Subdistrict 2 Case Study

Test-fit Site: 38-52 Moraine St

Existing Conditions

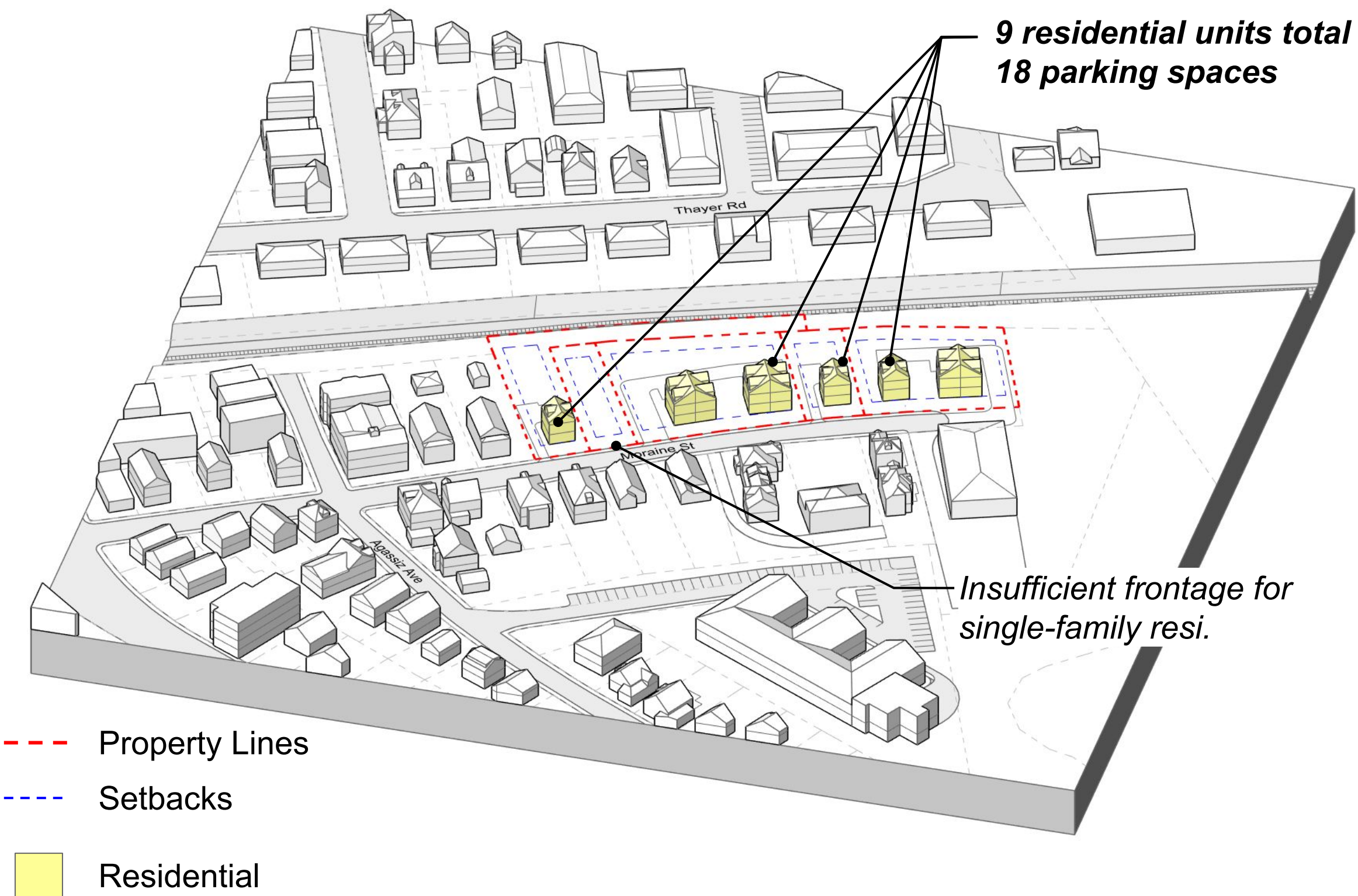


--- Property Lines

	Current		Proposed
Zoning Regulations	GR By-Right	GR Special Permit	SD2
Height (max)	33 ft		TBD
Number of stories (max)	2 ½ stories		3 ½ stories
Lot area per unit (min)	3,500 sf		N/A
Building footprint (max)	N/A		4,000 sf
Lot area (min)	5,000 sf	5,000 sf for single-family 7,000 sf for two-family	6,500 sf
Lot coverage (max)	30%		35%
Open space (min)	40%		30%
Lot Frontage (min)	50 ft	50 ft for single-family 70 ft for two-family	N/A
Setback: Front	20 ft		10 ft
Setback: Side (min)	10 ft		7.5 ft
Setback: Rear (min)	20 ft		20 ft
Parking Ratio	3 spaces max. for single-family, 2 spaces per unit for two-family		1 space per unit
Allowed Uses	Single-family Resi	Single-family Resi Two-family Resi	Single-family Resi Multi-family Resi.

Subdistrict 2 Case Study

Max. Achievable Density under Current Zoning: GR with Special Permit



Test-fit under Current Zoning

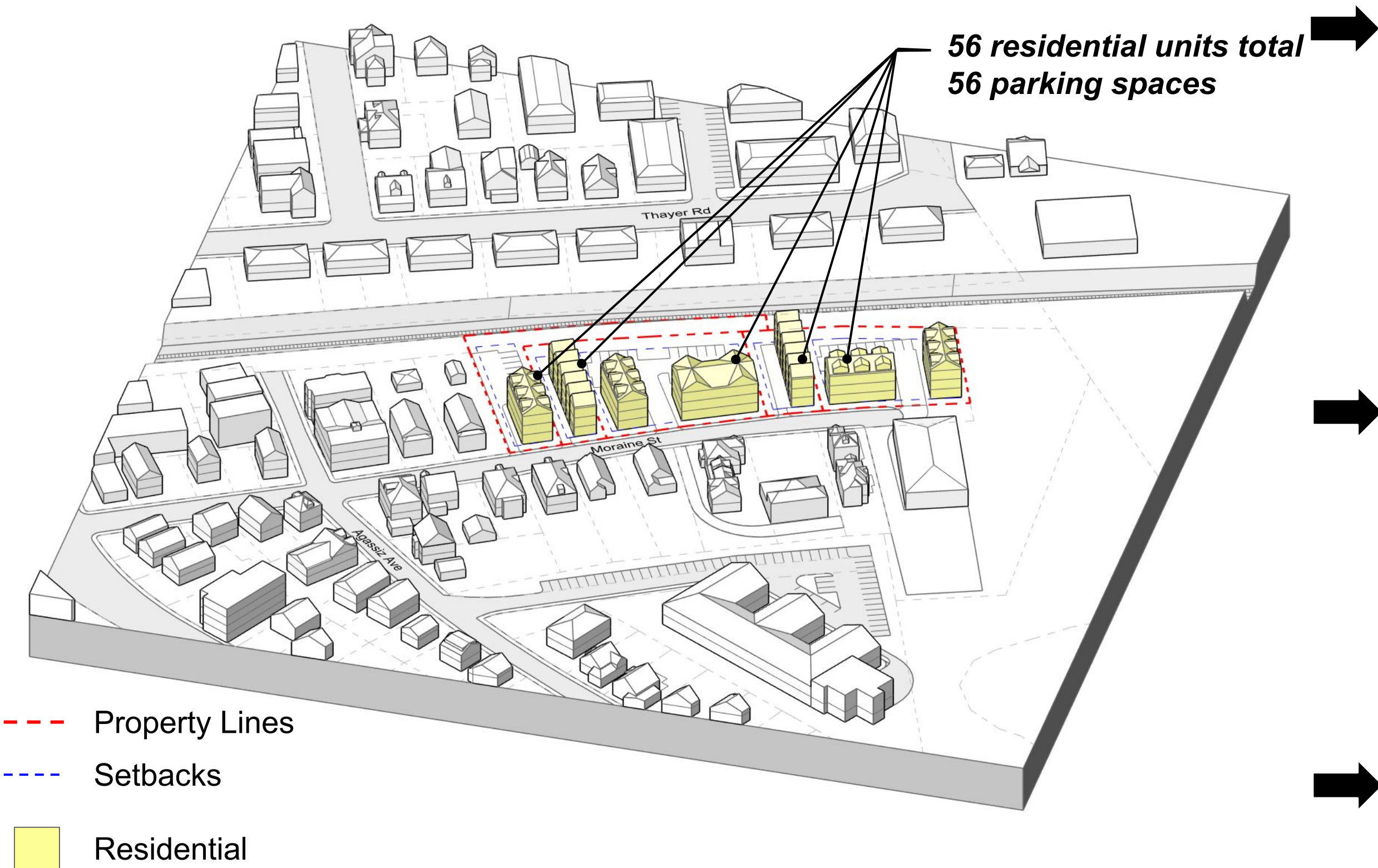
Zoning Regulations	GR Special Permit	Test-fit Yield
Height (max)	33 ft	33 ft
Number of stories (max)	2 ½ stories	2 ½ stories
Lot area per unit (min)	3,500 sf	6,400 sf - 16,700 sf
Lot area (min)	5,000 sf for single-family 7,000 sf for two-family	8,000 sf - 25,700 sf
Lot coverage (max)	30%	4% - 10%
Open space (min)	40%	64% - 86%
Lot Frontage (min)	50 ft for single-family 70 ft for two-family	55 ft - 160 ft
Setback: Front	20 ft	20 ft
Setback: Side (min)	10 ft	10 ft
Setback: Rear (min)	20 ft	20 ft
Parking Ratio	2 spaces per unit	2 spaces per unit
Allowed Uses	Single-family Resi Two-family Resi	Single-family Resi Two-family Resi



Primary limiting factor(s)

Subdistrict 2 Case Study

Max. Achievable Density under Proposed Zoning: SD2
Independent Sites

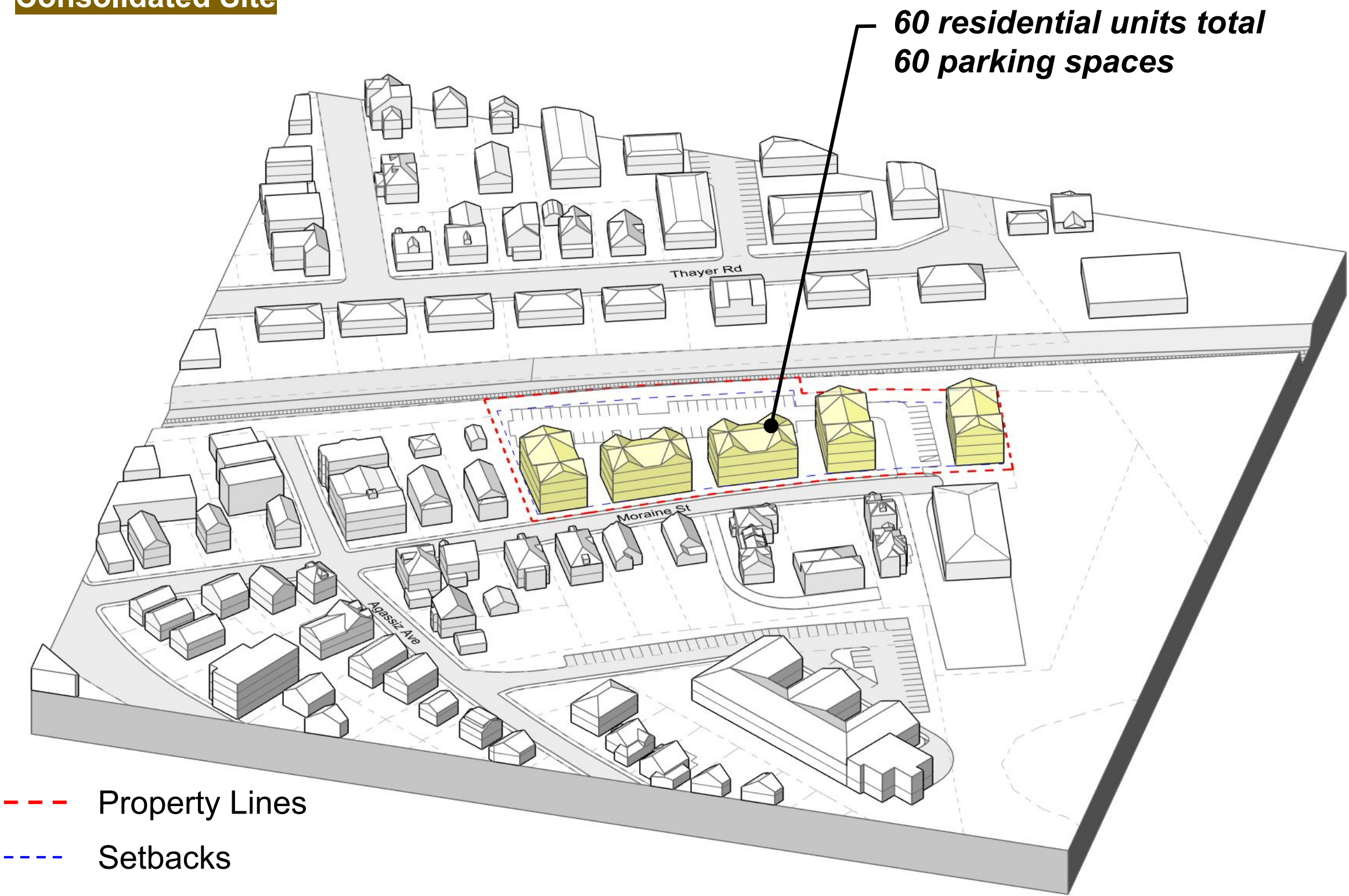


Test-fit under Proposed Zoning		
Zoning Regulations	SD2	Test-fit Yield
Number of stories (max)	3 ½ stories (2 stories input for compliance model)	3 ½ stories
Building footprint (max)	4,000 sf	2,300 sf - 3,500 sf
Lot area (min)	6,500 sf	8,000 sf - 25,700 sf
Lot coverage (max)	35%	12% - 32%
Open space (min)	30%	43% - 61%
Setback: Front	10 ft	10 ft
Setback: Side (min)	7.5 ft	7.5 ft
Setback: Rear (min)	20 ft	20 ft
Parking Ratio	1 space min. per unit	1 space per unit
Allowed Uses	Single-family Resi Multi-family Resi.	Multi-family Resi.
Multiple Buildings on Lots	Yes, 20' min separation	

Primary limiting factor(s)

Subdistrict 2 Case Study

Max. Achievable Density under Proposed Zoning: SD2
Consolidated Site



- - - Property Lines
- - - Setbacks
- Residential

Test-fit under Proposed Zoning

Zoning Regulations	SD2	Test-fit Yield
Number of stories (max)	3 ½ stories (2 stories input for compliance model)	3 ½ stories
Building footprint (max)	4,000 sf	3,500 sf x 5
Lot area (min)	6,500 sf	77,531 sf
Lot coverage (max)	35%	23%
Open space (min)	30%	50%
Setback: Front	10 ft	10 ft
Setback: Side (min)	7.5 ft	7.5 ft
Setback: Rear (min)	20 ft	20 ft
Parking Ratio	1 space min. per unit	1 space per unit
Allowed Uses	Single-family Resi Multi-family Resi.	Multi-family Resi.
Multiple Buildings on Lots	Yes, 20' min separation	

Primary limiting factor(s)

Subdistrict 1 Case Study

Test-fit Site: 39-41 Channing Rd

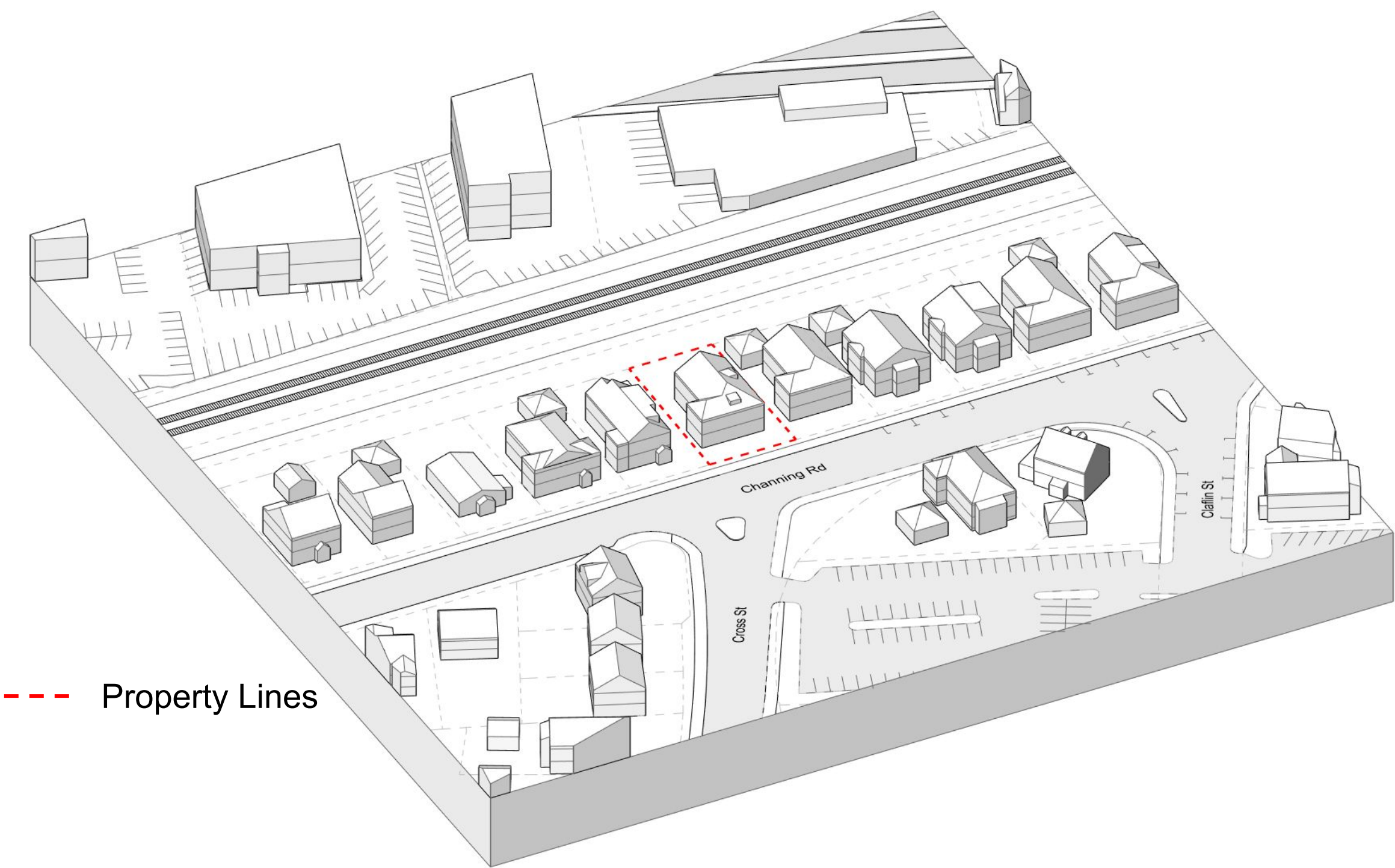


Test-fit Site: **39-41 Channing Rd**
Existing Zoning: **General Residence**

Proposed Zoning: **Subdistrict 1**
Desired Character: **3 to 3.5 story triple-deckers, six-plexes, and eight-plexes**

Subdistrict 1 Case Study

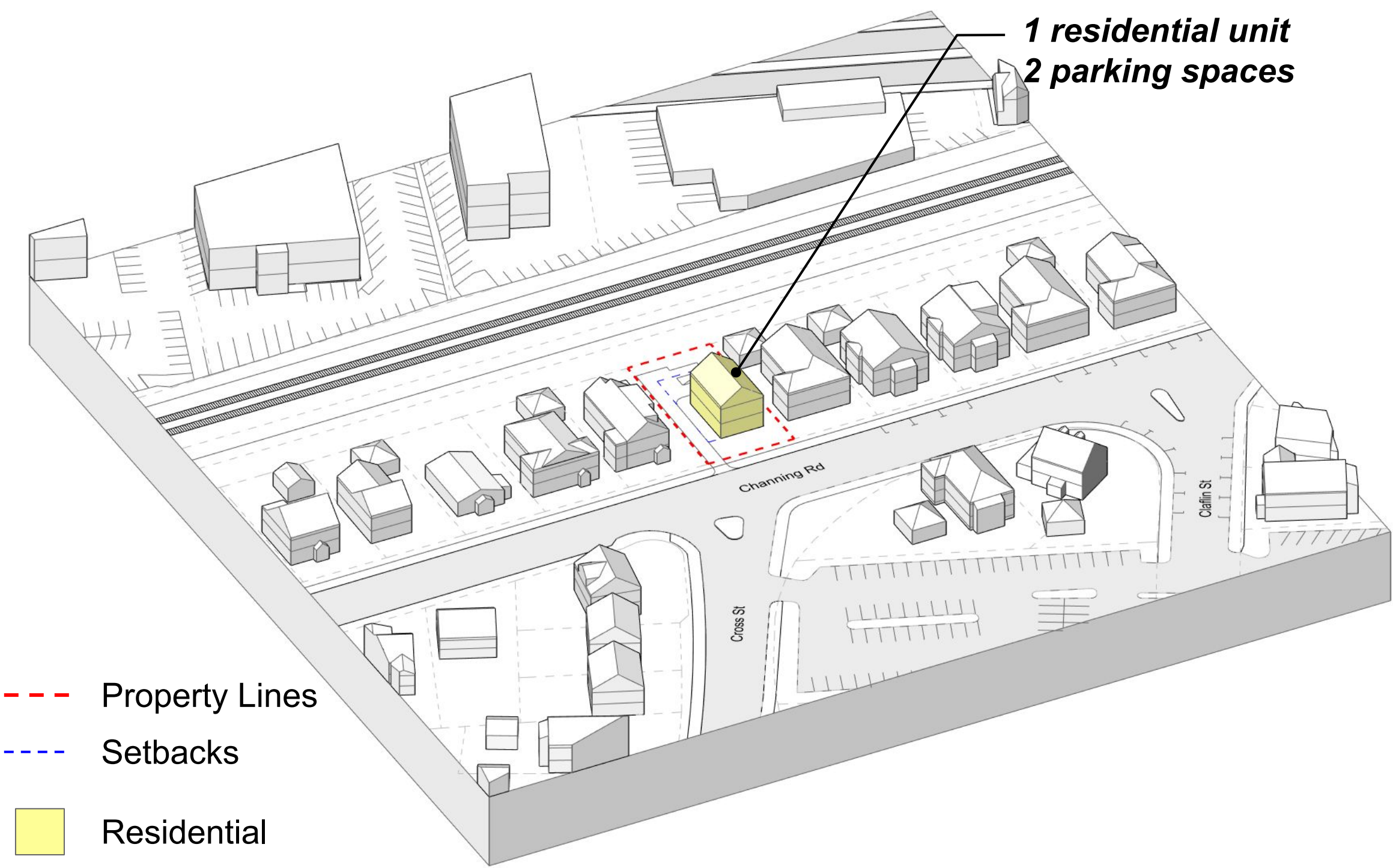
Test-fit Site: 39-41 Channing Rd
Existing Conditions



	Current		Proposed
Zoning Regulations	GR By-Right	GR Special Permit	SD1
Height (max)	33 ft		TBD
Number of stories (max)	2 ½ stories		3 ½ stories
Lot area per unit (min)	3,500 sf		N/A
Building footprint (max)	N/A		2,000 sf
Lot area (min)	5,000 sf	5,000 sf for single-family 7,000 sf for two-family	2,700 sf
Lot coverage (max)	30%		35%
Open space (min)	40%		30%
Lot Frontage (min)	50 ft	50 ft for single-family 70 ft for two-family	N/A
Setback: Front	20 ft		10 ft
Setback: Side (min)	10 ft		7.5 ft
Setback: Rear (min)	20 ft		15 ft
Parking Ratio	3 spaces max. for single-family, 2 spaces per unit for two-family		1 space per unit
Allowed Uses	Single-family Resi	Single-family Resi Two-family Resi	Single-family Resi Multi-family Resi.

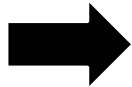
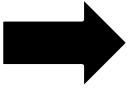
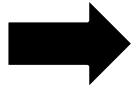
Subdistrict 1 Case Study

Max. Achievable Density under Current Zoning: GR with Special Permit



Test-fit under Current Zoning

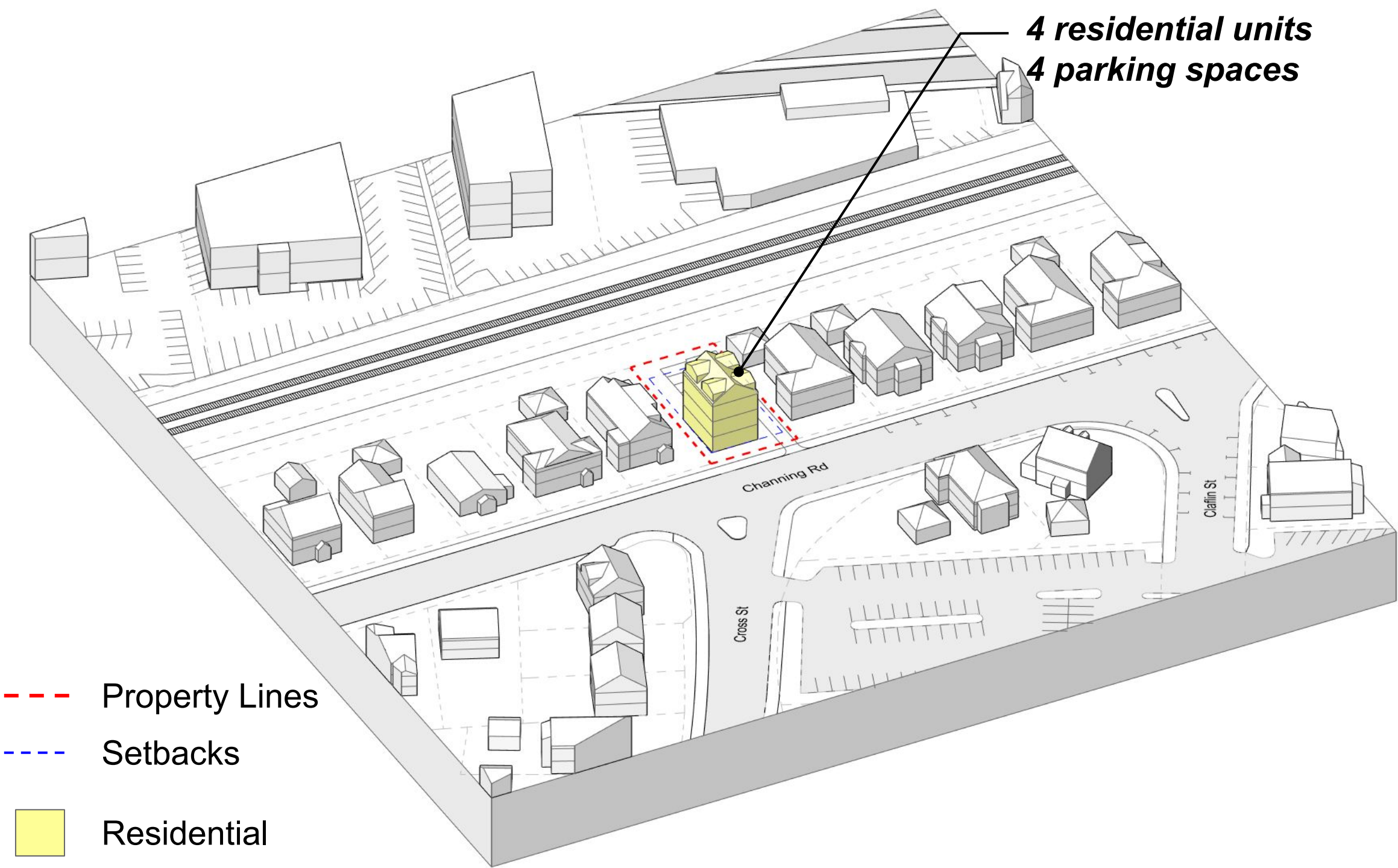
Zoning Regulations	GR Special Permit	Test-fit Yield
Height (max)	33 ft	33 ft
Number of stories (max)	2 ½ stories	2 ½ stories
Lot area per unit (min)	3,500 sf	6,200 sf
Lot area (min)	5,000 sf for single-family 7,000 sf for two-family	6,200 sf
Lot coverage (max)	30%	18%
Open space (min)	40%	53%
Lot Frontage (min)	50 ft for single-family 70 ft for two-family	57 ft
Setback: Front	20 ft	20 ft
Setback: Side (min)	10 ft	10 ft
Setback: Rear (min)	20 ft	20 ft
Parking Ratio	2 spaces per unit	2 spaces per unit
Allowed Uses	Single-family Resi Two-family Resi	Single-family Resi



Primary limiting factor(s)

Subdistrict 1 Case Study

Max. Achievable Density under Proposed Zoning: SD1



Test-fit under Proposed Zoning

Zoning Regulations	SD1	Test-fit Yield
Number of stories (max)	3 ½ stories (3 stories input for compliance model)	3 ½ stories
Building footprint (max)	2,000 sf	1,120 sf
Lot area (min)	2,700 sf	6,200 sf
Lot coverage (max)	35%	18%
Open space (min)	30%	45%
Setback: Front	10 ft	10 ft
Setback: Side (min)	7.5 ft	7.5 ft
Setback: Rear (min)	15 ft	15 ft
Parking Ratio	1 space per unit	1 space per unit
Allowed Uses	Single-family Resi Multi-family Resi.	Multi-family Resi.



Primary limiting factor(s)

Subdistrict 4 Case Study

Test-fit Site: 472-494 Trapelo Rd

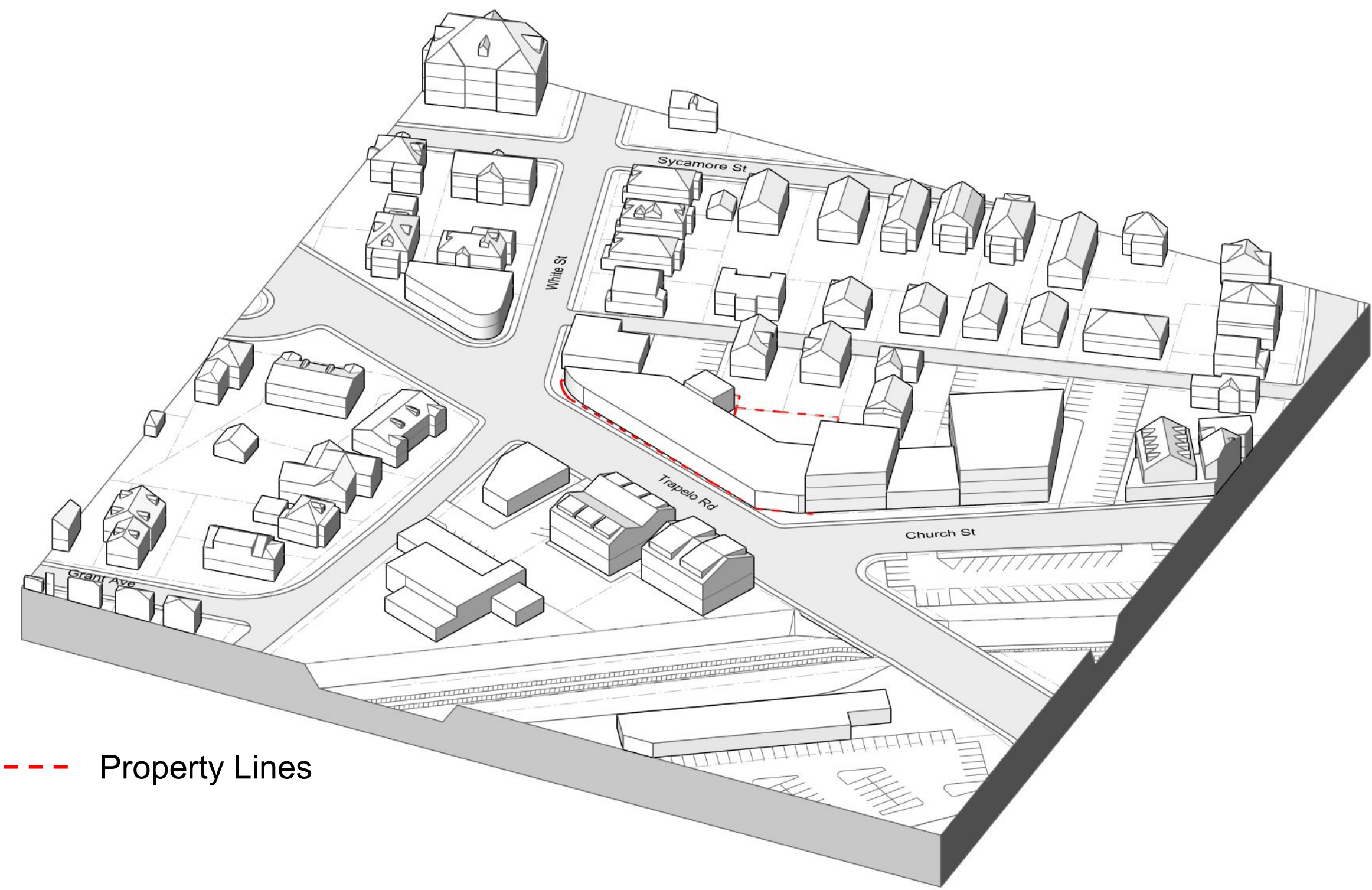


Test-fit Site: **472-494 Trapelo Rd**
Existing Zoning: **Local Business I**

Proposed Zoning: **Subdistrict 4**
Desired Character: **3 to 4 story mandatory mixed-use buildings with street retail storefronts and apartments on upper floors**

Subdistrict 4 Case Study

Test-fit Site: 472-494 Trapelo Rd
Existing Conditions



	Current		Proposed
Zoning Regulations	LBi By-Right	LBi Special Permit	SD4
FAR (max)	1.25	1.5	N/A
Height (max)	28 ft	32 ft	TBD
Number of stories (max)	2 stories	3 stories	4 stories (Ground level retail + 3 resi. levels)
Building footprint (max)	N/A		10,000 sf
Lot coverage (max)	35%		75%
Open space (min)	N/A		20%
Lot Frontage (min)	20 ft		N/A
Setback: Front	5 ft		N/A
Setback: Side (min)	6 ft		N/A
Setback: Rear (min)	6 ft		15 ft
Parking Ratio	2 spaces per unit 1 space per 350 sf ground floor retail		0.5 space min. per unit No retail req.
Allowed Uses	Restaurant Retail Office	Mixed-use	Mixed-use

Subdistrict 4 Case Study

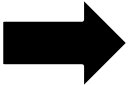
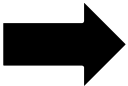
Max. Achievable Density under Current Zoning: LBI with Special Permit



- - - Property Lines
- - - Setbacks
- Residential
- Retail

Test-fit under Current Zoning

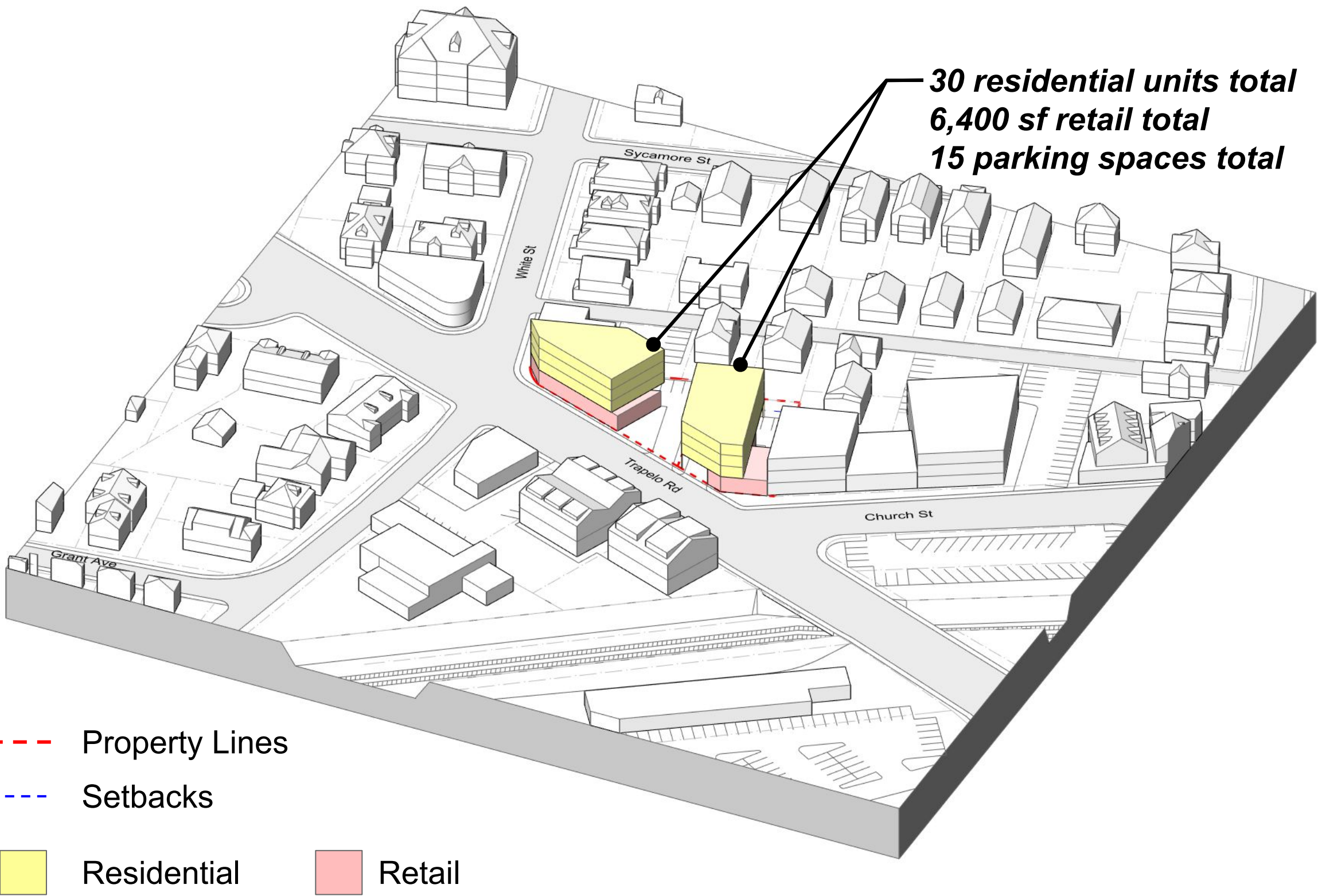
Zoning Regulations	LBI Special Permit	Test-fit Yield
FAR (max)	1.5	0.39 - 0.54
Height (max)	32 ft	32 ft
Number of stories (max)	3 stories	3 stories
Lot coverage (max)	35%	28% - 30%
Lot Frontage (min)	20 ft	93 ft - 187 ft
Setback: Front	5 ft	5 ft
Setback: Side (min)	6 ft	6 ft
Setback: Rear (min)	6 ft	6 ft
Parking Ratio	2 spaces per unit 1 space per 350 sf ground floor retail	2 spaces per unit 1 space per 350 sf ground floor retail
Allowed Uses	Mixed-use	Mixed-use



Primary limiting factor(s)

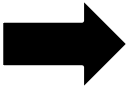
Subdistrict 4 Case Study

Max. Achievable Density under Proposed Zoning: SD4
Independent Sites



Test-fit under Proposed Zoning

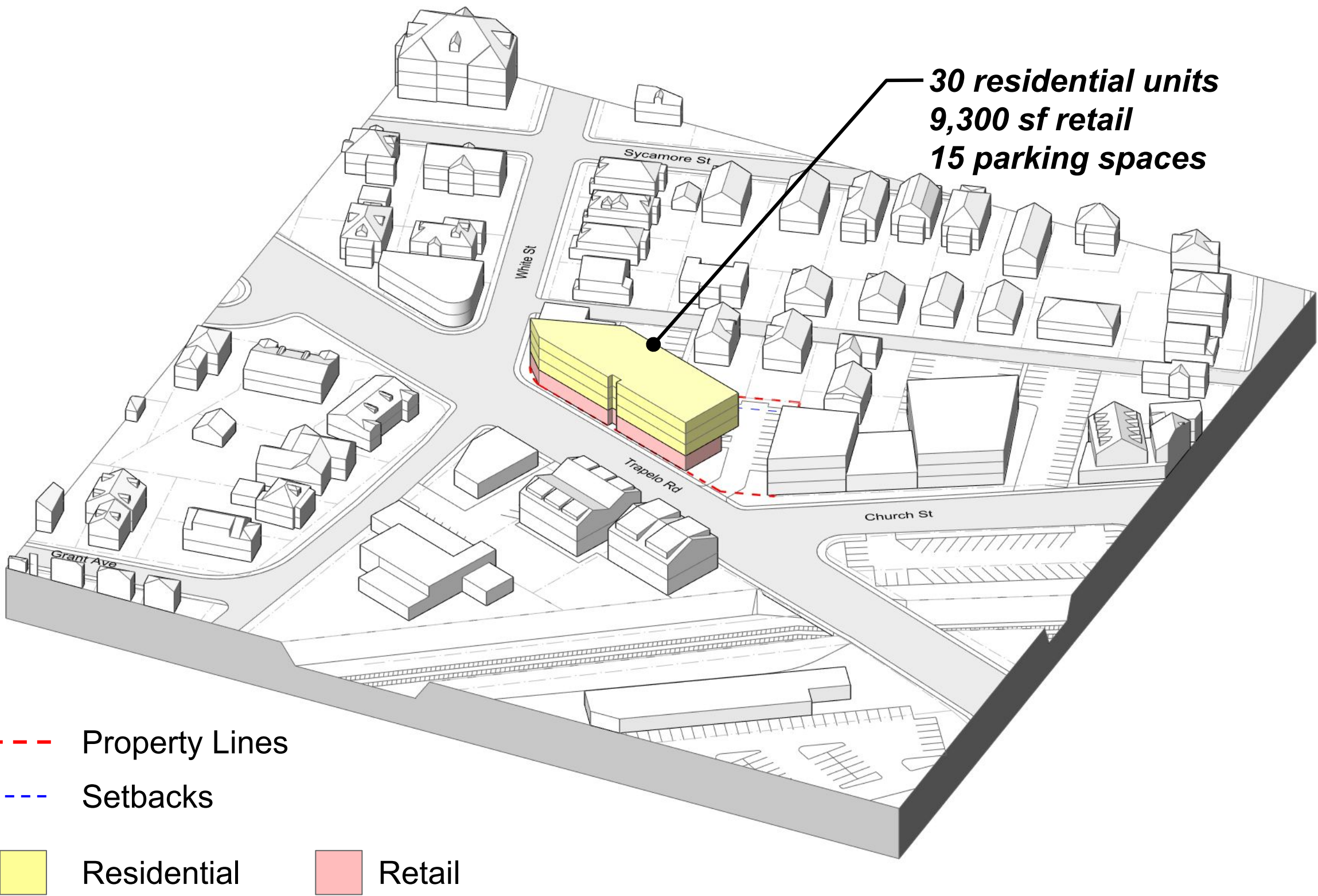
Zoning Regulations	SD4	Test-fit Yield
Number of stories (max)	4 stories (Ground level retail + 3 resi. levels)	4 stories (Ground level retail + 3 resi. levels)
Building footprint (max)	10,000 sf	5,000 sf - 6,500 sf
Lot coverage (max)	75%	51% - 62%
Open space (min)	20%	20% - 21%
Setback: Front	N/A	N/A
Setback: Side (min)	N/A	N/A
Setback: Rear (min)	15 ft	15 ft
Parking Ratio	0.5 space min. per unit No retail parking requirement	0.5 space min. per unit No retail parking requirement



Primary limiting factor(s)

Subdistrict 4 Case Study

Max. Achievable Density under Proposed Zoning: SD4
Consolidated Site



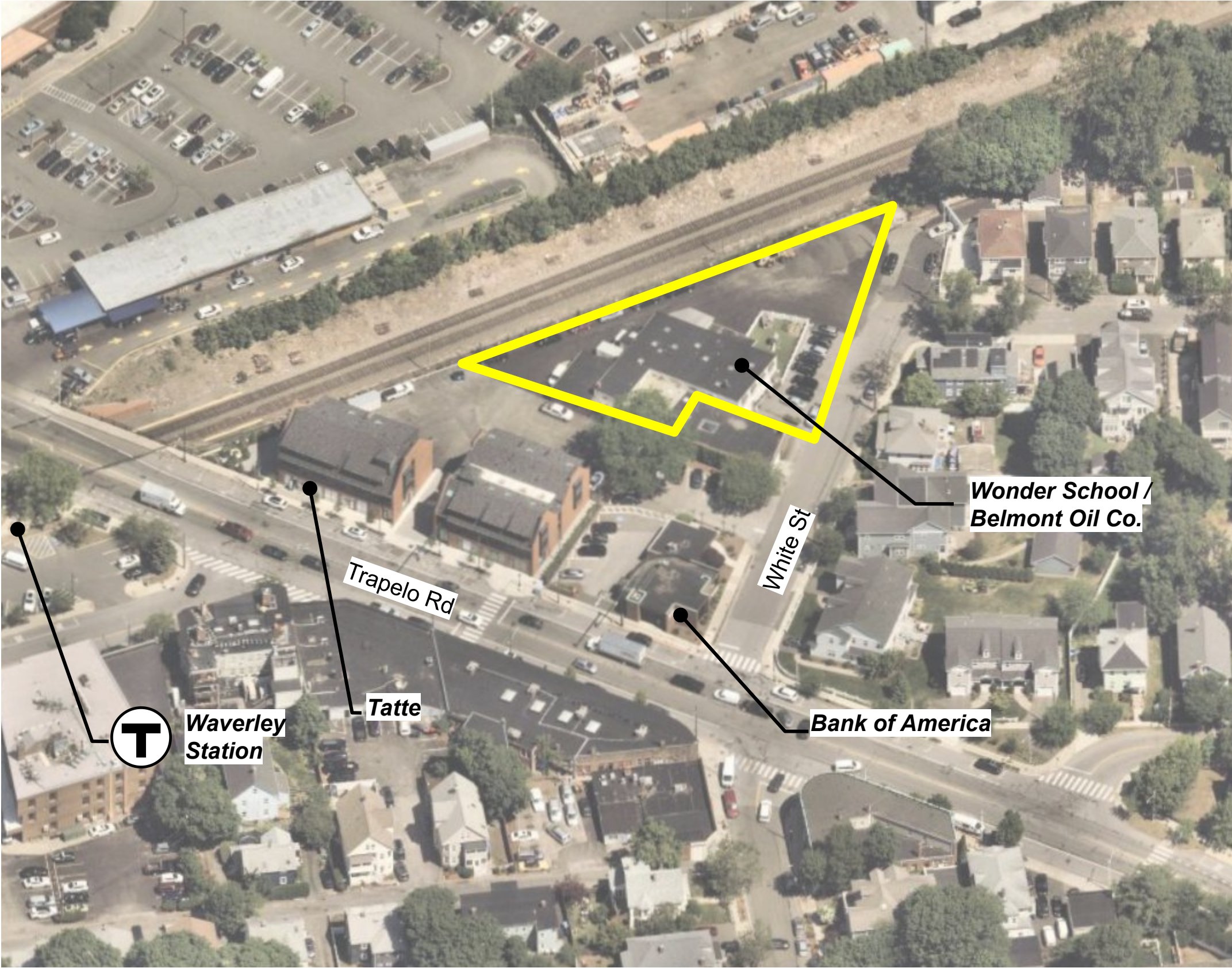
Test-fit under Proposed Zoning

Zoning Regulations	SD4	Test-fit Yield
Number of stories (max)	4 stories (Ground level retail + 3 resi. levels)	4 stories (Ground level retail + 3 resi. levels)
Building footprint (max)	10,000 sf	10,000 sf
Lot coverage (max)	75%	50%
Open space (min)	20%	25%
Setback: Front	N/A	N/A
Setback: Side (min)	N/A	N/A
Setback: Rear (min)	15 ft	15 ft
Parking Ratio	0.5 space min. per unit No retail parking requirement	0.5 space min. per unit No retail parking requirement

Primary limiting factor(s)

Subdistrict 5 Case Study

Test-fit Site: 41-43 White St

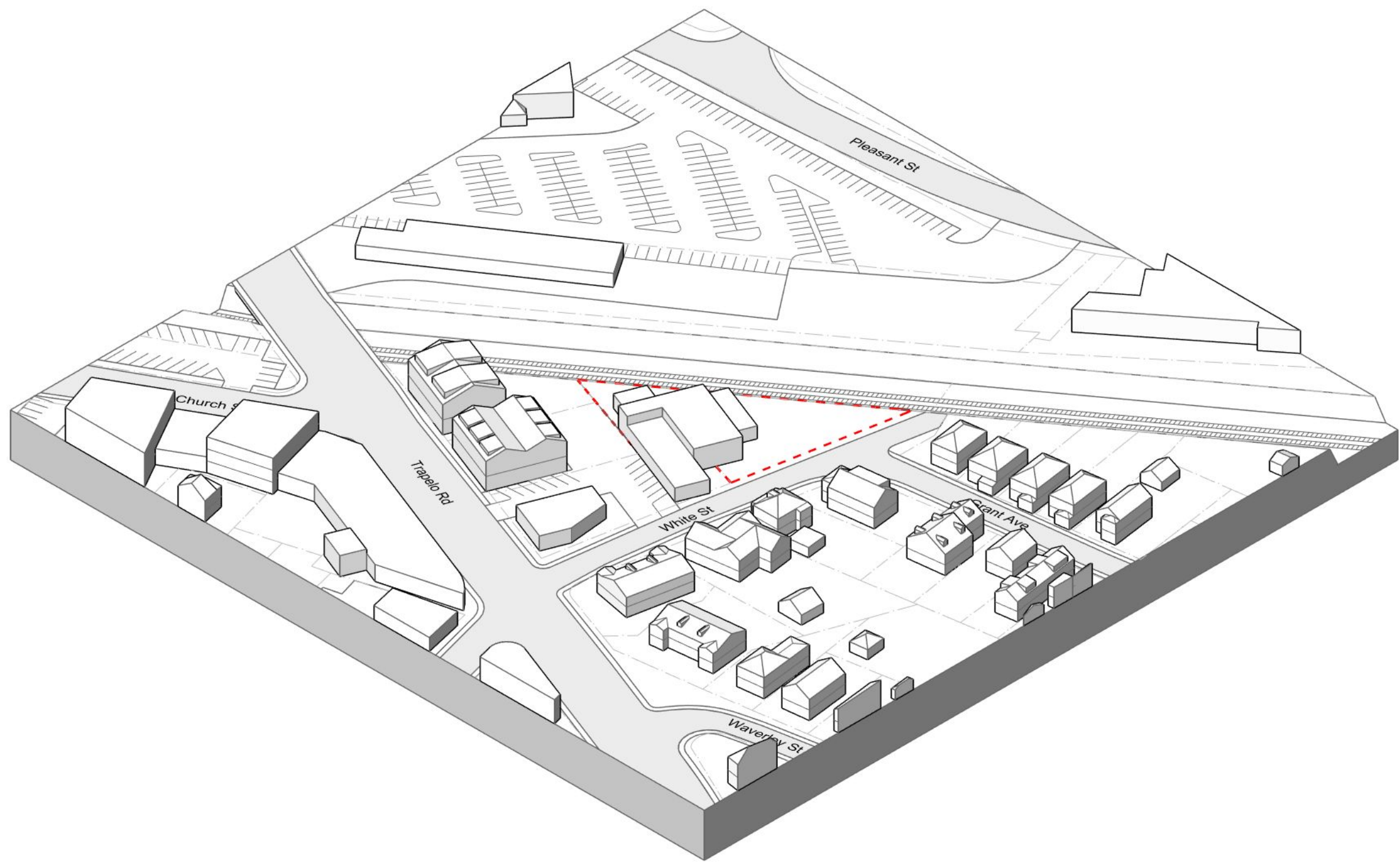


Test-fit Site: **41-43 White St**
Existing Zoning: **Local Business I**

Proposed Zoning: **Subdistrict 5**
Desired Character: **3 to 5 story apartment blocks with max. height available through density bonuses only**

Subdistrict 5 Case Study

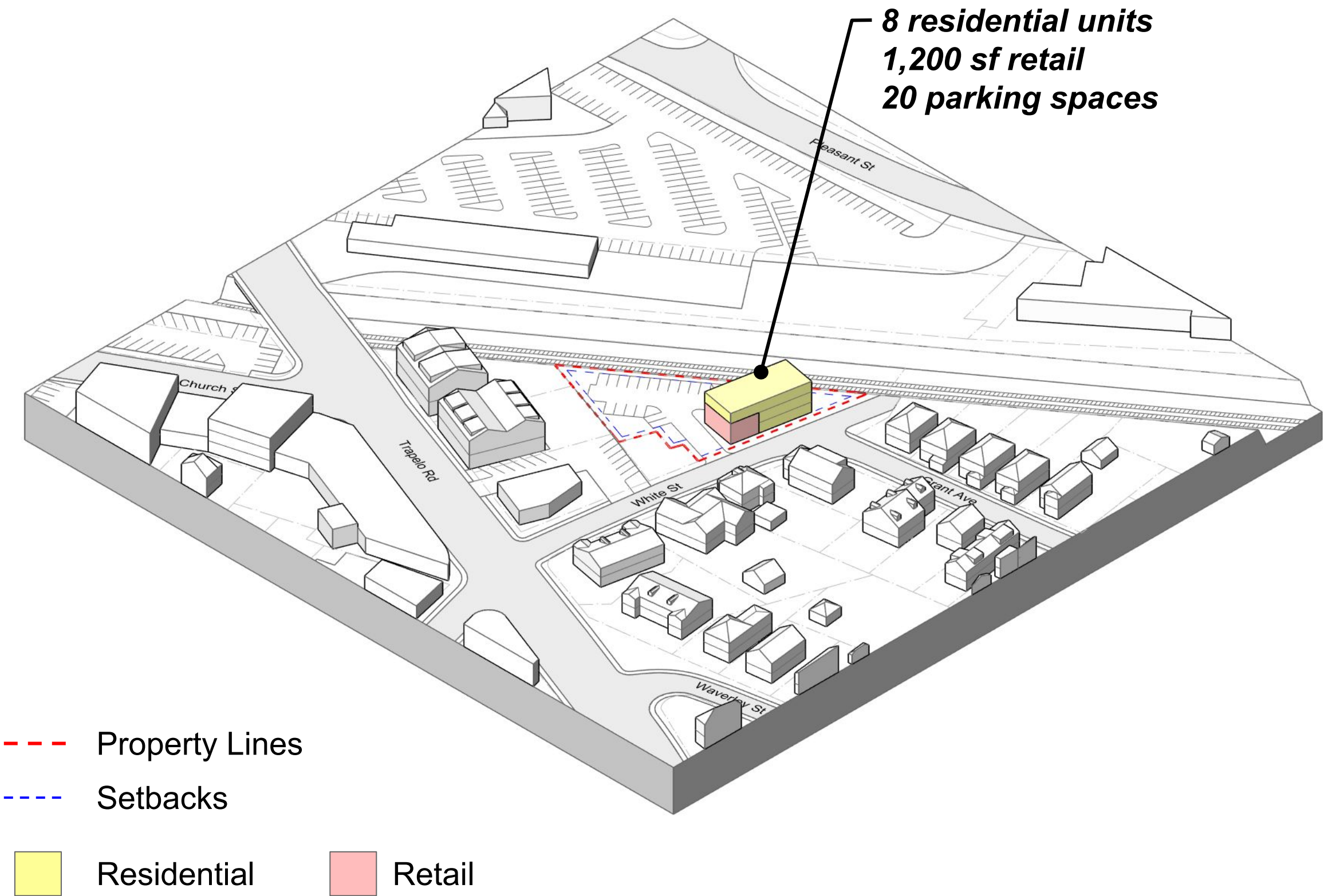
Test-fit Site: 41-43 White St
Existing Conditions



	Current		Proposed
Zoning Regulations	LBi By-Right	LBi Special Permit	SD5
FAR (max)	1.25	1.5	N/A
Height (max)	28 ft	32 ft	TBD
Number of stories (max)	2 stories	3 stories	3 stories pure-resi 5 stories mixed-use
Building footprint (max)	N/A		10,000 sf
Lot coverage (max)	35%		75%
Open space (min)	N/A		20%
Lot Frontage (min)	20 ft		N/A
Setback: Front	5 ft		N/A
Setback: Side (min)	6 ft		N/A
Setback: Rear (min)	6 ft		15 ft
Parking Ratio	2 spaces per unit 1 space per 350 sf ground floor retail		0.5 space min. per unit 1 space per 350 sf ground floor retail
Allowed Uses	Restaurant Retail Office	Mixed-use	Multi-family Resi. Mixed-use

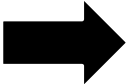
Subdistrict 5 Case Study

Max. Achievable Density under Current Zoning: LBI with Special Permit



Test-fit under Current Zoning

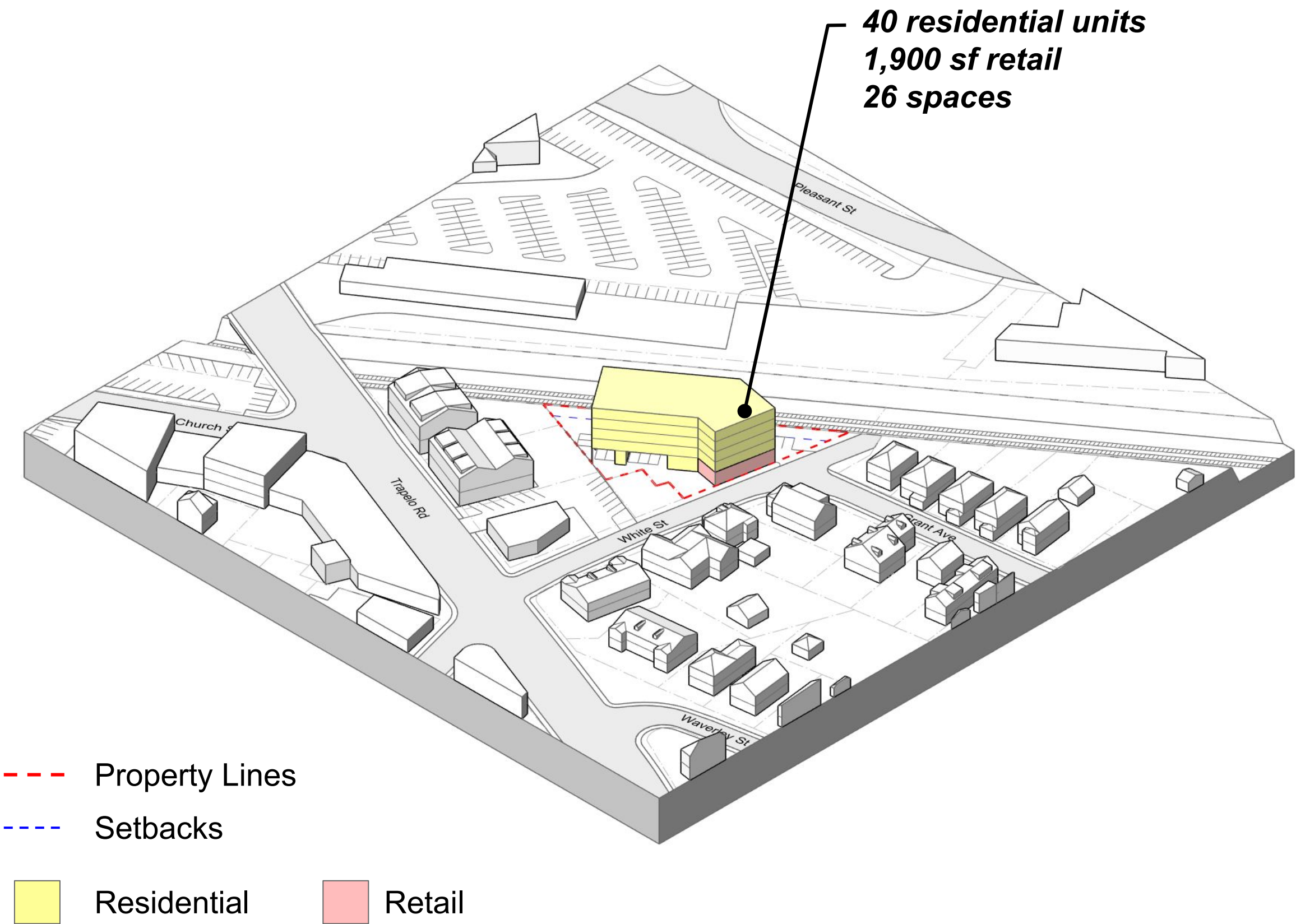
Zoning Regulations	LBI Special Permit	Test-fit Yield
FAR (max)	1.5	0.47
Height (max)	32 ft	32 ft
Number of stories (max)	3 stories	3 stories
Lot coverage (max)	35%	18%
Lot Frontage (min)	20 ft	86 ft
Setback: Front	5 ft	5 ft
Setback: Side (min)	6 ft	6 ft
Setback: Rear (min)	6 ft	6 ft
Parking Ratio	2 spaces per unit 1 space per 350 sf ground floor retail	2 spaces per unit 1 space per 350 sf ground floor retail



Primary limiting factor(s)

Subdistrict 5 Case Study

Max. Achievable Density under Proposed Zoning: SD5



Test-fit under Proposed Zoning

Zoning Regulations	SD 5	Test-fit Yield
Number of stories (max)	3 stories pure-resi 5 stories mixed-use	5 stories
Building footprint (max)	10,000 sf	9,800 sf
Lot coverage (max)	75%	50%
Open space (min)	20%	42%
Setback: Front	N/A	N/A
Setback: Side (min)	N/A	N/A
Setback: Rear (min)	15 ft	15 ft
Parking Ratio	0.5 space min. per unit 1 space per 350 sf ground floor retail	0.5 space min. per unit 1 space per 350 sf ground floor retail

Primary limiting factor(s)

Recommended Zoning Parameters

Zoning Regulations	SD1	SD2	SD3A	SD3B	SD4	SD5
Number of stories (max)	3 ½ stories	3 ½ stories	Refer to Draft Proposed BHA Overlay Zoning Standards	Refer to Draft Proposed BHA Overlay Zoning Standards	4 stories (Ground level retail + 3 resi. levels)	3 stories pure-resi 5 stories mixed-use
Building footprint (max)	2,000 sf	4,000 sf			10,000 sf	10,000 sf
Lot area (min)	2,700 sf	6,500 sf			N/A	N/A
Lot coverage (max)	35%	35%			75%	75%
Open space (min)	30%	30%			20%	20%
Setback: Front	10 ft	10 ft			N/A	N/A
Setback: Side (min)	7.5 ft	7.5 ft			N/A	N/A
Setback: Rear (min)	15 ft	20 ft			15 ft	15 ft
Parking Ratio	1 space per unit	1 space min. per unit			0.5 space min. per unit No retail parking requirement	0.5 space min. per unit 1 space per 350 sf ground floor retail
Multiple Buildings on Lots	Yes, 20’ min. separation	Yes, 20’ min. separation			Yes, 20’ min. separation	Yes, 20’ min. separation
Allowed Uses	Single-family Resi Multi-family Resi.	Single-family Resi Multi-family Resi.			Mixed-use only (Retail + Multi-family resi.)	Multi-family Resi. Mixed-use

Next Steps

- Refine test-fits and zoning parameters
- Street level before-and-after perspectives



- Assist with one round of MBTA 3A Compliance check with updated map

Thank you!

