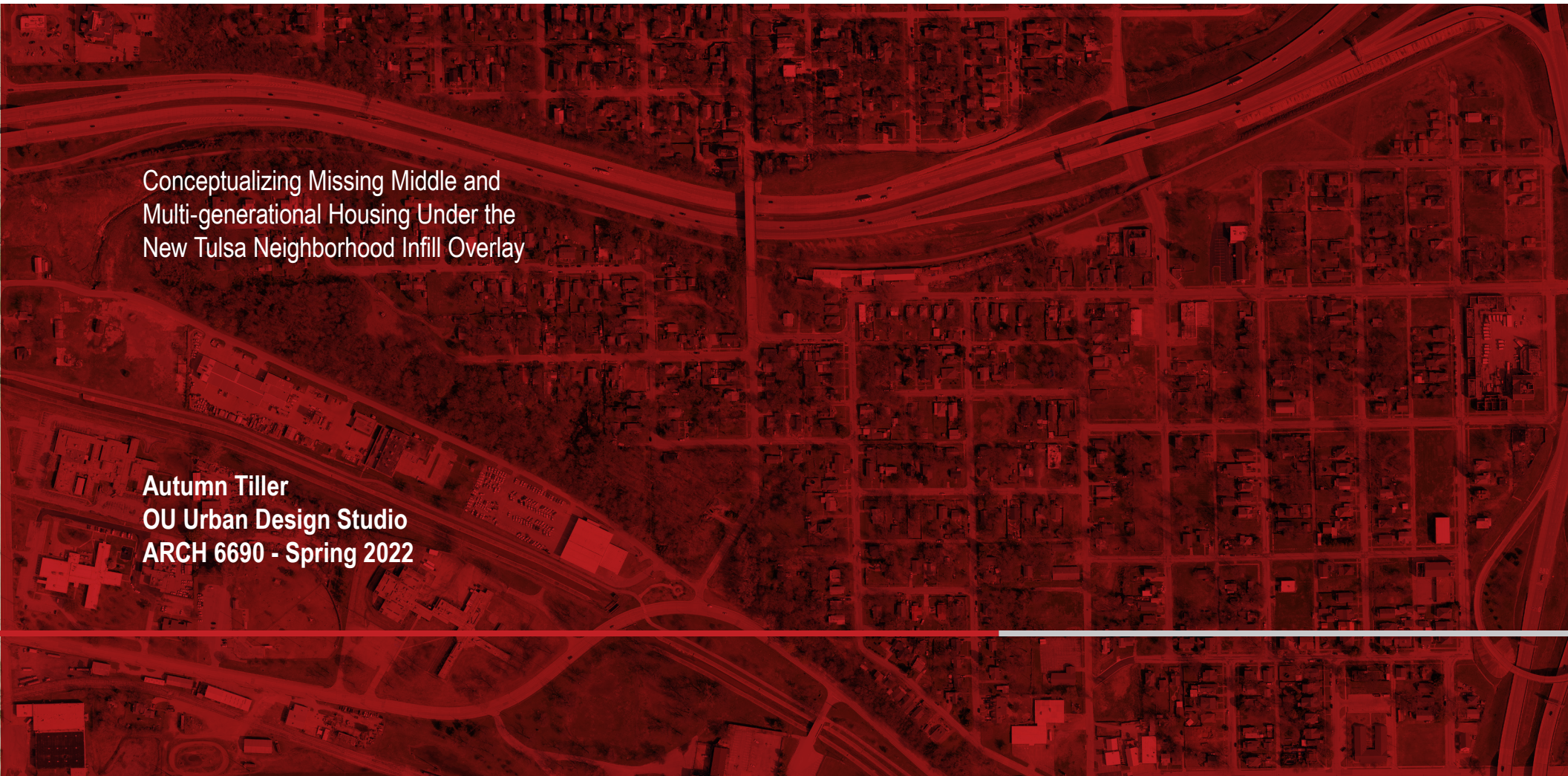
Building Blocks



Conceptualizing Missing Middle and
Multi-generational Housing Under the
New Tulsa Neighborhood Infill Overlay

Autumn Tiller
OU Urban Design Studio
ARCH 6690 - Spring 2022

THE UNIVERSITY OF OKLAHOMA
GRADUATE COLLEGE

Building Blocks: Conceptualizing Missing Middle and Multi-generational Housing Under the New Tulsa Neighborhood Infill Overlay

A PROFESSIONAL PROJECT

SUBMITTED TO THE GRADUATE FACULTY

in partial fulfillment of the requirements for the

Degree of

MASTER OF URBAN DESIGN

By

Autumn S. Tiller

Norman, Oklahoma
2022
Building Blocks: Conceptualizing Missing Middle and Multi-generational Housing Under the New Tulsa Neighborhood Infill Overlay

A PROFESSIONAL PROJECT APPROVED FOR THE
URBAN DESIGN STUDIO
CHRISTOPHER C. GIBBS
COLLEGE OF ARCHITECTURE

BY

Shawn Michael Schaefer, Chair
Dave Boeck, AIA
Francesco Cianfarani, Ph.D.
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Contents

Introduction

How Did We Get Here?

Hello! My name is Autumn Tiller, and I am a second-year graduate student at the University of Oklahoma Urban Design Studio. I was born and raised right here in Tulsa, just a few miles north of downtown and set out on a path in design in hopes to see my work positively impact the community. My original background is in interior design, and I worked in design-adjacent industries over the last decade prior to pursuing my master's degree. After graduating with my bachelor's degree, I jokingly made it a goal to stay away from residential design and out of people's homes because it felt too personal. Now I find myself working on a project based on small-scale multifamily infill.

My personal interest in this project came into play during a course in real estate, where we had to select a site, determine its use, and build a pro forma. I selected one of the many vacant lots owned by the Tulsa Development Authority that surround downtown.

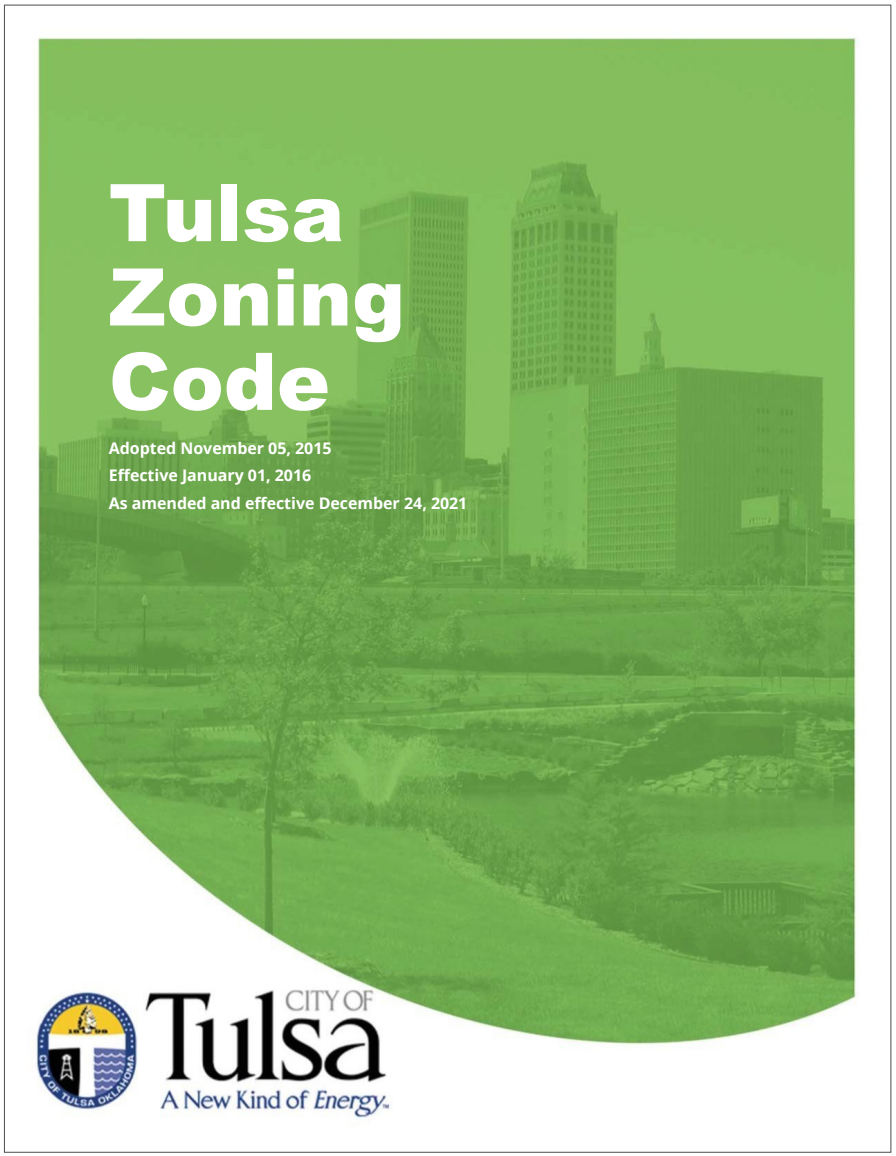
Having recently purchased a home as a married person with a young child and an aging mother, our options for what we considered a "forever home" were limited—either not set up to accommodate our familial dynamic or grossly out of budget.

After having joined the Urban Design program and having many discussions about how today's housing is not set up for anything outside of the typical family, I realized I might not be the only person on this path of thinking. I kept hearing this term "missing middle" housing being thrown around, which I had never heard of prior to starting the program. Then the neighborhood infill overlay was introduced, and I wanted to see what could be designed under those constraints and if it could be something that my family—among others—would find useful.

Head shot of Autumn Tiller (author). Taken by Jadyn Noelle Photography.

Neighborhood Infill Overlay - What is It?
The amendment to the existing zoning code—which was passed in 2021—was created with the intent to promote the development of diverse housing types in residential neighborhoods surrounding downtown.

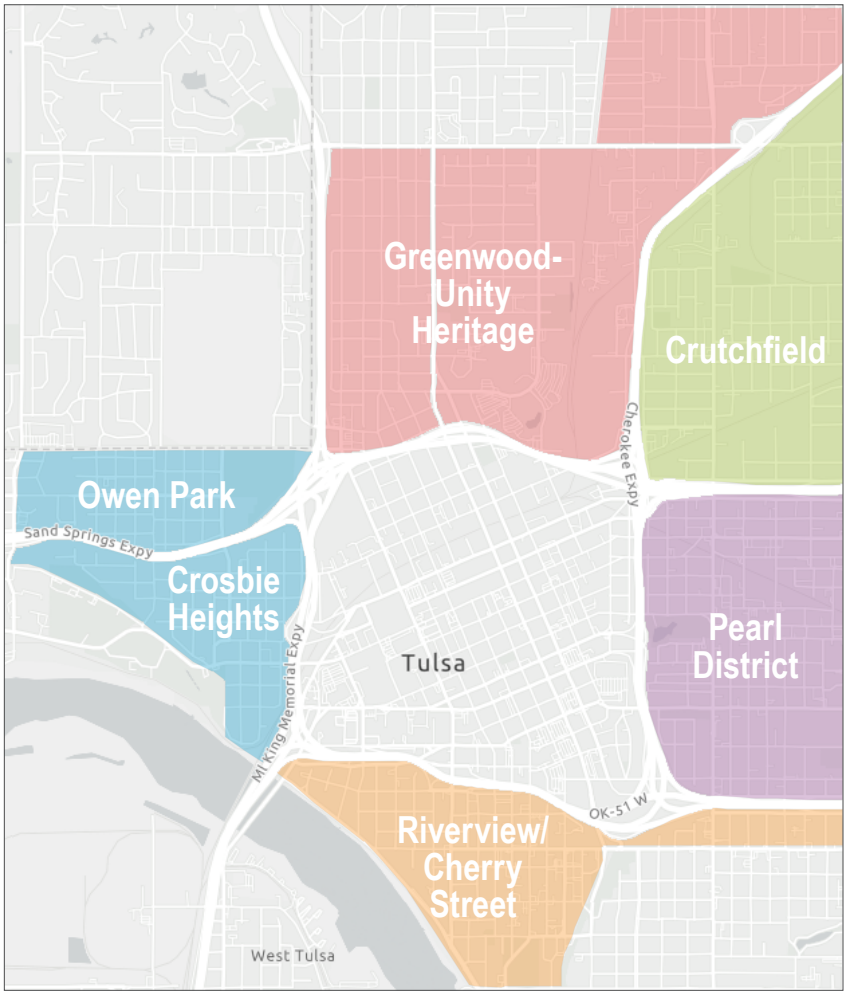
"The Neighborhood Infill Overlay would allow for a variety of different residential housing types in a manner that is compatible with the size and residential character of surrounding properties. Current regulations make it difficult to build the types of housing that was historically abundant in the neighborhoods surrounding downtown a hundred years ago: duplexes, townhomes, multi-unit houses, quadplexes, and small apartment buildings. These housing types are commonly referred to as "Missing Middle" Housing because they are similar in size to detached homes but contain more than one unit, and they have typically not been built since the mid-1940s (Citywide, Page 3)."



Cover of Tulsa Zoning Code. Created by City of Tulsa/Tulsa Planning Office.

The areas covered in the overlay include Greenwood Unity Heritage, Crutchfield, Pearl District, Riverview/ Cherry Street and Owen Park/Crosbie Heights neighborhoods (refer to graphic for locations). The focus of this project is on the Crosbie Heights neighborhood, but many of the deliverables would be relevant for the remaining neighborhoods, with some contextual updates to specific sites.

During the 1980s, the eastern residential sites in Crosbie Heights were “upzoned” to RM-2—or residential multi-family, medium density—with few changes otherwise (Crosbie, Page 43). RM-2 designation prior to the 2021 amendments served to categorize the residential areas of the neighborhood based on the existing housing types present, but nothing more. After the 2021 amendments, RM-2 was upgraded to include formerly illegal housing types, such as accessory dwelling units and cottage courts. The goal of both changes were implemented to facilitate diversity in single and multi-family housing options, but the 2021 amendments solidified this with further benefit and during a time when more people were actively looking for change in relation to traditional housing.



Map of neighborhood infill overlay areas. Created by City of Tulsa/Tulsa Planning Office.

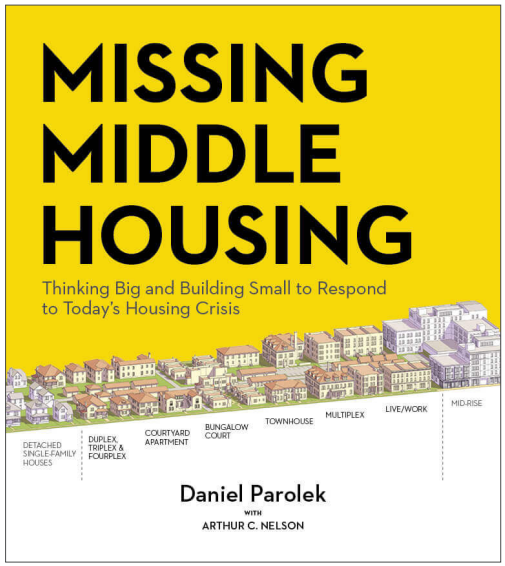
Between societal stigma toward apartment complexes, NIMBYs (Not in My Backyard) and restrictiveness of zoning codes, the existing atmosphere made it difficult to utilize standard single-family lots to develop anything more than…single family housing (shocking, I know). The new zoning amendments sailed smoothly in some areas and were hotly contested in others. Showcasing shallower setbacks and higher quantities (and types) of permissible structures, it theoretically should be more amenable to higher density housing. But if these types of development have not been constructed in decades, exactly where does one start?

For specifics regarding the changes to the zoning code, please see the appendix documents starting on page 59.

Terminology

What is Missing Middle?

First coined by Dan Parolek, the concept of missing middle housing (insert context here). While missing middle housing at a high-level check many of the boxes for multi-generational housing, some housing types have their shortcomings when it comes to anticipating mobility limitations, such as above-garage apartments.



top: cover art, Missing Middle Housing
bottom: diagram of housing types (both by Dan Parolek)

Multi-generational Housing

Commonly confused with inter-generational housing, multi-generational housing consists of members from the same family but different generations occupying the same residence. Inter-generational housing refers to residents of all ages and stages living intentionally within the same community. Other commonly used terms include multi-adult households, where residents may or may not be related, but coexist within the same household and share expenses.

Universal Design

Universal design is the intentional design of elements and spaces to be as accessible and usable by as many people as possible, as much a possible (Center for Universal Design, 2008). Universal design typically incorporates elements such as lever door handles, raised electrical receptacles, wider doorways and paths of travel, and step- and stair-free design to accommodate a broad range of users.

THE CENTER FOR
UNIVERSAL DESIGN
Environments and Products for All People

Top: Imagery representing multi-generational design, taken from the AARP website at https://www.aarp.org/home-family/your-home/info-2018/multi-generational-home-increase.html. Bottom: the now-defunct Center for Universal Design logo, taken from the website at https://projects.ncsu.edu/ncsu/design/cud/index.htm.

Project Scope

Goals

The goals for devising this material are multi-layered, focusing on the benefit of the City of Tulsa, its citizens, Crosbie neighborhood residents, and those interested in pursuing these missing middle types of development.

- Diversify housing choice
- Test new infill overlay requirements
- Facilitate small-scale development
- Empower neighbors' decision-making
- Preserve character/culture

The following pages contain information and graphics demonstrating Crosbie Heights' historical, demographic, workforce, urban fabric, land use, vacancy and asset information to justify the need for missing middle housing types.

Orthorectified aerial imagery of Crosbie Heights neighborhood. Provided by Ty Simmons at INCOG/Tulsa Planning Office.

Why Crosbie Heights?

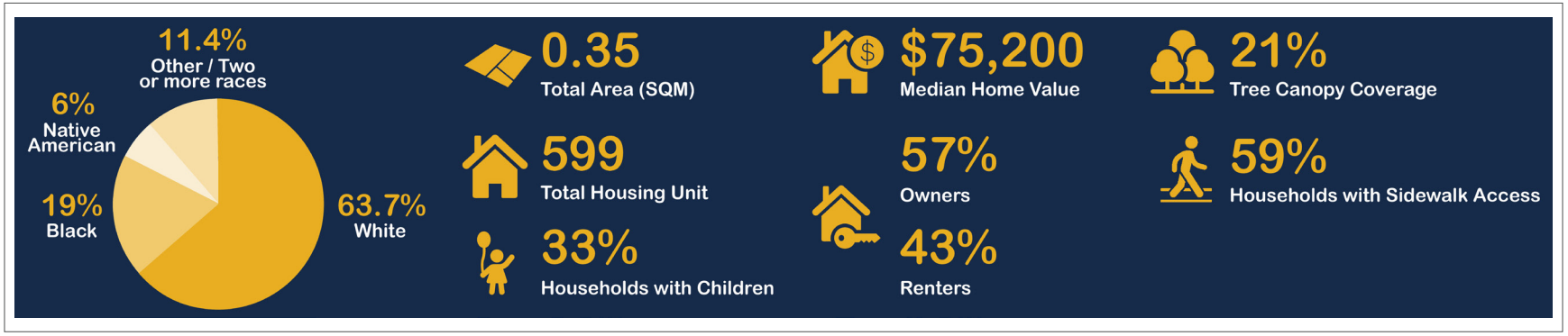
Platted in 1908—only 10 years after Tulsa was incorporated—Crosbie Heights is among one of Tulsa's oldest neighborhoods (Moore, 2021). Named after William Crosbie, Crosbie Heights started as a working-class neighborhood. Like many others across the country, the neighborhood started to deteriorate with the accessibility and affordability of the personal automobile. Add the postwar suburban flight, subsequent highway development and urban renewal projects of the 1970s, it fell further into a state of disrepair. Despite this, much of the charm and historical value still remains.

Above: photos showing extreme conditions of housing stock in the neighborhood. Provided by Emily Scott.

Despite its humble beginnings, Crosbie Heights boasts many attractive elements appealing to all ages and stages. A boomerang-shaped chunk of land located just outside of the inner dispersal loop—comprised of highways 75 and 51/412, and interstate 244—it is offset by roughly 8 lanes of traffic from the downtown core on the north and east sides and bordered by the Arkansas River to the south. Being downtown-adjacent has its pros and cons—the pros being proximity to highway access, municipal and entertainment functions. Its cons are indicative of a larger societal issue: a prevalent homeless population, due to a concentration of resource-providing organizations just on the other side of the highway. Being flanked on two sides by highway also results in a visual and physical disconnect from surrounding areas and valuable resources (such as grocery stores).

Photo of the neighborhood sign. Provided by Emily Scott.

Above: photos from the Charles Page overpass looking toward downtown and into the neighborhood. Provided by Emily Scott.



Top: photos showing housing stock in the neighborhood. Provided by Emily Scott.
Bottom: infographic showing Crosbie Heights' demographic data. Taken from the Tulsa Planning Office' Vibrant Neighborhoods Partnership website.

United States Census Bureau **OnTheMap**

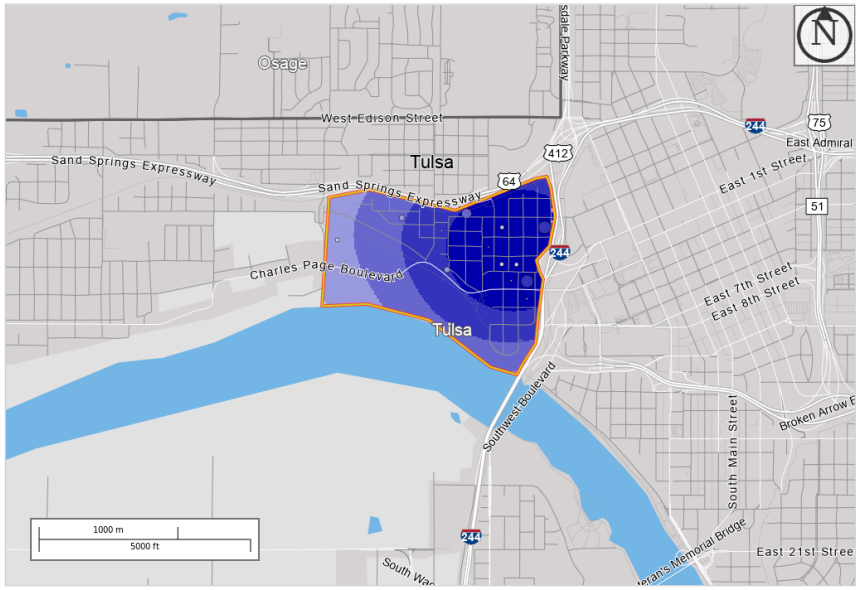
Work Area Profile Report

Primary Jobs for All Workers in 2019

Created by the U.S. Census Bureau's OnTheMap https://onthemap.ces.census.gov on 02/28/2022

Counts and Density of Primary Jobs in Work Selection Area in 2019

All Workers



Map Legend

Job Density [Jobs/Sq. Mile]
- 5 - 18
- 19 - 58
- 59 - 125
- 126 - 219
- 220 - 340

Job Count [Jobs/Census Block]
- 1 - 3
- 4 - 10
- 11 - 23
- 24 - 40
- 41 - 63

Selection Areas
- Analysis Selection

United States Census Bureau

United States Census Bureau **OnTheMap**

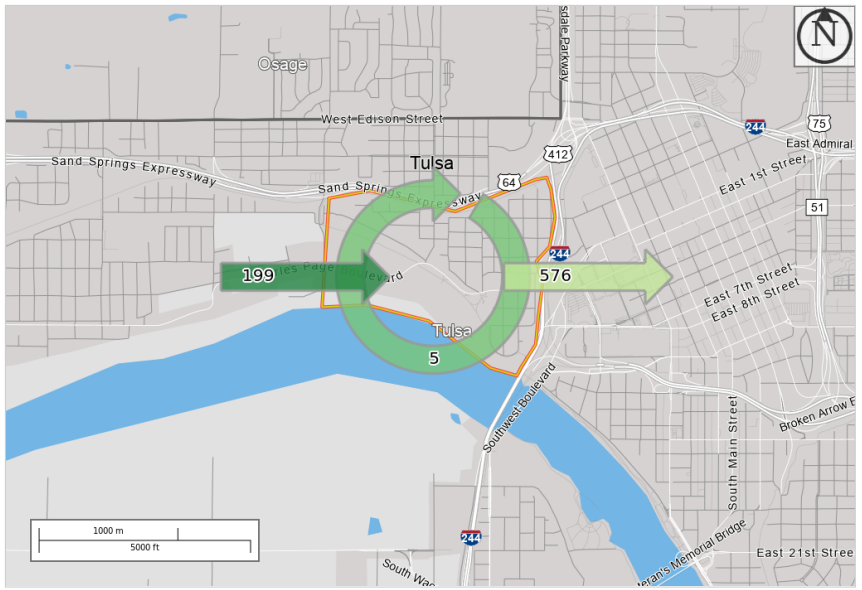
Inflow/Outflow Report

Primary Jobs for All Workers in 2019

Created by the U.S. Census Bureau's OnTheMap https://onthemap.ces.census.gov on 02/28/2022

Inflow/Outflow Counts of Primary Jobs for Selection Area in 2019

All Workers



Map Legend

Selection Areas
- Analysis Selection

Inflow/Outflow
- Employed and Live in Selection Area
- Employed in Selection Area, Live Outside
- Live in Selection Area, Employed Outside

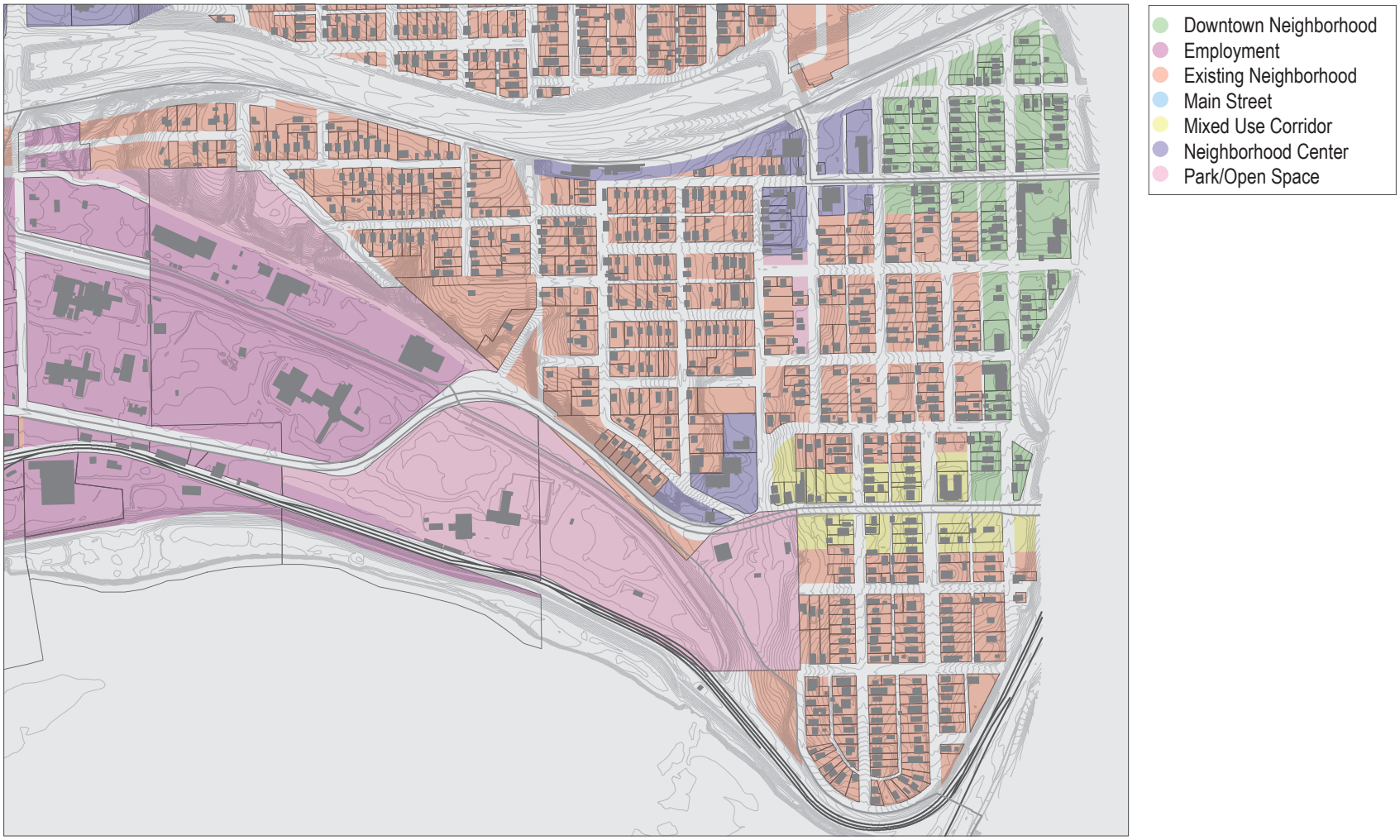
Note: Overlay arrows do not indicate directionality of worker flow between home and employment locations.

United States Census Bureau

Work profile and inflow/outflow maps. Generated by OnTheMap.

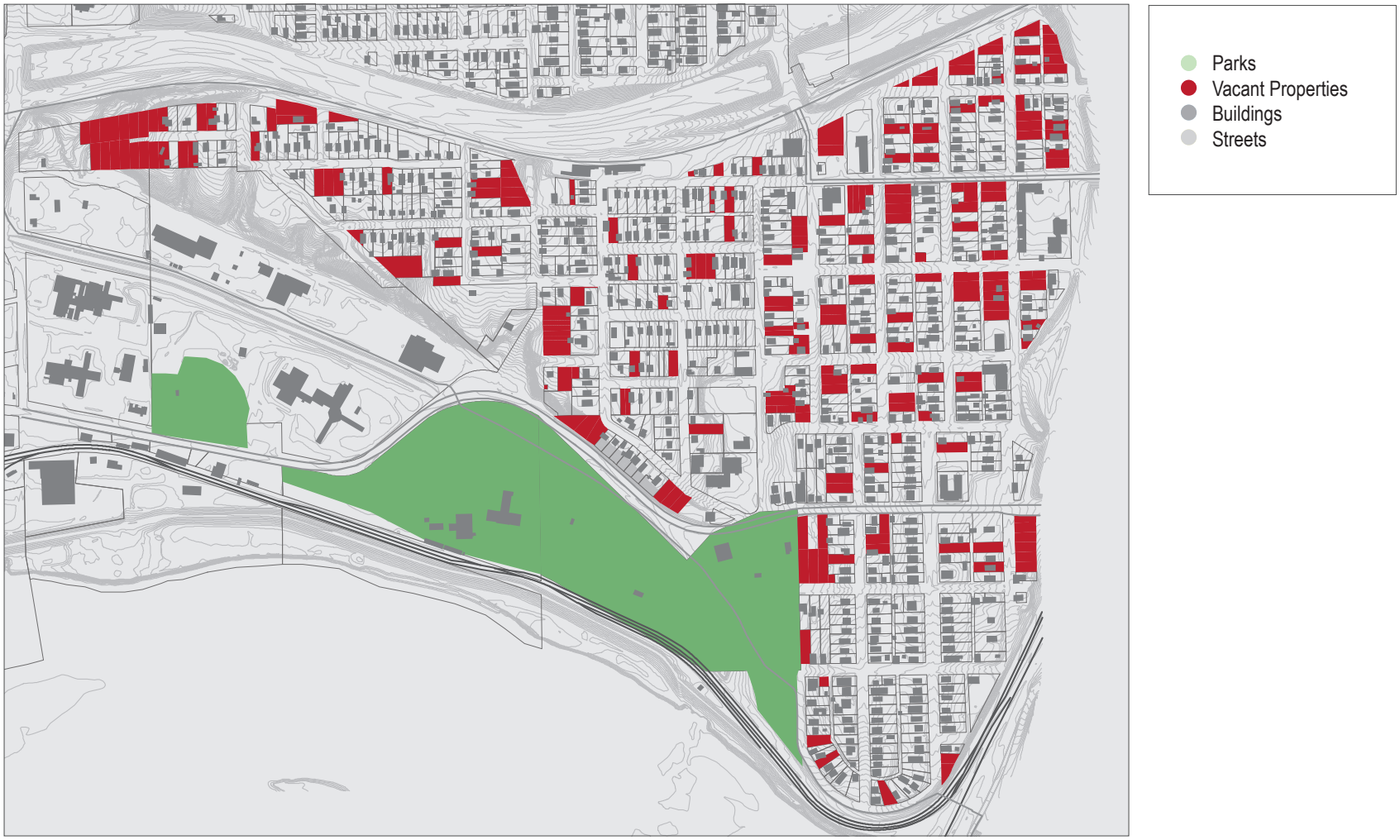
Boundary/Urban Fabric Map

Crosbie Heights Plan Area, showing boundaries and urban fabric. Sourced from Crosbie Heights Small Area Plan, page 15.



Land Use Map

Crosbie Heights map graphic, showing land uses by type. Created by Autumn Tiller using GIS/Illustrator.



Vacancy Map

Crosbie Heights map graphic, showing vacant residential properties. Created by Autumn Tiller using GIS/Illustrator.

Landmark/Amenity Map

Crosbie Heights map, showing landmarks and amenities. Sourced from Crosbie Heights Vibrant Neighborhoods Partnership website, https://storymaps.arcgis.com/stories/671258fbc4744461be939de6c37fcf65

Deliverables

This report serves as a vessel for the following materials, organized by site:

Prototypical site configurations

These show how the structures are arranged on the lot and their relation to streets, alleys, adjacent structures, parking and shared or common elements. They are to scale and reflect the buildings' footprint and how much space these structures take up on a lot. They also incorporate the limitations of the new zoning such as setbacks.

Typical unit drawings and building configurations

Like the site configurations, the unit drawings and building configurations show arrangements, but in reference to the individual structures and the units they house. They are to scale and reflect the individual spaces and features within the units and their relationship to adjacent units. They also incorporate aspects of universal design.

Conceptual renderings

This is the three-dimensional display of the elements above, with the addition of color, texture, material, and landscape. These help to convey the design intent more clearly to anyone who is not familiar with reading plans or two-dimensional drawings.

Schedule

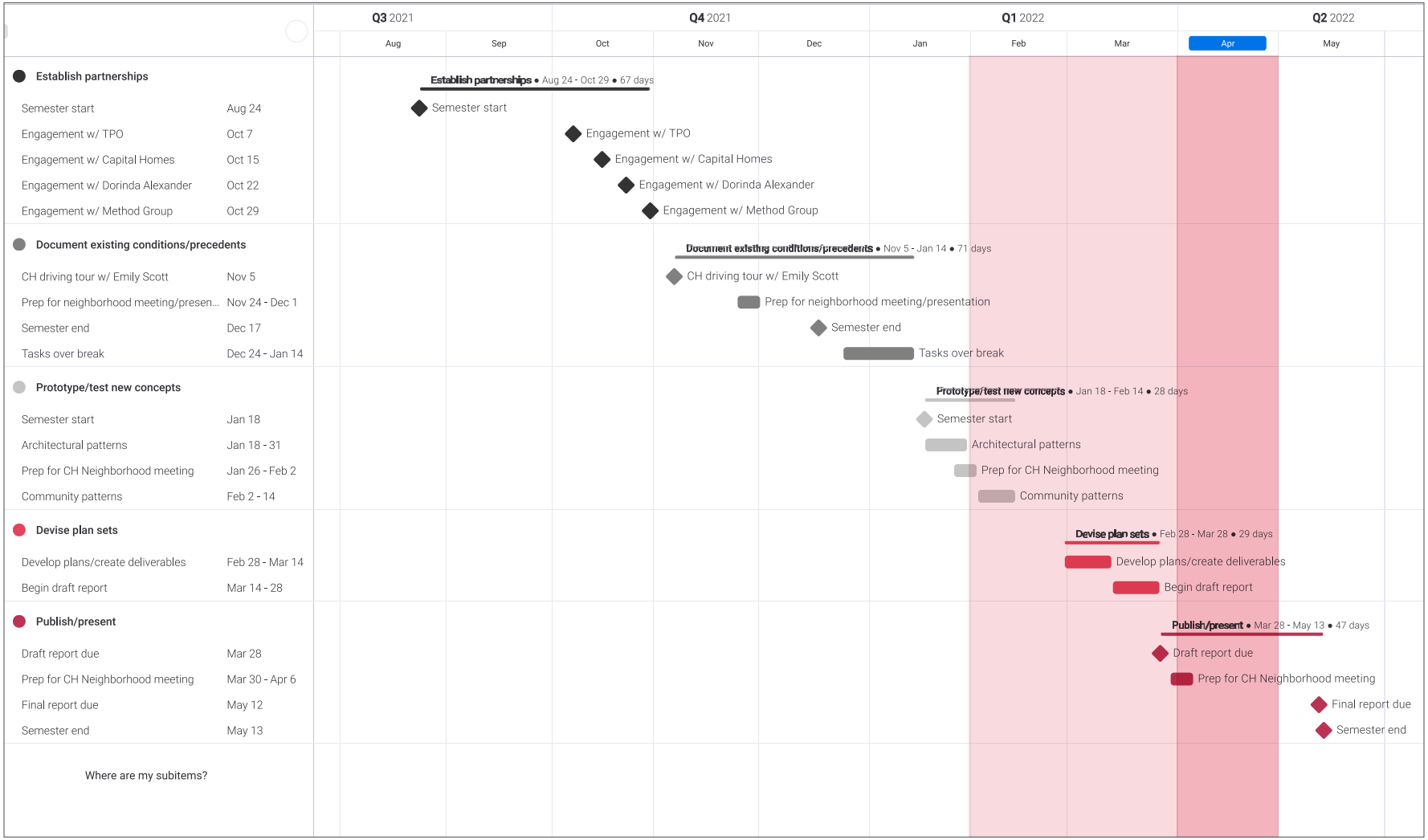
Establishing partnerships
(August - October 2021)

Document existing conditions/precedents
(November 2021 - January 2022)

Prototype/test new concepts
(January - February 2022)

Devise plan sets
(February - March 2022)

Publish/present
(March - April 2022)



Project schedule, created by Autumn Tiller. Taken from monday.com.

Community Engagement

Partnerships

Planning/Development

Emily Scott, Tulsa Planning Office
Originally from the Charleston, SC area, she lived in Portland, OR for a decade, and has called Tulsa home for about two years. She has a Masters in Urban and Regional Planning from Portland State University (PSU) where her focus was land use and housing. Her personal planning passions include community-driven development, affordable housing, and creating stronger linkages between our public schools and public planning processes. In her current role as Neighborhood Revitalization Planner for the Tulsa Planning Office, she is responsible for the facilitation of the city's new community-led neighborhood improvement program, the Vibrant Neighborhoods Partnership (VNP).

Ross Heyman, Capital Homes Residential Group
Born and raised in the Chicago area, Ross Heyman serves as chief of staff at Capital Homes Residential group—one of the well-known single-family residential home builders in the Tulsa metro area and especially prevalent in their developments in underserved areas of Tulsa and in conjunction with Habitat for Humanity. Before delving into real estate, he landed in Tulsa through Teach for America, where he taught third grade for two years.

Neighbors

Crosbie Heights Neighbors
Up-to-date and heavily involved, the Crosbie Heights Neighborhood Association is knowledgeable about the on-goings of the new neighborhood infill overlay and the opportunities it can bring. Headed by Jasmine Aaenson-Fletcher, the association is comprised of 12-15 actively involved members residing in the neighborhood. The connection formed with the association

(and facilitated by Emily Scott) ultimately led to (2) additional lot sites, and further connections/ opportunities for development (details to follow).

Neighbors/Potential Developers

Dorinda Alexander

A corporate real estate project manager by day and developer on the weekends, Dorinda Alexander and I bonded over our desire to create ideal living environments tailored to our respective familial dynamics. She has informally adopted one of her elderly neighbors, and hopes to be able to move her parents in next. She also has a college-age son who visits during breaks, and is in need of a dedicated space for him as well.

Larry Mitchell

Larry is well-known around the Crosbie Heights neighborhood and Tulsa at-large. The lot he contributed to this project is located down the street from his home, and has been in his ownership for over seven years. He has had a desire to develop it, but was uncertain of what exactly to do with it.

Architectural Services

Josh Kunkel, Method Group

Josh specializes in ecosystem planning and development, urban infill development, historic preservation and adaptive reuse, existing building renovations and mixed-use project types. Josh has an inter-disciplinary background in architecture, planning and construction, which gives him a keen eye to both detail and context when making decisions impacting design, environment, and user experience. In addition to his extensive project management experience, he is a strong advocate for community-conscious design. Before founding Method Group, he worked in a variety of capacities on projects across the United States.

Photo from neighborhood cleanup event. Provided by Emily Scott.

Activities

Kendall-Whittier Walking Tour

Emily Scott, Ross Heyman - October 2021

Initiated on the corner of 6th and Birmingham, we walked the Kendall-Whittier single-family residential development spurred by Capital homes. We noted the Craftsman-inspired style of their new construction, explored the exteriors of rehabilitated rental properties under their management, discussed Capital's venture into small-scale multi-family infill and ended with a visit to duplex units currently under construction. At the conclusion of the walking tour, Heyman volunteered the use of (2) vacant lots owned by Capital Homes within the Crosbie Heights neighborhood, which serve as models for this project.

Crosbie Heights Windshield Tour

Emily Scott - November 2021

Starting at Newblock Park, we embarked on an hour-long driving tour of the Crosbie Heights neighborhood. I was able to see first-hand the volume of vacancies, conditions and challenges affecting the area, experience the variations in the neighborhood's topography, document existing site conditions and get an overall sense of the neighborhood's architectural character.

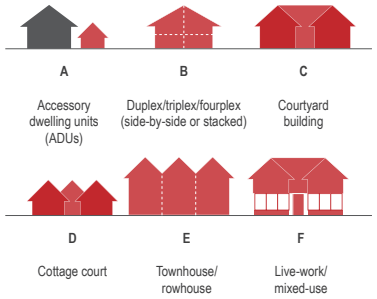
Neighborhood Meeting/Focus Group

Crosbie Heights Neighbors - December 2021

Hosted during their regularly occurring meeting time (first Wednesday of every other month), this meeting was the first virtual meeting hosted by the neighborhood association (all prior meetings remained in-person throughout the pandemic). Their usual venue, the Waterworks Studio was short-staffed due to COVID and unable to host the meeting outside of regular business hours. As a result, the meeting was held via Zoom and polling was utilized, paired with discussion/ commentary. There were eight neighbors in attendance, out of the twelve to fifteen that are usually involved. Despite the reduced count, the thirty-minute time slot for the survey turned into fifty minutes of discussion and feedback. You can check out the topics discussed and a summary of findings on the following pages.

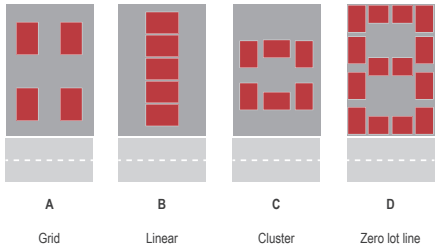
Poll – Housing Types

Aside from single-family, which housing type(s) should be allowed? *Select all that apply.*



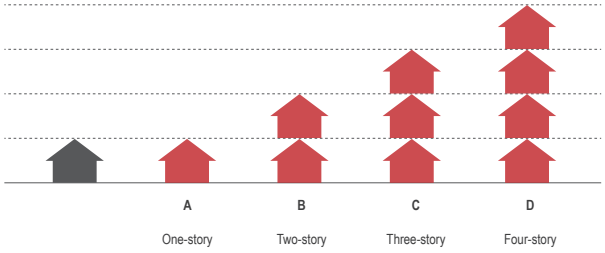
Poll – Orientation / Site Layout

Which building arrangement(s) would be most ideal? *Select 1-2.*



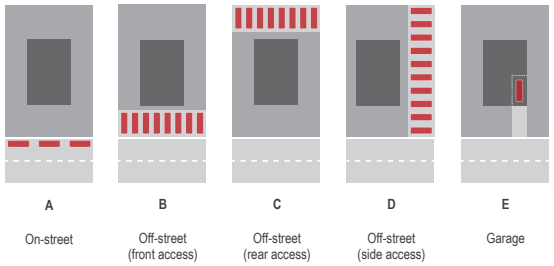
Poll – Building Heights

What is the maximum building height that would be most ideal? *Select one.*



Poll – Parking / Access / Entry

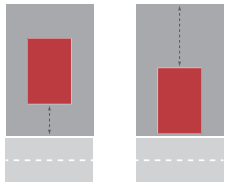
Which parking arrangement(s) would be most ideal? *Select all that apply.*



Slides from neighborhood meeting poll. Created by Autumn Tiller.

Poll – Setbacks / Build-To Lines

How should a building be placed in relation to the street? *Select one.*



A
Setback

B
Street-adjacent

Poll – Architectural Styles

Which architectural style(s) would mesh well in the community? *Select all that apply.*

A
Colonial revival

B
Creek prairie school

C
Craftsman bungalow

D
Queen Anne

E
Classical revival

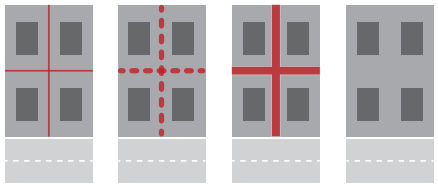
F
Tudor revival

G
Spanish revival

H
Modern

Poll – Fencing / Buffers

What types of boundaries/buffers should occur between properties? *Select all that apply.*



A
Fencing/ screening

B
Landscaping

C
Drive access/ parking

D
None

Poll – Affordability

Which range would you consider to be an affordable monthly rent or mortgage? *Select one.*

A. $500 - $800
B. $800 - $1100
C. $1100 - $1400

Slides from neighborhood meeting poll. Created by Autumn Tiller.

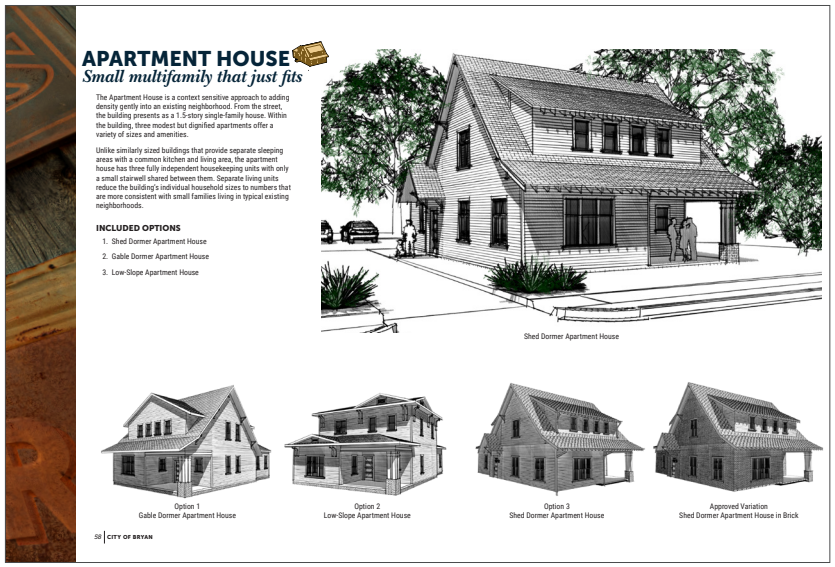
Summary Findings

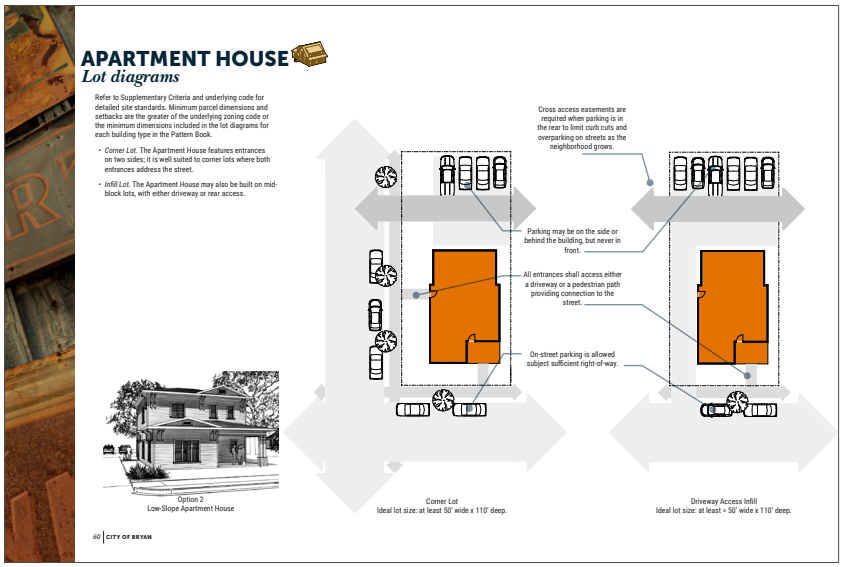
- Majority felt most housing types outside of single-family were appropriate
- 3-story max building height
- Gravitated toward grid and cluster configurations
- Setbacks contingent upon adjacency relationships
- Front access parking not permitted in overlay
- Prefer alley garage access
- Landscaping prioritized over fencing in unit separation
- Prefer traditional architectural styles over modern or suburban forms (observed during windshield tour)
- Resulted in 4 lots for base modeling purposes (2 owned by current residents)

Benchmarks/ Case Studies

The following pages contain excerpts/summaries of studies and resources that otherwise informed the trajectory of this project:

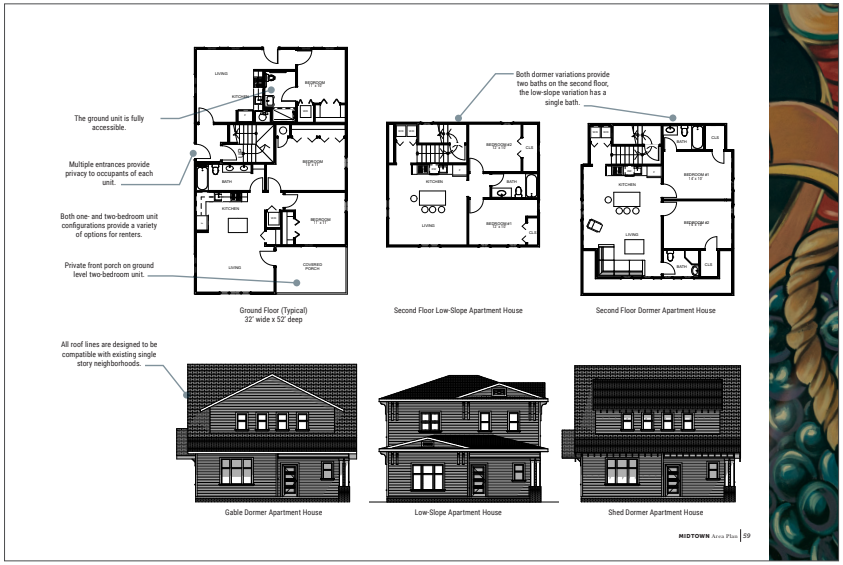
- City of Bryan, TX
- Founder's Place - Muskogee, OK
- Chattanooga, TN
- Missing Middle Housing - Dan Parolek

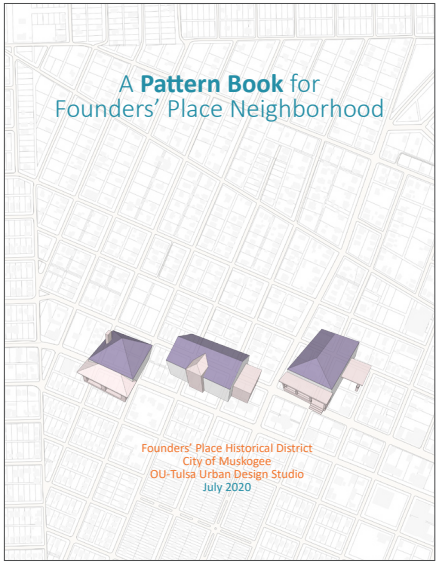


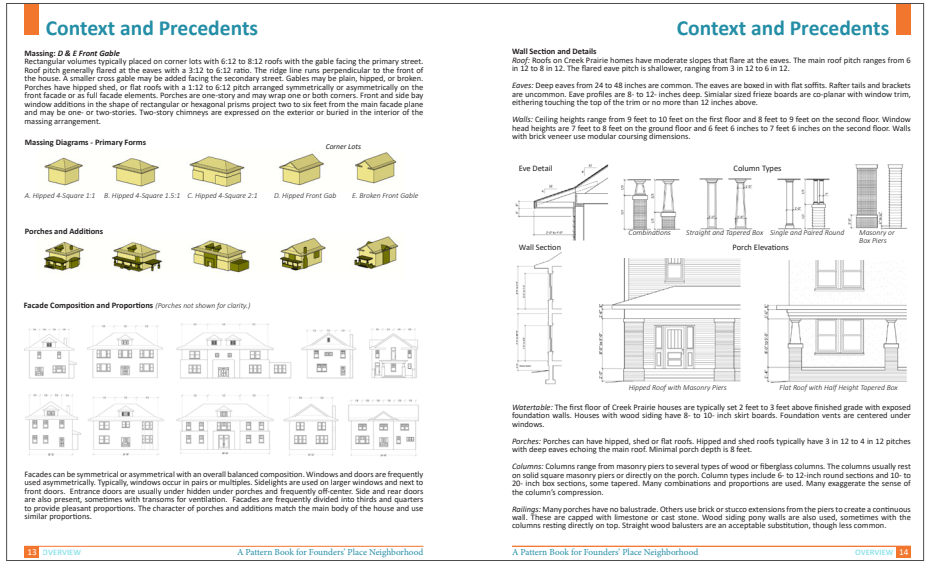


Pattern Zoning - Bryan, TX

Examples of pre-approved housing types within the Midtown Housing Plan. Created by the City of Bryan Texas, 2020.

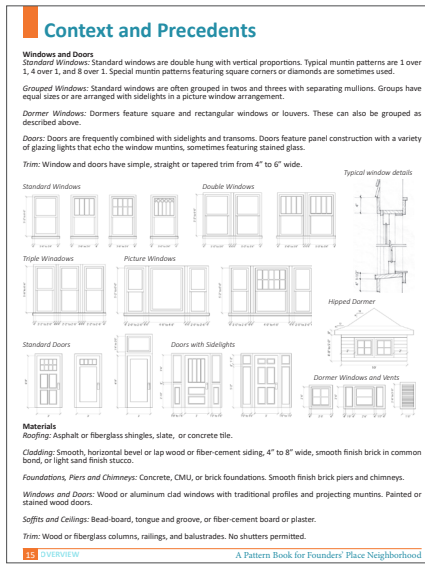






Founder's Place - Muskogee, OK

Cover art and pages from the Founder's Place pattern book.
Created by the OU Urban Design Studio, 2020.



November 2016

MISSING MIDDLE HOUSING TYPES
FOR CHATTANOOGA

- TIME-HONORED BUILDINGS FOR THE THOUGHTFUL SMALL DEVELOPER -

Compiled by the Incremental Development Alliance for the Lyndhurst Foundation & Chattanooga Neighborhood Enterprise

Missing Middle Housing Types - Chattanooga, TN

Examples of pre-approved housing types within the Housing Plan. Created by the City of Chattanooga Tennessee, 2016.

1 to 4 Residential Dwelling Units on Single Lots

This collection of attached, multi-unit building types can all be financed through conventional 30-year mortgages and placed on a single 50' wide lot that is serviced by an alley. The duplex and flex house can use the less stringent International Residential Code and thus avoid the cost of fire sprinklers. The accessory structures could be constructed incrementally over time.

The flex house and 4F both feature non-residential space, making them great for owner-occupants or small business owners looking to offset their personal rent and build wealth as a landlord. They benefit from the extra visibility and on-street parking of a corner lot. The duplex, quadplex and 4F are great for small developers embarking on their first real estate project.

DUPLEX FROM PG.14 *QUADPLEX FROM PG.15* *FLEX HOUSE FROM PG.18* *4F FROM PG.19*

30

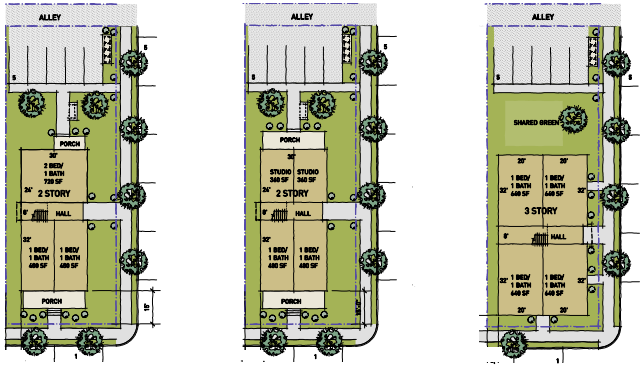
Cottages: Single and Double Lots

TWO UNIT FROM PG.16 *COTTAGE COURT FROM PG.17*

31

6 to12 Residential Dwelling Units on Corner lots

With a corner lot and access to commercial financing for multi-family residential buildings, this trio of multiplexes can provide a range of unit types on a compact building footprint. These buildings would be constructed under the International Building Code and thus require residential (13-R) fire sprinklers. Corner lots with on-street parking are ideal because only five off-street parking spaces can fit on a 50' wide single lot. If additional off-street parking is not required, plans can be carefully adapted for mid-block use. These types are great for an experienced small developer who has access to capital or a non-profit developer trying to provide a diversity of housing and unit types on single lots.



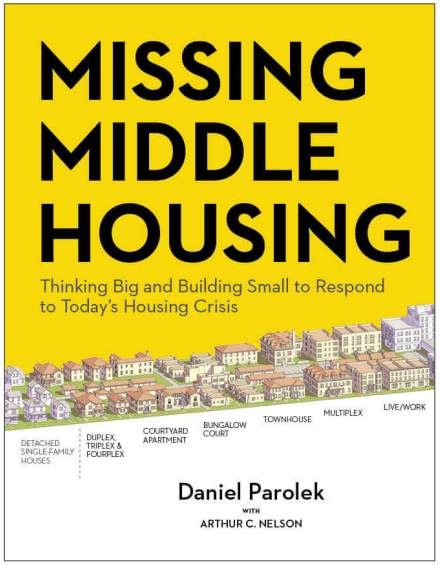
SIX-PLEX FROM PG.22 *EIGHT-PLEX FROM PG.24* *12-PLEX CORNER FROM PG.25*

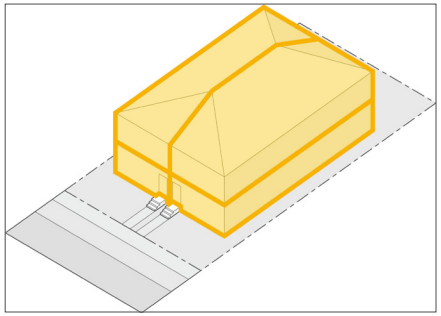
33

Three Story Walkup Buildings: Single and Double

THREE STORY WALKUP FROM PG.23 *THREE STORY WALKUP COURT FROM PG.28*

35





Missing Middle Housing - Dan Parolek

Examples of case studies from "Missing Middle Housing." Compiled by Dan Parolek, 2020.

Ideal Specifications

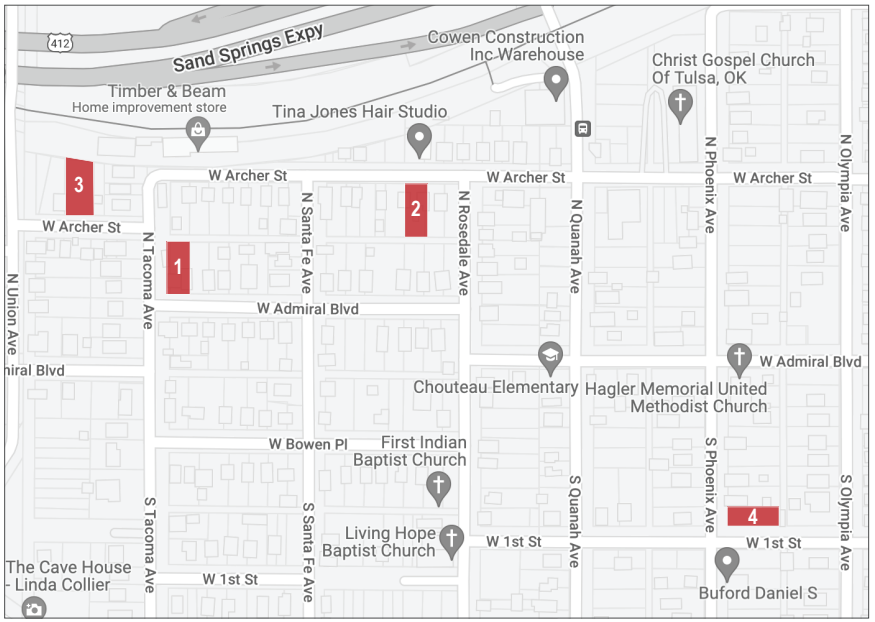
Lot	
Width	50 feet
Depth	120 feet
Area	6,000 sq. ft.
	0.138 acres
Units	
Number of Units	4 units
Typical Unit Size	1,200 sq. ft
Density	
Net Density	29 du/acre
Gross Density	22 du/acre
Parking	
Parking Ratio	1.5 per unit
On-street Spaces	2
Off-street Spaces	4
Setbacks	
Front	15 feet
Side	5 feet
Building	
Width	40 feet
Depth	60 feet
Height (to eave)	21 feet
Floors	2 stories

Selected Sites

As previously mentioned, this project is isolated to sites located within the Crosbie Heights neighborhood. These sites were chosen based on relationships developed with the previously identified partners in the community engagement phase.

The following pages contain key plans reflecting the model lots' location in the neighborhood in reference to one another, along with information regarding dimensions, frontages, points of access and any setbacks required by the neighborhood infill overlay. These establish the limitations of the proposed design solutions in a two-dimensional format.

Though the applications are site-specific, they do hold the potential to be implemented within other areas in the neighborhood overlay, provided they are equipped with similar square footage and site characteristics.

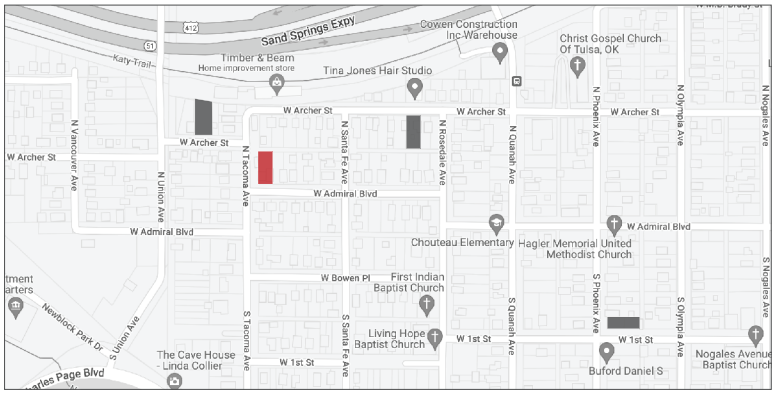


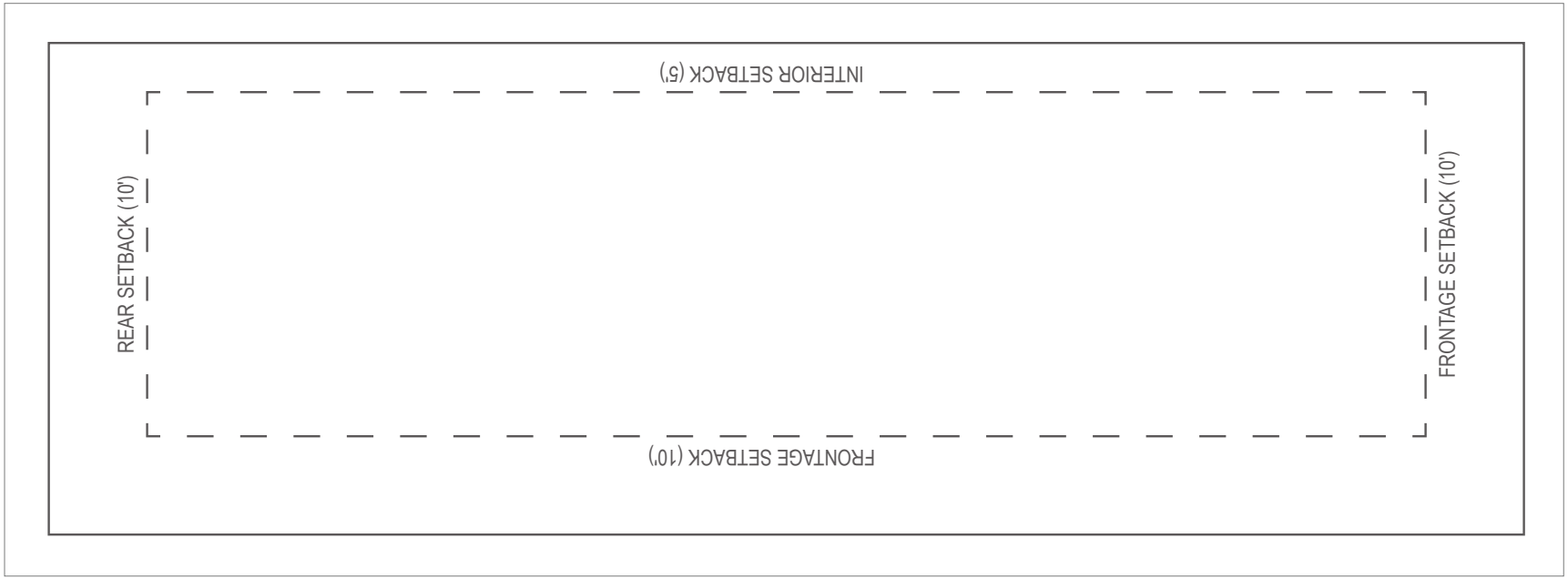
Street map, overlaid with site locations. Created by Autumn Tiller in Illustrator, using imagery from Google Earth.

Ross Heyman (Capital Homes)

9 N Tacoma

- 25’ x 150’ lots (2)
- Corner lot, west and south frontages
- North alley access (req. 10’ setback)
- 5’ interior setback (east side)



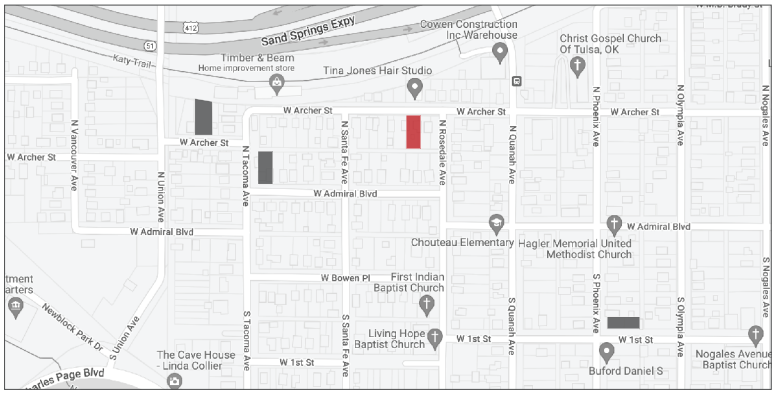


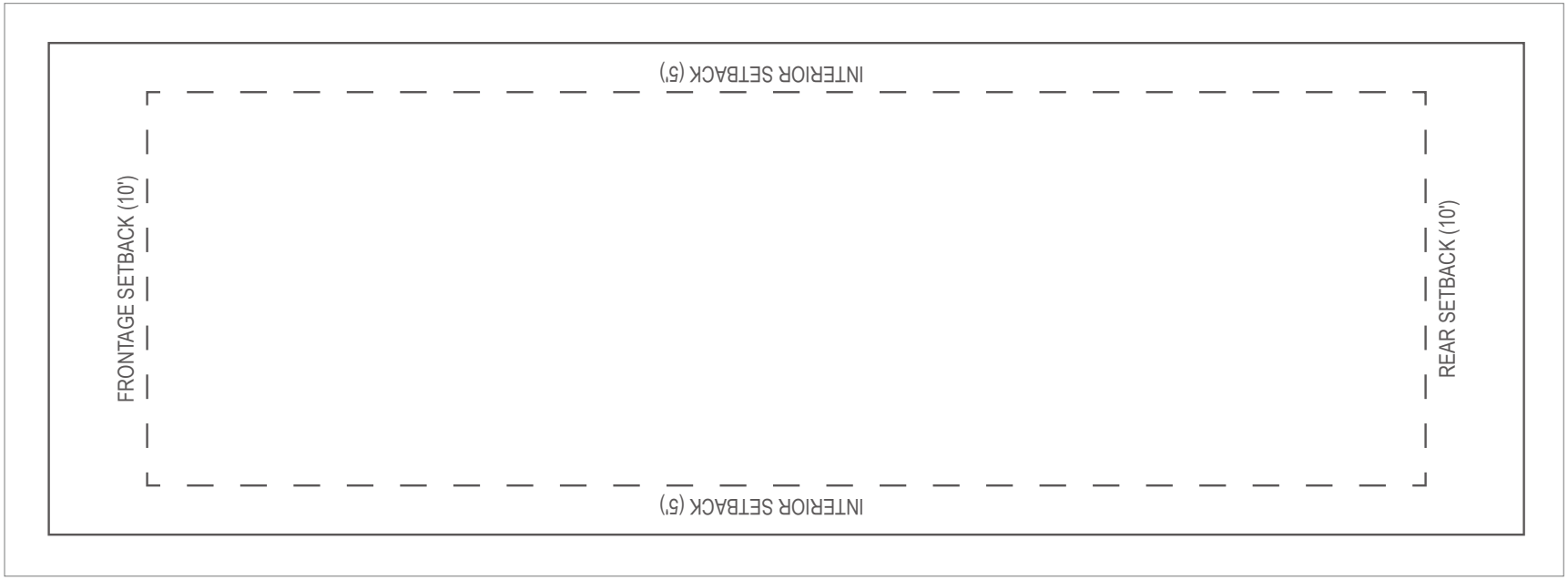
Top: Key plan, reflecting site location. Created by Autumn Tiller in Illustrator, using imagery from Google Maps.
Bottom: Lot diagram, reflecting property lines and setbacks required by the neighborhood infill overlay. Created by Autumn Tiller using AutoCAD.

Ross Heyman (Capital Homes)

1406 W Archer

- 25’ x 150’ lots (2)
- Interior lot
- North frontage (req. 10’ setback)
- South alley access (req. 10’ setback)
- 5’ interior setbacks (east and west)



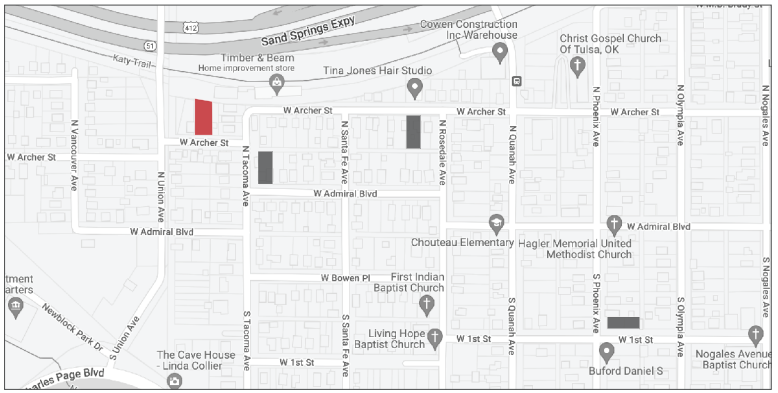


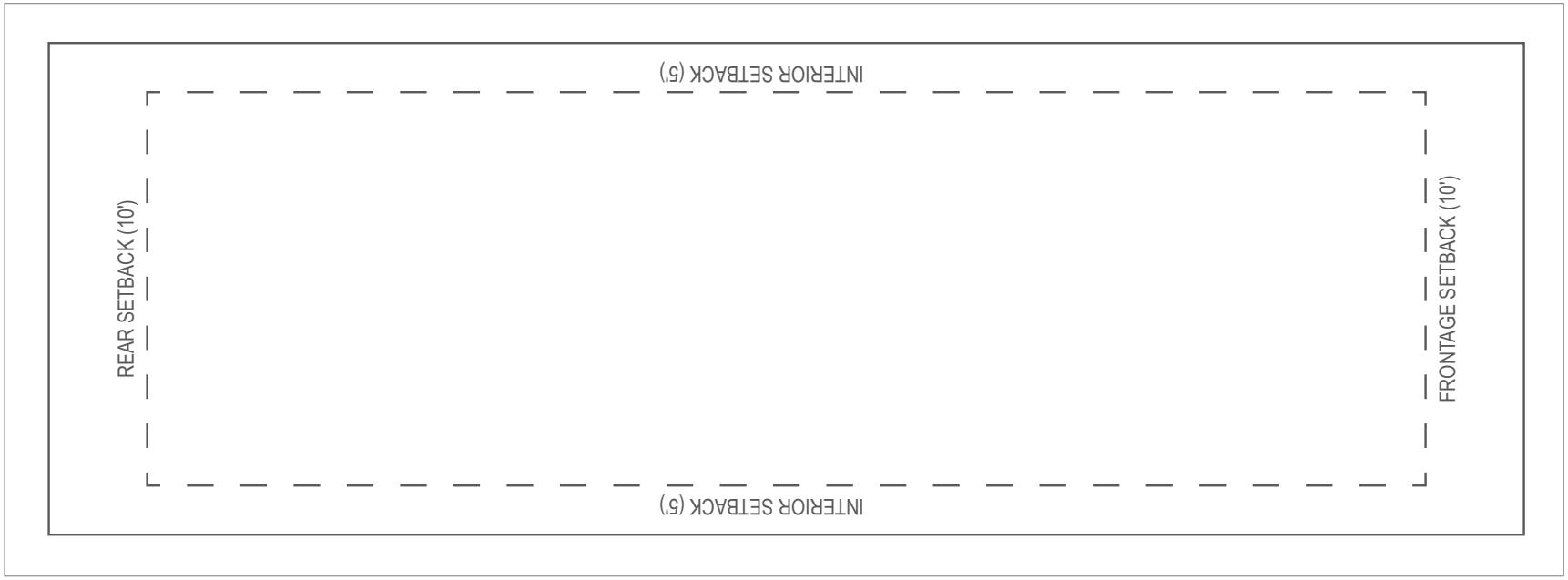
Top: Key plan, reflecting site location. Created by Autumn Tiller in Illustrator, using imagery from Google Maps.
Bottom: Lot diagram, reflecting property lines and setbacks required by the neighborhood infill overlay. Created by Autumn Tiller using AutoCAD.

Dorinda Alexander (Neighbor, Developer)

1615 W Archer

- 25’ x 150’ lots (3)
- Interior lot, owner occupied lot adjacent (west side)
- South frontage (req. 10’ setback)
- No alley access
- 5’ interior setbacks (east and west)



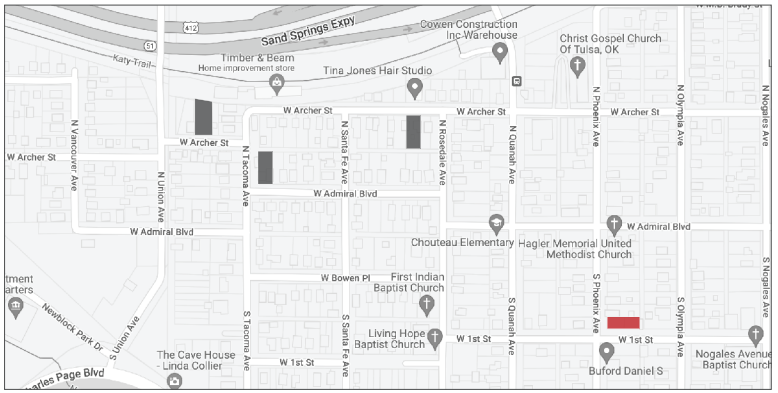


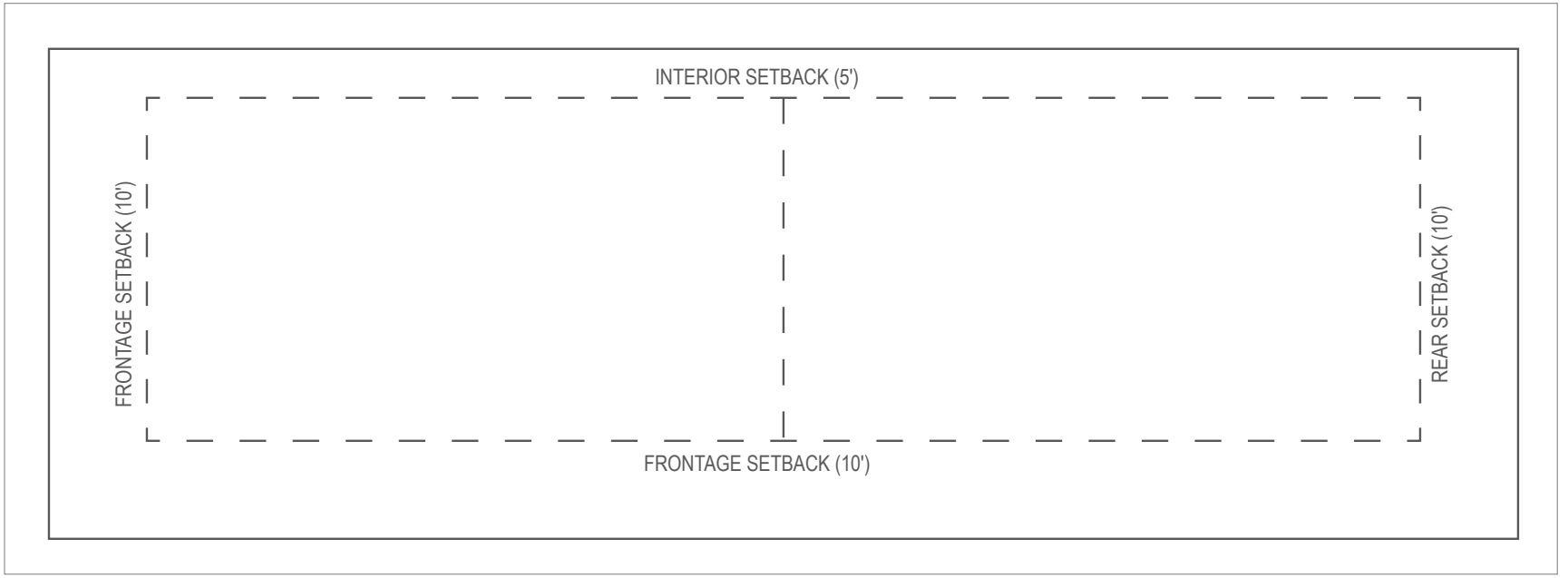
Top: Key plan, reflecting site location. Created by Autumn Tiller in Illustrator, using imagery from Google Maps.
Bottom: Lot diagram, reflecting property lines and setbacks required by the neighborhood infill overlay. Created by Autumn Tiller using AutoCAD.

Larry Mitchell (Neighbor)

1115 & 1117 W 1st St

- 50’ x 75’ lots (2)
- Corner lot, west and South frontages (req. 10’ setback)
- East alley access (requires 10’ setback)
- 5’ interior setback (north side)





Top: Key plan, reflecting site location. Created by Autumn Tiller in Illustrator, using imagery from Google Maps.
Bottom: Lot diagram, reflecting property lines and setbacks required by the neighborhood infill overlay. Created by Autumn Tiller using AutoCAD.

Design Studies

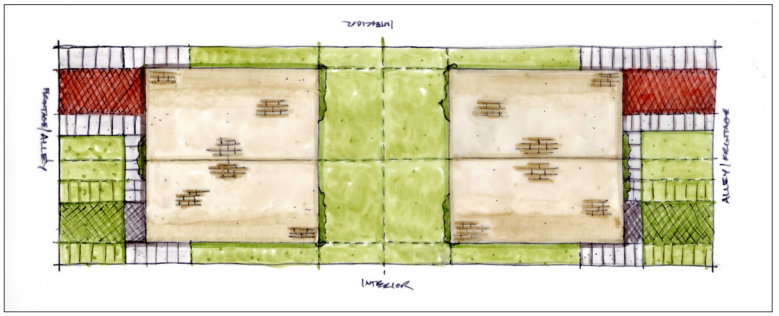
The following pages contain the items listed below, generated per site:

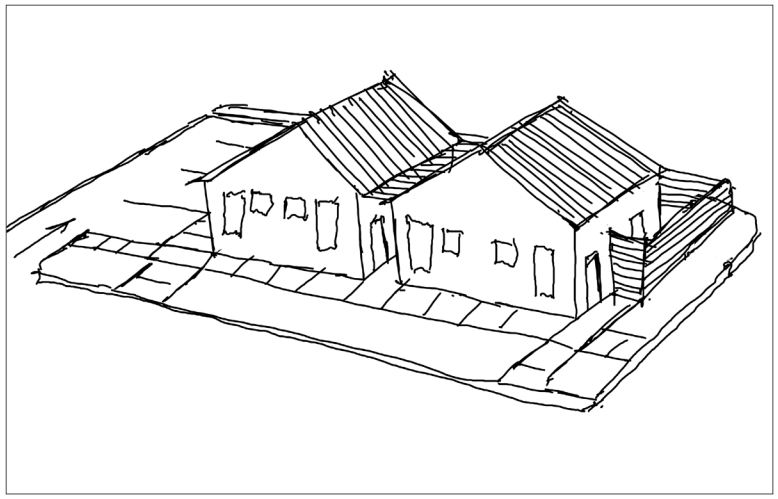
- Conceptual building sketches
- Street view imagery
- Conceptual site configurations
- Typical building diagrams
- Floor plans
- Conceptual renderings

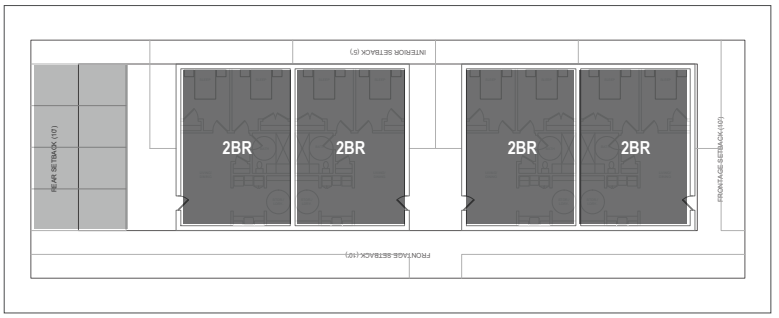
Ross Heyman (Capital Homes)

9 N Tacoma

- (2) duplexes, (2) units each (4 total)
- 2 bedroom units (750 sf)
- Single story
- Alley access parking (4 spots)
- Private green space per unit
- Corner lot
- Dual frontage

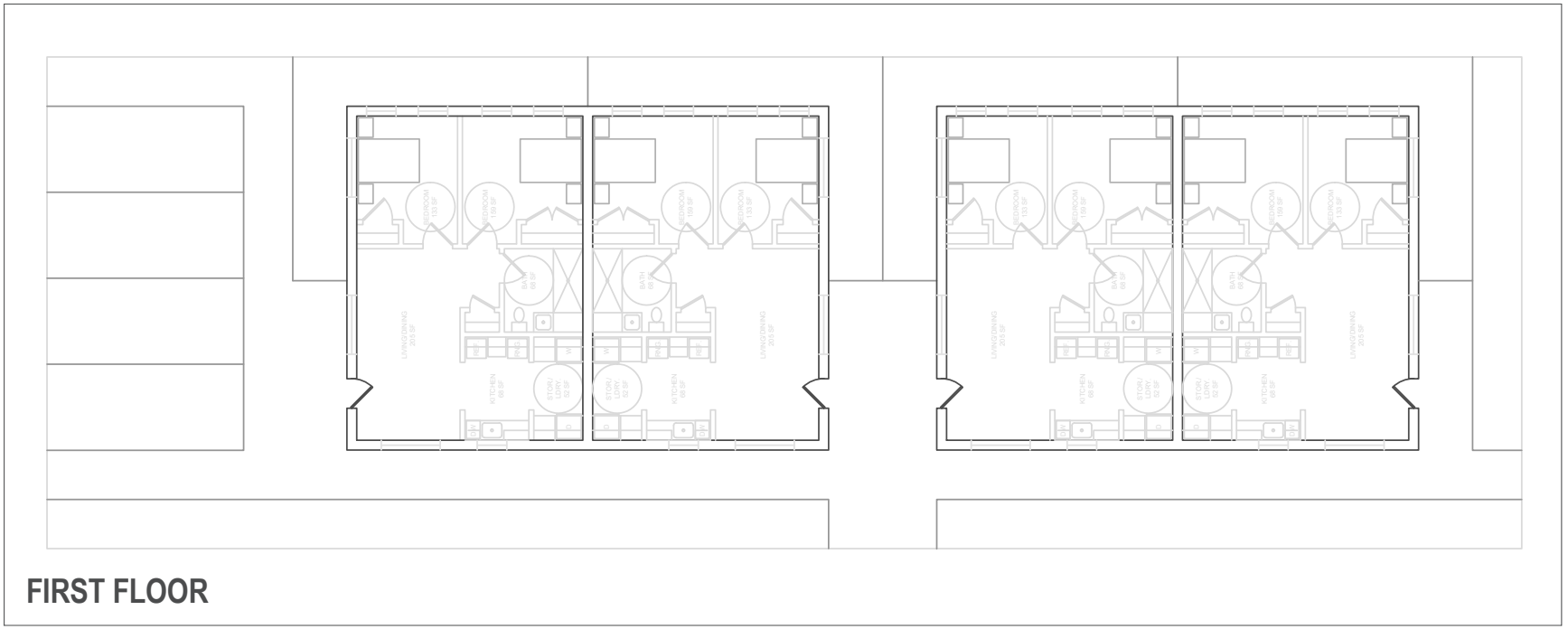






Above: Exterior sketch. Created by Autumn Tiller using hand rendering techniques.
Top Right: Street view,of site, taken from Google Earth.

Middle: Conceptual site diagram. Created by Autumn Tiller using hand rendering techniques.
Bottom: Diagrammatic plan, showing unit types. Created by Autumn Tiller using AutoCAD.



Floor plan(s), showing individual units. Created by Autumn Tiller using AutoCAD.

Photorealistic rendering of site. Created by Autumn Tiller using Revit/Enscape.

Ross Heyman (Capital Homes)

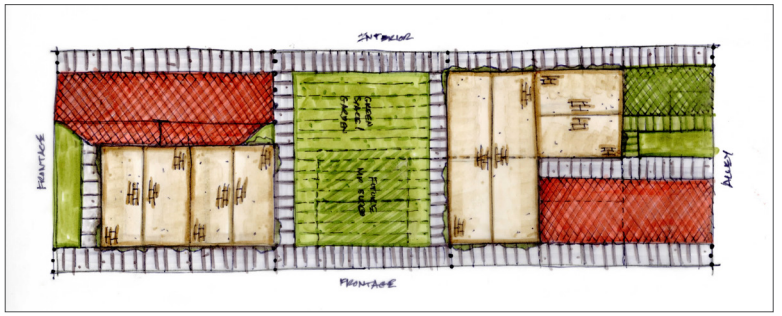
1406 W Archer

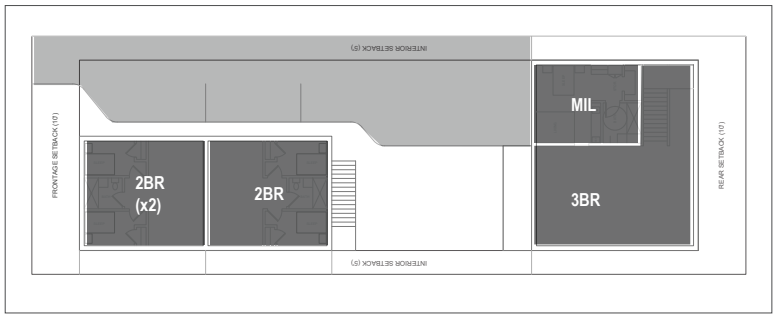
First Floor:

- (1) 3 bedroom main house (1750 sf) with mother-in-law unit (350 sf)
- (2) 2 bedroom units (triplex)
- Common green space
- Drive access parking (4 uncovered)

Second Floor:

- (1) 2 bedroom unit (750 sf) with communal rooftop terrace (triplex)





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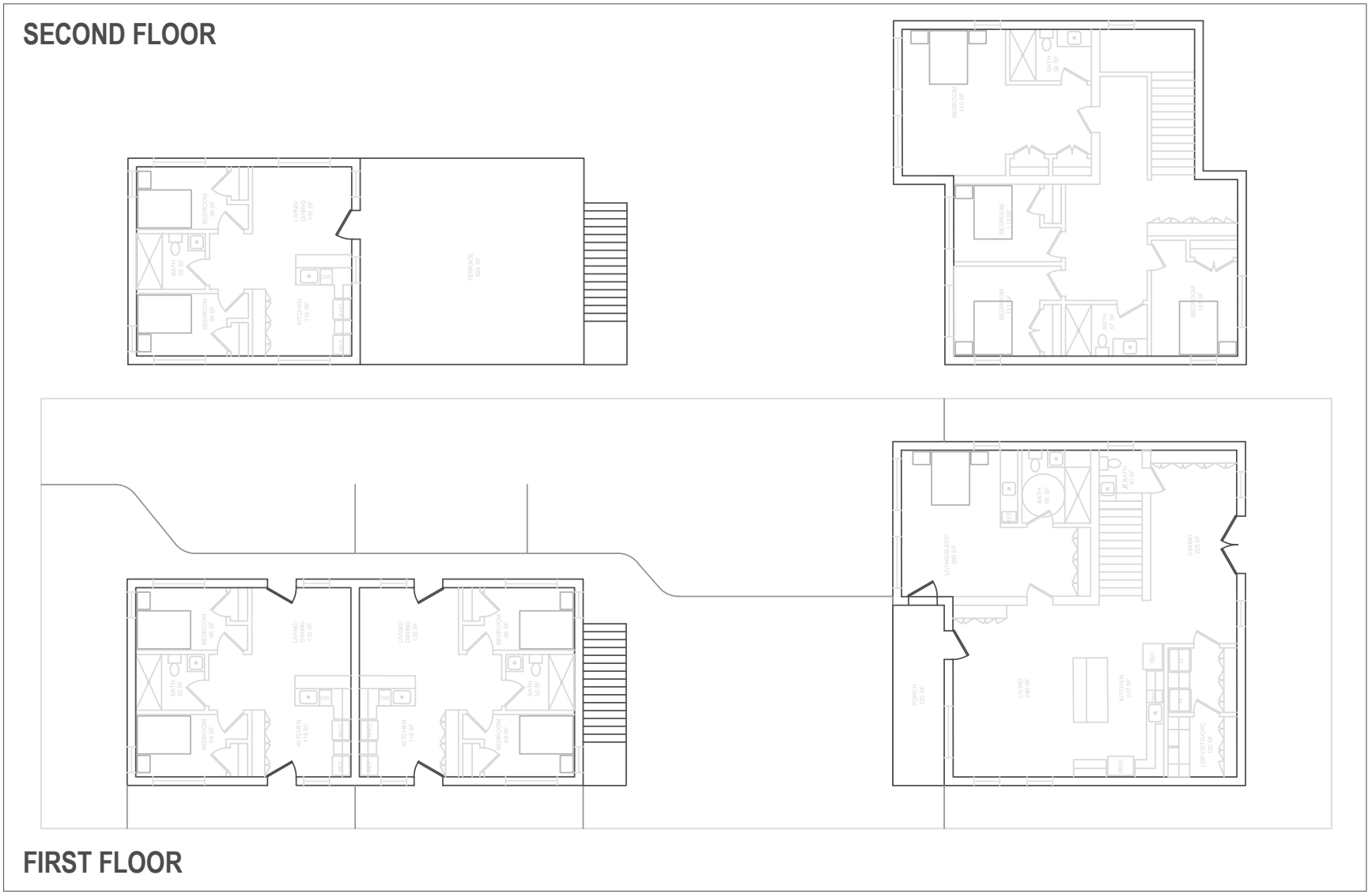


Floor plan(s), showing individual units. Created by Autumn Tiller using AutoCAD.

Photorealistic rendering of site. Created by Autumn Tiller using Revit/Enscape.

Dorinda Alexander (Neighbor, Developer)

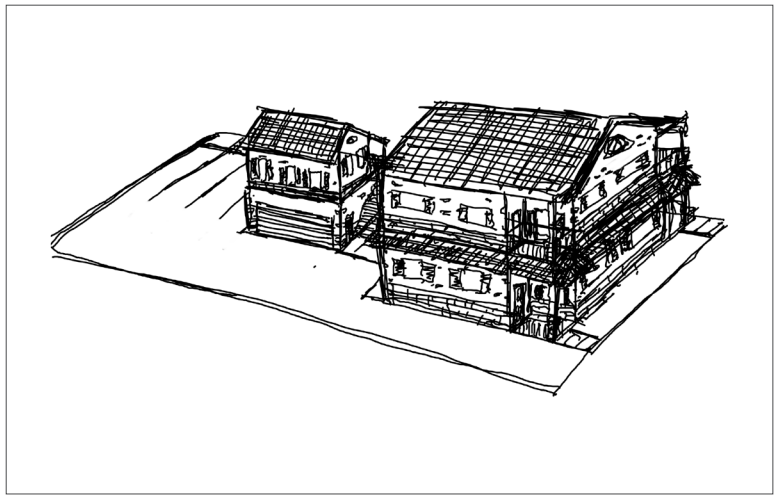
1615 W Archer

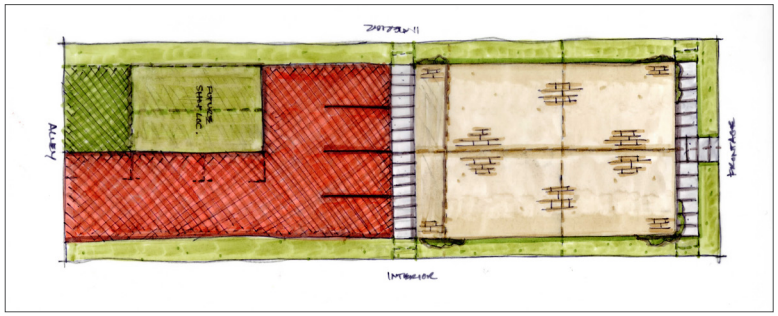
First Floor:

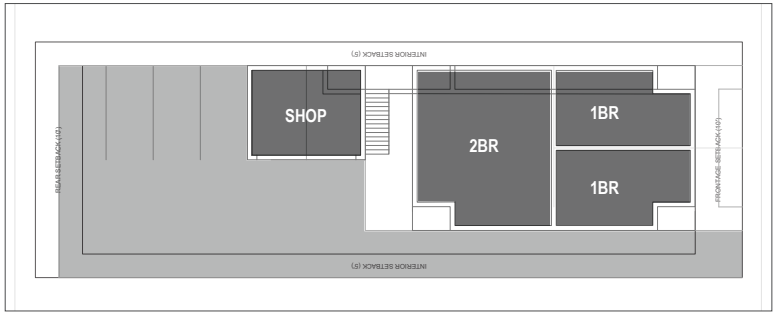
- (2) 1 bedroom units (450 sf)
- (1) 2 bedroom unit (900 sf)
- (1) Detached shop (400 sf)
- Drive access parking
  (4 uncovered, 2 covered in shop)

Second Floor:

- (1) Owner occupied unit with guest suite
  and rooftop terrace (1500 sf)
- (1) studio unit over shop (350 sf - potential)







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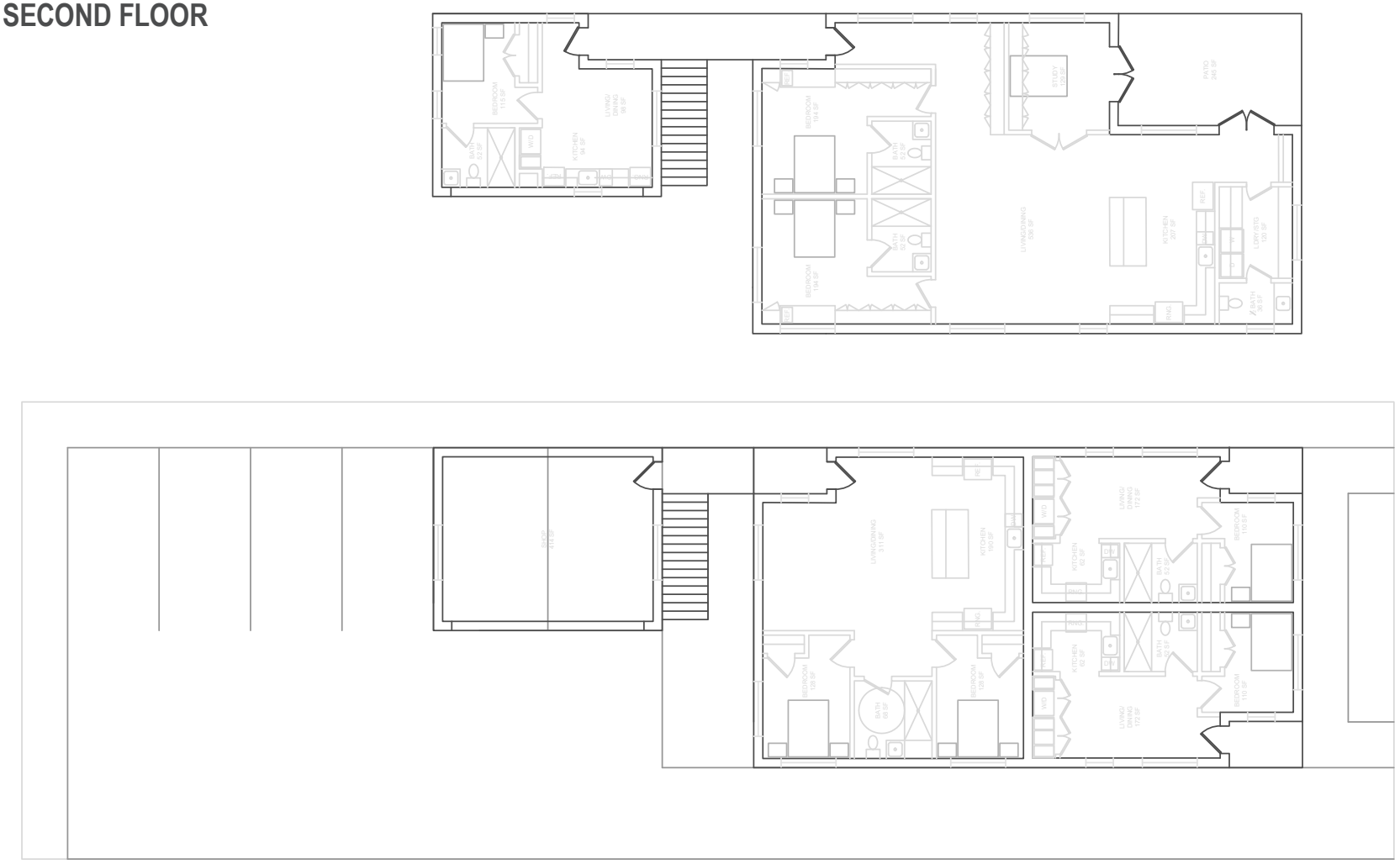
SECOND FLOOR



FIRST FLOOR

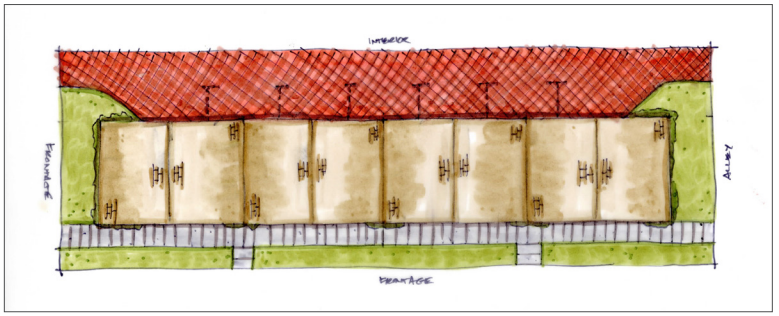
Floor plan(s), showing individual units. Created by Autumn Tiller using AutoCAD.

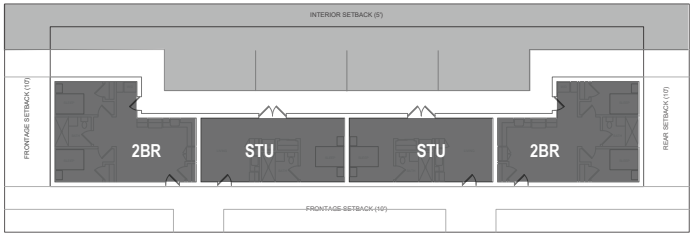
Photorealistic rendering of site. Created by Autumn Tiller using Revit/Enscape.

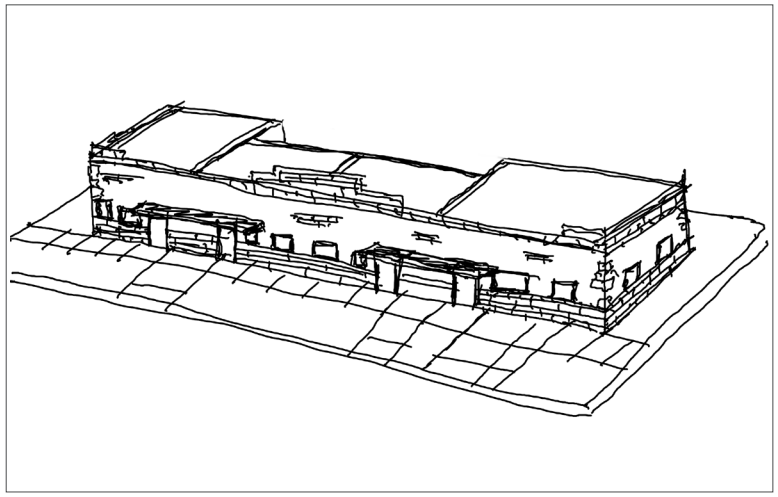
Larry Mitchell (Neighbor)

1115 & 1117 W 1st St

- (2) 2 bedroom units (578 sf)
- (2) studio units (441 sf)
- Single-story
- Rear access parking (4 spots)
- Corner lot
- Dual frontage
- Thru drive access







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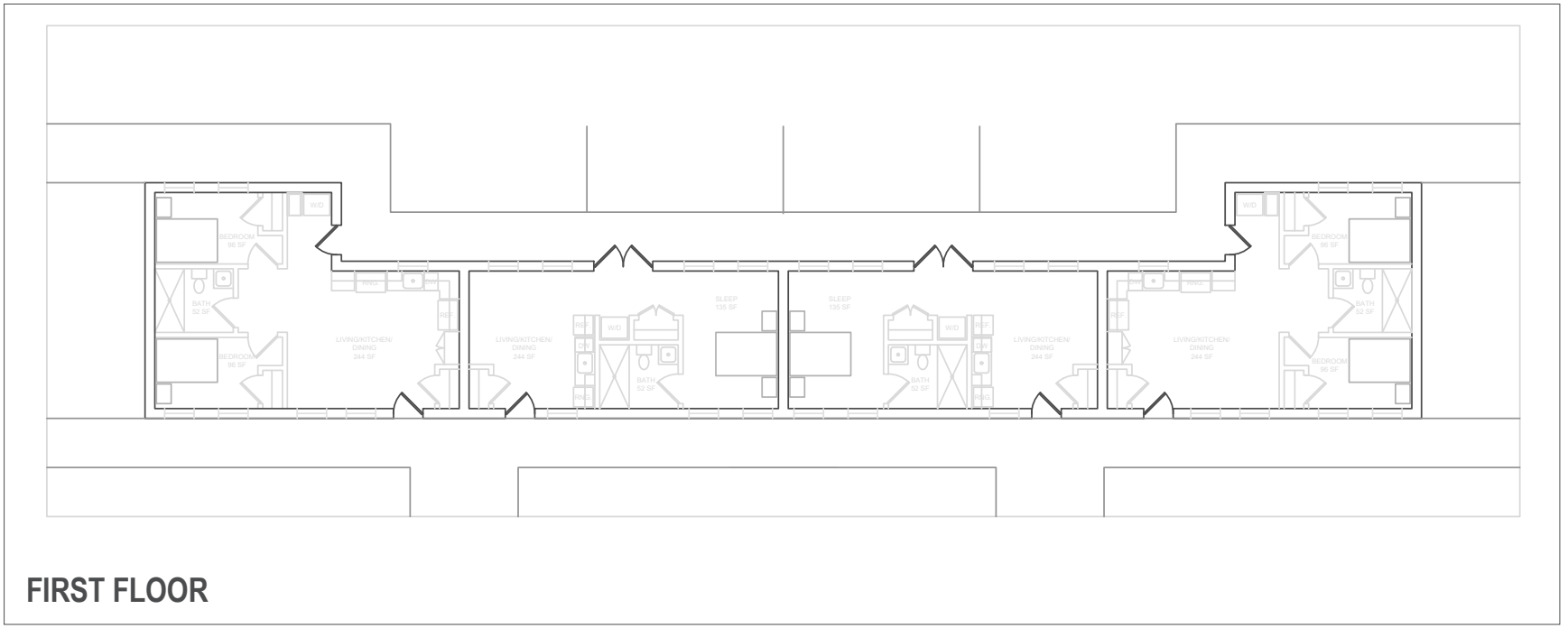


FIRST FLOOR

Floor plan(s), showing individual units. Created by Autumn Tiller using AutoCAD.

Photorealistic rendering of site. Created by Autumn Tiller using Revit/Enscape.

Results

Feedback

Crosbie Heights Neighborhood Block Party

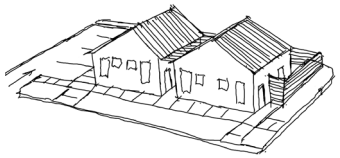
Newblock Park - April 2022

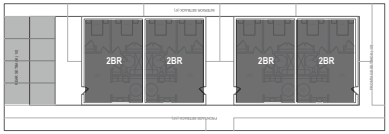
Held at the park servicing the neighborhood, the TPO-sponsored event provided family fun for all ages. Fun aside, the event also provided an opportunity for me to showcase my design concepts. Questionably windy weather limited the turnout only to those feeling brave, but the feedback received was greatly appreciated. One neighbor placed a green dot on the multi-generational concept and another mentioned that two-story structures are not enough to capitalize on the view that Crosbie offers.

The icing on the cake was meeting one of the neighbors that contributed a site–Larry Mitchell.

He was thrilled to see the industrial loft concept and commented that it was beyond what he could have ever imagined! See the following page for the imagery generated for the block party.

Photo from neighborhood block party. Taken by Emily Scott.





CONCEPTUAL PLAN

9 NORTH TACOMA TULSA, OK 74127

Duplexes (2 total)
2 units each (4 total)
2 bedrooms
Single story
Rear access parking (4 spots)
Private green space per unit
750 square foot units
Corner lot
Dual frontage
Rear alley access

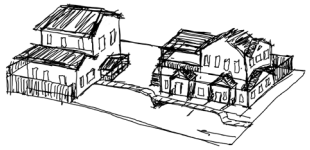
CONCEPTUAL SKETCH

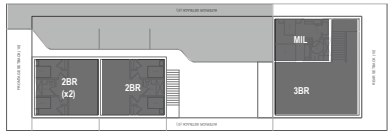
MISSING MIDDLE HOUSING

Test Model 1

Autumn Tiller - ARCH 6690 Professional Project - Spring 2022

OUUDS





CONCEPTUAL PLAN

1406 W ARCHER TULSA, OK 74127

3 bedroom main house (1750 sf)
Mother-in-law suite (350 sf)
Additional triplex (2 bedroom units - 750 sf ea)
Two story (both structures)
Drive access parking (4 spots total)
Common green space
Rooftop terrace on triplex
Interior lot
Rear alley access

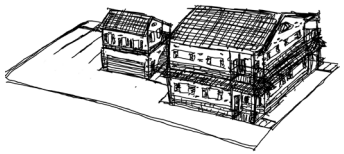
CONCEPTUAL SKETCH

MISSING MIDDLE HOUSING

Test Model 2

Autumn Tiller - ARCH 6690 Professional Project - Spring 2022

OUUDS



CONCEPTUAL PLAN

1615 W ARCHER TULSA, OK 74127

Lower level:
(2) 1 bedroom units (450 sf)
(1) 2 bedroom unit (900 sf)
Upper level:
Owner occupied unit with guest suite (1500 sf)
Detached shop (400 sf)
Potential for studio unit over shop (350 sf)
Drive access parking
(4 uncovered, 2 covered in shop)
Rooftop terrace on owner unit
Interior lot

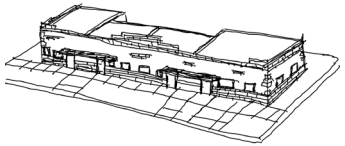
CONCEPTUAL SKETCH

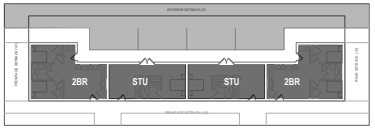
MISSING MIDDLE HOUSING

Test Model 3

Autumn Tiller - ARCH 6690 Professional Project - Spring 2022

OUUDS





CONCEPTUAL PLAN

1115 / 1117 W 1ST TULSA, OK 74127

4 units total
(2) 2 bedroom units
(2) studio units
Single story
Rear access parking (4 spots)
Corner lot
Dual frontage
Front/alley drive access

CONCEPTUAL SKETCH

MISSING MIDDLE HOUSING

Test Model 4

Autumn Tiller - ARCH 6690 Professional Project - Spring 2022

OUUDS

Posters from neighborhood block party. Created by Autumn Tiller.

OU Urban Design - Final Juries

OU College of Architecture Faculty - April 2022

Overall, the jury was impressed with the amount of progress made since the last jury. The feedback below was provided (and completed prior to the final submission of this report):

- Add a 3D computer generated model view of each of your four prototypes created in Revit or a similar modeling program.
- Complete your unit floor plans. Provide doors, windows, and any missing items. Add context to the drawings including streets and alleys.
- Show the prototypes in context of neighboring properties or on a block. Neighboring properties can be simple massing.
- Provide some photographs of the neighborhood in the Project Scope section.

Unfortunately, I was not able to collect feedback from everyone prior to the end of the semester and the submittal of this report. This report and any additional items regarding the proposed design solutions will be provided to the list of stakeholders below:

Tulsa Planning Office/INCOG

Emily Scott - TBD

Capital Homes Residential Group

Ross Heyman - TBD

Neighbors/Developers

Dorinda Alexander - TBD

Larry Mitchell - TBD

Method Group

Josh Kunkel - TBD

Recommendations

In addition to the design solutions proposed in the previous pages, I have compiled a list of suggestions on how to possibly improve the stipulations of the neighborhood infill overlay:

- Provision of pre-permitted plans at city level
- Incentivize design discipline involvement in zoning
- Trial non-conformance period to test NIO in real-time/spark MMH development
- Publicity of newly designed/completed missing middle projects with resources available to public
- Development-based community workshops for residents in NIO areas (city-provided or entity-partnered)
- Even with reduced requirements, off-street parking require more paved space due to drive access–challenging for design
- Allowance of front-access off-street parking under the following criteria:
  - Corner lots: non-dominant/secondary street frontage only
  - Interior lots: no more than 80% of total frontage; maximum uninterrupted span of 2 standard lots or 100’ (adjoining); ped path of travel cannot increase more than 1.5-2x; 2-space minimum
  - Inability to adhere to above–developer responsible for providing infrastructure such as curb cuts allowing travel behind parked vehicles; stall depth to minimize vehicle protrusion into alternate ped right-of-way
  - Can be converted to transit stop pull-offs once desired density reached
  - Interior access parking–requires screening on street side

Special Thanks

To the OU Urban Design Studio:
Thank you for making this project materialize and introducing me to the concept of missing middle housing. To Shawn for holding my hand every step of the way through this project. To the jury for providing me with the guidance to further hone my topic. To my classmates for being listening ears for presentations, rants and general nonsense alike. In the many hours we spent in the studio, we became more like family and less like colleagues. I cannot wait to see all the amazing things you do.

To my project partners:
Thank you for allowing me into your space and sharing my passion for affordable and attainable housing. To Emily and the Tulsa Planning Office for your interest and commitment to this project and to improving the communities in which we live. To Capital Homes and the Crosbie Heights neighbors for allowing me to crash your events and providing me with canvases to create livable, functional art upon. To Josh and Method Group for believing in me enough to make me a part of the team, yet allowing my degree (and this project) to remain a priority, To all the other connections I made along the way, know that you too have been integral in this process–I hope that I made you proud.

To my family and friends:
Thank you for the endless hours and ways you supported me through this degree. To Glennda for pushing me to pursue this degree, being a supportive partner and holding down the fort for the last two years. To Dev for changing my priorities and giving me the motivation to make Tulsa a better place for you to grow up. To my mom and "the aunties," for being our pandemic bubble, providing the inspiration for our urban compound concept, running interference on your grandson/nephew and body doubling with me at work and studio. To everyone mentioned and not–your contributions have not gone unnoticed.

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Appendix

The following pages feature documents applicable to the neighborhood infill overlay, zoning code amendments and 2022 revisions to the original amendments.

Citywide Housing Zoning Code Amendments

The citywide zoning changes are meant to promote the development new housing in existing neighborhoods in the following zoning districts: RS-3, RS-4, RS-5, RD, RT, RM-0, RM-1, RM-2, and RM-3.

Current regulations make it difficult to build duplexes, townhouses, and cottage house developments. The proposed citywide changes would ease minimum requirements including lot area, lot area per unit, lot widths, and street setbacks to make building new housing more feasible, giving property owners a little more flexibility in building homes.

Below you'll find a draft of the propose overlay text, which would be adopted as a text amendment to the zoning code.

5.030-A Table of Regulations

The lot and building regulations of Table 5-3 apply to all principal uses and structures in R districts, except as otherwise expressly stated in this zoning code. General exceptions to these regulations and rules for measuring compliance can be found in Chapter 90 Regulations governing accessory uses and structures can be found in Chapter 45.

Table 5-3: R District Lot and Building Regulations

Regulations	RE	RS-1	RS-2	RS-3	RS-4	RS-5	RD	RT	RM-0	RM-1	RM-2	RM-3	RMH
Minimum Lot Area (sq. ft.)													
Detached house	22,500	13,500	9,000	6,900	5,500	3,300	5,500	5,500	5,500	5,500	5,500	5,500	5,500
Patio house	–	–	–	6,900	5,500	3,300	5,500	5,500	5,500	5,500	5,500	5,500	–
Townhouse	–	–	–	4,500	4,500	2,200	2,750	1,600	1,600	1,600	1,600	1,600	–
Cottage house dev't	–	–	–	–	–	~~15,000~~ 10,000	~~15,000~~ 10,000	~~15,000~~ 10,000	~~15,000~~ 10,000	~~15,000~~ 10,000	~~15,000~~ 10,000	~~15,000~~ 10,000	–
Duplex	–	–	–	~~9,000~~ 6,900	~~9,000~~ 5,500	3,300	~~6,900~~ 5,500	~~6,900~~ 5,500	~~6,900~~ 5,500	~~6,900~~ 5,500	~~6,900~~ 5,500	~~6,900~~ 5,500	–
Multi-unit house	–	–	–	–	–	3,300	6,900	5,500	5,500	5,500	5,500	5,500	–
Apartment/condo	–	–	–	–	–	–	–	–	10,000	10,000	6,000	24,000	–
Mobile home park	–	–	–	–	–	–	–	–	–	–	–	–	[1]
Other allowed buildings/uses													
Permitted by right	22,500	13,500	9,000	6,900	5,500	5,500	5,500	5,500	5,500	5,500	5,500	5,500	5,500
Special exceptions	22,500	13,500	12,000	12,000	12,000	12,000	12,000	12,000	12,000	12,000	12,000	12,000	12,000
Min. Lot Area per Unit (sq. ft.)													
Detached house	22,500	13,500	9,000	6,900	5,500	3,300	5,500	5,500	5,500	5,500	5,500	5,500	–
Patio house	–	–	–	6,900	5,500	3,300	5,500	5,500	5,500	5,500	5,500	5,500	–
Townhouse	–	–	–	4,500	4,500	2,200	2,750	1,600	1,600	1,600	1,600	1,600	–
Cottage house dev't	–	–	–	–	–	~~2,750~~ 2,500	~~2,750~~ 2,500	~~2,750~~ 2,500	~~2,750~~ 2,500	~~2,750~~ 2,500	~~2,750~~ 2,500	~~2,750~~ 2,500	–
Duplex	–	–	–	~~4,500~~ 3,450	~~4,500~~ 2,750	1,650	~~3,450~~ 2,750	~~3,450~~ 2,750	~~3,450~~ 2,750	~~3,450~~ 2,750	~~3,450~~ 2,750	~~3,450~~ 2,750	–
Multi-unit house	–	–	–	–	–	1,100	1,800	1,800	1,800	1,375	1,100	900	–
Apartment/condo	–	–	–	–	–	–	–	–	2,900	1,750	1,100	400	–
Other allowed buildings/uses													
Permitted by right	–	–	–	–	–	–	–	–	5,500	5,500	5,500	5,500	5,500
Special exceptions	22,500	13,500	12,000	12,000	12,000	12,000	12,000	12,000	12,000	12,000	12,000	12,000	12,000
Minimum Lot Width (ft.)													
Detached house	150	100	75	60	50	30	50	50	50	50	50	50	–
Patio house	–	–	–	60	50	30	50	50	50	50	50	50	–
Townhouse	–	–	–	30	~~30~~	20	25	20	20	20	20	20	–

2021-04-09 http://tulsaplanning.org/housing

Page 1 of zoning code amendments. Created by City of Tulsa/Tulsa Planning Office.

Regulations	RE	RS-1	RS-2	RS-3	RS-4	RS-5	RD	RT	RM-0	RM-1	RM-2	RM-3	RMH
					25								
Cottage house dev't	–	–	–	–	–	75	75	75	75	75	75	75	–
Duplex	–	–	–	~~75~~ 60	~~75~~ 50	30	~~60~~ 50	~~60~~ 50	~~60~~ 50	~~60~~ 50	~~60~~ 50	~~60~~ 50	–
Multi-unit house	–	–	–	–	–	30	50	50	50	50	50	50	–
Apartment/condo	–	–	–	–	–	–	–	–	100	100	50	100	–
Other allowed buildings/uses													
Permitted by right	150	100	75	60	50	50	50	50	50	50	50	50	50
Special exceptions	150	100	100	100	100	100	100	100	100	100	100	100	100
Minimum Street Frontage													
Residential bdgs/uses [2]	30	30	30	30	30	30	30	30	30	30	30	30	30
Min. Building Setbacks (ft.)													
Street [3]													
Arterial or fwy service rd.	35	35	35	35	35	35	35	35	~~35~~ 10	~~35~~ 10	~~35~~ 10	~~35~~ 10	35
Other streets	35	35	30	25	20	20	25	10	~~25~~ 10	~~25~~ 10	10	~~25~~ 10	25
Side (interior) [4]	15	5	5	5	5	5	5	5[5]	5[6]	5[6]	5[6]	5[7]	10
Rear [4]	25	25	25	20	20	20	20	20	20	20	10	20	15
Min. Open Sp./Unit (sq. ft.)	12,000	7,000	5,000	4,000[8]	2,500	600	2,000	1,200	1,200	600	200	–	2,500
Max. Building Height (feet)	35	35	35	35	35	35	35	35	35	35	35	–	35

5.030-B Table Notes

The following notes refer to the bracketed numbers (e.g., "[1]") in Table 5-3:

[1] See Section 40.240 for detailed regulations governing mobile home parks.

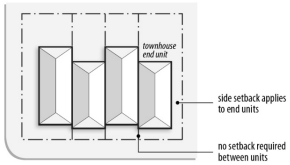
[2] Minimum street frontage requirements apply to townhouse developments, not to individual townhouse units. Cottage house developments require minimum street frontage of 75 feet. Minimum street frontage requirements do not apply to nonresidential uses.

[3] For detached houses and duplexes on corner lots, the minimum side street setback along a non-arterial street may be reduced to 15 feet, provided that the minimum setback for street-facing garage doors is 20 feet or 20 feet from the back of the sidewalk, whichever is greater. The street setback specified in Table 5-3 applies along the other street.

[4] Non-residential ~~U~~uses requiring special exception approval in R zoning districts require minimum 25-foot building setback from R-zoned lots occupied by residential uses.

[5] No side setback is required for interior units in townhouse developments. Side setback applies to end units (see Figure 5-2).

Figure 5-2: Side Setbacks for Townhouses



[6] Minimum interior side setback is 10 feet for apartment/condo and permitted nonresidential buildings.

[7] Minimum interior side setback is 25 feet for apartment/condo and permitted nonresidential buildings.

[8] Minimum required open space for duplex in RS-3 is 2,500 square feet per unit.

Neighborhood Infill Overlay

The Neighborhood Infill Overlay would allow for a variety of different residential housing types in a manner that is compatible with the size and residential character of surrounding properties. Current regulations make it difficult to build the types of housing that was historically abundant in the neighborhoods surrounding downtown a hundred years ago: duplexes, townhomes, multi-unit houses, quadplexes, and small apartment buildings. These housing types are commonly referred to as "Missing Middle" Housing because they are similar in size to detached homes but contain more than one unit, and they have typically not been built since the mid-1940s.

In January, we are hosting a series of meetings specifically for residents of neighborhoods near downtown where we are considering changes to the zoning code that would allow Missing Middle housing to be built once more, as it was when the neighborhoods were first built out.

The regulations are also intended to promote housing types that accommodate households of varying sizes and income levels and provide for a more efficient use of residential land.

Below you'll find a draft of the propose overlay text, which would be adopted as a text amendment to the zoning code. If approved, we would then work with neighborhoods and City Councilors to further define the boundaries the overlay would be applied to. The overlay doesn't require any action on part of property owners –if approved, it would open up more opportunities for property owners to build on their properties. *View a map of the initial proposed boundaries, based on the Downtown Housing Study.*

Section 20.080 Neighborhood Infill Overlay

20.080-A General

1. Purpose and Intent

   The Neighborhood Infill Overlay establishes zoning regulations that are intended to promote the development of alternative infill housing in established neighborhoods. The overlay allows for a variety of residential housing types in a manner that is compatible, in mass and scale, with the character of surrounding properties. The regulations are also intended to promote housing types that accommodate households of varying sizes and income levels and provide for a more efficient use of residential land.

2. Applicability

   Except as otherwise expressly stated, the Neighborhood Infill Overlay regulations of this section apply to RS-3, RS-4, RS-5, RD, RT, RM-0, RM-1, RM-2 and RM-3 zoning districts only within the boundaries of the Neighborhood Infill Overlay districts to all new permitted uses and structures and all building alterations and site modifications that require a building permit.

3. Nonconformities

   Nonconformities that exist within the overlay district are governed by the regulations of Chapter 80 except in residential zoning districts, a single detached house, duplex, or multi-unit house, where the particular residential building type is allowed by right or is allowed by special exception and a special exception has been granted, may be erected on a nonconforming lot without complying with the

Pages 2 and 3 of zoning code amendments. Created by City of Tulsa/Tulsa Planning Office.

minimum lot area, minimum lot area per unit, minimum lot width, minimum street frontage or minimum open space per unit requirements of the subject zoning district, provided that at least 50% of the lot area remains as open space. All other lot and building regulations apply, except that detached houses, duplexes, or multi-unit houses may be erected on corner lots that are nonconforming with regard to lot width, subject to a reduced minimum street side building setback of 5 feet. Garages that are accessed through a side yard abutting a street must be set back at least 20 feet.

4. Conflicting Regulations
All applicable regulations of the underlying base zoning district apply to property in the Neighborhood Infill Overlay unless otherwise expressly stated in the Neighborhood Infill Overlay regulations. For properties with approved development plans (PUD, CO, MPD, Optional Development Plan), the approved development plan and development standards apply.

20.080-B Use Regulations – Residential, Household Living

Residential, household living principal uses are allowed in the Neighborhood Infill Overlay district in accordance with Table 20-4.

1. Permitted Uses
Residential, household living uses identified with a "P" symbol are allowed by right in the Neighborhood Infill Overlay district within the particular base zoning district, subject to compliance with any supplemental regulations identified in Chapter 40 and all other applicable regulations of this zoning code.

2. Special Exception Uses
Uses identified with an "S" may be allowed and if reviewed and approved in accordance with the special exception procedures of Section 70.120.

3. Prohibited Uses
Uses identified with an "–" are expressly prohibited. Uses that are not listed in the table and that cannot be reasonably interpreted (as stated in §35.020-E) to fall within any defined use category are also prohibited.

Table 20-4: Neighborhood Infill Overlay District Use Regulations for Household Living

USE CATEGORY	Base Zoning Districts: RS-			RD	RT	RM-			
Subcategory	3	4	5			0	1	2	3
Specific use									
RESIDENTIAL									
Household Living (if in building type allowed in Table 20-4.5)									
Single household	P [1]	P [1]	P [1]	P ~~[2]~~ [1]	P ~~[2]~~ [1]	P ~~[2]~~ [1]	P ~~[2]~~ [1]	P ~~[2]~~ [1]	P ~~[2]~~ [1]
Two households on single lot	~~S~~ P	~~S~~ P	~~S~~ P	P	P	P	P	P	P
Three or more households on single lot	– P	– P	~~S~~ P	~~S~~ P	P	P	P	P	P

4. Table 20-4 Notes
The following notes refer to the bracketed numbers (e.g.," [1]") in (Table 20-4):

~~[1] Accessory dwelling units may be allowed by special exception in RE and RS Districts on a lot occupied by a detached house. For supplemental regulations, see Section 45.031.~~

~~[2]~~[1] Accessory dwelling units are allowed by right in RS, RD, RT, and RM~~, and RMH~~ Districts on a lot occupied by a detached house. For supplemental regulations, see Section 45.031.

20.080-C Residential Building Types for Household Living

In the Neighborhood Infill Overlay district, within the particular base zoning district, household living uses must be located in the residential building types identified in Table 20-4.5. Descriptions of the residential building types and references to applicable regulations are found in Section 35.010.

Table 20-4.5: Neighborhood Infill Overlay District Building Type Regulations for Household Living

USE CATEGORY	Base Zoning Districts: RS-			RD	RT	RM-			
Subcategory	3	4	5			0	1	2	3
Specific use Building Types									
RESIDENTIAL									
Household Living									
Single household									
Detached house	P	P	P	P	P	P	P	P	P
Patio House	P	P	P	P	P	P	P	P	P
Townhouse									
2-unit townhouse	~~S~~ P	~~S~~ P	P	P	P	P	P	P	P
3+-unit townhouse	– P	– P	– P	– P	P	P	P	P	P
Manufactured housing unit	S	S	S	S	S	S	S	S	S
Manufactured housing subdivision	~	~	~	~	~	~	~	~	~
Mobile home	–	–	–	–	–	–	–	–	–
Mixed-use building	~	~	~	~	~	~	S	S	S
Vertical mixed-use building	~	~	~	~	~	~	S	S	S
Two households on single lot									
Duplex	~~S~~ P	~~S~~ P	~~S~~ P	P	P	P	P	P	P
Mixed-use building	–	–	–	–	–	–	P	P	P
Vertical mixed-use building	~	~	~	~	~	~	P	P	P
Three or more households on single lot									
Cottage house development	– P	– P	P	~~S~~ P	~~S~~ P	P	P	P	P
Multi-unit house	– P	– P	~~S~~ P	~~S~~ P	P	P	P	P	P
Apartment/condo	– P [1]	– P [1]	– P [1]	– P [1]	– P [1]	P	P	P	P
Mobile home park	–	–	–	–	–	–	–	–	–
Mixed-use building	~	~	~	~	~	~	P	P	P
Vertical mixed-use building	~	~	~	~	~	~	P	P	P

1. Table 20-4.5 Notes
The following notes refer to the bracketed numbers (e.g.," [1]") in (Table 20-4.5):

[1] Apartment/condo is limited to no more than 8 dwelling units on a single lot.

Pages 4 and 5 of zoning code amendments. Created by City of Tulsa/Tulsa Planning Office.

20.080-D Lot and Building Regulations

In the Neighborhood Infill Overlay district, the lot and building regulations of Table 20-5 apply in the RS-3, RS-4, RS-5, RD, RT, RM-0, RM-1, RM-2, RM-3 base zoning districts to Duplex, Townhouse, Cottage House Development, Multi-unit House and Apartment/Condo building types. General exceptions to these regulations and rules for measuring compliance can be found in Chapter 90. Regulations governing accessory uses and structures can be found in Chapter 45.

Table 20-5: Neighborhood Infill Overlay District Lot and Building Regulations

Minimum Lot Area (sq. ft.)	
Townhouse	1,600
Duplex, Cottage House Development, Multi-Unit House, Apartment/Condo	4,000
Minimum Lot Area per Unit (sq. ft.)	N/A
Minimum Lot Width	
Townhouse	20
Duplex, Cottage House Development, Multi-Unit House, Apartment/Condo	40
Minimum Street Frontage (feet)	20 [1]
Minimum Open Space per Unit (sq. ft.)	100
Minimum Building Setbacks (feet)	
Street	10 [2]
Side	3 [3]
Rear	10
Maximum Building Height (feet)	35

Table 20-5 Notes

The following notes refer to the bracketed numbers (e.g., " [1]") in (Table 20-5):

[1] Minimum street frontage requirements apply to townhouse developments, not to individual townhouse units. Cottage house developments require minimum street frontage of 50 feet.

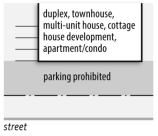
[2] Minimum setback for street-facing garage doors is 20 feet.

[3] No side setback is required for interior units in townhouse developments. Side setback applies to end units.

20.080-E Parking Regulations

1. Minimum Parking Ratios
   The minimum parking ratios established in Section 55.020, Table 55-1 for a Household Living use are reduced by 50% in the Neighborhood Infill Overlay district.
2. Location
   The parking area is prohibited between building and street right-of-way (see Figure 20-2) on lots occupied by a Townhouse, Cottage House Development, Multi-unit House and Apartment/Condo.

Figure 20-2: Parking Prohibited between Building and Street Right-of-Way



Page 6 of zoning code amendments. Created by City of Tulsa/Tulsa Planning Office.

TULSA PLANNING OFFICE

TMAPC Public Hearing Staff Report
April 6, 2022
ZCA-22, Zoning Code Amendments – Neighborhood Infill Overlay

Prepared by Nathan Foster, nfoster@incog.org, 918-579-9481

Item

Discuss various proposed amendments to the City of Tulsa Zoning Code in the following sections:

- **Chapter 20 Overlay Districts**: Section 20.080-C Residential Building Types for Household Living, Table 20-4.5 Notes, [1]; Section 20.080-E Parking Regulations, 2. Location
- **Chapter 5 Residential Districts:** Section 5.030-B Table Notes, [4]
- **Chapter 40 Supplemental Use and Building Regulations:** Section 40.030 Apartments/Condos
- **Chapter 55 Parking:** Section 55.080-C Parking Setbacks

Background

On June 16, 2021, TMAPC recommended approval of an amendment to the Tulsa Zoning Code to create the Neighborhood Infill Overlay (NIO). The overlay is intended to expand the types of housing that can be developed in the near-downtown neighborhoods to address the lack of "missing middle" housing identified by the 2019 Downtown & Surrounding Neighborhoods Housing Study & Strategy (DSNHSS). Following City Council approval, the ordinance was published on August 1, 2021, and became effective on August 31, 2021.

On June 16, 2021, The City Council initiated zoning map amendments to apply NIO zoning to properties in alignment with the DSNHSS boundaries, excluding properties located within the Inner Dispersal Loop (IDL). Due to a high level of opposition, several areas were removed from the proposed map amendment during public engagement and public hearings. The final map (attached SA-5 maps) was approved and became effective on December 7, 2021.

During the map amendment process, Councilor McKee committed to revisiting the allowable number of apartments within single-family residential districts and consider a text amendment to reduce the maximum number from 8 units to 6 units. During a review of the adopted text, other items were identified that needed clarification or adjustments based on feedback received from interested parties. The amendments are a result of the zoning code implementation team's work to address the follow-up items and clarify the adopted text. The proposed amendments are in Chapters 5, 20, 40, and 55 of the zoning code. The proposed amendments were presented to the TMAPC at a work session on February 16, 2022.

The amendments proposed to the City of Tulsa Zoning Code, Title 42 Tulsa Revised Ordinances, are shown in ~~strike through~~/underline in **Attachment I**.

Staff Recommendation

Approval of the proposed amendments to the City of Tulsa Zoning Code as shown in the attachment

Attachment

- Summary of changes and justifications for zoning code amendments

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10.1

Page 1 from Tulsa Metropolitan Area Planning Commission meeting agenda held April 6, 2022, outlining changes to the zoning amendments. Created by City of Tulsa/Tulsa Planning Office.

ATTACHMENT 1:

OVERLAY:

Revise Section 20.080-C to reduce the allowable number of units for apartments/condos located in RS districts within the Neighborhood Infill Overlay from 8 to 6.

20.080-C Residential Building Types for Household Living

...

Table 20-4.5: Neighborhood Infill Overlay District Building Type Regulations for Household Living

USE CATEGORY	Base Zoning Districts: RS-					RM-		
Subcategory / Specific use / Building Types	3	4	5	RD	RT	0	1	2	3
RESIDENTIAL									
Household Living									
Single household									
Detached house	P	P	P	P	P	P	P	P	P
Patio House	P	P	P	P	P	P	P	P	P
Townhouse									
2-unit townhouse	P	P	P	P	P	P	P	P	P
3+-unit townhouse	P	P	P	P	P	P	P	P	P
Manufactured housing unit	S	S	S	S	S	S	S	S	S
Manufactured housing subdivision	-	-	-	-	-	-	-	-	-
Mobile home	-	-	-	-	-	-	-	-	-
Mixed-use building	-	-	-	-	-	-	S	S	S
Vertical mixed-use building	-	-	-	-	-	-	S	S	S
Two households on single lot									
Duplex	P	P	P	P	P	P	P	P	P
Mixed-use building	-	-	-	-	-	-	P	P	P
Vertical mixed-use building	-	-	-	-	-	-	P	P	P
Three or more households on single lot									
Cottage house development	P	P	P	P	P	P	P	P	P
Multi-unit house	P	P	P	P	P	P	P	P	P
Apartment/condo	P [1]	P [1]	P [1]	P [1]	P [1]	P	P	P	P
Mobile home park	-	-	-	-	-	-	-	-	-
Mixed-use building	-	-	-	-	-	-	P	P	P
Vertical mixed-use building	-	-	-	-	-	-	P	P	P

1. Table 20-4.5 Notes

   The following notes refer to the bracketed numbers (e.g.," [1]") in (Table 20-4.5):

   [1] Apartment/condo is limited to no more than ~~8~~ 6 dwelling units on a single lot.

10.2

ATTACHMENT 1:

Revised language for parking locations to clarify that driveways can be permitted in the space between buildings and street right-of-way while maintaining the prohibition on parking spaces in the defined area.

20.080-E Parking Regulations

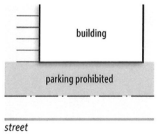
1. Minimum Parking Ratios

   The minimum parking ratios established in Section 55.020, Table 55-1 for a Household Living use are reduced by 50% in the Neighborhood Infill Overlay district.

2. Location

   The ~~p~~Parking ~~area~~ spaces, not including drive aisles, ~~is~~ are prohibited between building and street right-of-way (see Figure 20-5) on lots occupied by a 3+ Unit Townhouse, Cottage House Development, Multi-unit House and Apartment/Condo.

Figure 20-5: Parking Prohibited between Building and Street Right-of-Way



10.3

Pages 2 and 3 from Tulsa Metropolitan Area Planning Commission meeting agenda held April 6, 2022 outlining changes to the zoning amendments. Created by City of Tulsa/Tulsa Planning Office.

ATTACHMENT 1:

CITY-WIDE:

Update "Table Note [4]" to clarify additional setback for non-residential uses applies to vacant lots, as well as lots occupied by residential uses.

5.030 Lot and Building Regulations

...

*Table **Error! No text of specified style in document.**-1: R District Lot and Building Regulations*

Regulations	RE	RS-1	RS-2	RS-3	RS-4	RS-5	RD	RT	RM-0	RM-1	RM-2	RM-3	RMH
Minimum Lot Area (sq. ft.)													
Detached house	22,500	13,500	9,000	6,900	5,500	3,300	5,500	5,500	5,500	5,500	5,500	5,500	5,500
Patio house	–	–	–	6,900	5,500	3,300	5,500	5,500	5,500	5,500	5,500	5,500	–
Townhouse	–	–	–	4,500	4,500	2,200	2,750	1,600	1,600	1,600	1,600	1,600	–
Cottage house dev't	–	–	–	–	–	10,000	10,000	10,000	10,000	10,000	10,000	10,000	–
Duplex	–	–	–	6,900	5,500	3,300	5,500	5,500	5,500	5,500	5,500	5,500	–
Multi-unit house	–	–	–	–	–	3,300	6,900	5,500	5,500	5,500	5,500	5,500	–
Apartment/condo	–	–	–	–	–	–	–	–	10,000	10,000	6,000	24,000	–
Mobile home park	–	–	–	–	–	–	–	–	–	–	–	–	[1]
Other allowed buildings/uses													
Permitted by right	22,500	13,500	9,000	6,900	5,500	5,500	5,500	5,500	5,500	5,500	5,500	5,500	5,500
Special exceptions	22,500	13,500	12,000	12,000	12,000	12,000	12,000	12,000	12,000	12,000	12,000	12,000	12,000
Min. Lot Area per Unit (sq. ft.)													
Detached house	22,500	13,500	9,000	6,900	5,500	3,300	5,500	5,500	5,500	5,500	5,500	5,500	–
Patio house	–	–	–	6,900	5,500	3,300	5,500	5,500	5,500	5,500	5,500	5,500	–
Townhouse	–	–	–	4,500	4,500	2,200	2,750	1,600	1,600	1,600	1,600	1,600	–
Cottage house dev't	–	–	–	–	–	2,500	2,500	2,500	2,500	2,500	2,500	2,500	–
Duplex	–	–	–	3,450	2,750	1,650	2,750	2,750	2,750	2,750	2,750	2,750	–
Multi-unit house	–	–	–	–	–	1,100	1,800	1,800	1,800	1,375	1,100	900	–
Apartment/condo	–	–	–	–	–	–	–	–	2,900	1,750	1,100	400	–
Other allowed buildings/uses													
Permitted by right	–	–	–	–	–	–	–	–	5,500	5,500	5,500	5,500	5,500
Special exceptions	22,500	13,500	12,000	12,000	12,000	12,000	12,000	12,000	12,000	12,000	12,000	12,000	12,000
Minimum Lot Width (ft.)													
Detached house	150	100	75	60	50	30	50	50	50	50	50	50	–
Patio house	–	–	–	60	50	30	50	50	50	50	50	50	–
Townhouse	–	–	–	30	25	20	25	20	20	20	20	20	–
Cottage house dev't	–	–	–	–	–	75	75	75	75	75	75	75	–
Duplex	–	–	–	60	50	30	50	50	50	50	50	50	–
Multi-unit house	–	–	–	–	–	30	50	50	50	50	50	50	–
Apartment/condo	–	–	–	–	–	–	–	–	100	100	50	100	–
Other allowed buildings/uses													
Permitted by right	150	100	75	60	50	50	50	50	50	50	50	50	50
Special exceptions	150	100	100	100	100	100	100	100	100	100	100	100	100
Minimum Street Frontage													
Residential bdgs/uses [2]	30	30	30	30	30	30	30	30	30	30	30	30	30
Min. Building Setbacks (ft.)													
Street [3]													
Arterial or fwy service rd.	35	35	35	35	35	35	35	35	10	10	10	10	35
Other streets	35	35	30	25	20	20	25	10	10	10	10	10	25
Side (interior) [4]	15	5	5	5	5	5	5	5[5]	5[6]	5[6]	5[6]	5[7]	10
Rear [4]	25	25	25	20	20	20	20	20	20	20	10	20	15
Min. Open Sp./Unit (sq. ft.)	12,000	7,000	5,000	4,000[8]	2,500	600	2,000	1,200	1,200	600	200	–	2,500
Max. Building Height (feet)	35	35	35	35	35	35	35	35	35	35	35	–	35

10.4

ATTACHMENT 1:

5.030-B Table Notes

The following notes refer to the bracketed numbers (e.g.," [1]") in Table 5-3:

...

[4] Non-residential uses requiring special exception approval in R zoning districts require minimum 25-foot building setback from R-zoned lots that are vacant or occupied by residential uses.

...

Remove language that limits screening requirements to apartments over 5 units and apply screening requirements to all apartment/condos adjacent to RE, RS, or AG-R districts.

40.030 Apartments/Condos

Whenever an apartment/condo building ~~containing more than 5 dwelling units~~ is located on a lot abutting an RE, RS, or AG-R district, a screening wall or fence must be provided along the common lot line in accordance with the F1 screening fence or wall standards of §65.070-C.

Remove additional setback applied to parking lots accessory to apartment/condo buildings due to the application of new landscaping and screening requirements.

55.080-C Parking Setbacks

...

~~2. Unenclosed off-street parking areas (including drive aisles) that are accessory to apartment/condo buildings or group living uses must be set back at least 25 feet from any abutting RE or RS zoning district.~~

~~3.~~ 2. All unenclosed, non-accessory off street parking areas must be screened from abutting R- or AG-R- zoned lots by an F1 screening fence or wall, in accordance with §65.070-C.

~~4.~~ 3. All unenclosed, accessory off street parking areas containing 6 or more spaces must be screened from abutting RE-, RS-, or AG-R- zoned lots by an F1 screening fence or wall, in accordance with §65.070-C, provided that accessory parking areas located more than 50 feet from abutting RE-, RS-, or AG-R- zoned lots are not required to provide such screening.

10.5

Pages 4 and 5 from Tulsa Metropolitan Area Planning Commission meeting agenda held April 6, 2022 outlining changes to the zoning amendments. Created by City of Tulsa/Tulsa Planning Office.

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