LAWRENCEVILLE

CLT15201

Development Guidelines for the Lawrenceville Community Land Trust

January 2017

LAWRENCEVILLE CORPORATION

Rothschild Doyno COLLABORATIVE
ARCHITECTURE AND URBAN DESIGN

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ACKNOWLEDGEMENTS

BACKGROUND

The Lawrenceville Corporation was formed in the 1980s in response to neighborhood decline, as a means to advocate for and invest in the community's interest. After decades of disinvestment Lawrenceville is seeing a resurgence in the housing market and a strengthening of it's neighborhood commercial core, Butler Street.

Having guided the community from decline to reinvestment, the Lawrenceville Corporation has adjusted it's focus to ensure that the unique characteristics of the community remain, that existing residents are not displaced, and that new residents of all income levels can continue to purchase a home in the community.

To address the issues facing the community the Lawrenceville Corporation sought to establish Pittsburgh's first Community Land Trust as a means to preserve affordability in the neighborhood. Through work with foundations, the City of Pittsburgh, and community partners, CLT15201 was established.

All photos in this document were created by Rothschild Doyno Collaborative or Lawrenceville Corporation unless otherwise noted.

PROJECT SUPPORT

This project would not be possible without the generous support of the following organizations:

- The Hillman Foundation
- UPMC Health Plan
- Anonymous
- Bridgeway Capital
- Duquesne Light
- The Urban Redevelopment Authority of Pittsburgh
- PNC Bank
- Dollar Bank

PROJECT TEAM

Lawrenceville Corporation worked with Burlington Associates in Community Planning to provide technical assistance on the econmic and social structure of the Community Land Trust.

Rothschild Doyno Collaborative was engaged to develop the CLT Guidelines and design the initial seven homes as prototypes for future CLT home development. Ecocraft Homes was engaged as the builder for the initial phase of housing.

© Lawrenceville Gardeners

Lawrenceville Community Garden

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CHAPTER I:
INTRODUCTION

"THE CRADLE OF AMERICA'S INDUSTRY"

A History of Lawrenceville

In the early 1700s, the area now known as Lawrenceville was settled by the Delaware Indians and was an important trading post for both English and French settlers.

In 1814, William Foster, father of the composer Stephen Foster, laid out the town of Lawrenceville and named it in honor of Captain James Lawrence who fought in the struggle against the English during the War of 1812. Lawrenceville was annexed by the City of Pittsburgh in 1868.

Lawrenceville was home to the Allegheny Arsenal, which manufactured munitions for the Civil War. In the early and mid-1800s, Lawrenceville and the Allegheny Arsenal experienced immense growth. Wave after wave of German and Irish immigrants settled in Lawrenceville to work in the "Cradle of America's Industry." Iron and steel production, glass factories, breweries, petroleum industries and other manufacturing all thrived in Lawrenceville during the 1800s and early 1900s.

As industry in Pittsburgh declined, Lawrenceville lost nearly one third of its population, leaving many vacant structures in this dense urban neighborhood. With over 30,000 residents in 1940, Lawrenceville saw its lowest population in 2000 with just over 10,000 residents.

LOCATION

Lawrenceville is composed of three neighborhoods: Upper, Central, and Lower Lawrenceville, stretching along the southern banks of the Allegheny River and bounded by the hilltop neighborhoods above.

Butler Street is the main east-to-west thoroughfare that connects all three neighborhoods.

Lower Lawrenceville, or LoLa, extends from 33rd Street to 40th Street / Arsenal School and south to Liberty Avenue. Doughboy Square serves as a highly visible neighborhood gateway.

Central Lawrenceville, home to Arsenal Park, Allegheny Cemetery, and Children's Hospital of Pittsburgh, has experienced a surge in both residential and business development.

Upper Lawrenceville, known as the 10th Ward by residents, is characterized by its dense urban fabric and an increasing development energy along Butler Street.

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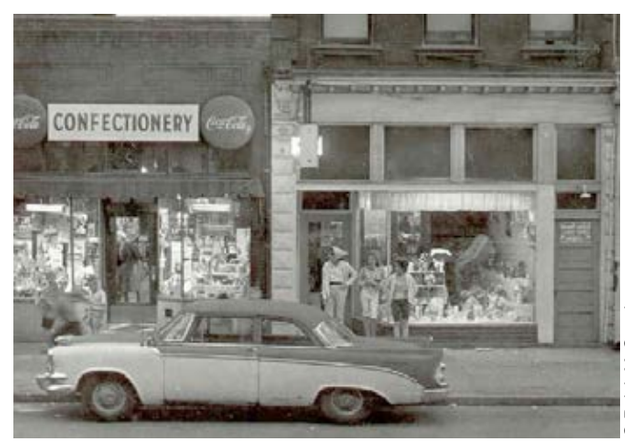
Doughboy Square, 1937

View of Butler Street, 1955



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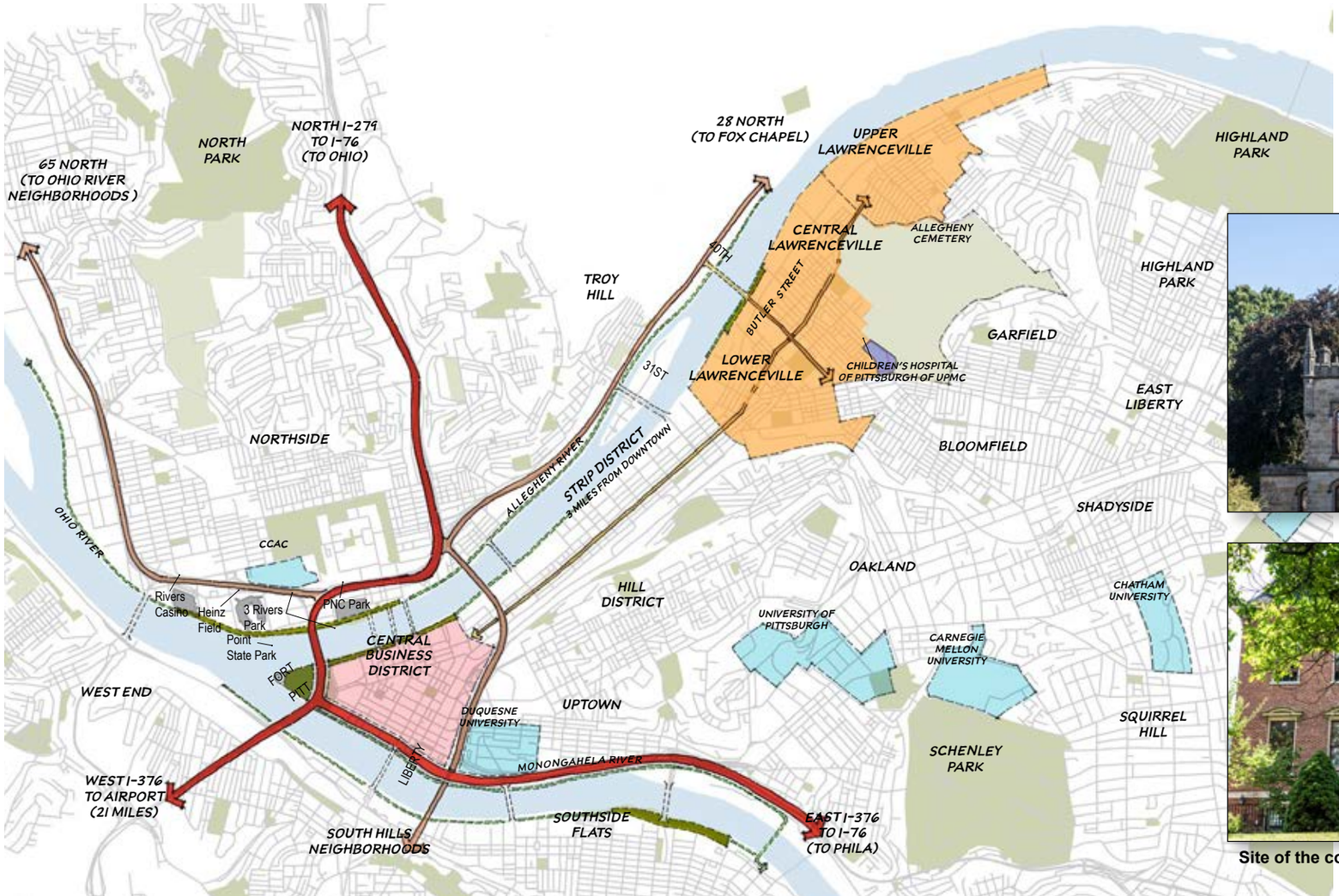
Butler and 45th Streets

City Connections – Locating Lawrenceville in Relationship to Pittsburgh Neighborhoods and Institutions



© Matt Dayak

Allegheny Cemetery

© Matt Dayak

Site of the cottage where Stephen Foster was born

LAWRENCEVILLE CORPORATION

To act as a catalyst and conduit for responsible growth and reinvestment in the Lawrenceville Community

The Lawrenceville Corporation was formed in January 2000 as a merger of the Lawrenceville Development Corporation (LDC) and the Lawrenceville Business Association (LBA). Both the LBA and LDC had been in existence since the mid-1980s and were formed in response to neighborhood decline following Pittsburgh's economic crisis during the 1970s and 1980s.

The merger yielded a new organization with a strong combined board of directors. The organizational mission, membership, and much of the programming trace back to the original two entities. Since the merger, the LC has gained local and national recognition for its innovative niche marketing programs like the 16:62 Design Zone and the Doughboy branding campaign, recruitment efforts that have yielded numerous destination-type retail and restaurant businesses, and the commercial and residential efforts throughout the neighborhood.

VISION

Lawrenceville Corporation's vision for the community includes the following elements:

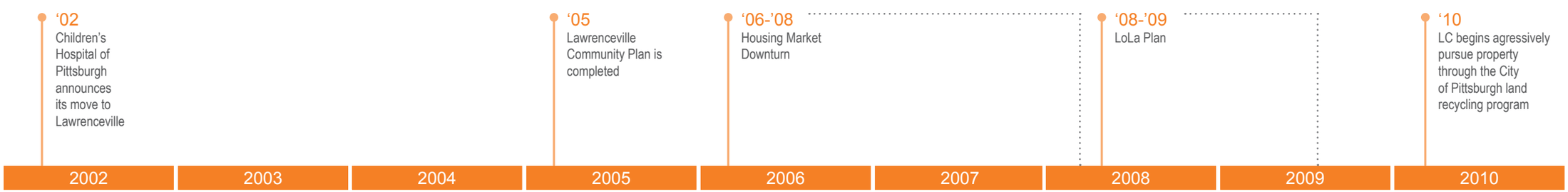
- A diverse community that embraces newcomers and long-time residents, homeowners and renters, children and senior citizens, low-income and middle-class families alike.
- A thriving and competitive business district that attracts customers from around the region with unique stores and products, while continuing to meet the day-to-day needs of community residents.
- A safe, healthy, and clean community free from crime, drugs, prostitution, violence, and litter.
- An attractive neighborhood full of amenities including shopping, restaurants, green space, parks, and recreational facilities.

PRINCIPLES

The Lawrenceville Corporation is guided in its work by five main principles:

- **Preserve Authenticity**: preserve community diversity and working class heritage; and build on existing architectural assets.

Lawrenceville Timeline



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(PRINCIPLES CONT.)

- **Strategically Target Development Efforts**: geographically concentrate development to maximize impact in targeted areas that have been identified as priorities by strategic or community planning processes.
- **Market Our Assets**: understand the neighborhood's assets and its potential role in the city or regional marketplace; target regional and local customers that will advance our neighborhood's revitalization; and develop lines of business that promote the neighborhood's assets.
- **Support High Quality Design**: insist on top-notch design standards for all development and projects in the community.
- **Engage in Visionary and Participatory Planning**: work with local stakeholders to creatively envision the future potential of the neighborhood while keeping an eye on national and regional trends and local opportunities

BOARD OF DIRECTORS

George Arendas
Will Bernstein
Lauren Byrne
Stephen Casey
Bernadette Gerbe
David Green
Joseph Kelly
Owen Lampe
Allison McGeary
Juliette Murcko
Kento Ohmori
Brooks Robinson, Jr.
David Tobiczyk
Tiffany Wilhelm

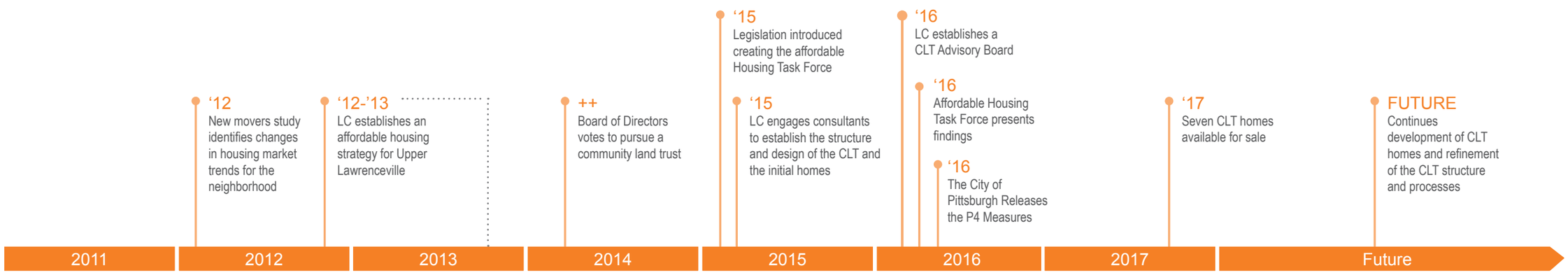
STAFF

Matthew Galluzzo
Executive Director

Valerie Fleisher
Director of Operations

Ed Nusser
Real Estate and Planning Manager

Genevieve Barbee
Marketing and Communications Coordinator



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A GROWING COMMUNITY

What's happening today

Lawrenceville is a thriving community undergoing a wave of investment. An increase in population, reinvigorated neighborhood business districts, a rapidly rising real estate market, and convenient access to downtown Pittsburgh and other adjacent employment centers via multiple transportation choices make Lawrenceville an attractive neighborhood.

This growth has brought with it certain development pressures. Median home sale price in Central Lawrenceville increased from $27,000 to $175,000 (648%) over the 15-year period between 2000 and 2015.

The Lawrenceville Corporation, in partnership with other community organizations, has engaged residents in formulating community goals that address issues of development, affordability, and resident displacement.

NEIGHBORHOOD PLANNING

As an advocate for community based planning, the Lawrenceville Corporation facilitated several planning processes with its constituents to understand what residents wished to see in their community. As the context in the neighborhood changed between 2005 and 2010, the Lawrenceville Corporation continued planning efforts to keep pace with residents' goals as the market began to shift around them.

Through the Upper Lawrenceville Community Visioning Plan residents recognized that they did not want to match the pace of development and investment seen in Lower and Central Lawrenceville. Instead, residents wanted to focus on a locally initiated, slower paced development that would reinforce the existing character of the community and maintain affordability.

REGIONAL PLANNING

Concurrent to neighborhood planning efforts, the City focused resources on reconnecting residents to the rivers. Both the Allegheny Riverfront Vision Plan and the Allegheny Riverfront Green Boulevard set forth goals to connect neighborhoods through new riverfront development and amenities.

In 2016 the City put forth a vision of a more livable city for all its residents through the P4 Initiative, with a goal to "make sure that new growth benefits people, enhances a sense of place, contributes to a healthier planet, and achieves the highest levels of financial and social performance."

Each of these planning efforts set the stage for the development of CLT15201.

The Foundry at 41st

© Strada

Arsenal Terminal Redevelopment

© Matt Dayak

Doughboy Square Apartments

Community planning for a diverse and vibrant neighborhood

Lawrenceville Community Plan, 2005

LoLa Plan

Upper Lawrenceville Community Visioning Plan, 2011
Strategic community planning studies focus on a diverse range of areas in Lawrenceville, from neighborhood areas, corridors, parks, and the riverfront.

Allegheny Riverfront Vision Plan, 2011

Allegheny Riverfront Green Boulevard, 2013
Decreased industrial uses present green infrastructure and transportation opportunities for our urban riverfront communities.

Pittsburgh P4 Performance Measures, 2016

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CHAPTER II

PRESERVING AFFORDABILITY

CREATING CLT1520

The First Community Land Trust in Western Pennsylvania

The Lawrenceville Corporation has established a Community Land Trust (CLT) in response to the changing real estate market in the community.

In areas with large amounts of market rate development, longtime residents face the danger of being priced out of the market. A CLT brings balance to the market by helping to preserve affordability and provide a path for residents to build equity and become homeowners.

In January of 2016, Lawrenceville Corporation assembled the Lawrenceville CLT Advisory Board. This board was tasked with spending the year 2016 to work through the a planning process to answer key questions that every CLT start-up encounters. Questions include:

- How is the resale formula structured and governed?
- What stipulations are enforced in the CLT Ground Lease?
- Who should the CLT focus on serving?

Throughout 2016 the board met monthly to work through the questions above and many others. Throughout the planning process the Board was guided by Michael Brown of Burlington Associates in Community Development.

MISSION

The Lawrenceville Community Land Trust promotes, expands, and preserves permanently affordable housing opportunities.

VALUES:

- Provide high-quality homes
- Embrace sustainable development
- Seamlessly integrate affordable homes into neighborhood fabric
- Balance our neighborhood real estate market
- Utilize participatory and representative governance

PURPOSE OF THIS DOCUMENT

Building upon previous community planning efforts, this document shares what we have learned in our initial planning and development of CLT projects across sites in Lawrenceville.

The guidelines and prototypes provided in this document will serve as a template for future CLT development within Pittsburgh and adjacent communities.

LAWRENCEVILLE CLT ADVISORY BOARD

The “C” in CLT stands for “Community” and it was important to LC that this board be as broadly representative of the neighborhood as was possible. The founding members of the Lawrenceville CLT Advisory Board Are:

Dave Breingan
Executive Director, Lawrenceville United
Lawrenceville Corporation Board Member
Sixth Ward Resident

Lauren Connelly
Manager, Business Development,
Allegheny County Economic Development
Lawrenceville Corporation Board Member
Tenth Ward Resident

James Eash
Real Estate Development Officer, Action-Housing

Matthew Galluzzo
Executive Director, Lawrenceville Corporation

Dave Green
Lawrenceville Corporation Board Member
Tenth Ward Resident

Deirdre Kane
Owner, 52Nd Street Market
Lawrenceville United Board Member
Tenth Ward Resident

Amanda Neatrour
Tenth Ward Resident

Ed Nusser
Real Estate And Planning Manager,
Lawrenceville Corporation

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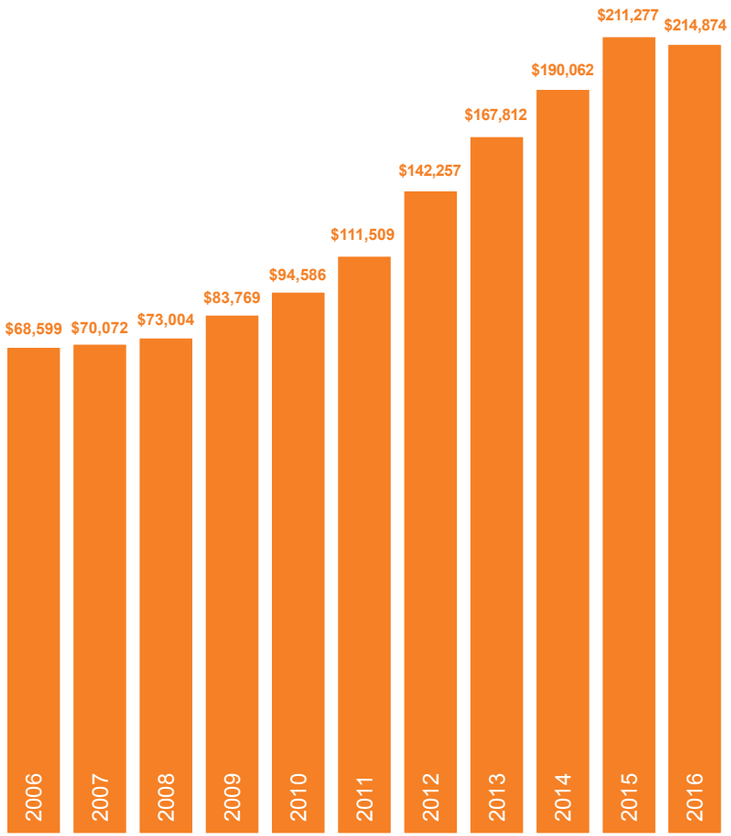
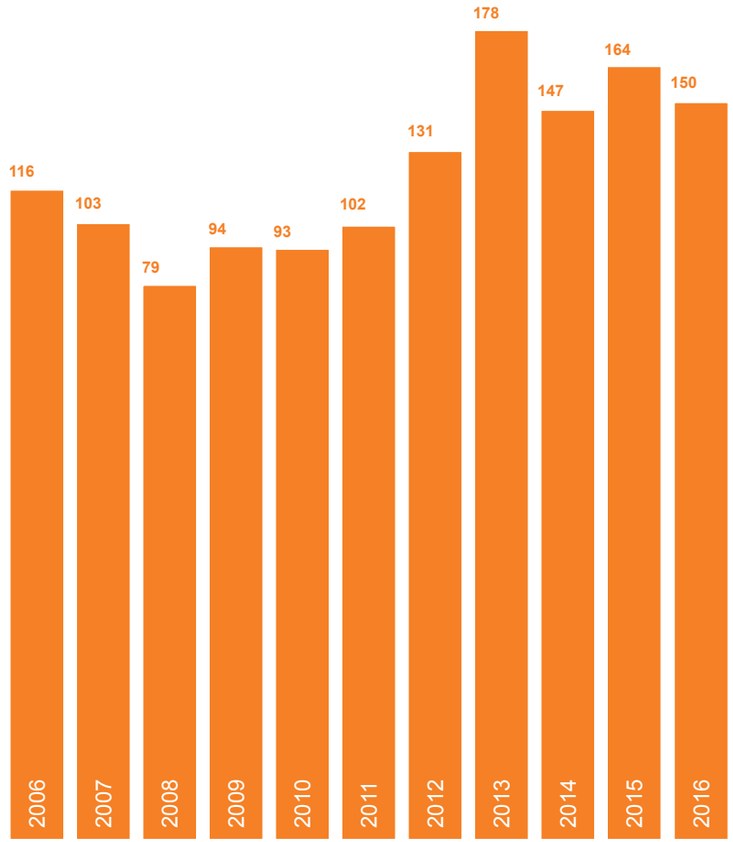
Median sale prices grew by more than ***290%*** *between 2008 and 2016*



Median Single Family Sales Price
Data provided by Lawrenceville Corporation

The number of sales has increased bringing new residents to the community



Lawrenceville Historic Sales by Year
Data provided by Lawrenceville Corporation

9
Number of affordable rental units produced since 2012

925
Number of rental units planned or under construction as of 2016

14.2%
Residents who have lived in their current dwelling for at least 35 years

27%
Lawrenceville residents that moved into neighborhood in past 5 years

29%
Residential properties purchased by LLCs from 2012-2014

CLT15201 STRUCTURE

Creating permanently affordable housing

Named for the zip code it serves, CLT15201 will create permanent affordable housing within Lawrenceville while allowing low and moderate income residents to build equity as homeowners.

With current market conditions, property in Lawrenceville is valued at a premium. The CLT's ability to own the land and preserve it for affordable housing will take the increase in price associated with location and significantly reduce the cost incurred by the home purchaser. In this way the CLT will retain and maintain economic diversity in the community amid large amounts of market-rate development.

HOW IT WORKS

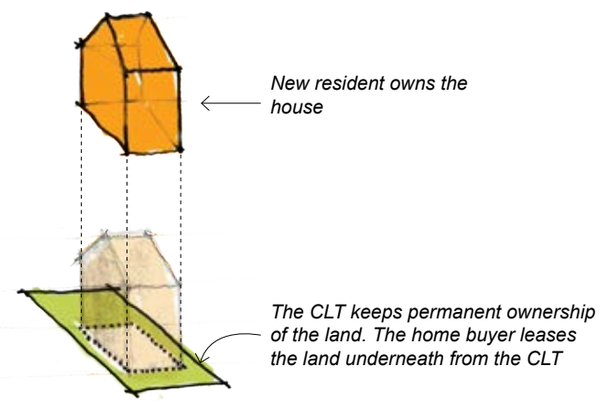
CLT15201 will renovate or develop new homes throughout Lawrenceville. Homes will be sold to qualified home buyers and the CLT will retain ownership of the underlying land.

Long term ground leases with homeowners allow future home buyers to share in the affordability that was initially created and establishes a resale formula for the home that balances affordability with the realization of equity on improvements and the increase in value of the home.

WHO IT WILL SERVE

The CLT will serve households who earn 80% or less of the Area Median Income for their family size. To minimize displacement, home ownership opportunities will be offered first to existing residents in the neighborhood or feeder pattern for the local school. Home buyers must have a minimum credit score of 640 to qualify for a conventional mortgage. CLT15201 hopes to broaden the availability of homes as the program grows.

The Area Median Income is updated annually by the Department of Housing and Urban Development and is based on geographic location and family size. Pittsburgh's Area Median income is based on data from Allegheny, Butler, Beaver, Westmoreland, Washington, and Fayette Counties.



How it works.

Greater Pittsburgh Area Median Income for a Family of 4 in 2016

$71,200
Area Median Income

$56,950
80% Area Median Income

AMI%	1	2	3	4	5
	HOUSEHOLD SIZE				
50	$24,950	$28,500	$32,050	$35,600	$38,450
80	$39,900	$45,600	$51,300	$56,950	$61,550
100	$49,900	$57,000	$64,100	$71,200	$76,900

Who it will serve. *Households that earn 80% or less of the AMI for their family size are eligible for CLT Homes.*

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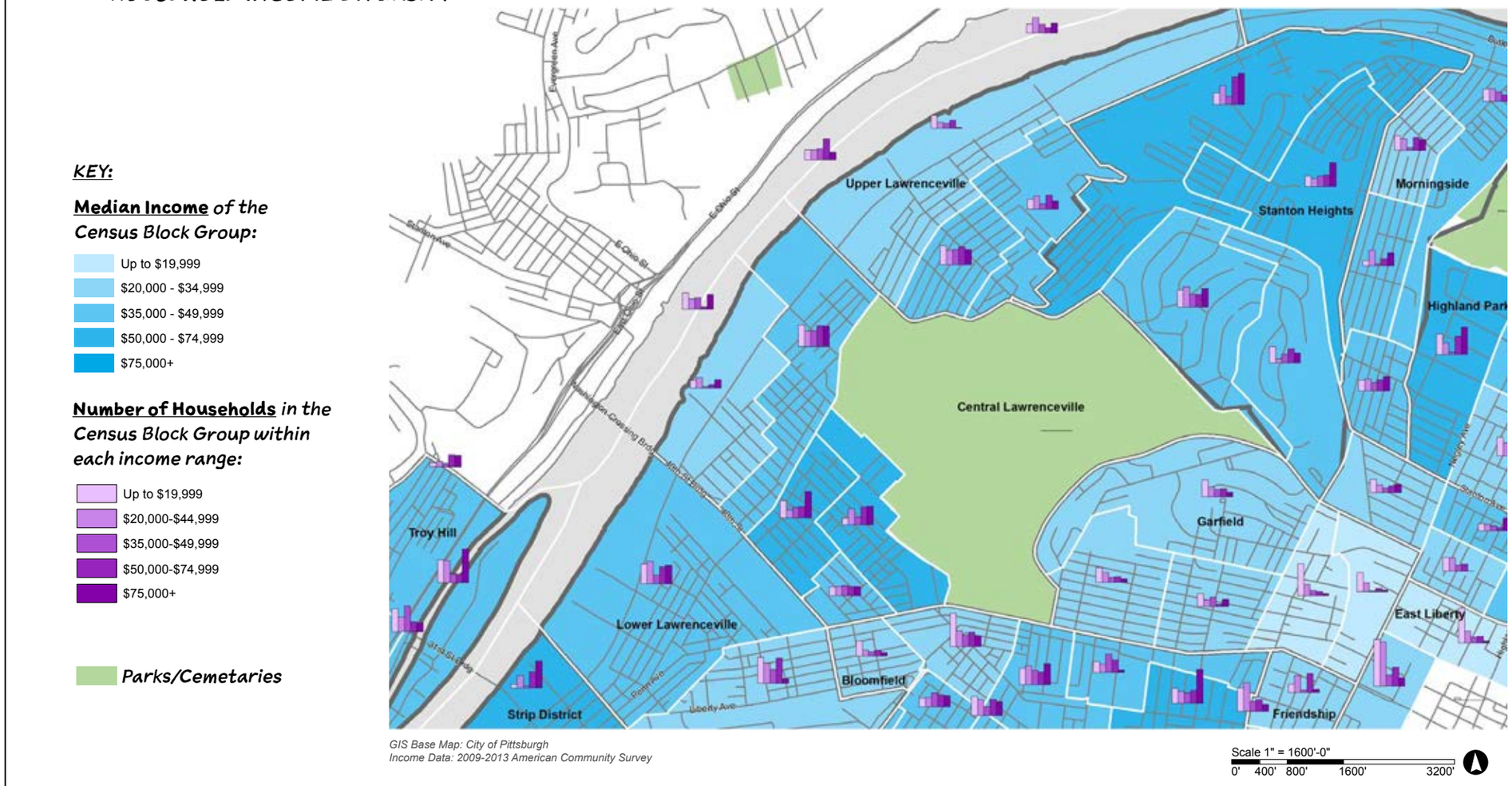
INCOME INDICATORS

HOUSEHOLD INCOME DIVERSITY



Lawrenceville Area Median Income

Upper Lawrenceville, the location of the first phase of CLT homes, has an overall median income between $35,000 – $49,999 for all household sizes combined. The Area Median Income for all household sizes combined is $54,080 for the Pittsburgh metropolitan area.

Making permanently affordable housing

Lawrenceville Corporation began developing the concept of CLT15201 in the summer of 2015, with a vote from the Board of Directors to create the first Community Land Trust in Western Pennsylvania. Throughout the course of 2015 and 2016 the Lawrenceville Corporation developed the CLT model with input from the community and stakeholders. They held numerous workshops and information sessions to explain the concepts to residents and gather feedback through the design process for the initial phase of homes.

GOVERNANCE

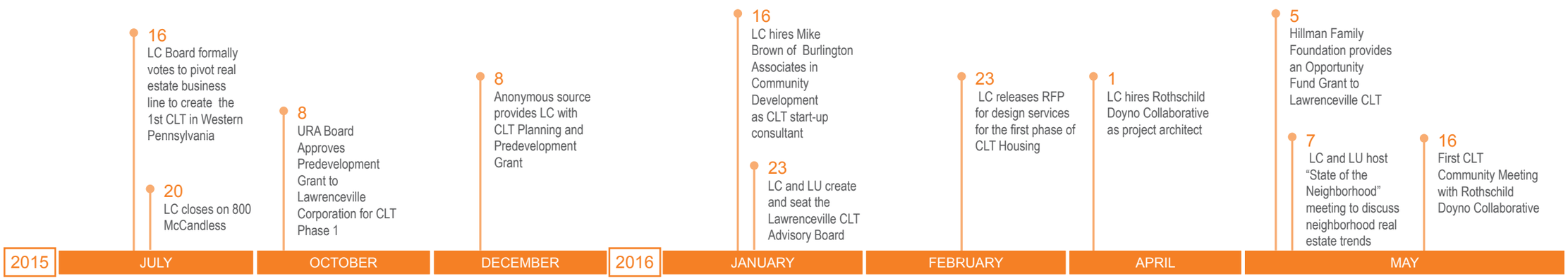
CLT15201 will operate as a program of the Lawrenceville Corporation. A CLT Advisory Board will be formed to handle the general options of the CLT and will be composed of Lawrenceville homeowners, CLT homeowners, and issues experts that bring specific knowledge to guide and inform decision making.

The Lawrenceville Corporation Board of Directors will be responsible for key policy and financial decision making of CLT15201. A position on the Lawrenceville Corporations Board of Directors will be opened for a CLT resident to increase dialog and provide a residents perspective to inform decision making.

RESIDENT SERVICES

CLT15201 seeks to improve the lives of residents not only through home ownership but also through resident services. Initially residents will be connected to services on a case by case basis through partnerships with Lawrenceville United, Neighborworks, and Goodwill Industries.

CLT15201 Timeline



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Lawrenceville

CLT 15201 Community Meeting

Walkthrough of the McCandless Street renovation home

JULY

- 16 — 2nd CLT Community Meeting with Rothschild Doyno Collaborative
- 20 — CLT Informational Meeting with PEP Rally Parents

SEPTEMBER

- 26 – 30 — LC staff attends National CLT Conference hosted by Grounded Solutions Network

OCTOBER

- 11 — 3rd CLT Community Meeting with Rothschild Doyno Collaborative
- 13 — ZBA Hearing for 5229-31 Poe Way and 52230-32 Duncan Street
- 25 — First "CLT 101" Information Session for interested homebuyers
- 27 — ZBA Hearing for 5230 Lotus Way and 5233 Duncan Street
- 29 — Second "CLT 101" Information Session for interested homebuyers

NOVEMBER

- 2 — Lawrenceville CLT is featured in NextCity
- 12 — Third "CLT 101" Information Session for interested homebuyers

DECEMBER

- 1 — Fourth "CLT 101" Information Session for interested homebuyers
- 15 — Prospective homebuyer Intake Forms Due to LC

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CHAPTER III

CLT15201 DEVELOPMENT GUIDELINES

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DESIGN GOALS

CLT Guidelines: leading the way to a healthy and contextual built environment

INTENT OF THE GUIDELINES

The guidelines establish goals for site and home design with the intention of establishing a framework for future CLT homes as they are developed. The guidelines have been informed by the initial phase of CLT homes planned for Upper Lawrenceville.

As each project moves forward and additional homes are developed, each project should demonstrate its response to the site and home design goals while considering the specific context and location.

P4 ALIGNMENT

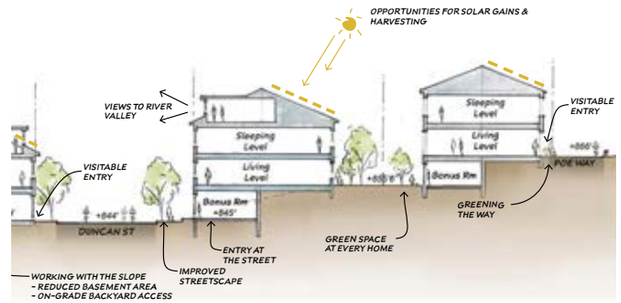
The intent of CLT15201 aligns with the principles of the p4 organizing framework focusing on People, Place, Planet, and Performance. CLT15201 has engaged the community through each step of the development process to create long term affordable housing that reinforces the unique characteristics of the Lawrencville neighborhood.

Both the goals outlined here and the subsequent recommendations have taken into account components of the p4 performance measures. Future CLT development projects should consider documentation of the performance metrics to assess, guide, and inform future development efforts.

GOALS OF THE GUIDELINES

Site design

- Respond and relate to **surrounding context** to seamlessly blend new and old.
- Promote an active, vibrant streetscape that enhances **walkability** and **livability**.
- Incorporate **sustainable** site design.
- Take advantage of the **topography.**



Home design

- **Build and renovate** homes for the next century of living.
- Incorporate **sustainable design principles** to reduce energy use, conserve resources, and consider the life cycle cost of design choices.
- Create a **range of home sizes and types** to suit a range of individuals and families at various stages of life.
- Create homes that **blend seamlessly into the neighborhood fabric** while being of their own time.

 © Rothschild Doyno Collaborative

SITE DESIGN

Promote an active and vibrant streetscape that enhances walkability and livability

Lawrenceville is a vibrant urban neighborhood. In a dense urban setting with many homes in close proximity, it's important to create comfortable outdoor spaces that encourage occupancy and interaction among neighbors. Several tools and design considerations to accomplish this are identified below.

Stoops

Where existing homes are directly adjacent to the street, stairs leading to the front entry often encroach into the public right of way. New homes should understand this context as an opportunity to enhance the design of homes with additional gathering space within the right of way.

The design configuration of new stairs should factor in the ability to create a planting zone adjacent to the street, the ability for the homeowner to sit on the steps or on a chair at the top landing of the stoop, and the opportunities to personalize the entrance.

Porches

Where porches form the context of the street, new and renovated porches should match the scale and depth of existing porches. Consider the degree of transparency/ opening of the railing to provide privacy while still creating a street connection.

Interior and Exterior Connections

Active spaces within the home should overlook the street to enhance visibility and connection between the home and the public realm. When homes are located directly adjacent to the sidewalk, the ground floor should be situated a few feet above the street level to increase the comfort level of the interior spaces. Where the ground floor of homes are level with the sidewalk to provide an accessible entry, a planting buffer between the sidewalk and the home should be considered.

Streetscape

As homes are developed, streetscape improvements should be considered. Small planting areas at the front of the homes address stormwater runoff and provide an opportunity to personalize the character of the home. When considering street trees along the sidewalk, consult the Forestry Division or local shade tree commission to determine potential utility conflicts.

Walkability and Transit

Future CLT Homes should be located in proximity to public transit to promote alternative transportation opportunities. Enclosed bike storage should be accommodated within the home.

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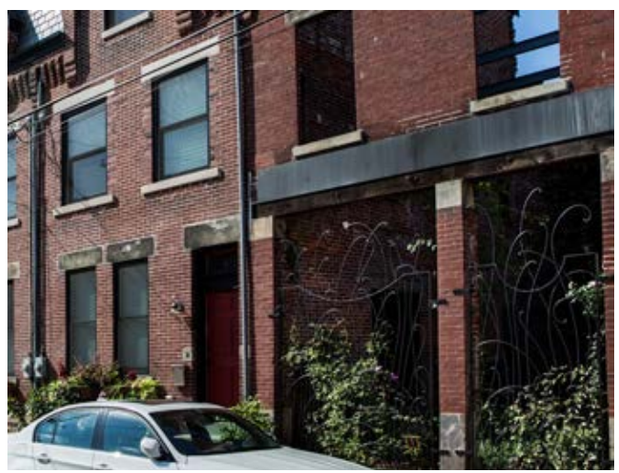
Stoops provide opportunities planting along the sidewalk

Porches create connections to the sidewalk and street



© Matt Dayak

Decorative ironwork and planting enhance exterior connections

Respond and relate to the surrounding context to seamlessly blend new and old

The City of Pittsburgh zoning ordinance outlines a series of development standards for new homes within high density residential zoning districts. Often these standards do not match the existing built environment of the historic neighborhood context.

New siting of new homes should address the specific context of their immediate surroundings. This can be accomplished in the following manner:

Contextual Setbacks

When siting a home on a lot, consider using contextual setbacks to align the structure with nearby homes. Consider providing a zero lot line on one side of the building while providing access to the side and rear of the home with a contextual setback on the opposite side.

Parking

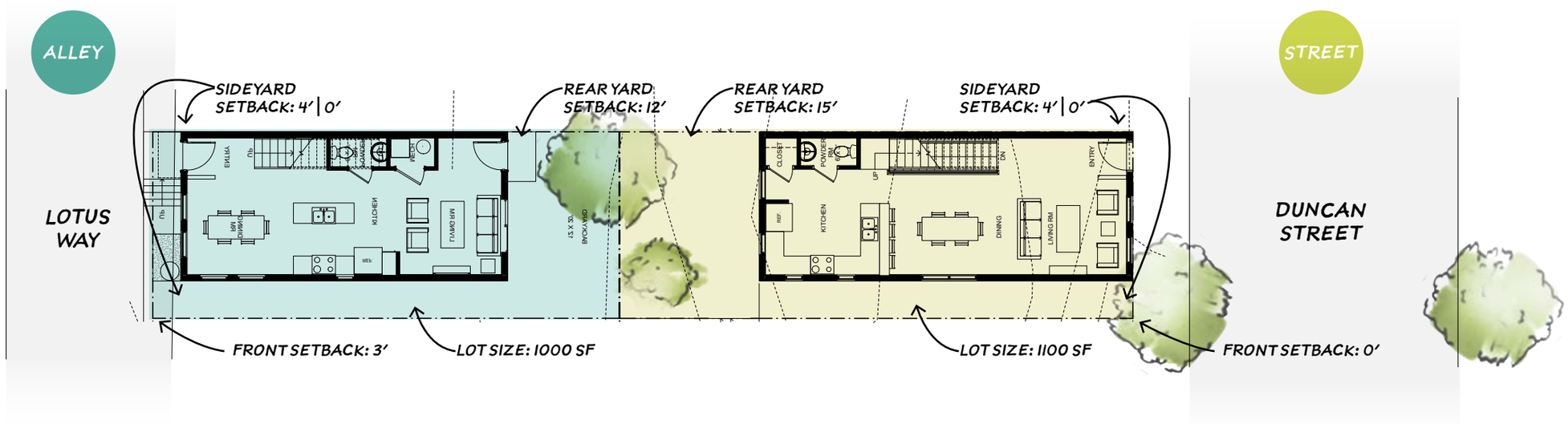
Consider the need for off-street parking given the availability of public transit and pursue a parking variance as appropriate. Where off-street parking is provided it should be located in the rear of the property accessed from the alley. New homes should avoid ground level curb cuts and parking with garage doors facing primary streets.

Site Specific Design

Home types should be selected based on their compatibility with the site context and modified as necessary to best relate to the surroundings. As the CLT expands and new prototypes are developed the range of choices will increase.

Street Context and Alley Context

Subdivide lots where feasible to create a presence on both the street side and alley side of a lot. Lawrenceville alley homes offer an unique opportunity for providing shared amenities as identified in the Upper Lawrenceville Community Plan.



Example of splitting a single lot into two lots: one lot for the alley home and the other lot for the street home.

SITE DESIGN

Incorporate Sustainable Site Design

Water

Upper Lawrenceville is part of a historic “run” to the river along McCandless Avenue. As identified in the Upper Lawrenceville Community Plan, the community has made stormwater management improvements along this corridor a priority. For new homes along the cross streets to McCandless, the goal is to reduce the amount of surface storm water before it reaches the intersection or catch basins along the way.

Individual lots should consider harvesting stormwater from roofs with rain barrels connected to downspouts. The collected water can be used to irrigate on-site landscaping or adjacent tree plantings within the right-of-way. Additionally, to reduce the amount of impervious surface, each site should consider the incorporation of planting areas along the street to collect surface stormwater and permeable pavement for on lot sidewalks and patios.

New homes along the hillside, such as those in the initial phase, should incorporate strategies to mitigate stormwater runoff to adjacent downhill lots and provide subsurface drainage measures to prevent moisture related issues on the downhill homes.

Health

New homes should be constructed with below grade passive radon mitigation systems to prevent any infiltration or air quality issues within homes.

Resources should be available to promote gardening and composting. Outdoor storage should be provided to store necessary tools and equipment.

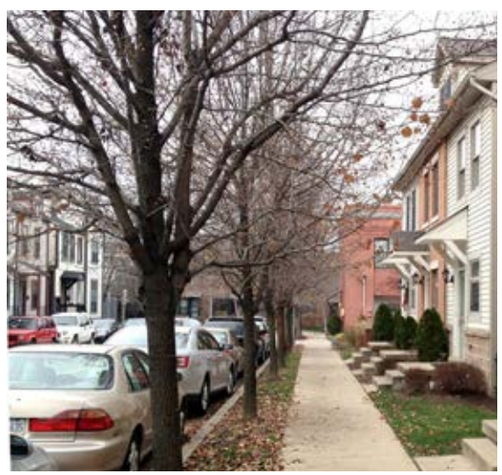
Connectivity

Enclosed storage should be provided for bikes to promote the use of alternative transportation and encourage an active lifestyle.

District Systems

As the number of CLT homes increases, opportunities for district based solutions should be considered for stormwater management.

Downspouts connected to rain barrels can be used for on site irrigation



Planting areas adjacent to sidewalks

Center for Neighborhood Technology

Permeable patio paving

01-04-17 © Rothschild Doyno Collaborative

Take advantage of the topography

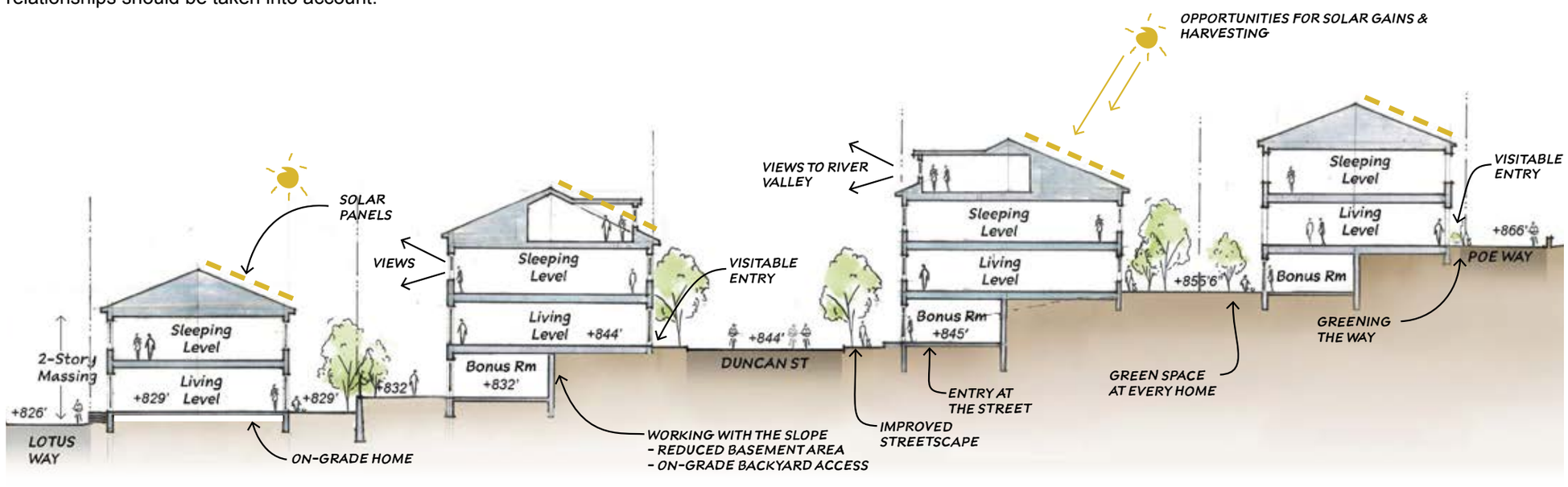
The Lawrenceville community includes both hillside and a riverfront “flats” areas. As CLT homes are established each site should take advantage of the unique opportunities of either a sloped or flat site.

In Upper Lawrenceville the lots slope approximately 20’-0” in elevation from the high side of a street or alley to the low side. The initial phase of home design was strongly influenced by the hillside location and the relationships between the home, the street, and the yard. As future home designs are established these relationships should be taken into account.

Homes on the high side of the street or alley have the opportunity to create a bonus space at the street or alley level that’s open to the second floor in order to preserve connectivity to the street while creating a yard space off one of the primary living levels. Homes on the low side of the street/alley have a bonus space at the lowest level, below the street, that opens out to the back yard.

Site walls or grading establish yard spaces on different levels to increase the privacy from one yard to the adjacent home and offer the optimum connection from the house to the yard.

Homes on the low side of the street should be visitable on the first floor, either from the front, side, or rear entrance that slopes from the street to the home.



Section diagram illustrating the topography of Upper Lawrenceville Phase 1 homes. Working with the existing slope provides opportunities for capturing views and additional exterior and interior space.

HOME DESIGN

New home construction for the next century of living

EXTERIOR: THE BUILDING ENVELOPE

New home construction should meet or exceed high performance standards that will become code minimums in the near future. As such, the model criteria is to be compliant with the latest available International Building Code (IBC) and International Energy Conservation Code (IECC). Long lasting construction methods and promotion of energy conservation metrics will extend the value of the homes into the future.

Air Tight Construction

Reduce air leakage at the homes exterior by including a continuous weather barrier membrane and sealing all framing gaps and through-wall penetrations for venting and utilities.

Windows

Install new high performance, Energy Star windows and provide flashing and sealant around door and window openings to improve the air tight construction. Locate window openings to optimize solar heat gains and shading conditions as well as promote substantial daylighting in each occupiable area.

Insulation Values

The target for insulation values is to meet the most recent available energy code requirements—currently the 2015 IRC energy conservation code—as a baseline minimum. As the program moves into the future, the performance should advance with the latest codes available.

The Phase 1 new homes will incorporate high performance wall cavity insulation and 1” of continuous exterior insulation and new air/moisture barrier around the perimeter of the home. The roof will be a combination of blown-in attic insulation and insulation above the roof decking to accomplish the recommended code R-values.

Siding / Veneer Cladding

Exterior cladding will be selected from a range of options promoting long lasting, durable, and low maintenance solutions.

Roofing

New roofing materials should be of long lasting materials to extend the value of the home long into the future. “White roofing” strategies to reduce heat gains and urban heat island effect should be integrated for flat roofing scenarios.

Foundation Walls

Foundation walls should be insulated to comply with the code standards referenced above. Waterproofing should be included with perimeter drainage where occupiable spaces are below grade.

On Grade Conditions

Conditioned basement spaces should have a floor slab and continuous vapor barrier below the floor slab. All penetrations through the vapor barrier should be sealed and taped. Insulation should comply with the referenced code standards above.

Demising Walls

If a new home has a shared wall to an adjacent existing home, and the existing wall does not meet current code requirements for fire ratings and insulation values, the new construction should provide the current code requirements for fire separations and construction methods relating to piping and ductwork in the walls and insulating values.

01-04-17 © Rothschild Doyno Collaborative

INTERIOR: BUILDING SYSTEMS

New homes are to meet or exceed latest available ICC energy performance code standards. Integrating sustainable design strategies creates healthy living environments that are sustainable into the future while also extending the value of the homes into the future.

Lighting / Daylighting

New homes should incorporate strategies for optimized daylighting and energy efficient electrical lighting. Window locations should promote natural light to each occupiable space. Lighting should be LED fixtures whenever possible to promote energy conservation. Exterior lighting should be minimized to provide lighting at the entry areas for safe entry and egress and provide a sense of active occupancy on the street at night.

Mechanical Systems

The goal of the mechanical system design and selection is to promote energy conservation, indoor air quality, and occupant comfort. With each home, design services should be included for an engineer to evaluate and present system options and ultimately provide a system design and equipment schedule. Additionally, programmable thermostats are to be included.

Electrical Systems

New electrical systems should be installed throughout. If any existing electrical utilities or wiring is to be maintained, a certified electrical inspector should assess the conditions and provide a written report of the findings.

Plumbing Systems

New homes will have new water utility connections and distribution. New sewer connections will include two lines: one for sewer and one for stormwater extending to the property line. Lines will “Y” together to connect into the existing sewer until new separate utilities are provided at the street. Each home will include site strategies to reduce stormwater runoff and rainwater harvesting.

Plumbing Fixtures & Appliances

Each home will include low flow WaterSense fixtures for toilets, faucets, and showers. Installed appliances will be Energy Star Certified.

Indoor Air Quality

New home design should promote indoor air quality standards. Material selections should include Low and Zero VOC products for all interior finishes including flooring, adhesives and sealants, paints, cabinetry, and other finish materials. Air filtration standards should be at a minimum MERV___. CO2 and carbon monoxide monitors are to be included. All combustion equipment should be ventilated to the exterior including gas cooktop ranges.

Fresh air makeup ventilation should be included with an energy recovery ventilator. Operable windows are required and should be located to promote enhanced ventilation. New homes should be constructed with below grade passive radon mitigation systems to prevent any infiltration or air quality issues within homes.

Sustainable Materials

In addition to Low and Zero VOC materials, locally sourced, manufactured, and purchased products should be promoted. Locally crafted products also should be considered for inclusion to promote the sustainability of local businesses.

Fire Protection System

Currently, as of 2015, sprinkler systems are not required for single family free standing homes or duplex homes. This requirement and other life safety requirements should be confirmed with each new home renovation as the current standards may change.

Renewable Energy Sourcing

Renewable energy source strategies are encouraged to improve energy conservation and reduce grid dependency. These strategies assist in moving toward a “net-zero” solution acknowledging the Architecture 2030 challenge target of new construction being at net-zero by 2030. Electrical service connections will be anticipated in all homes for inclusion of solar PV systems at day one or for future home owner hook up. Geothermal and other strategies will be considered as appropriate for each home site and if energy modeling demonstrates an improved performance strategy that exceeds other engineering solutions.

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HOME DESIGN

Renovate homes for the next century of living

EXTERIOR: THE BUILDING ENVELOPE

Home renovations should be designed to bring the construction up to or exceed high performance standards that will become code minimums in the near future. As such, the model criteria is to be compliant with the latest available International Building Code (IBC) and International Energy Conservation Code (IECC). Long lasting construction methods and promotion of energy conservation metrics will extend the value of the homes into the future.

Air Tight Construction

Reduce air leakage at the homes exterior by including a continuous weather barrier membrane and sealing all framing gaps and through wall penetrations for venting and utilities.

Windows

Replace existing windows with new high performance Energy Star windows and provide flashing and sealant around door and window openings to improve the air tight construction.

Insulation Values

It is common in Lawrenceville to find existing load bearing framing walls that are only 2x4 construction. Current energy code requirements will require increasing the framing cavity and/or including exterior insulation outside of the framing wall. The target for insulation values is to meet or exceed the latest available IRC energy conservation code, which is currently the 2015 Edition. As the program moves into the future, the performance would advance with the model codes in effect.

The Phase 1 renovation home will incorporate cellulose blown in framing cavity insulation and 1” of exterior insulation with a new air/moisture barrier continuous around the perimeter of the home. The roof will be a combination of blown in attic insulation and insulation above the roof decking to accomplish the recommended code R-values with the existing roof framing conditions.

Siding / Veneer Cladding

In most cases, the renovation homes have multiple layers of exterior siding added over the years. The renovation program will evaluate the existing conditions for insulation values, air and moisture transfer, and condition of the materials to determine the extent of removal. In many cases, the exterior materials will be removed down to the original layer of siding. This layer will remain as an integral part of the framing conditions unless recommended by a structural engineer to be removed.

A new layer of sheating and air/moisture barrier will be added with additional insulation as needed to accomplish the energy conservation targets. New siding will be selected from a range of options promoting long lasting, durable, and low maintenance solutions. A brick home has not been included in the Phase 1 renovations. An additional strategy will need to be developed where structural brick exterior walls exist.

Roofing

The existing roofing materials should be evaluated for extent of an expected life cycle and water infiltration as well as an integrated solution to the insulation strategy. New roofing materials should be of long lasting materials to extend the value of the home long into the future.

Foundation Walls

Existing foundations should be evaluated for structural integrity and moisture migration. Both aspects should be addressed as a priority. Each home will be individually evaluated to understand appropriate performance solutions for insulating and conditioning the existing foundations. Most existing foundations are stone foundations that allow moisture migration to move freely to both sides of the walls. Excavating on the exterior of old foundation walls should be evaluated with a structural engineer before proceeding.

On Grade Conditions

Conditioned basement spaces should have a floor slab and continuous vapor barrier below the floor slab. Perimeter drainage should be added if water infiltration exists beyond infiltration that can be addressed with proper roof water collection and grading sloping away from the foundations.

Existing Chimneys

Open chimneys should be blocked off to eliminate the loss of heating. If the chimney is a shared chimney with an existing house, the flue should be insulated and capped off at the roof. A free standing home could have the chimney taken down to below the new roofing.

Demising Walls:

Often the shared wall to an adjacent home does not meet current code requirements for fire ratings and insulation values. The existing conditions should be brought up to the current code requirements for fire separations and construction methods relating to piping and duct work in the walls and insulating values.

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BUILDING SYSTEMS INTERIOR

Home renovations are to meet or exceed latest available ICC energy performance code standards. Integrating sustainable design strategies creates healthy living environments that are sustainable into the future while also extending the value of the homes into the future.

Lighting / Daylighting

Renovation homes should incorporate strategies for improved daylighting and energy efficient electrical lighting. Window locations should promote natural light to each occupiable space. Lighting should be LED fixtures whenever possible to promote energy conservation. Exterior lighting should be minimized to provide lighting at the entry areas for safe entry and egress and provide a sense of active occupancy on the street at night.

Mechanical Systems

The goal of the mechanical system design and selection is to promote energy conservation, improve indoor air quality, and improve occupant comfort. With each home, design services should be included for an engineer to evaluate and present system options and ultimately provide a system design and equipment schedule. Additionally, programmable thermostats are to be included.

Electrical Systems

New electrical systems should be installed throughout. If any existing electrical utilities or wiring is to be maintained a certified electrical inspector should assess the conditions and provide a written report of the findings.

Plumbing Systems

Existing homes typically will have new water utility connections and distribution. If existing utility water taps are used the water quality should be tested. New sewer connections will include two lines, one for sewer and one for stormwater extending to the property line. Lines will “Y” together to connect into the existing sewer until new separate utilities are provided at the street. Each home will include site strategies to reduce stormwater runoff and rainwater harvesting.

Plumbing Fixtures & Appliances

Each home will include low flow WaterSense fixtures for toilets, faucets, and showers. Installed appliances will be Energy Star Certified.

Indoor Air Quality

Renovations should promote improved indoor air quality standards. Material selections should include Low and Zero VOC products for all interior finishes including flooring, adhesives and sealants, paints, cabinetry, and other finish materials. Air filtration standards should be at a minimum MERV___. CO2 and carbon monoxide monitors are to be included. All combustion equipment should be ventilated to the exterior including gas cooktop ranges.

Fresh air makeup ventilation should be included with an energy recovery ventilator. Operable windows are required and should be located to promote enhanced ventilation.

Sustainable Materials

In addition to Low and Zero VOC materials, Locally sourced, manufactured, and purchased products should be promoted. Locally crafted products should also be considered for inclusion to promote the sustainability of local businesses.

Fire Protection System

Many existing homes do not meet current life safety regulations. Demising walls and exterior walls should meet applicable code requirements. This will often result in improved separations between homes. Currently, as of 2015, sprinkler systems are not required for single family free standing homes or duplex homes. This requirement and other life safety requirements should be confirmed with each new home renovation as the current standards may change.

Safe Homes

Existing homes should be evaluated for lead, asbestos, and other toxic materials that could be present. Material testing should be completed before the demolition phase. Proper abatement and/or treatment of known conditions must be addressed.

Renewable Energy Sourcing

Renewable energy source strategies are encouraged to improve energy conservation and reduce grid dependency. These strategies assist in moving toward a “net-zero” solution acknowledging the Architecture 2030 challenge target of new construction being at net-zero by 2030. Electrical service connections will be anticipated in all homes for inclusion of solar PV systems at day one or for future home owner hook up. Geothermal and other strategies will be considered as appropriate for each home site and if energy modeling demonstrates an improved performance strategy that exceeds other engineering solutions.

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HOME DESIGN

Incorporate Sustainable Design Principles

CLT homes should include a range of homes including renovations that bring new life to the historic structures of the neighborhood. Over the years many homes in the neighborhood have been remodeled in a manner that changes the character of the original design intent. CLT homes should be renovated to restore the original character of the home while updating materials and performance to reflect modern standards.

While the level of renovation may vary based on the condition of the home, the recommendations are based on a substantial building renovation and systems replacement.

New homes will incorporate sustainable design principles and practices. We've identified economic, social, and physical sustainability considerations.

Economic

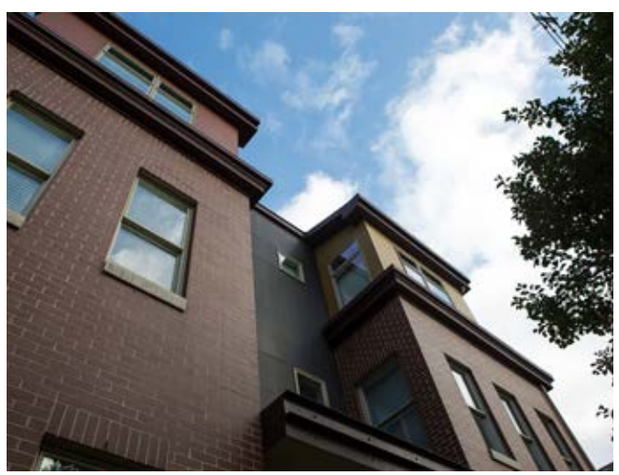
Economically, the design should consider both first cost and maintenance cost of choices and how this will impact the ongoing cost for low income owners.

Social

Socially, the CLT will provide a support structure for new homeowners that will provide resources on financial management and connection to other social service providers.

Physically

Physically, homes will incorporate high performing systems, a tight building envelope, and long lasting durable materials. Additional guidelines and strategies for the physical development are identified on the following pages.



© Matt Dayak

Butler Street townhomes in Lower Lawrenceville

© Jeff Zoet

EcoCraft Home

Renovated attached home in Central Lawrenceville

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SUSTAINABILITY METRICS

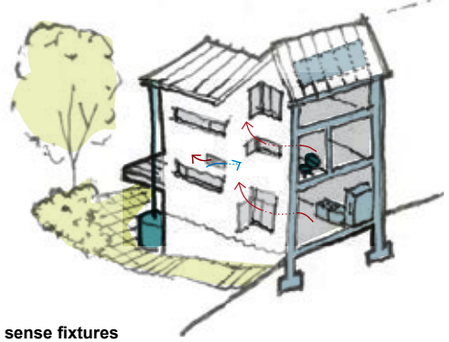
INGRAINED SUSTAINABLE DESIGN PRINCIPLES IDENTIFIABLE IN THE ARCHITECTURAL CHARACTER

BUILDING A SUSTAINABLE COMMUNITY

- CLT creates affordable home ownership options
- Educational programs focused on sustainability for residents
- Area dedicated for recycling bins
- Tenant survey feedback program
- Published home owner guidelines for sustainable home improvements and maintenance
- Bike storage/access

INDOOR ENVIRONMENT

- Low VOC paints
- Ventilation
- Air quality
  - a. air filtration
- Thermal comfort
- Reduced air leakage
- Improved acoustics
- CO2 and carbon monoxide monitors
- Operable windows located for natural ventilation



ENERGY EFFICIENT HOMES

- Small house=Small mech. system
- On-site photovoltaic system
- Energy Star compliant high-performance windows
- Energy Star appliances
- Daylighting design
- Solar shading
- LED light bulbs
- Programmable thermostats
- Building envelope
  - a. Increased r-value
  - b. Air tight construction
- Energy recovery ventilators

SUSTAINABLE SITES

- Shade canopy
  - a. street trees
- Stormwater management
- Urban heat Island
- White roof on low sloping roofs
- Rain gardens (small)
  - a.collection of roof water into planters
- Permeable pavement and swales (where site permits)
- Environmental impact
  - a. Reduced construction noise, dust, and pollution from off-site factory construction

WATER

- Low flow water sense fixtures
  - a. shower heads
  - b.toilets
  - c. faucets
- Landscaping not requiring irrigation
- Rain barrels for watering plants

MATERIALS

- Durable
- Long lasting
- Low maintenance
- Age gracefully
- Locally manufactured materials
- Natural renewable materials

CODE COMPLIANCE (2009 IRC + ENERGY CODE) → **ENERGY STAR V3 HOMES** → **LEED FOR HOMES** → **PASSIVE HOUSE**

Sketchbook page showing a range of different sustainabiity metrics and rating systems that may be considered for CLT homes.

HOME DESIGN

Create a range of home sizes and types to a diversity of buyers at various stages of life

The initial phase of homes established four new housing types. The types were based on whether the homes faced a street or an alley and whether they were on the high side (uphill) of the street or the low side (downhill) side of the street.

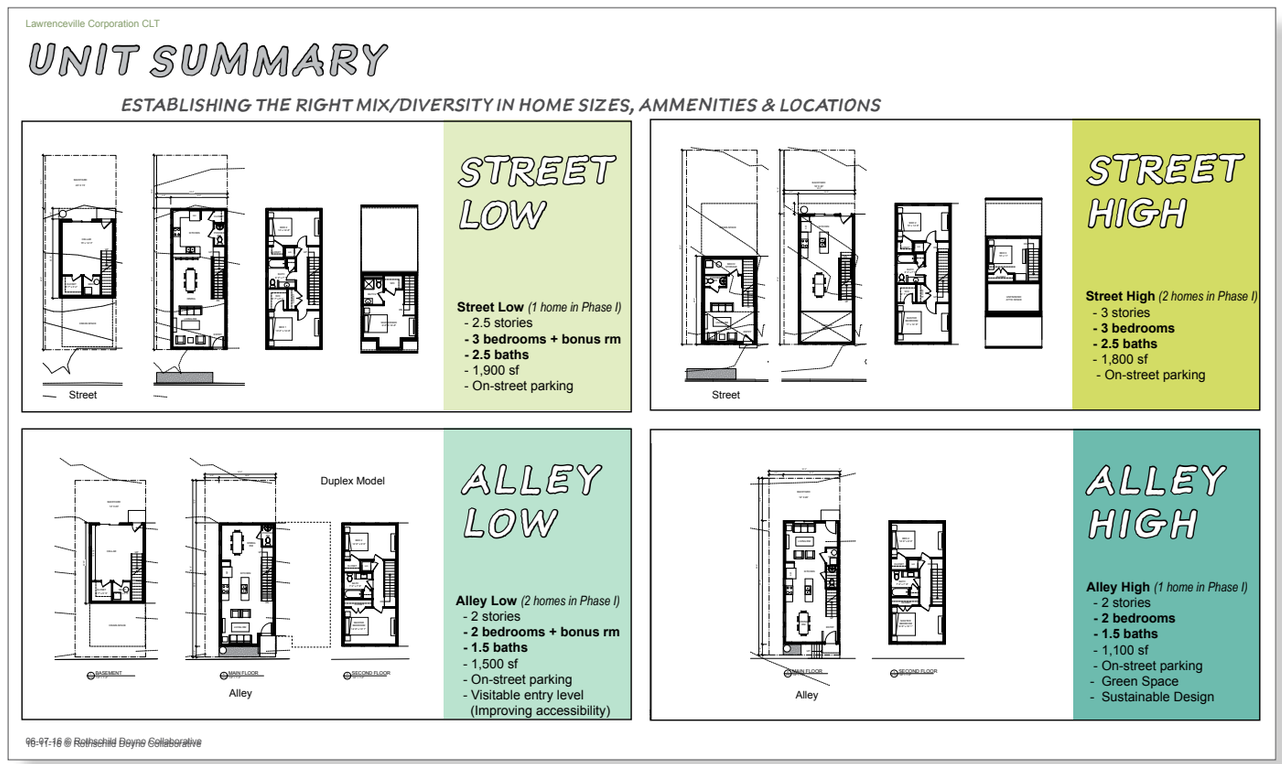
The homes range in size from 1,100 square feet to 1,900 square feet, each with different amenities and configurations to appeal to a broad spectrum of prospective buyers.

The smaller alley homes are two stories with two bedrooms and one and a half bathrooms. The alley home on the low side of the street includes a lower level bonus room that could appeal to a family as a play room or act as a third bedroom for intergenerational families.

The larger street facing homes are three stories with three bedrooms and two and a half baths. Each of these homes has a bonus space, one facing the street and the other facing the yard, which could appeal to larger families.

The first CLT renovation is a two story, plus basement, two bedroom home with one and a half baths. This home has a larger yard.

As the number of CLT homes grows and new homes are designed, they should consider the breadth of the market and the needs of the households in the targeted income range.



Sketchbook page illustrating the different housing types provided in the initial CLT homes offering.

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Create homes that blend seamlessly into the neighborhood fabric while being of their time

Diverse communities with a blend of affordable and market rate homes side by side are most successful when it is impossible to distinguish or identify affordable homes from market rate homes. This blending removes the stigma associated with affordable housing and creates a community designed for all.

The CLT homes will blend into the neighborhood by respecting the historic architectural patterns while creating homes that take advantage of current technology and building techniques. Each home should be selected or designed based on the context of its location and the character of the surrounding homes.

Key design characteristics are identified below.

Scale and Massing

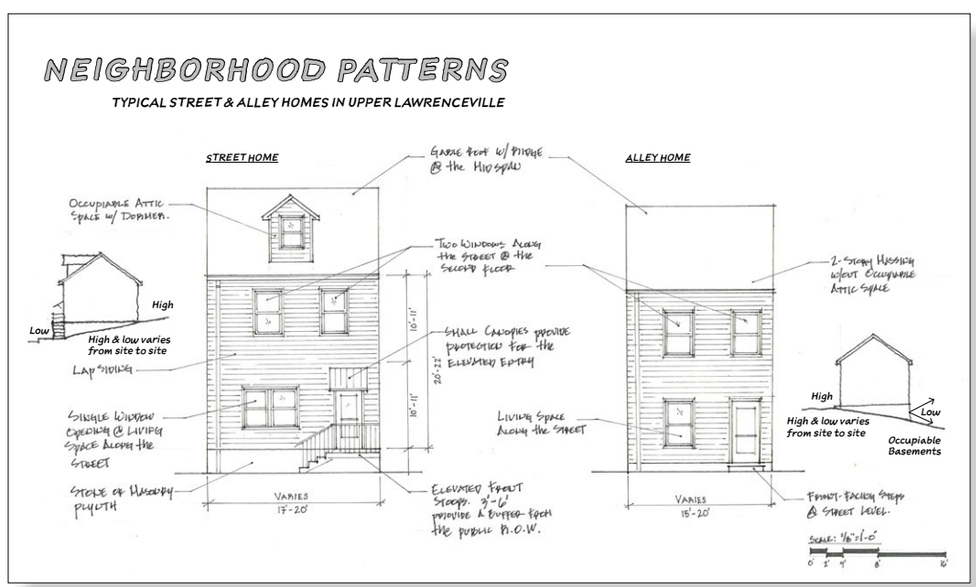
Align with the scale of the surrounding homes by relating to the number of stories and floor to floor heights. Relate to the massing of existing homes by using familiar roof forms, pitches, and eave lines. Restore the large window and door openings characteristic of older homes in the neighborhood.

Exterior Materials and Detailing

Create homes that fit in with surrounding houses and blend into the neighborhood fabric while being of their own time. Exterior materials should be a high quality, durable, and long lasting. New homes should not mimic the historic detail of existing homes, but detailing should meet or exceed the level of craft or care of existing detailing while reflecting current standards and practices.

Renovation

As future CLT homes are established through the renovation of existing homes, this will further reinforce existing neighborhood patterns.



Typical Upper Lawrenceville neighborhood patterns found in street and alley homes

Designing new and renovated homes that relate to existing neighborhood fabric

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CHAPTER IV

PHASE 1 HOME DESIGN

PHASE I HOMES

Home Types for Phase 1

The first phase of homes are located between Poe Way and Lotus Way near McCandless Street. Lots between Lotus Way and Duncan Street and Duncan Street and Poe Way will be sub-divided, creating six lots from three existing parcels. The size of the newly created lots are consistent with the historic neighborhood patterns of street-facing homes and alley-facing homes.

The homes will include six newly constructed units and one extensive renovation of an existing structure. A variety of unit sizes and types will create a range of available homes for new buyers.

A 5230 Lotus Way
2,100 SF Lot

B 800 McCandless Ave.
1,450 SF Lot

C 5231 Duncan Street
2,100 SF Lot

D 5229 Poe Way
2,100 SF Lot

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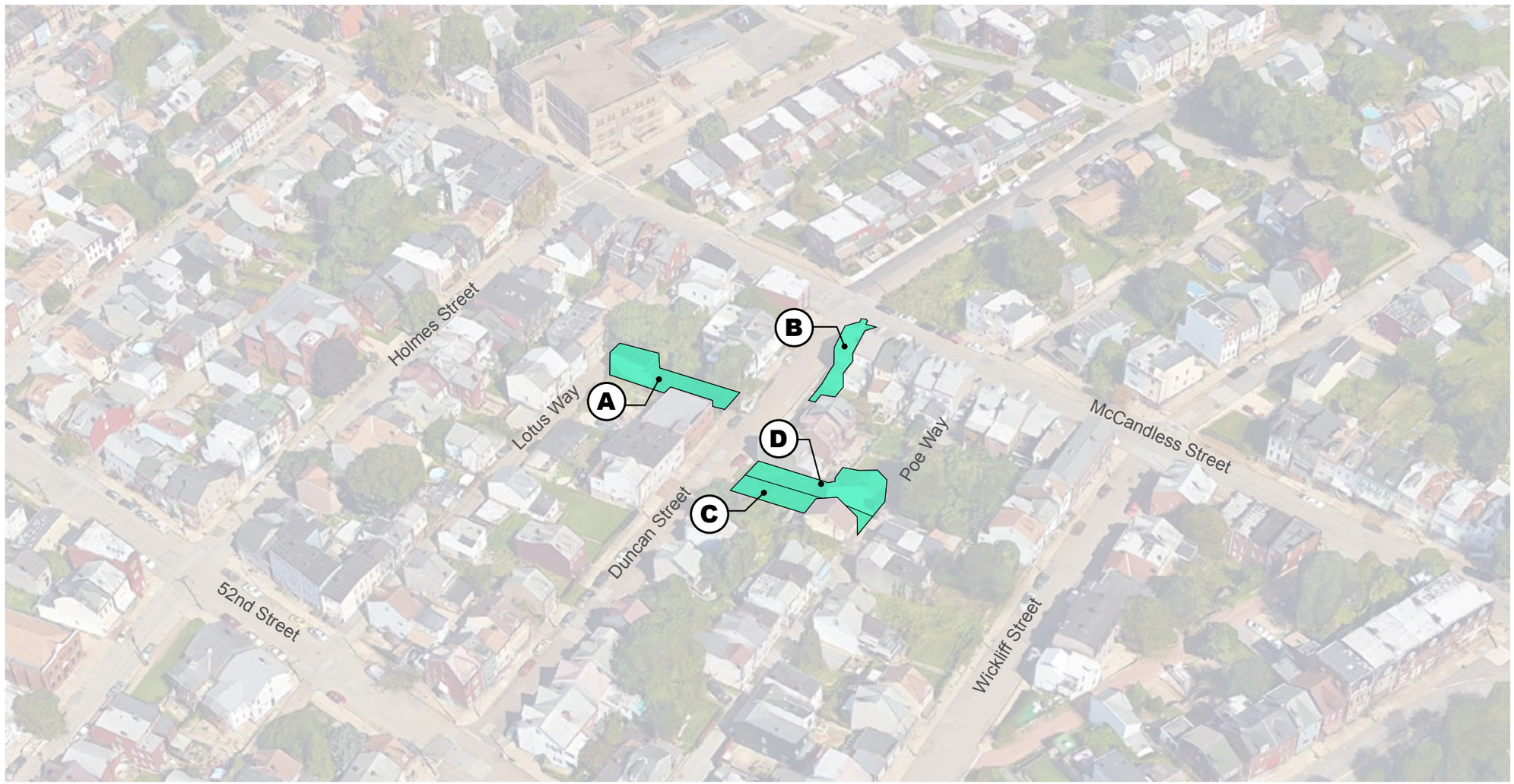
Phase 1 Locations: Seven new homes in four sites



Map of Upper Lawrenceville showing the four locations for the phase 1 projects.

HOMES TYPES

Home Types for Phase 1

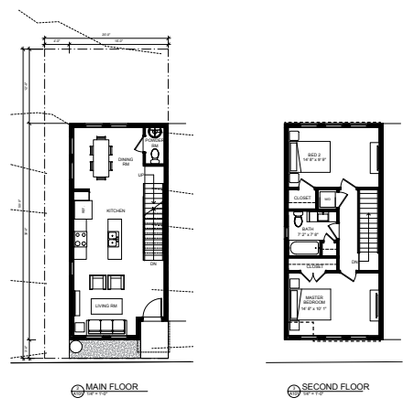
Homes range in size from 1,100 SF to 1,900 SF to appeal to a wide range of residents and families. Building along the hillside in Upper Lawrenceville offers opportunities to increase the unique aspects of the homes by providing bonus spaces for larger or multigenerational families based on where the homes sit relative to the grade. New homes contain either 2 or 3 bedrooms with a powder room on the ground floor and the primary bath and laundry on the second floor.

New homes are designed to be prefabricated off-site as modular units. This approach minimizes the disturbance to surrounding neighbors during construction. Fabricating the homes in a controlled environment can result in a tighter building envelope and construction efficiencies to help keep costs down.

New homes can be developed as single family detached homes, duplexes, or rowhouses. As the CLT continues into future phases, new home prototypes may be established to respond to the needs of new owners and unique site locations.

STREET FLAT

Street Flat
- 2.5 stories
- **3 bedrooms**
- **2.5 baths**
- 1,600 sf
- On-street parking



ALLEY FLAT

Alley Flat
- 2 stories
- **2 bedrooms**
- **1.5 baths**
- 1,100 sf
- On-street parking

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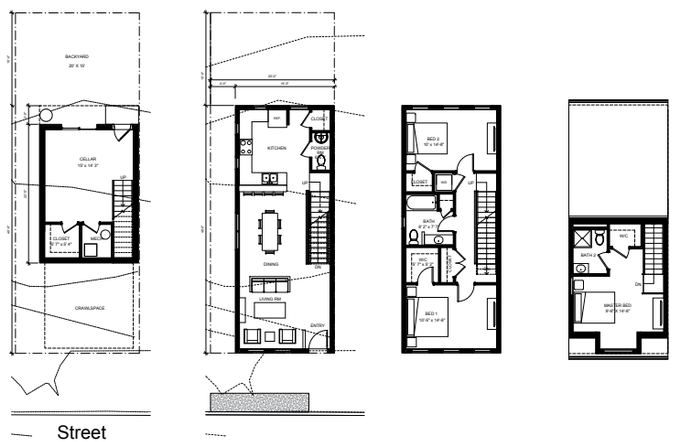
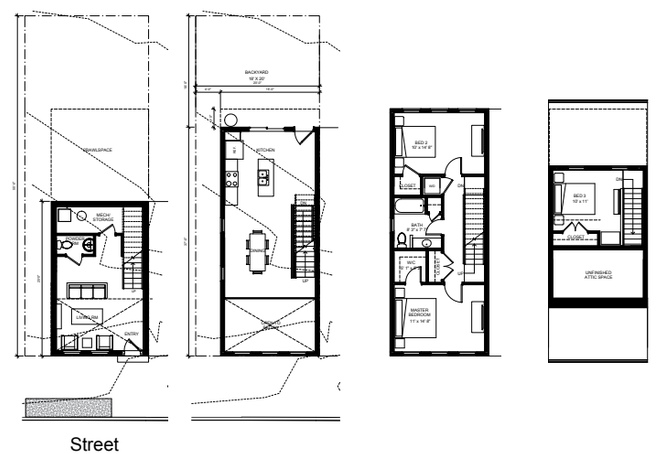


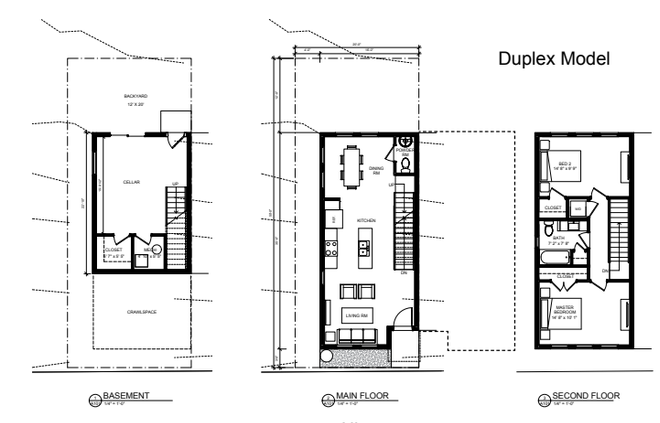
STREET LOW

Street Low *(1 home in Phase I)*
- 2.5 stories
- **3 bedrooms + bonus rm**
- **2.5 baths**
- 1,900 sf
- On-street parking



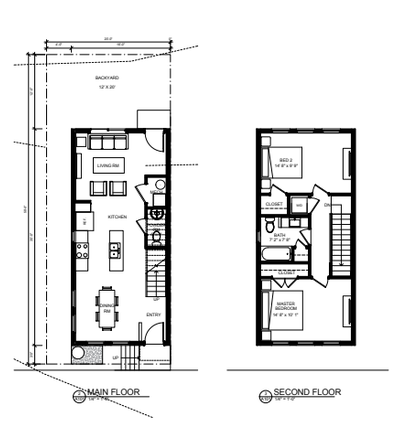
STREET HIGH

Street High *(2 homes in Phase I)*
- 3 stories
- **3 bedrooms**
- **2.5 baths**
- 1,800 sf
- On-street parking



ALLEY LOW

Alley Low *(2 homes in Phase I)*
- 2 stories
- **2 bedrooms + bonus rm**
- **1.5 baths**
- 1,500 sf
- On-street parking
- Visitable entry level (Improving accessibility)



ALLEY HIGH

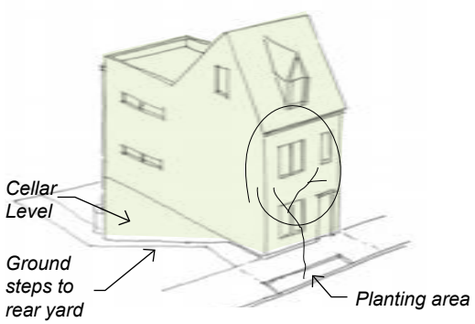
Alley High *(1 home in Phase I)*
- 2 stories
- **2 bedrooms**
- **1.5 baths**
- 1,100 sf
- On-street parking
- Green Space
- Sustainable Design

STREET LOW

Floor plan Layout of the Street Low Home

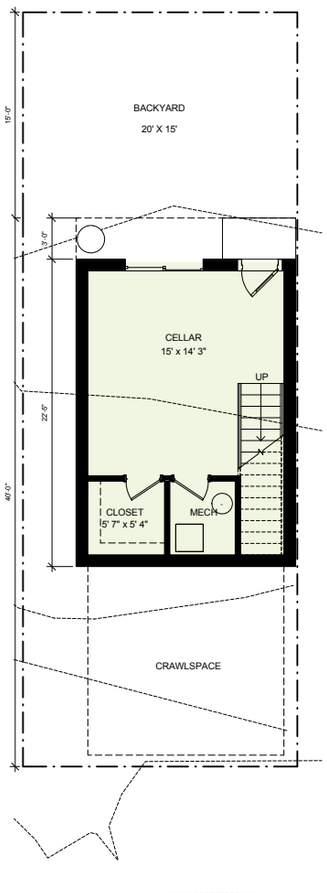
DESCRIPTION

- **2.5 stories**
- **3 Bedrooms + Bonus room**
- **2.5 Bathrooms**
- **1,940 gsf**
- **On-street parking**

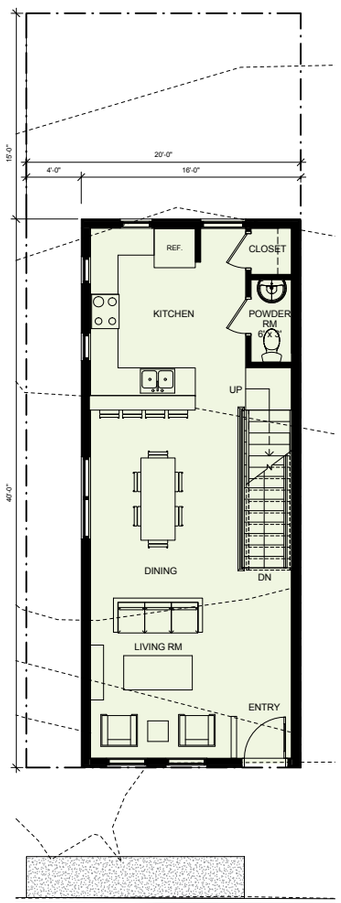


16’ x 40’ Street Home Prototype

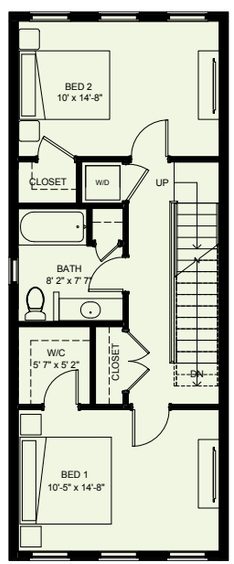
Location Plan



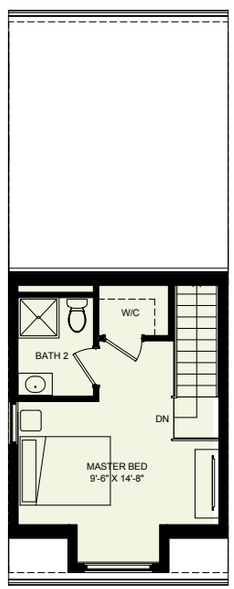
Basement



Main Floor



Second Floor



Mezzanine

Street Low Floor Plan

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Conceptual Image of a Street Low Home

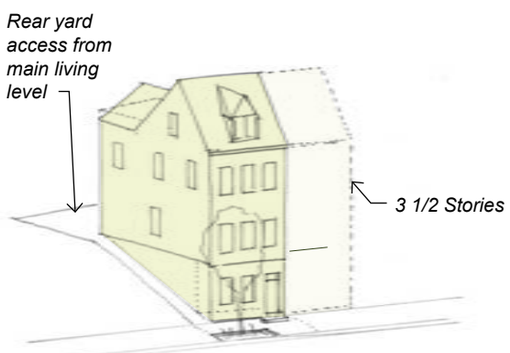
Rendering image of a typical street low home.

STREET HIGH

Floor plan Layout of the Street High Home

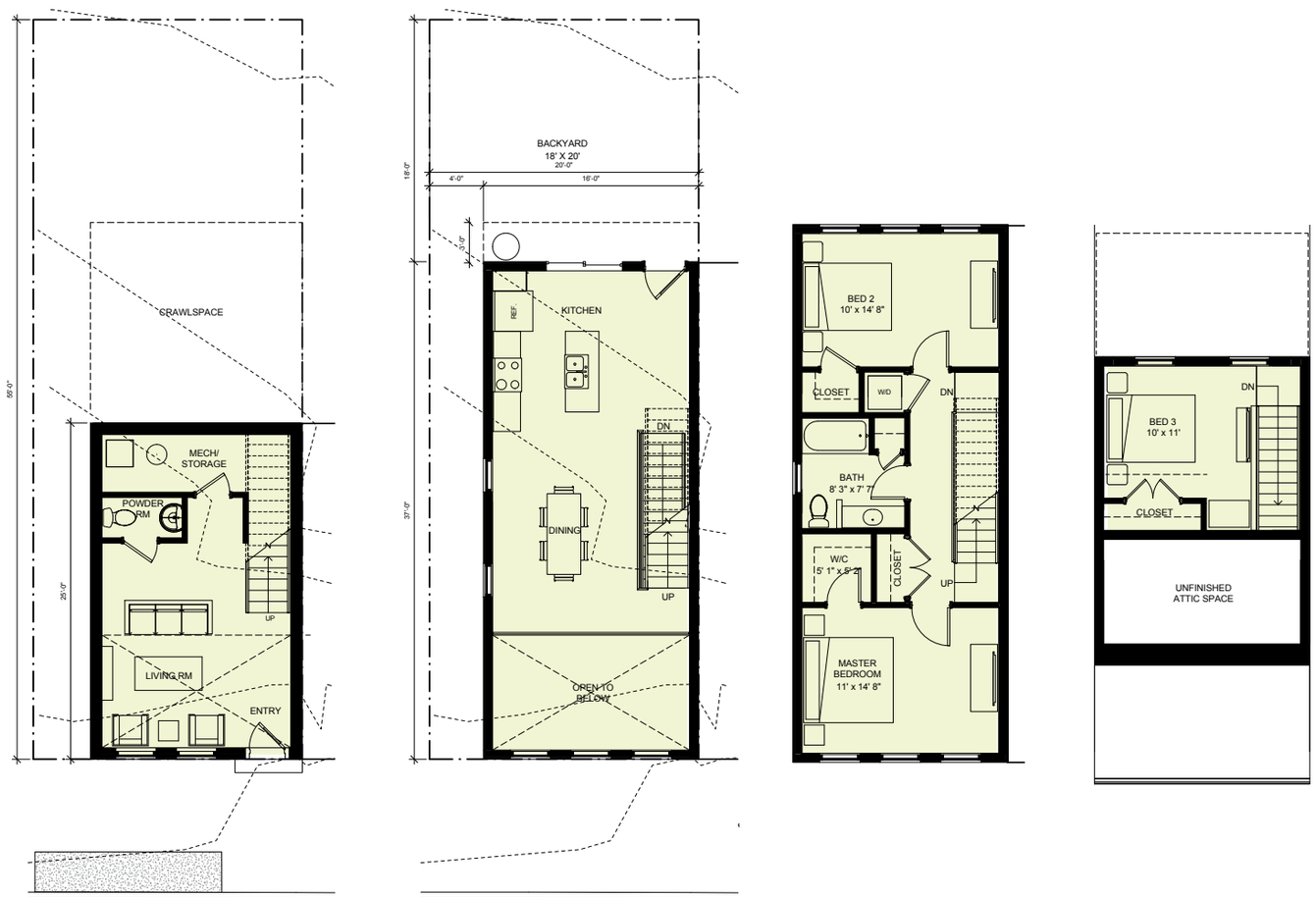
DESCRIPTION

- **3 stories**
- **3 Bedrooms**
- **2.5 Bathrooms**
- **1,835 gsf**
- **On-street parking**



16' x 40' Street Home Prototype

Location Plan



Basement *Main Floor* *Second Floor* *Mezzanine*

Street High Floor Plan

01-04-17 © Rothschild Doyno Collaborative

Conceptual Image of a Street High Home

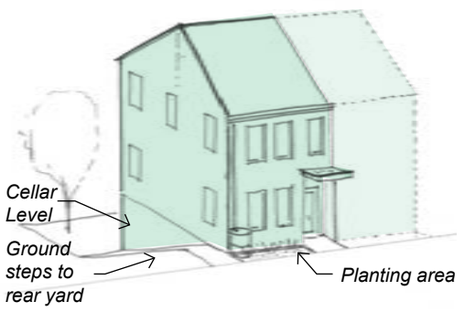
Rendering image of a typical street high home.

ALLEY LOW

Floor plan Layout of the Alley Low Home

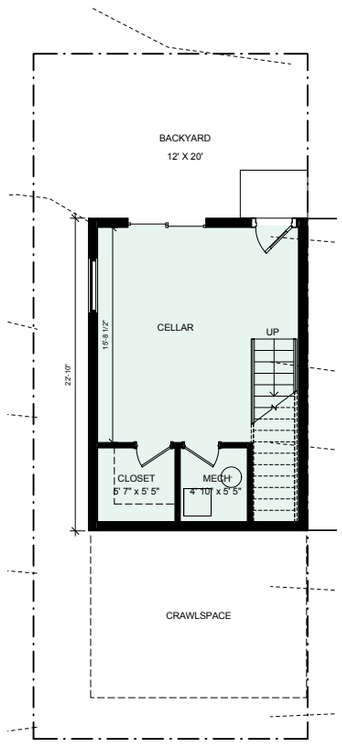
DESCRIPTION

- **2 stories**
- **2 Bedrooms + Bonus Room**
- **1.5 Bathrooms**
- **1,475 gsf**
- **On-street parking**
- **Visitable entry level**

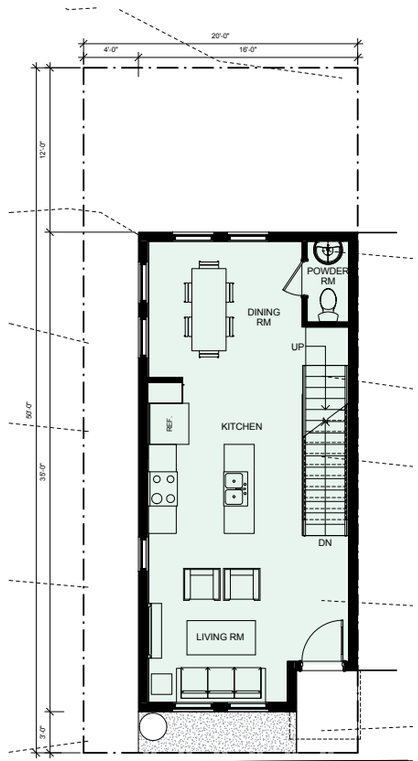


16' x 35' Alley Home Prototype

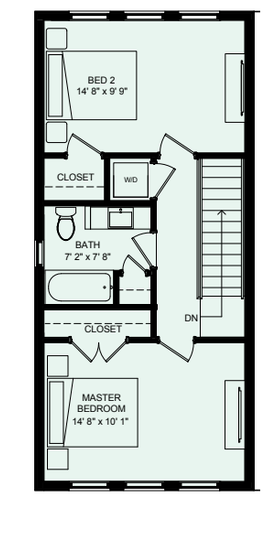
Location Plan



Basement



Main Floor



Second Floor

Alley Low Floor Plan

01-04-17 © Rothschild Doyno Collaborative

Conceptual Image of an Alley Low Home

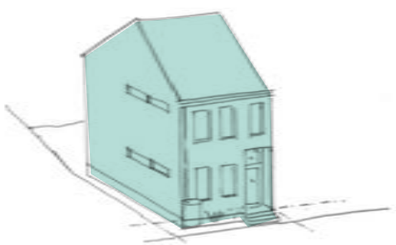
Rendering image of a typical alley low home.

ALLEY HIGH

Floor plan Layout of the Alley High Home

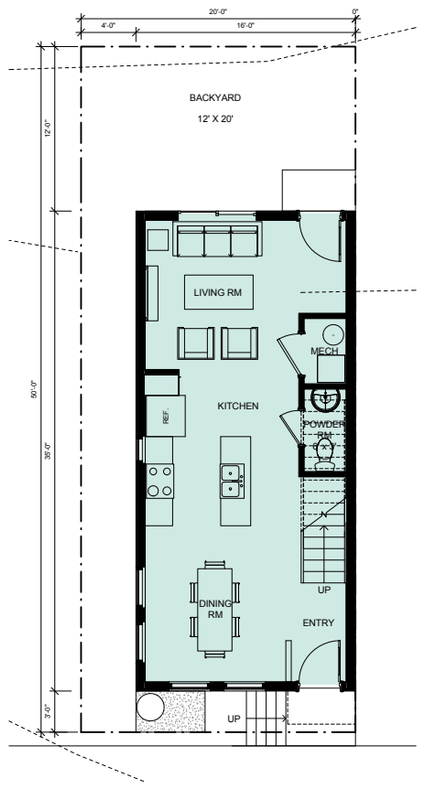
DESCRIPTION

- **2 stories**
- **2 Bedrooms**
- **1.5 Bathrooms**
- **1,100 gsf**
- **On-street parking**
- **Green Space**
- **Sustainable Design**



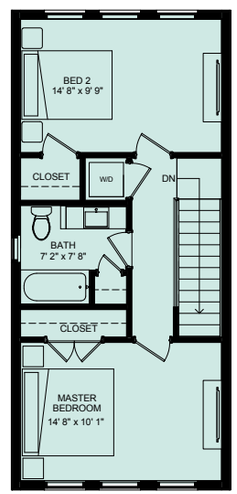
16’ x 35’ Alley Home Prototype

Location Plan



Main Floor

Alley High Floor Plan



Second Floor

01-04-17 © Rothschild Doyno Collaborative

Conceptual Image of an Alley High Home

Rendering image of a typical alley high home.

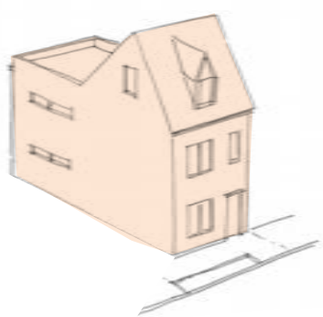
FUTURE PHASE: FLAT LOTS

Floor plan Layout of a Street Flat Home

DESCRIPTION

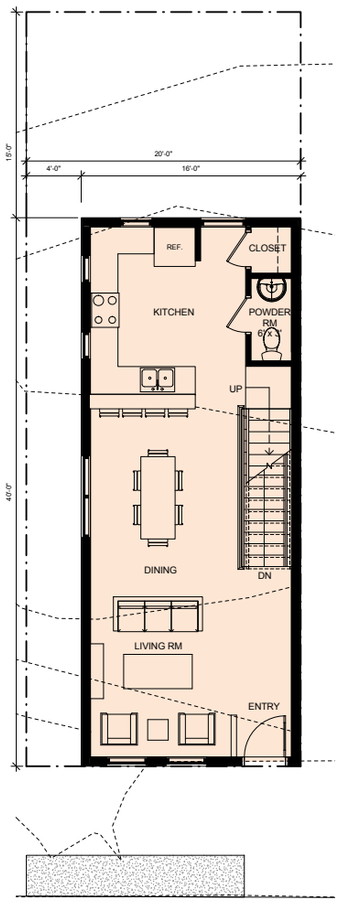
- **2.5 stories**
- **3 Bedrooms + Bonus room**
- **2.5 Bathrooms**
- **1,580 gsf**

*Location not yet established

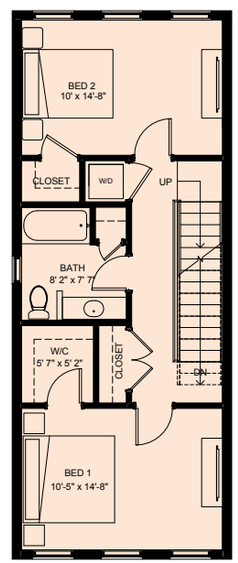


Street Flat

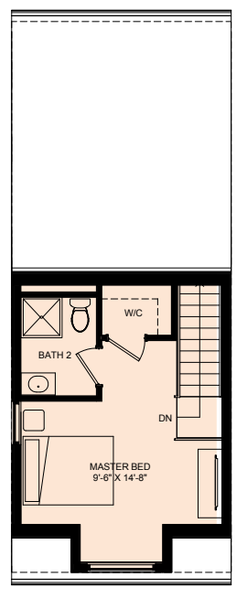
Conceptual Image of a Street Flat Home



Main Floor



Second Floor



Mezzanine

Street Flat Floor Plan

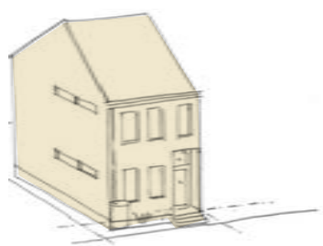
01-04-17 © Rothschild Doyno Collaborative

Floor plan Layout of an Alley Flat Home

DESCRIPTION

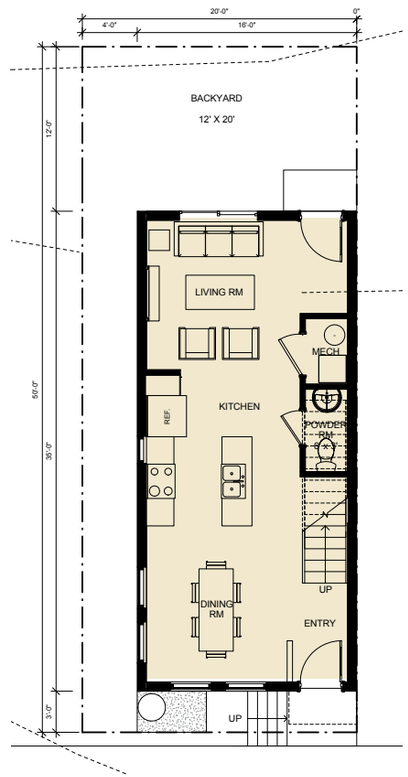
- **2 stories**
- **2 Bedrooms**
- **1.5 Bathrooms**
- **1,120 gsf**
- **Green Space**
- Sustainable Design

*Location not yet established

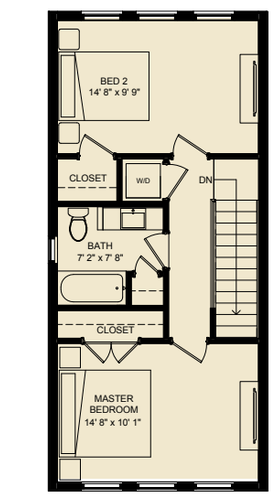


Street Flat

Conceptual Image of an Alley Flat Home



Main Floor



Second Floor

Alley Flat Floor Plan

800 MCCANDLESS AVE

Renovation

DESCRIPTION

- **2.5 stories**
- **2 Bedrooms**
- **1.5 Bathrooms**
- **1,410 gsf**
- **On-street parking**

Existing home before the renovation

Location Plan

Basement *Main Floor* *Second Floor* *Mezzanine*

Renovation Floor Plan

01-04-17 © Rothschild Doyno Collaborative

Elevations of the Renovation Home

Renovation Exterior Design

01-04-17 © Rothschild Doyno Collaborative

CHAPTER IV
ASSURING AFFORDABILITY

GROWING CLT 15201

Future Development Sites

The Lawrenceville Corporation and its community partners have acquired fifteen parcels with the goal of creating eighteen additional CLT homes. Future phases offer some homes clustered together while others are scattered throughout the neighborhood. The development will be pursued in phases as funding is available for renovation and construction.

Natrona Neighbors

Development of seven of the parcels, located in the 5200 block Natrona Way, will create a collection of new alley homes, infilling the vacant, overgrown sites. Two of the lots have existing structures that will be evaluated for possible renovation. Three of the lots that connect to Keystone Street can be subdivided, adding three street facing homes.

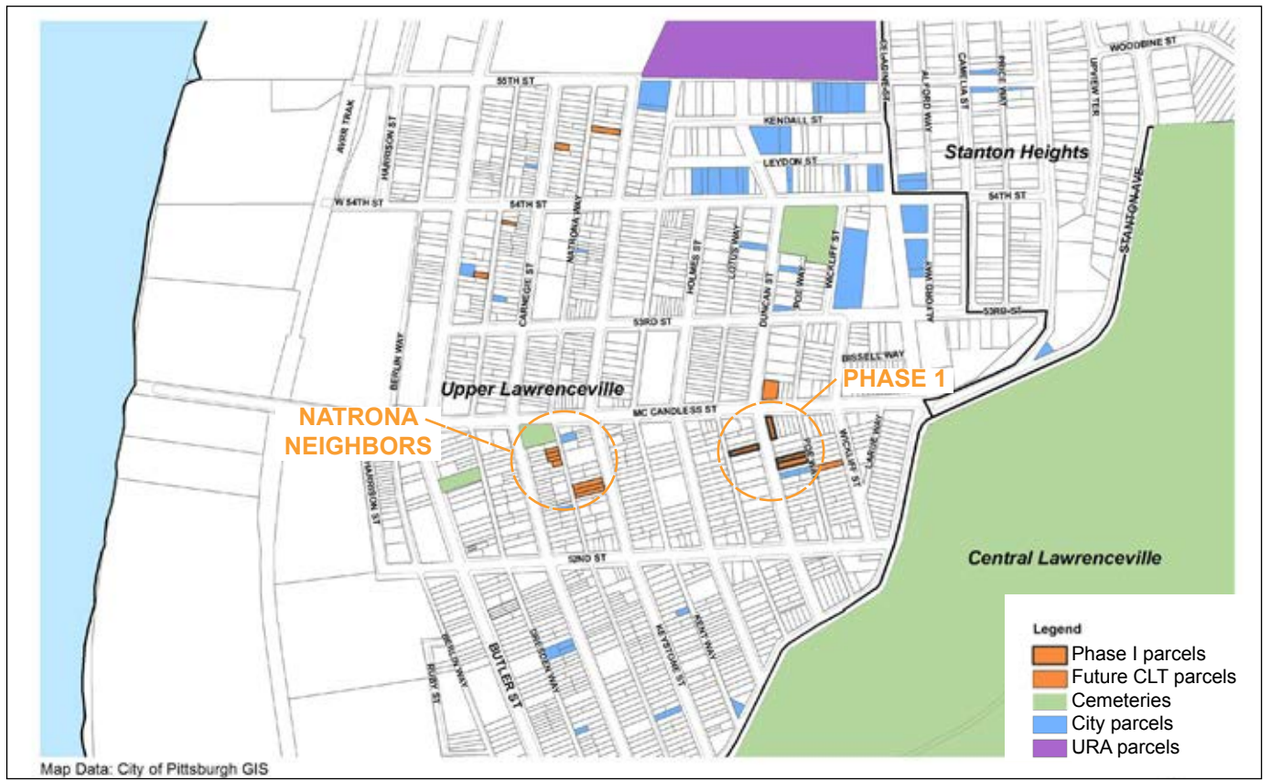
Lawrenceville Located

The remaining parcels are scattered throughout Upper, Central, and Lower Lawrenceville, offering an opportunity to blend CLT homes into different areas of the community.

Future Acquisition

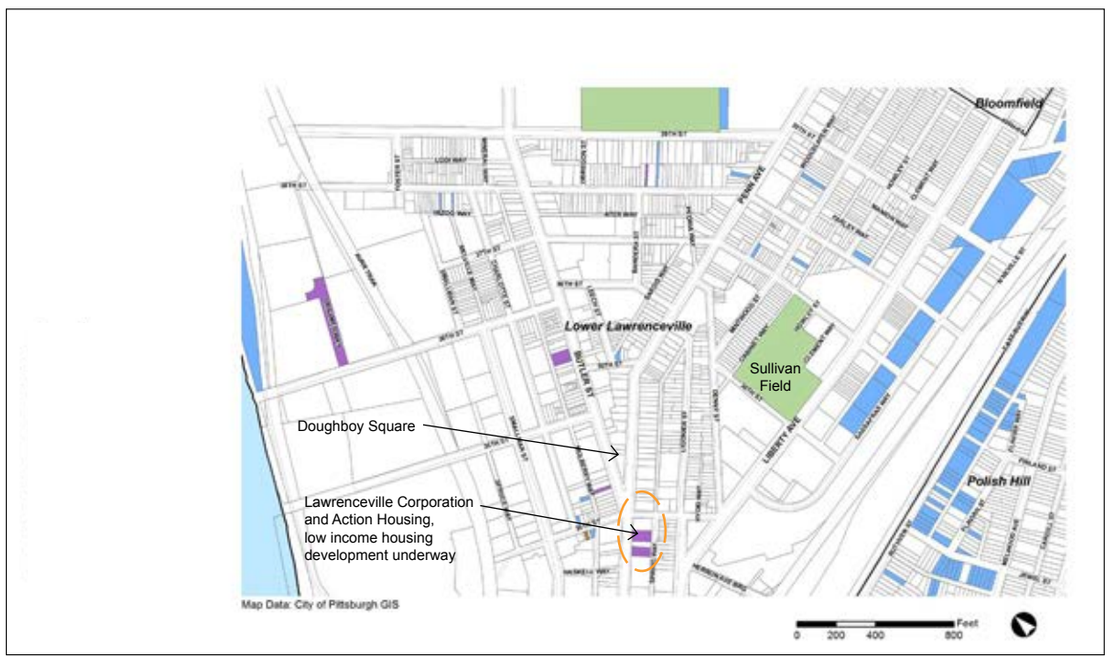
As the private market continues to grow in Lawrenceville, acquisition of homes through the City's Land Recycling program may become a challenge. CLT15201 should explore additional acquisition strategies to secure subsequent phases of development. Strategies may include private purchase of homes at market value, negotiations with large property owners within the community, or legacy property donations from longtime Lawrenceville residents.

Upper Lawrenceville property ownership

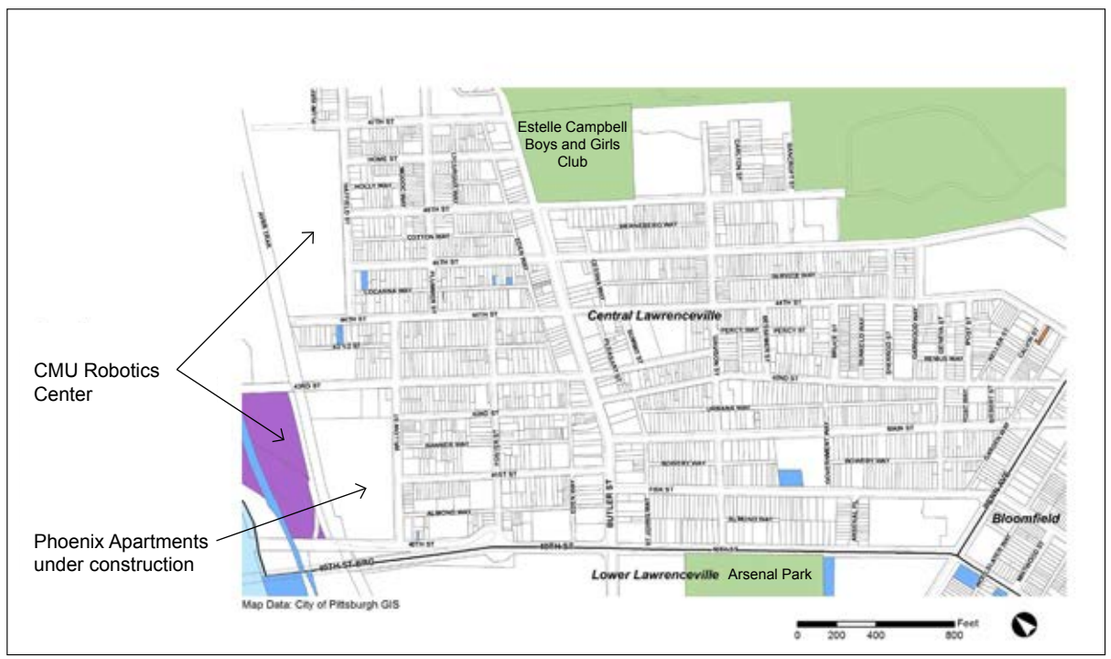


01-04-17 © Rothschild Doyno Collaborative

Lower Lawrenceville property ownership



Central Lawrenceville property ownership



Legend

- Phase I parcels
- Future CLT parcels
- Cemeteries
- City parcels
- URA parcels