

ULI Forge Atlanta Team



Amy Granelli Eberly & Assoc.

agranelli@eberly.net



Jared Serwer Perkins + Will

jaredserwer@perkinswill.



Diana Stoian Columbia Ventures

dstoian@columbiaven.



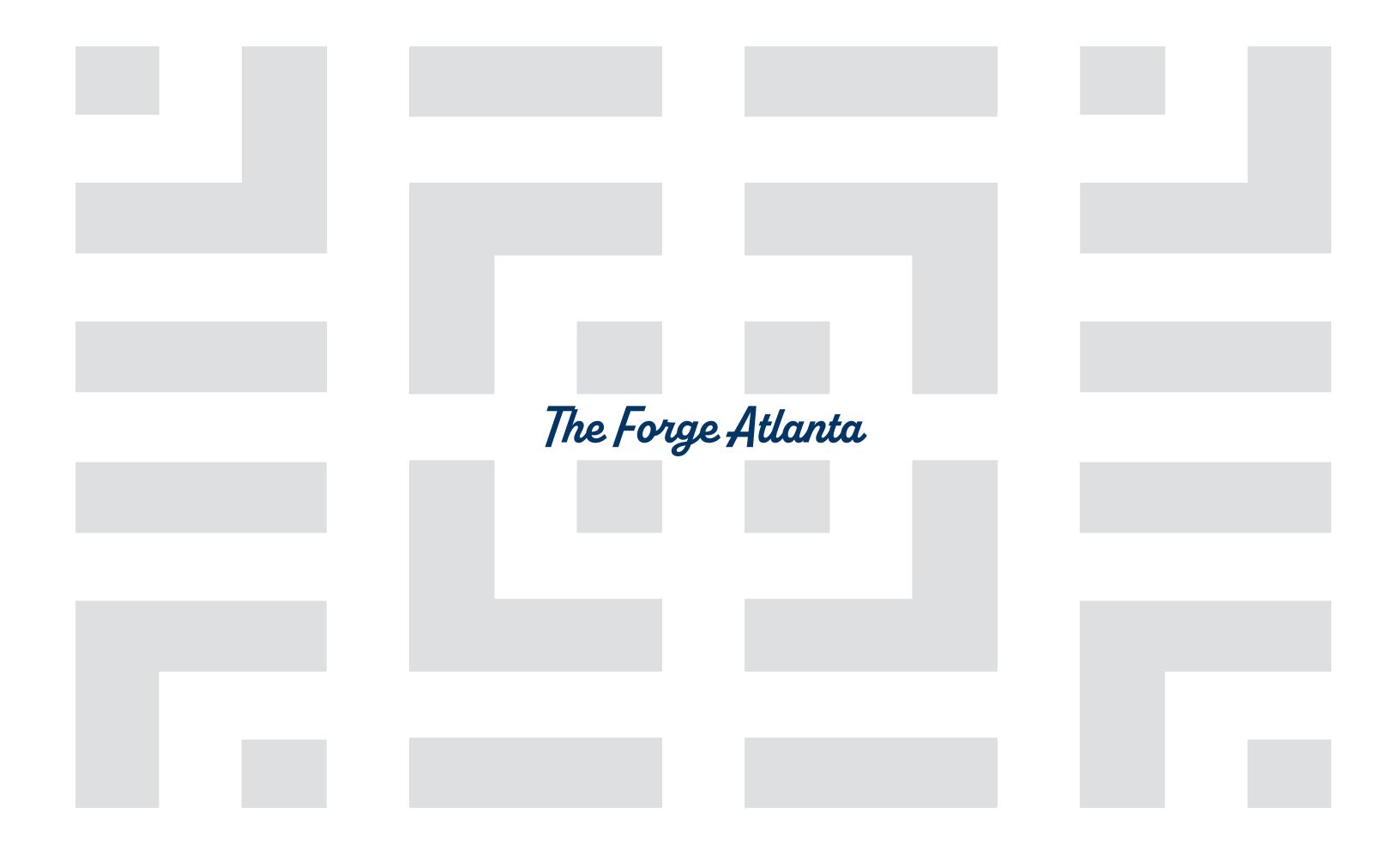
Todd Semrau Urban Retail Advisors

todd@ urbanretailadvisors.com



Laura Richter TSW

Irichter@tsw-design.com





Forge Atlanta is a "New Smart City District"

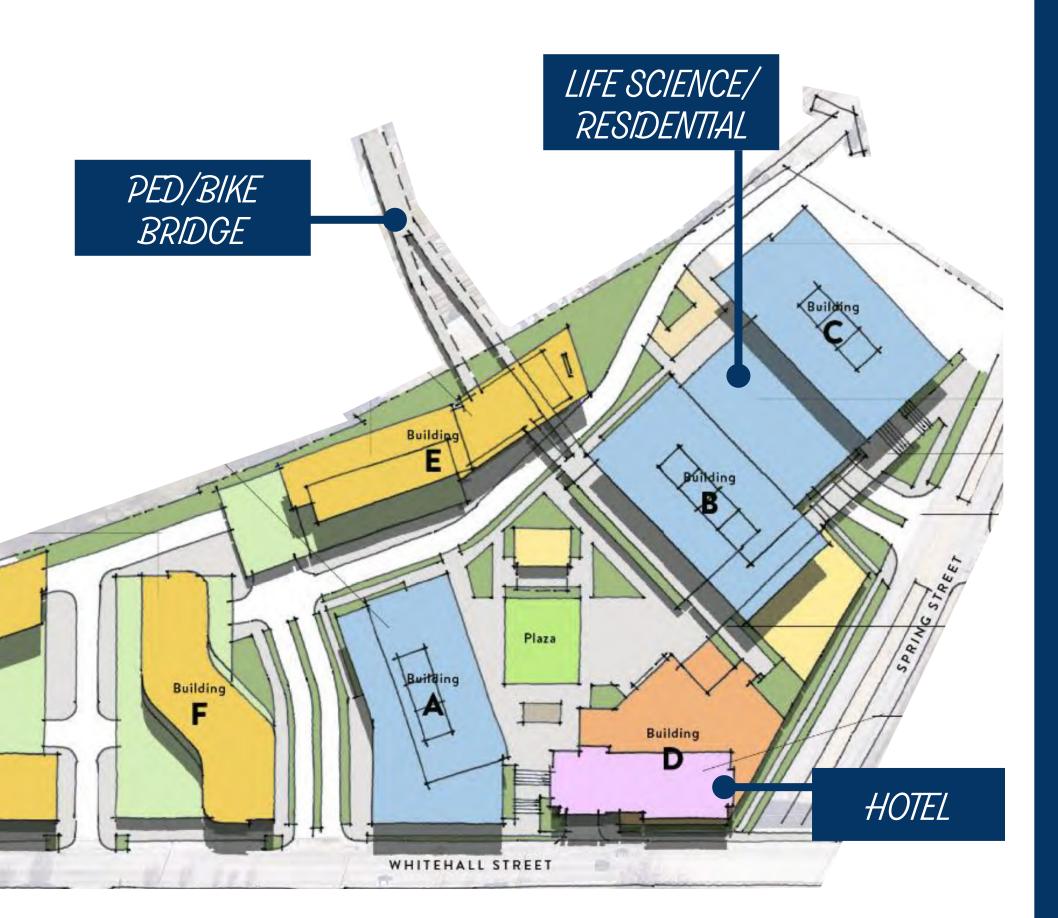
- Created as the most technologically enhanced mixed-use, urban community, where diversity, creativity and opportunity converge to create a "living laboratory" for sustainable urban development which welcomes the world to see and experience.
 - Economic Engine will be the Health Sciences Innovation Campus
 - Urban Village to work, play, create and make for people at all stages of life.
 - Connected by an green pathway to link people with places in a pedestrian friendly way.

Current Site Plan

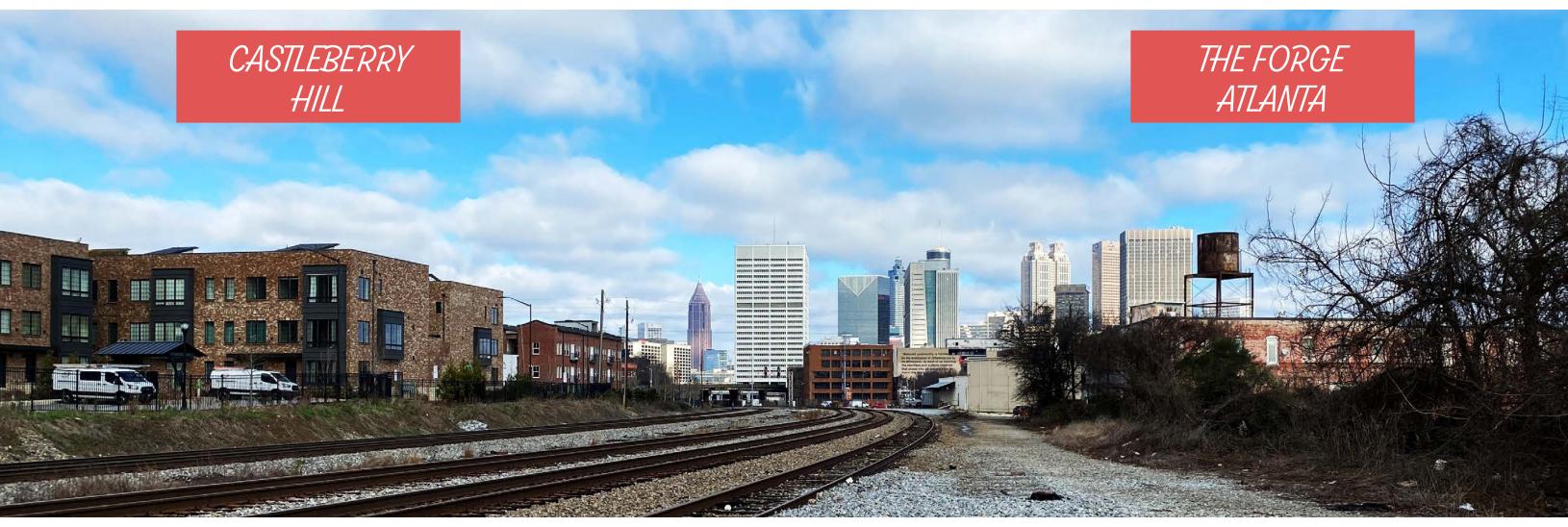
Proposed Mix:

- 1,500 Residential Units
- Life Science & Offices 1.65 M SQ. FT.
- Retail (Amenity) 69K SQ. FT.
- Hotel (4 star boutique) 240K SQ. FT.
- Conference 52K SQ. FT.
- Data Center 100K SQ. FT.
- Film Studio 100K SQ. FT.
- Cultural 50K SQ. FT.
- Open Space 88K SQ. FT.
- 5,700 Parking Spaces

OFFICE/ RESIDENTIAL Building



MTAP Scope



Identify Site Design Opportunities

- Site connectivity
- Topography & railroad
- Sunlight, open spaces & architecture

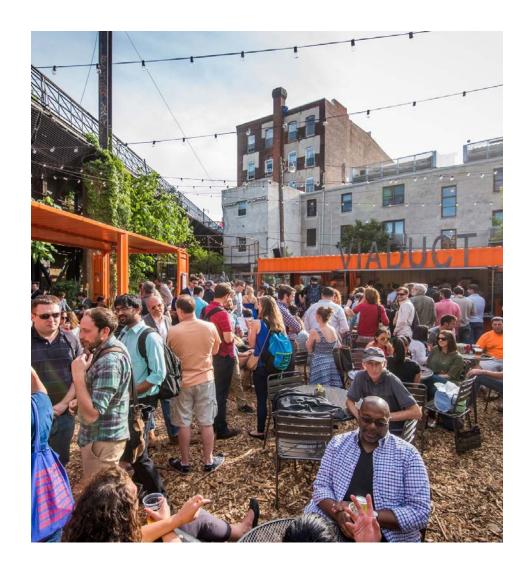
Provide Strategies for Ground Floor Activation

- Maker spaces, creative retail
- Unique open spaces
- Sense of place

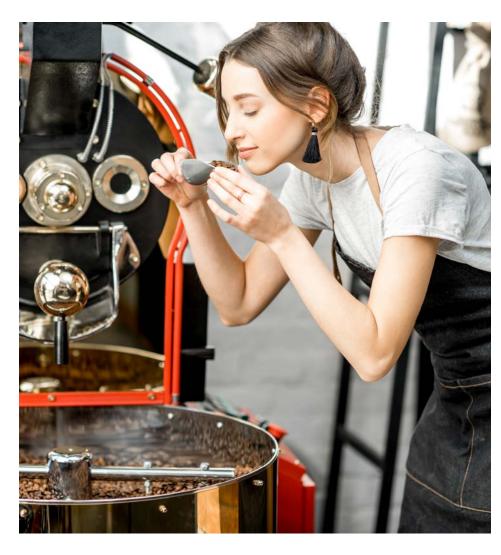
Programming & Land Use Opportunities

- Housing
- Life Sciences
- Phasing

MTAP Vision







Inspired by the past in building for the future. An authentically Atlanta urban destination characterized by a connected ecosystem of light manufacturing, technology & life sciences.



Where are we?

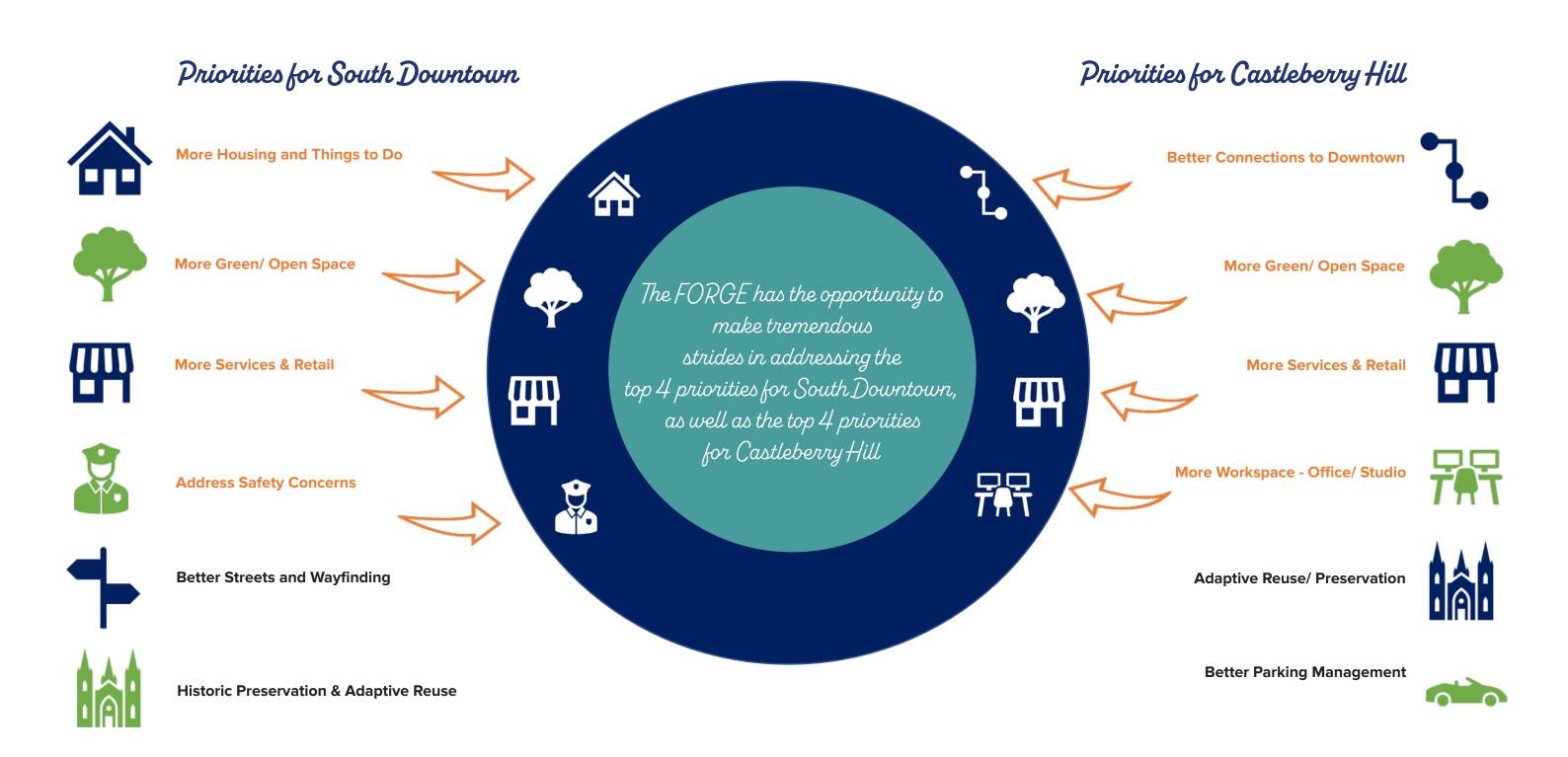
Castleberry Hill

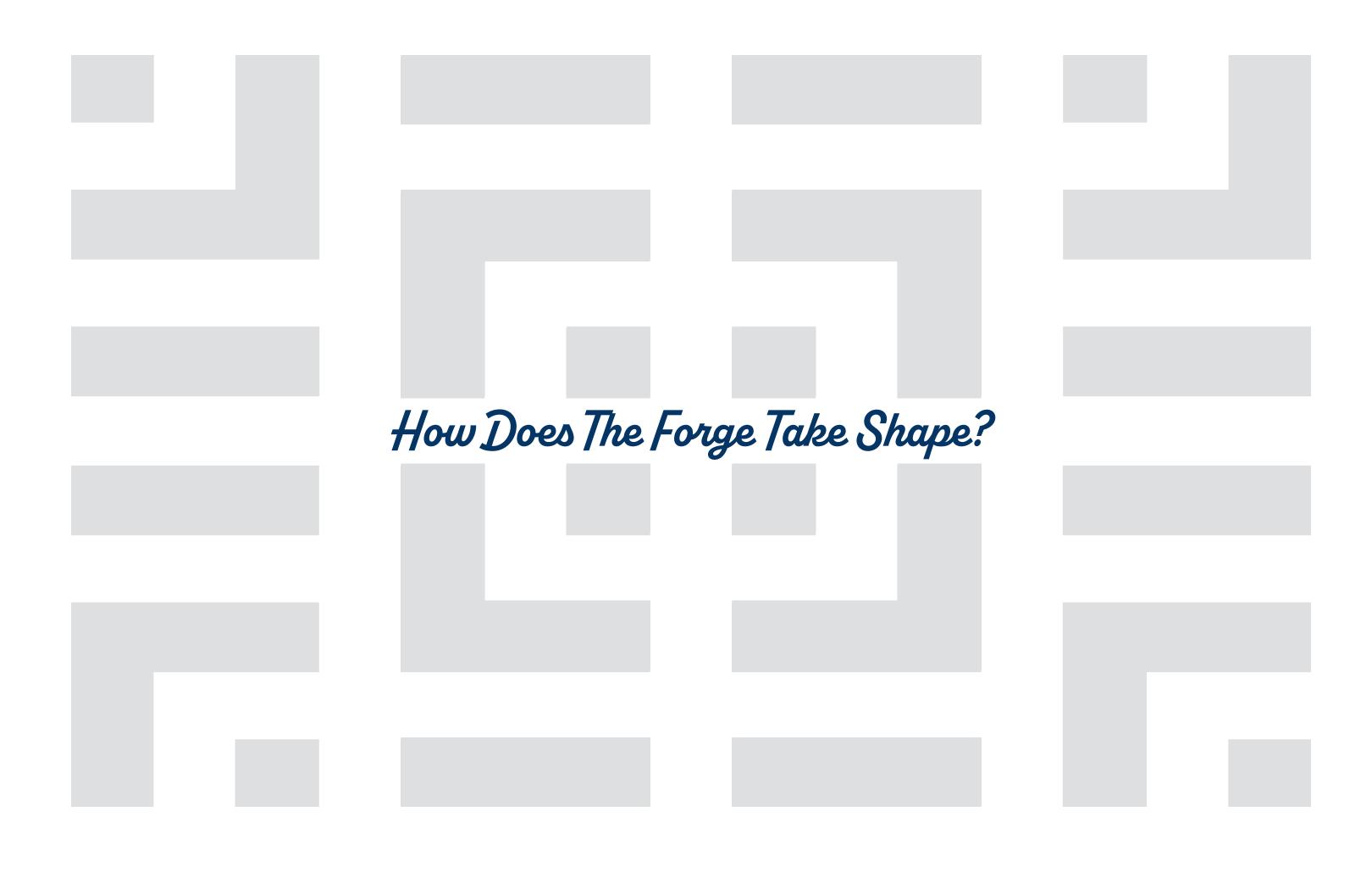
- Began as a commercial center for Atlanta & grew with the railroad
- Currently an artist community, very activated with residents, entrepreneurial ventures & light industrial makers
- Highest elevation in Atlanta
- Neighborhood is architecturally reminiscent of mercantile & early 20th Century detailing
- Construction followed innovation of methods over time including steel & brick
- The Forge is cut off from Castleberry Hill proper, not part of the rebirth of the neighborhood

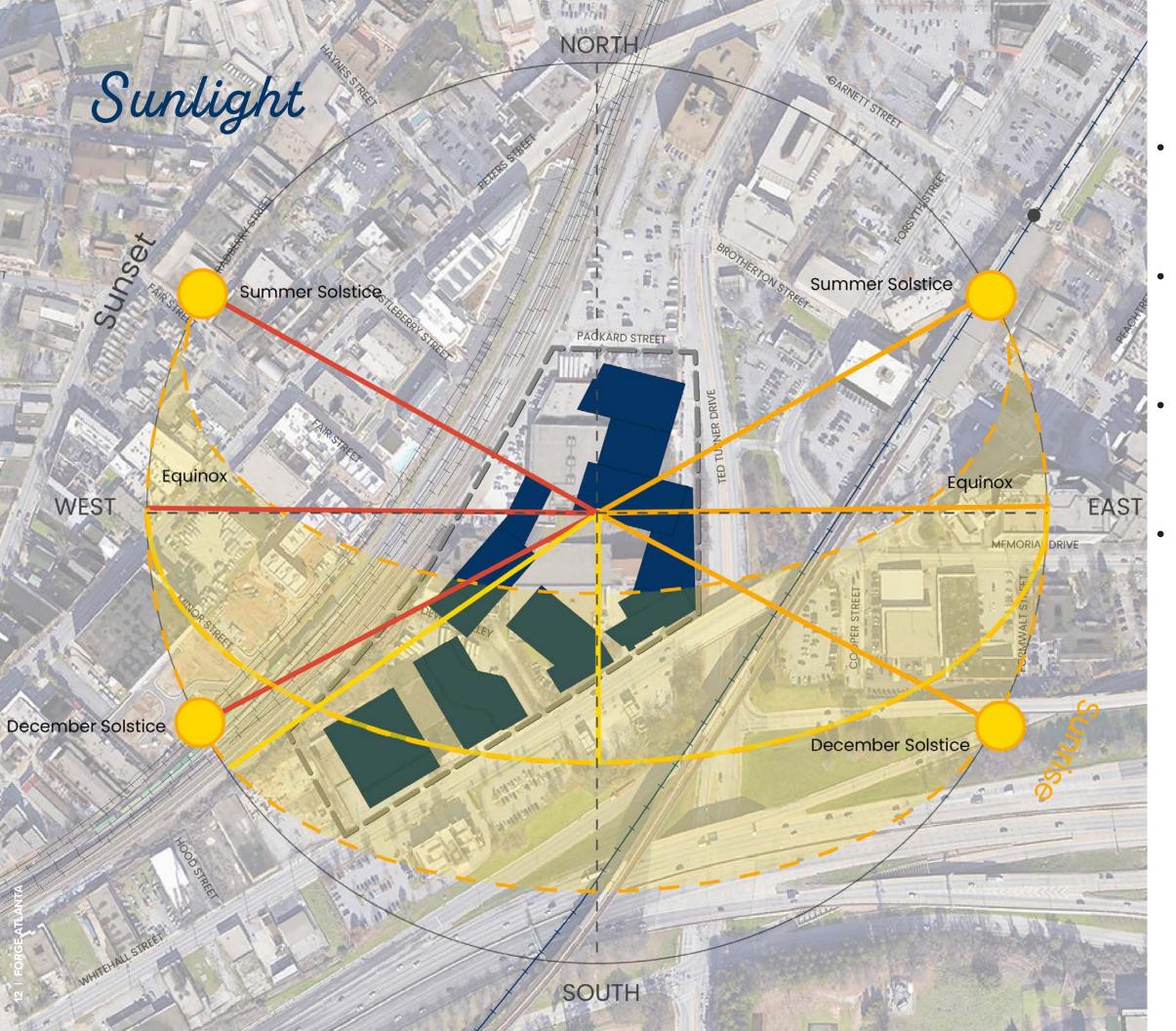


The Area's Priorities

In looking to understand how the Forge can play a transformational role in the Downtown area, we reviewed the Downtown Master Plan created in 2016 and identified areas of opportunity for the Forge to address needs and priorities in South Downtown and Castleberry Hill.







- Create "destination" public spaces through passive design principles
- Understand effect of climate & sunlight on success of spaces
- Maximize shade in the summer and sunlight in the winter
- Tallest buildings on west side, casting late in the day or clustered on SW portion of Whitehall

Topography Castleberry Highest Point MEMORIAL DRIVE. Lowest Point

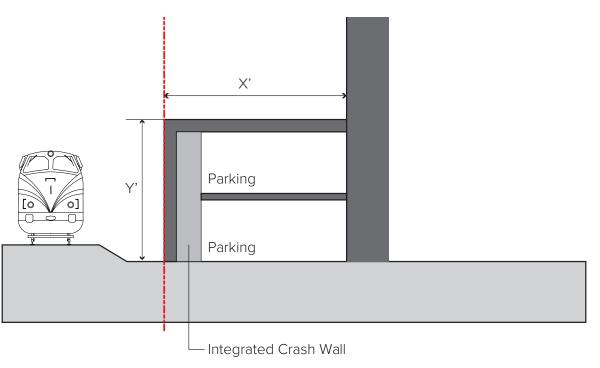
Opportunities

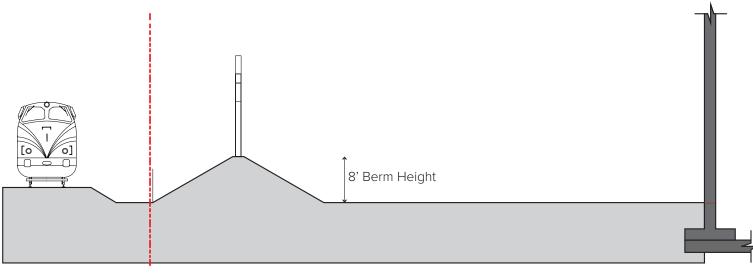
- View corridors north to downtown Skyline
- Utilize highest elevations & steepest slopes to intervene into natural grade with creative building design
- Utilize lower points for your tallest buildings to help with neighborhood scale
- Study existing grades to inform circulation through the site from Castleberry Hill to Ted Turner Drive
- Gentle slopes on facing streets

Challenges

- Balancing the scale of the Forge development with existing Castleberry Hill, South Downtown & Garnett Marta Station
- Attractive, sustainable storm water control
- Identifying an appropriate transect within the development to create a welcoming, inviting district
- Directly connecting to Castleberry Hill







100' (Standard Recommended Setback)

Standard Recommended Mitigation Strategy for Noise, Vibration and Safety











Opportunities

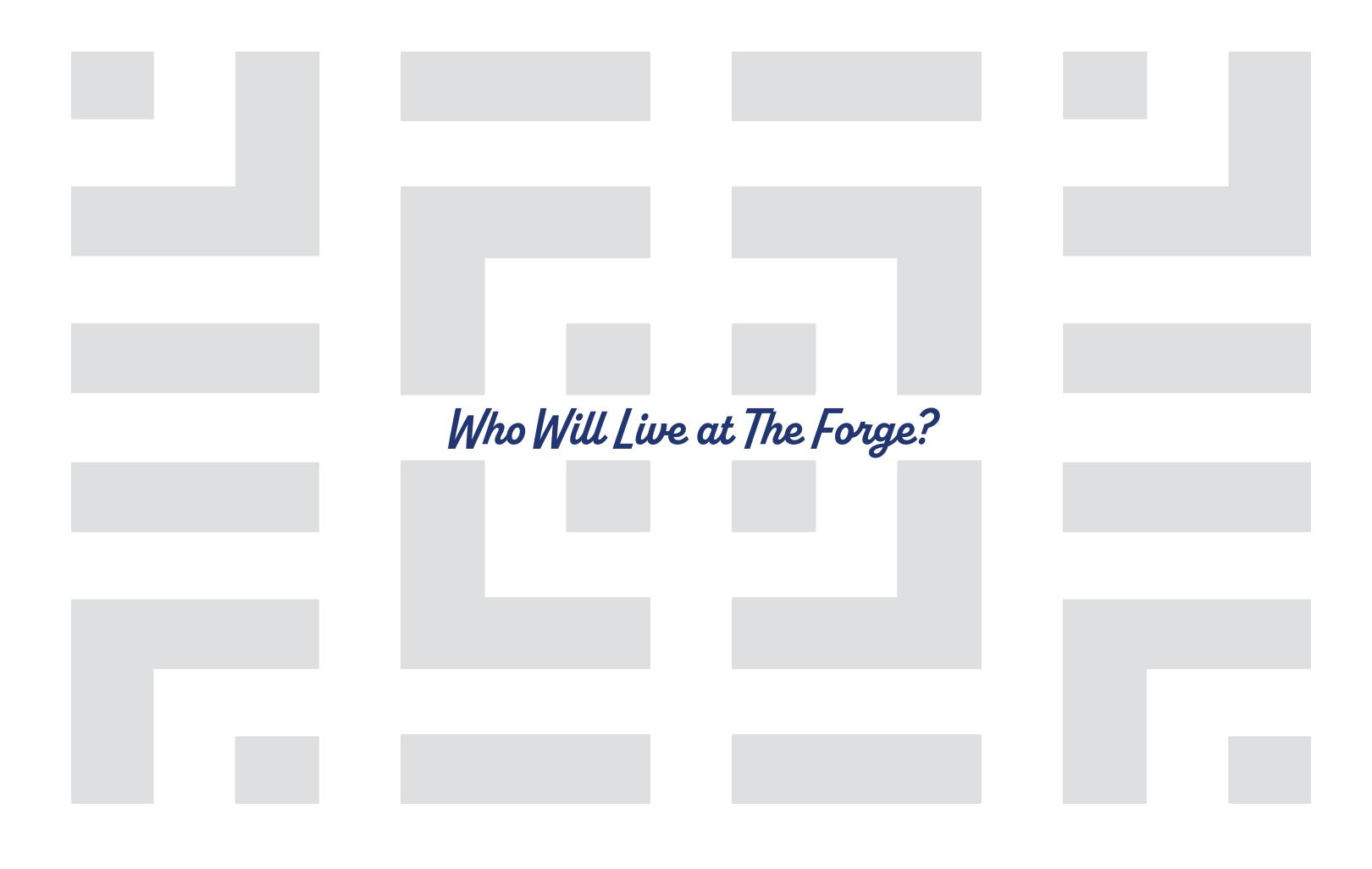
- Visibility to & walkability to South
 Downtown from northeast corner of
 the site along Ted Turner Drive reveals
 a starting point for active uses
- Eventual bookending of the site with active uses along Ted Turner Drive & Whitehall Street
- Light industrial/makers space/work shops along White hall
- Commercial/retail
- Incorporating a signature public space for people to gather
- Creating unique conditions along the rail line

Challenges

- Wayfinding & safe connectivity to other nearby amenities (South Downtown, Marta, Castleberry Hill)
- Passive design strategies







Downtown Atlanta Housing Needs

THE MEDIAN HOUSEHOLD INCOME IN DOWNTOWN ATLANTA IS APPROXIMATELY 61% OF THE MEDIAN HOUSEHOLD INCOME IN METRO ATLANTA - 2016 DOWNTOWN ATLANTA MASTER PLAN

What Atlanta Wants

The city desires to provide housing options to retain a mix of ages and incomes in Downtown.

The city expressed interest in exploring:

- Assisted housing options programs such as "Live Downtown Detroit" that rely on forgivable loans or renter's assistance to incentivize downtown living
- Potential partnership with local employers for assistance
- Housing opportunities for "the missing middle" households that don't qualify for income-restricted housing, but can't afford market rate product

The Challenge

The Forge's challenge will be to entice people who now commute to downtown to want to live there and to provide a wide variety of housing options that would both differentiate the Forge from surrounding developments, and provide an environment where all the future employees working in the offices and life sciences buildings can afford to live

99%
of employees commute
from outside Downtown

The State of Georgia & Atlanta are major Life Science Research Hubs

Current Snapshot:

• 14th state ranking for life science professionals

Atlanta is home to 5 Universities with 30+ major research centers:

- Clark Atlanta
- Emory University
- Georgia State University
- Georgia Institute of Technology
- Morehouse School of Medicine

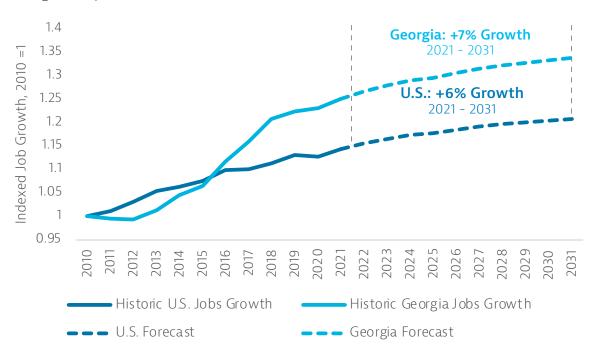
In the aftermath of Covid-19, Life Science research remains resistant to remote work, necessitating new office and lab space.

Georgia's Life Sciences Workforce

Georgia is home to exceptional life sciences talent. Projected growth in Georgia's life science-related occupations exceeds that of the U.S. overall, increasing by 7 percent over the next 10 years, with the highest percentage growth in biochemists, animal scientists, medical scientists and ophthalmic lab technicians.

Life Science-Related Occupational Trends, 2010 - 2031

Georgia Compared to the U.S. Overall



2x

venture capital funding
in georgia life sciences
companies from 2019 to

+7%

project growth in Life
Science Workforce
2021-2031

36,000+

workers in life science fields

Life & Medical Sciences - Income & Demographic Data

Average Age: 41.6

Average Salary: \$96,175 Average Male Salary:

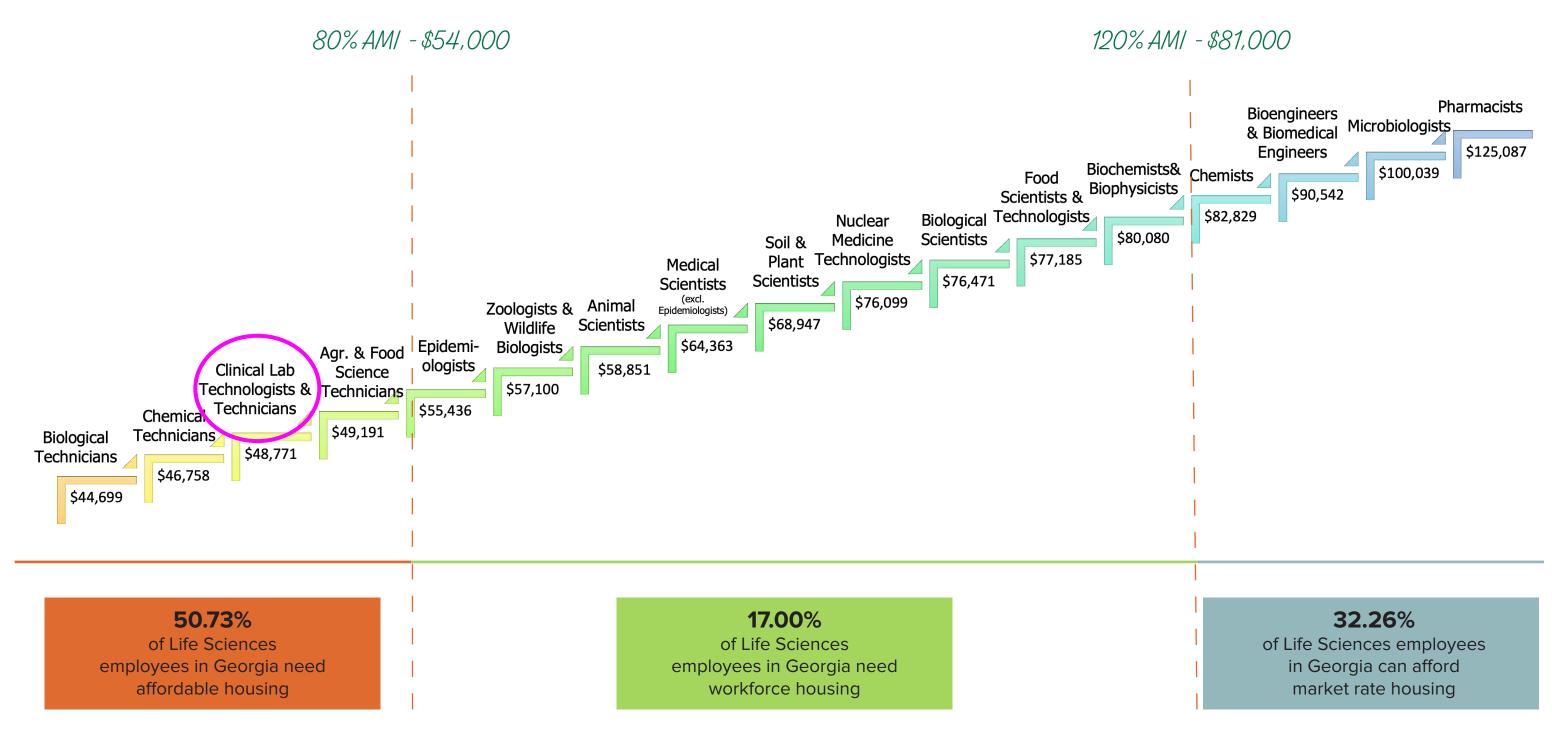
\$109,291

Average Female Salary:

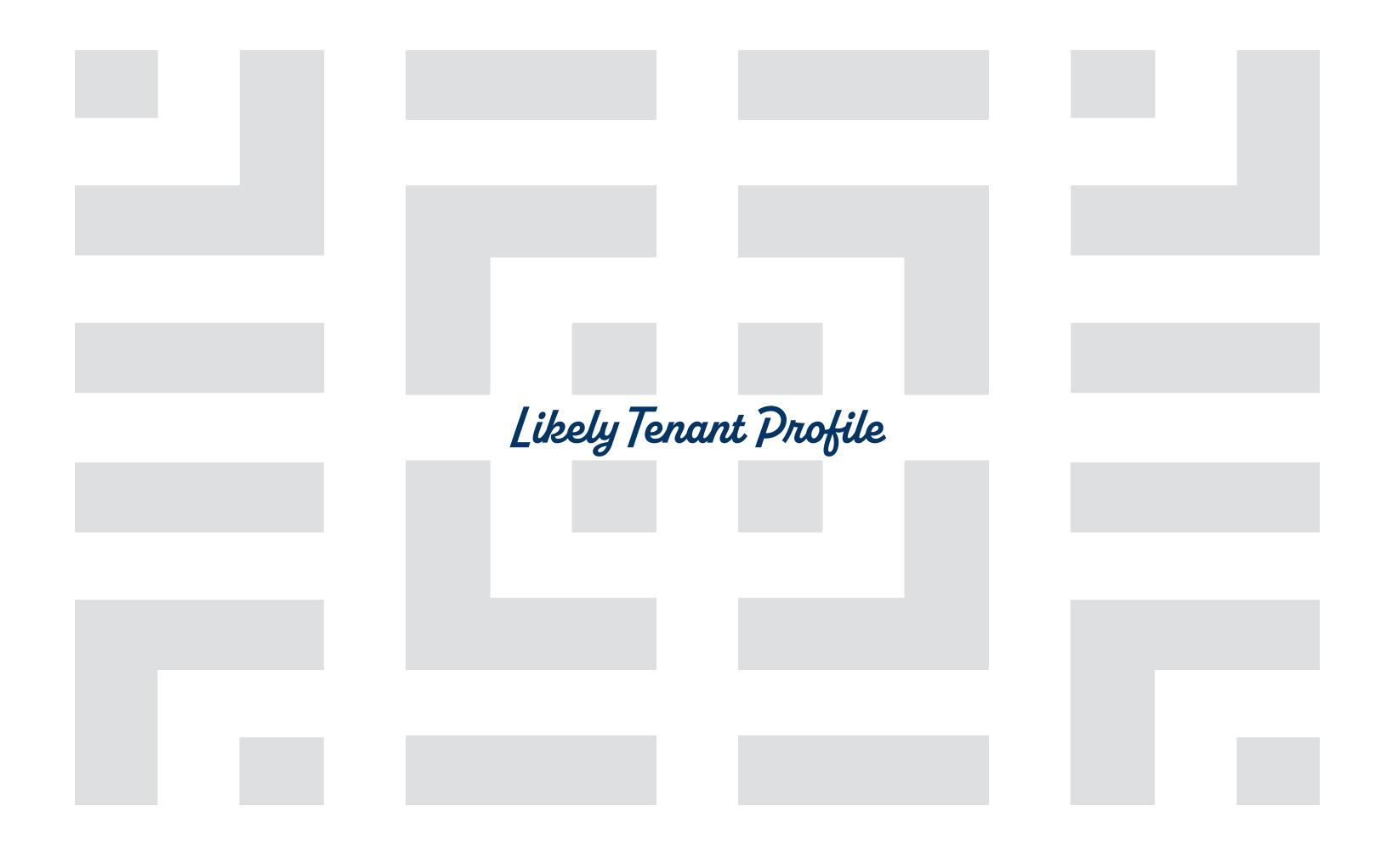
\$86,313

- In determining the appropriate unit mix for each phase of development, it will be important to pay close attention to demographic and income data within the life sciences industry.
- According to a 2019 study by Data USA, employees in the medical science and life science industries earn on average over \$96,000/ year.
- The same source indicates that salaries in this industry are at approximately \$91,000 in Fulton County, and approx. \$118,000 for Dekalb County. With some of the largest employers in the industry (Emory and CDC) located in Dekalb county, it's easy to understand why the salaries in this county are higher than in Fulton.
- While historically a person with this level of earnings would tend to purchase a home versus renting one, the number of high earning renters has increased significantly after 2008, and the trend is likely to continue.
- In addition, a detailed breakdown of job types and corresponding income in life sciences shows that despite a high average income, there is still a high percentage of industry employees that earn below 100% of Area Median Income

Life Sciences Employees - Housing Needs

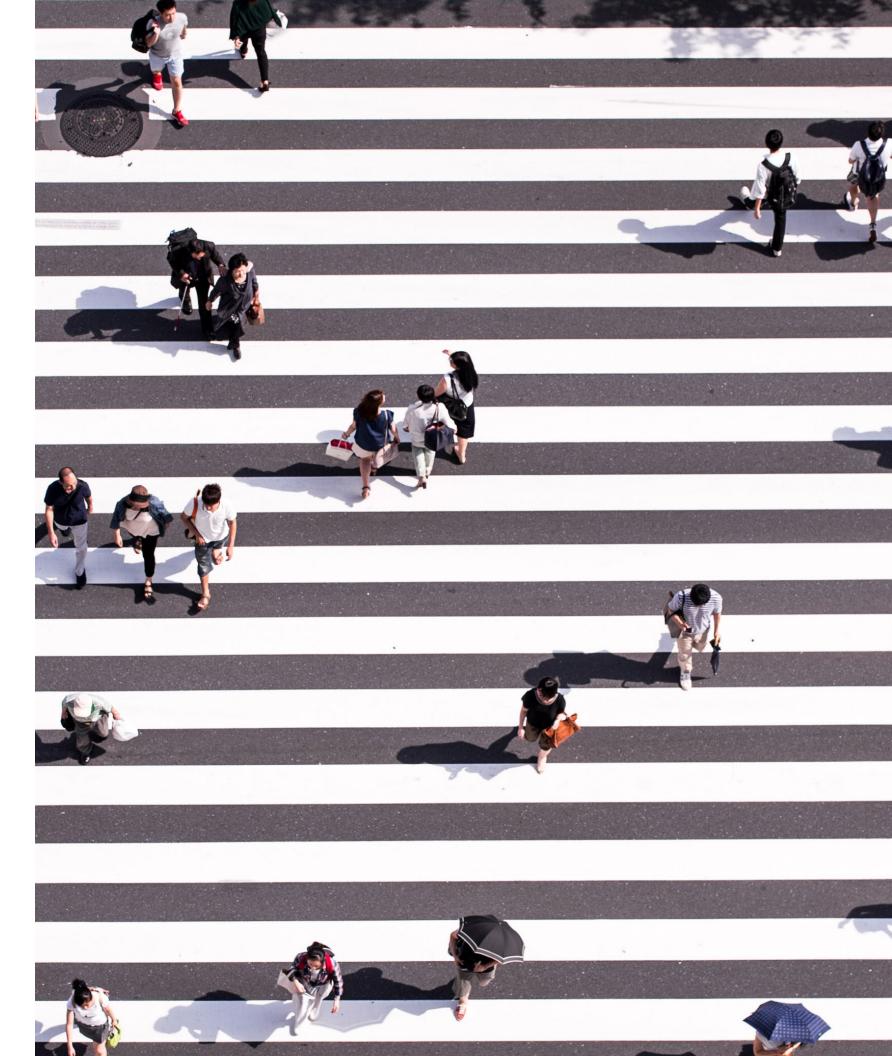


Clinical Lab Technologists & Technicians Represent the largest number of jobs in the industry - 34.5% of all Life Sciences jobs



Likely Tenant Profile

- The profiles included in this section describe in broad lines the different types of tenants the Forge will likely attract.
- These are general descriptions based on the MTAP group's previous multifamily experience and are meant to provide some insight into the type of unit and the amenities each of these tenant categories might prefer.
- With each phase of development we recommend commissioning a detailed multifamily market study that will also take into account the specific demographic data of any office or life sciences use on site.
- This will help finetune the specific unit mix within each phase of development.



The Dreamer

Description	Mix of young professionals sharing an apartment out of necessity / to save money and students at Georgia Tech, other AUC Center Schools
Age	18-25
Likely Job in Life Sciences Industry	Students, Clinical Laboratory Technologist and Technician
Іпсоте папде	\$40,000 - \$65,000/ per person
Rent Range	Up to \$1,500 / whole unit
	Coliving: \$800 - \$1,200/ person
What will draw them to the Forge	Proximity to MARTA and schools They are open to new experiences and are likely to be the first ones to move onto a site that is not fully developed and doesn't yet offer many stores or other lifestyle-oriented options
Tenant Behavior	They are rarely at home and use the unit as a crash pad Amenities provided in the building are important to this group, as they are likely to spend a lot of time socializing, working out, or using resident lounge and pool. Car ownership in the group is low, which helps reduce parking costs
Typical Unit	Micro unit or 2 or 3-bedroom units with roommate floor plan



The Climber

Description	Professionals working in the area seeking a lifestyle and easy access to employment and entertainment.
Age	20-30
Likely Job in Life Sciences Industry	Biochemist, Biophysicist
Income range	\$50,000 - \$100,000
Rent Range	\$1,200 - \$1,700
What will draw them to the Forge	Relative value; Proximity to urban, walkable environments; Proximity to employment; The art scene. This is likely the most common tenant profile in the initial phases of development
Tenant Behavior	Willing to trade space for less rent. Uses unit as crash pad and place to unwind; Wants to maintain a financially responsible lifestyle, while having fun and exploring new activities. Often very active, eating out and going out. Strives for growth, both personal and professional, and considers his community to be an extension of his home
Typical Unit	Studios or small 1-bedroom. They are good candidates for workforce housing with rents set at 80% AMI



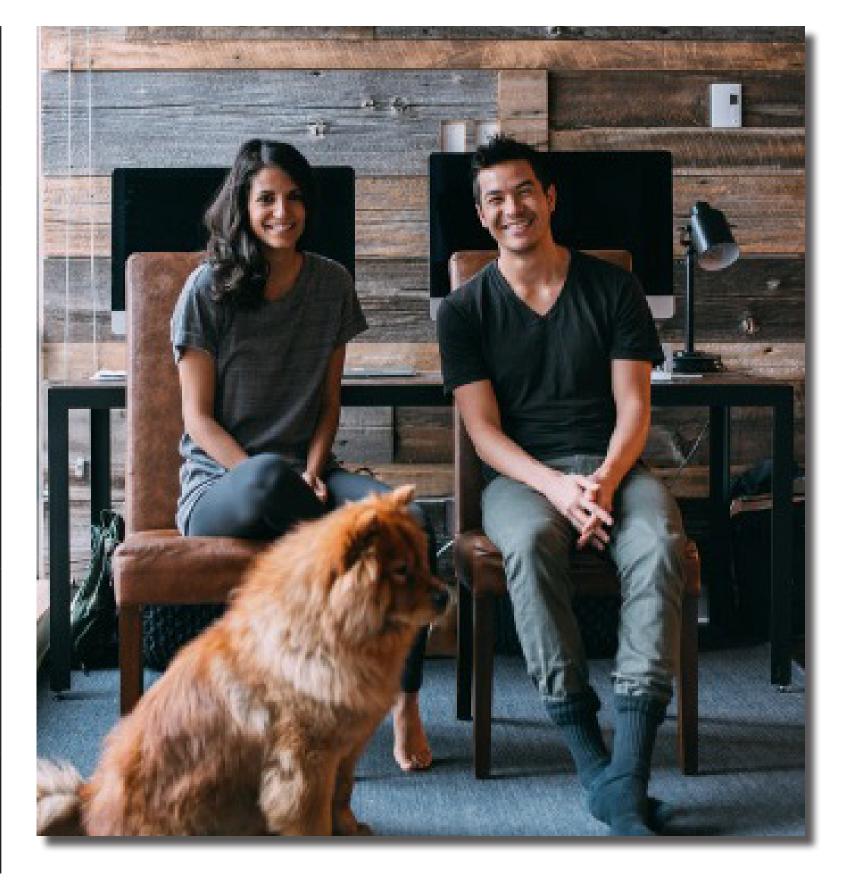
The Camper

Description	Singles over 35 seeking convenience in quieter setting. Many have relocated to the area for work, may choose to rent before buying.
Age	35-55
Likely Job in Life Sciences Industry	Pharmacists, Chemist
Income range	\$60,000 - \$150,000+
Rent Range	\$1,500 - \$2,500 or more
What will draw them to the Forge	Proximity to work will be important Since they can afford other lifestyle oriented locations, they will expect to retail and services available on site Likely to be a long term tenant
Tenant Behavior	They enjoy hosting and eat in more often than their younger counterparts Less active than young professionals. They value privacy and enjoy quiet, luxurious amenity spaces Likely to own a car
Typical Unit	Large 1 bedroom, preferably with a balcony/ patio, with a nook/ corner available for working from home or a 2 bedroom apartment.



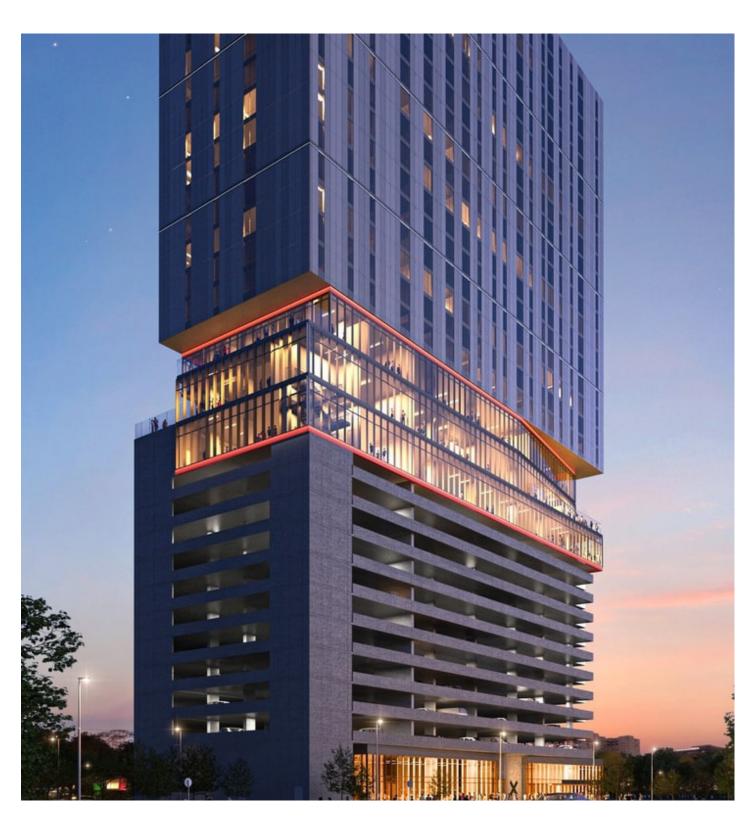
The Nesters

Description	Couples of varying ages, a mix of recently married and dating.
Age	Varies
Likely Job in Life Sciences Industry	Bioengineers, Chemists, Microbiologists
Income range	\$90,000 - \$150,000+ together
Rent Range	\$1,700 - \$3,000
What will draw them to the Forge	Proximity to work or relocating back to Atlanta for proximity to family. Safety is important to them Will be looking for a wide range of services and retail on site Likely to see more tenants in this category move to the Forge in the second or third phase of development
Tenant Behavior	Often short-term residents, they are thinking of buying They have friends over often and enjoy cooking They value outdoor spaces and amenities, looking for a good neighborhood vibe Likely to own two cars and a pet
Typical Unit	1 - 2 bedroom, with balcony and work from home space Large kitchen, gas stove, pantry cabinet





A New Lens on Micro Units and Coliving



- As housing costs continue to rise faster than incomes, more and more individuals find themselves overburdened by rent.
- In response to this trend, several developers across the country, including in Atlanta, are offering micro units and coliving apartments that create some level of affordability compared to typical market rate units.
- While the word coliving generally implies student housing of below average quality with no amenities, recent developments have set out to offer a new experience. A good example of such projects are brought forward by the X Company in Denver, Phoenix, Tampa, Houston and Oakland.
- These communities offer studio apartments (furnished and unfurnished options), as well as fully furnished 2, 3 and
 4-bedroom apartments designated for coliving (each tenant has a separate lease and pays rent per bedroom).
- What sets these communities apart from student housing is the
 extensive amenity package, marketed to their target audience as
 a members-only club, including professional quality workspace,
 class-activated gym, rooftop pool deck, bar and social events. The
 X Communities sell a lifestyle that is not otherwise attainable for
 most entry level professionals.

The X Denver - Case Study



What draws tenants in:

- Monthly rents \$200 to \$600 below market rate
- The promise of a lifestyle they can't afford elsewhere

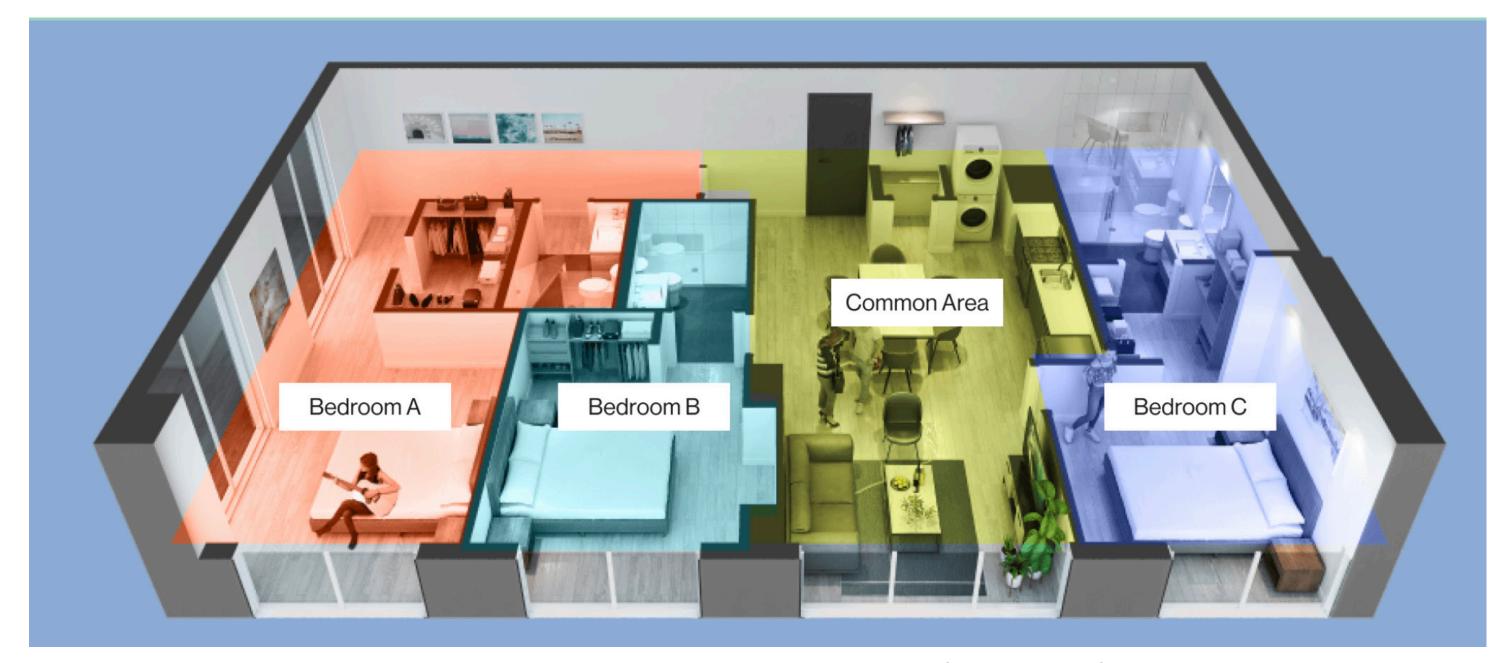
What sets them apart from their competition:

- Attractive highrise design in a market where most new buildings are midrise
- Unique oversized amenity package
- Furnished units or furnished suites within larger units

Why this approach could work at The Forge:

 This could be a good first step in attracting residents to a site that will be under development for years to come and doesn't yet offer all the services and retail other locations have to offer.

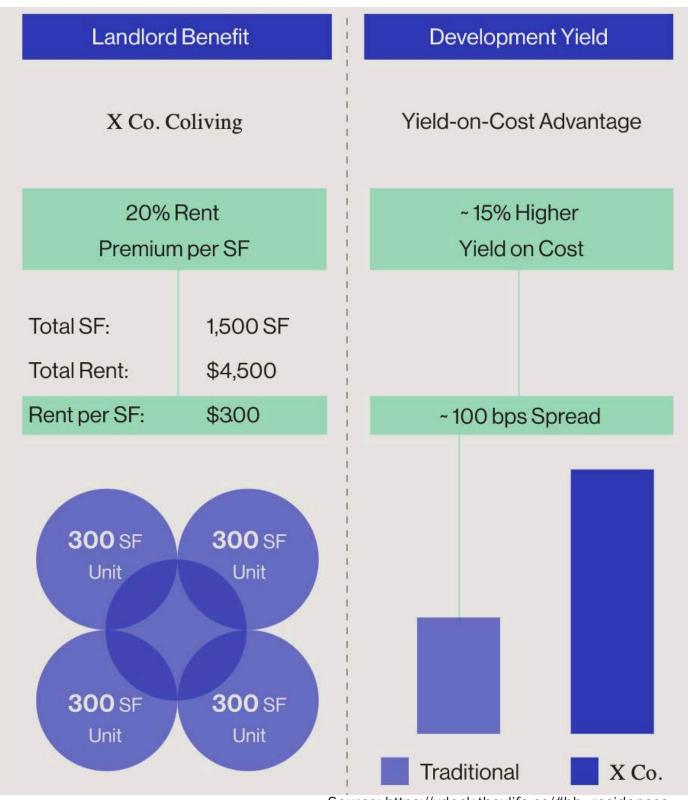
The X Denver - Case Study



- · A bedroom with a queen bed and nightstand, which is separately access controlled from the rest of the unit
- En suite bathroom, walk-in closet with custom mill-work

Coliving Vs Market Rate Lease Terms





Source: https://xdeck.thexlife.co/#bb--residences



Funding Sources for Affordability

Tax Exempt Bond Financing

Tax exempt bonds are issued by the Urban Residential Finance Authority (the Housing Finance group of Invest Atlanta)

Funds allocated pursuant to this program must be used to provide permanent financing for the development. The allocation can be used for construction financing and be taken out by another source under certain conditions.

40% of units must be set aside to persons at 60% AMI or 20% of units set aside at 50% AMI.

A minimum of 15% of units must be set aside for market rate tenants with no income restrictions

Housing Opportunity Bond Financing - Large Multifamily

The Housing Opportunity Bond Fund (HOB) was created to provide gap financing to address a growing need for affordable workforce housing units across the income spectrum for homeowners, builders, developers and community housing development organizations in the City of Atlanta.

30% set aside for a population at or below 60% of AMI

Atlanta Affordable Housing Fund

https://www.aahfund.org/

the Atlanta Affordable Housing Fund is a social impact fund designed to provide low interest rate gap/mezzanine financing for affordable housing projects that might otherwise not be developed.

The goal of the fund is to make loans in the 3-5% interest rate range to qualified developers/sponsors who will either create or preserve affordable housing units.

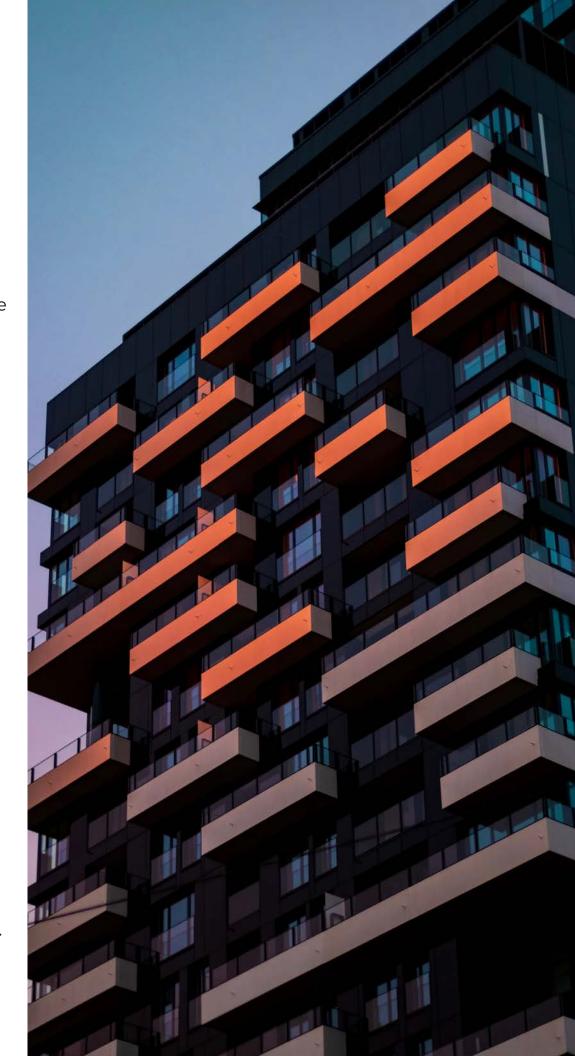
National Housing Trust Fund

The National Housing Trust Fund (NHTF) is a federal program funded through the Department of Housing and Urban Development (HUD) aims to complement existing federal, state and local efforts to increase and preserve affordable housing for extremely low-income (ELI) and very low-income (VLI) households, including homeless families. Funds can be used for units below 50% AMI.

Funders' Collective

https://houseatl.org/funders-collective/

The HouseATL Funders' Collective is a collaborative of Public, Philanthropic, and Private (Banks, CDFIs, Social Impact) Funders who seek to raise new capital, and more efficiently coordinate existing resources, to support the production and preservation of affordable housing in the City of Atlanta. An initiative of HouseATL, the Funders' Collective is managed by Enterprise Community Partners.



Combining LIHTC and NMTC

LIHTC (Low Income Housing Tax Credits)

- Purpose: Housing Affordability
- **Benefit:** Approx. 70% of eligible construction cost for 9% tax credits, or 30% of eligible construction costs for 4% tax credits.
- Partners needed: Experienced Affordable Housing Developer
- Financial Structure: Separate financial structure/ capital stack from NMTC, to fund only the residential component of a mixed use building
- Timing: Financial closing occurs concurrently with NMTC closing
- Ownership: Separate SPE (often an LP or LLC) that owns the multifamily component of the building
- Compliance period: Generally 15 years (other funding sources in the stack could have longer compliance periods)

NHTC (New Market Tax Credits)

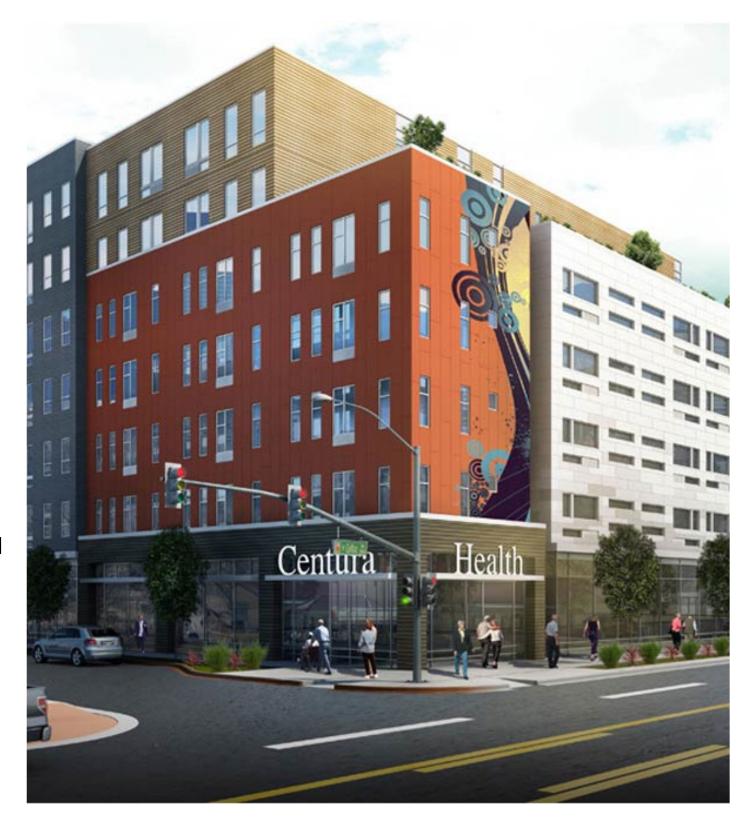
- Purpose: Commercial Space Affordability
- **Benefit:** Approximately 20% of a project's capital needs, usually in the form of low-interest, forgivable debt.
- Partners needed: Local business or non profit organization.

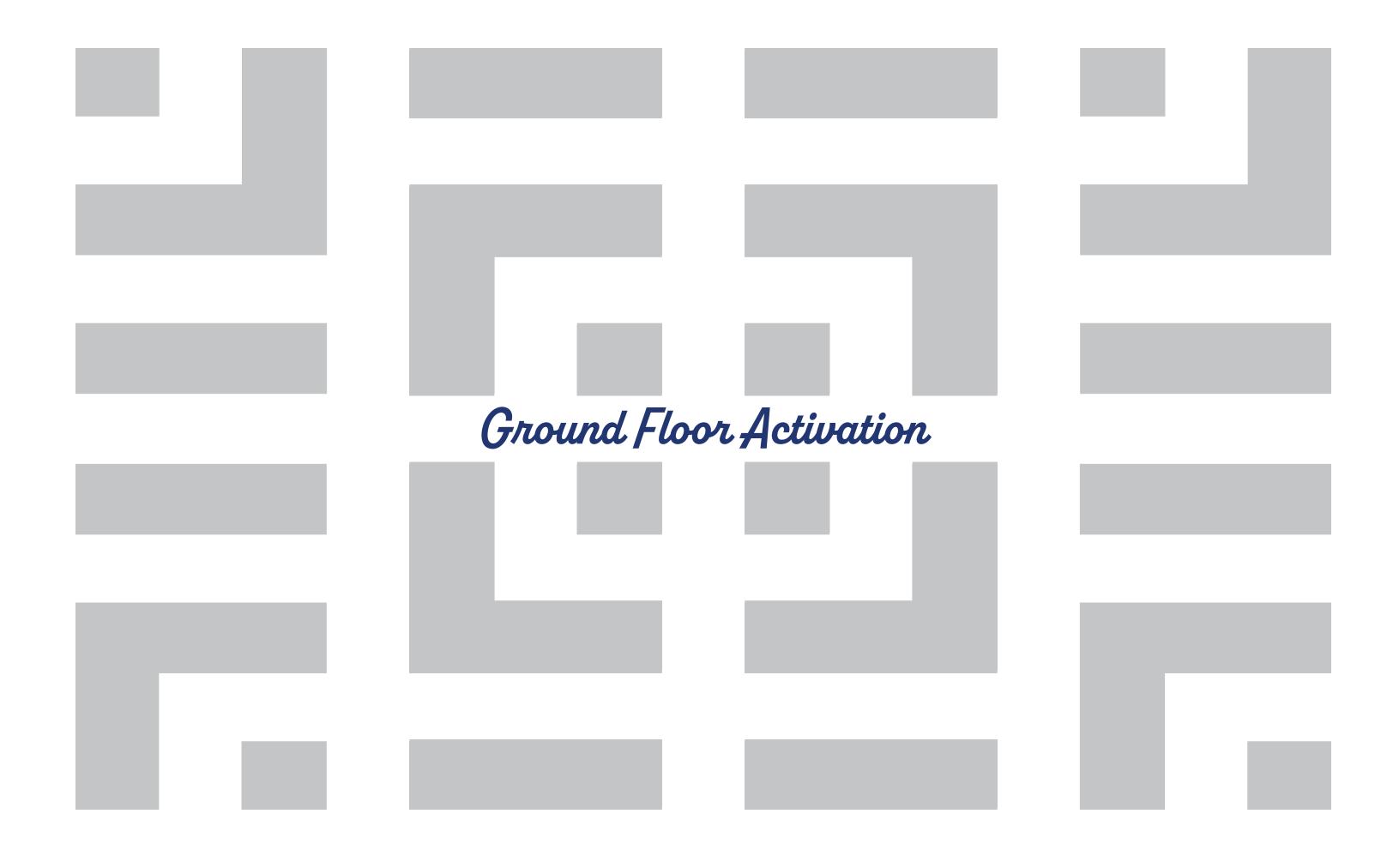
 Typical firms could include: small technology firms, inner-city shopping centers, manufacturers, retail/grocery stores or microentrepreneurs, charter schools.
- Financial Structure: Separate from LIHTC, meant to fund only the commercial component of a mixed use building
- Timing: Financial closing occurs concurrently with LIHTC closing
- Ownership: Separate SPE, generally set up as a non-profit QALICB (Qualified Low Income Community Business) that owns the commercial/ community space
- Compliance period: 7 years. At the end of this period the debt provided through NMTC is forgiven

Combining LIHTC and NMTC

Vida at Sloans, 4% LIHTC, 9% LIHTC, and NMTC, Project Denver Housing Authority

- "Vida at Sloan's" was developed by the Denver Housing Authority (DHA). It includes: 170 senior housing units, a ground floor health clinic and senior activity center within a single building.
- "Vida at Sloan's" was constructed using \$65 million in 9% and 4% LIHTC financing for all housing, plus NMTC financing to construct the health clinic and senior activity center.
- Because all project features are located within the same building, each component needed to be condominiumized with each condo owned by a separate financing partnerships/special purpose entity.
- The NMTC health care clinic portion of the project was arranged as a real estate leasing "qualified active low-income community business" (QALICB) with DHA as the master tenant. The clinic will be subleased to Centura Health for a range of health services and to Fresenius for dialysis services.
- The senior activity center will be managed by a nonprofit entity owned by DHA.





Ground Floor Retail Strategy

- Tell compelling stories
- Build strong communities
- Connect people
- Improve lives through technology
- Incubate businesses
- Provide adventure and exploration



How do you do that?



- Create a destination with a compelling value proposition
- Provide products and services within walking distance
- Provide a business-friendly environment for makers, purveyors, farmers and artists.
- Create a collaborative ecosystem that fosters relationships between local business owners and the life sciences community.

Ground Level Development Phases







Incubation Phase: Collaborative & Nourishing

- A maker's community: bakers, coffee roasters, thread shops, honey farm, urban farmers, brewery, leather goods, wood smiths, artists, digital media studios.
- Ideal adjacency to the Castleberry Hill arts scene and establishes a destination/ connection for residents and visitors

Stabilization Phase: Acceleration

- Accelerates the growth of makers community while spawning new retailers, restaurants and services, buoyed by added residential density and visitation.
- Retail storefronts built along Whitehall St. and Ted Turner Drive. Special and community events, pop ups, farmers markets.

Maturity Phase: Refinement & Trend

 Community solidifies, anchors south downtown. National lifestyle retail brands, chef driven restaurant, galleries lease space. Sought after.

Uses

• Everyday Retail

- Local market
- Service Retail
- Pop –ups

Artist Market

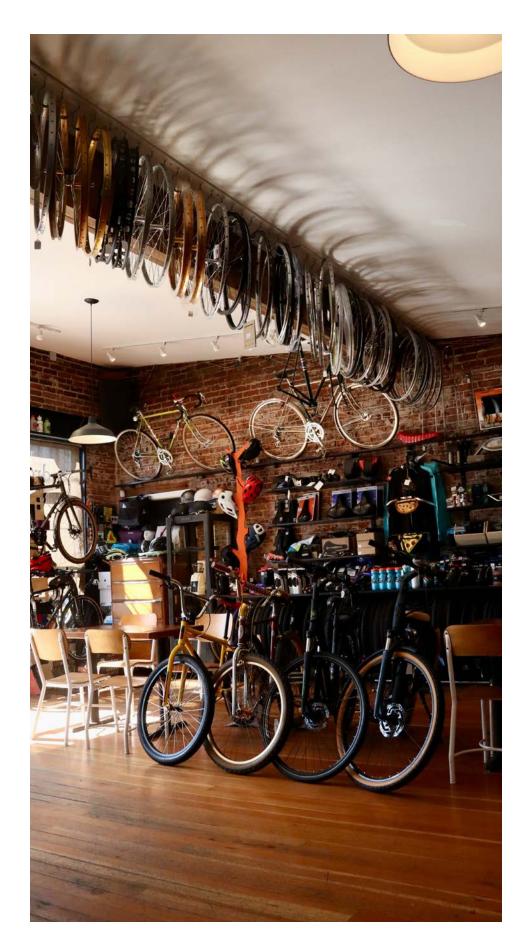
- Studio space for artists
- Exhibition hall

Light Industrial

- Bakeries
- Coffee Roasters
- Breweries
- Light Manufacturing
- Specialty Foods
- Digital Media Production

Agriculture

- Soil conservation
- Plant and biology testing
- Community gardens





Trade Area - Central Downtown

- Sporting, tourism and convention events draw in 10 million visitors annually.
- 195,000 daytime office employees.
- 300+ restaurant and entertainment options.*

Annual food and beverage sales \$125,000,000

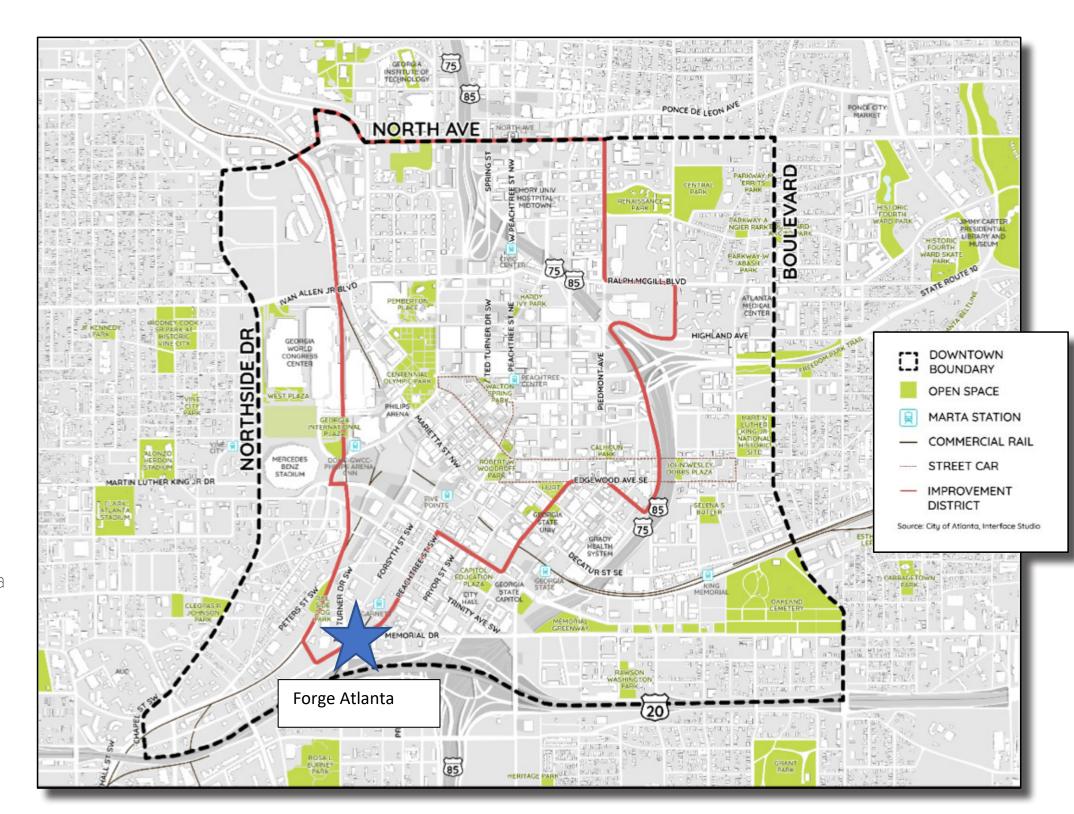
Annual retail sales \$222,000,000

Total retail, food/drink sales \$347,000,000**

* Central Atlanta Progress
**FSRI

- The current asking rate for a retail lease in downtown Atlanta for the Q2 2022 is \$31 per square foot.
- The current market rate, (the rental income that a property would most probably command in the open market), is \$31 per square foot.
- Market rates are forecasted to increase by 9% over the next five years to over \$34 per square foot.

- Data from Co-Star Report



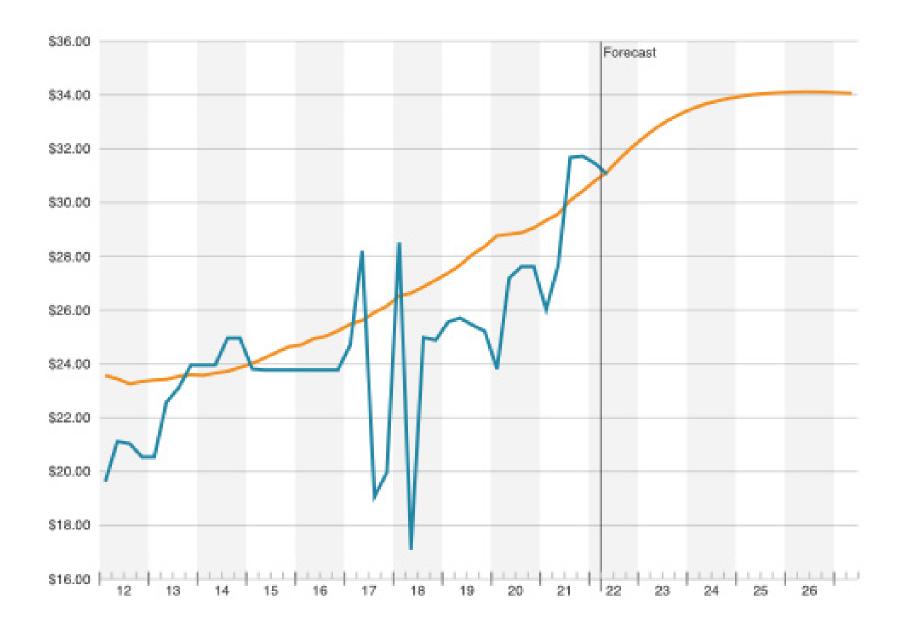
Retail Gap Analysis - Surplus

Trade Area Retail Leakage/Surplus Analysis*

- Only 40% of the \$347 Million dollars spent on Retail, Food and Drink sales in downtown Atlanta comes from the trade area's consumer base, (people who live in the area).
- The other 60% is captured from visitors who are drawn into the area.
- This represents a surplus of supply. A common phenomenon in tourist, entertainment and convention districts. Visitors create an augmented demand for goods and services.
- This surplus does not mean that there is no demand for additional retail.

Forge Atlanta, while positioned within the downtown Atlanta statistical area will attract a unique local consumer base, who will prefer products and services reflective of their lifestyle.

Market Rent & Asking Rent Per SF

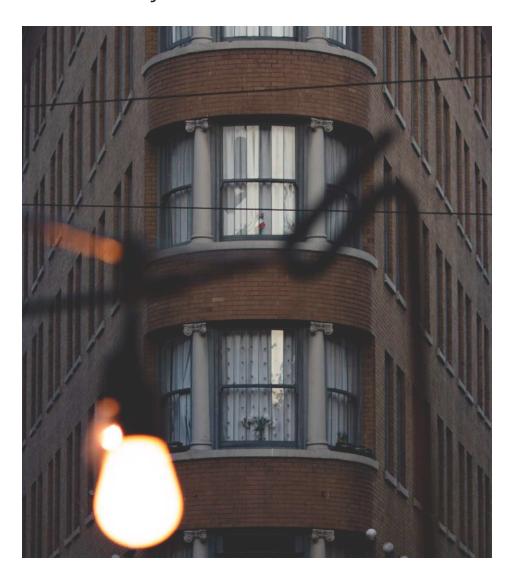




Trade Area Lifestyle Segmentation: Who lives there?

Metro Renters Are:

- 71% of Population
- Median Age 32.5
- Household Size 1.67
- Diversity Index 61.9







- · Highly mobile and educated
- Live alone or with a roommate
- Older apartment buildings and condos located in the urban core of the city
- One of the fastest-growing segments;
 the popularity of urban life continues to increase
- income is above the US average
- Spend their wages on rent, clothes, and the latest technology

Trade Area Lifestyle Segmentation: Who lives there?

College Towns Are:

- 26% of Population
- Median Age 24.5
- Household Size 2.14
- Diversity Index 56.3

- Enrolled in college or work for a college
- Students have busy schedules
- Students that are new to managing their own finances tend to make impulse buys and splurge on the latest fashions.
- This digitally engaged group uses
 computers and cell phones for all aspects
 of life including shopping, schoolwork,
 news, social media, and entertainment.
- College Towns are all about new experiences, and residents seek out variety and adventure in their live.



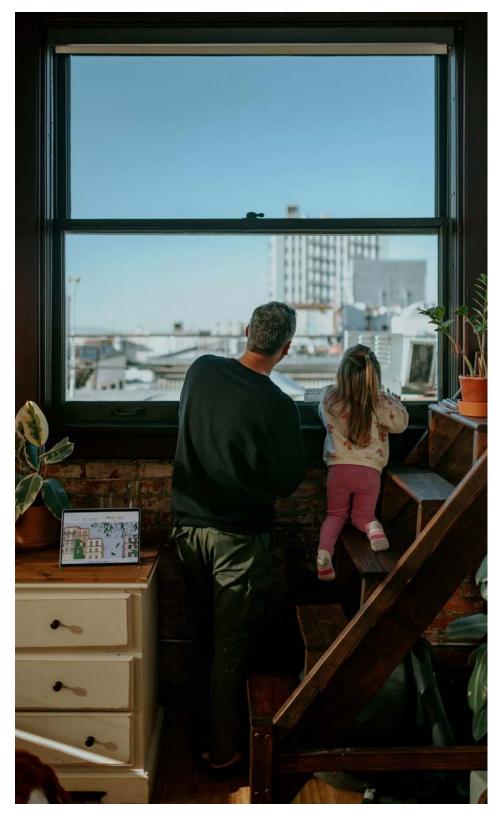


Trade Area Lifestyle Segmentation: Who lives there?

City Commons Are:

- 3% of Population
- Median Age 32.5
- Household Size 1.67
- Diversity Index 61.9
- This segment is one of Tapestry's youngest markets.







- It is primarily comprised of single-parent single-person households living within large, metro cities.
- A third have a college degree or spent some time in college, nearly a quarter have not finished high school.
- These residents strive for the best for themselves and their children.
- Most occupations are within Office and Administrative Support.

Wedgewood-Houston, Nashville



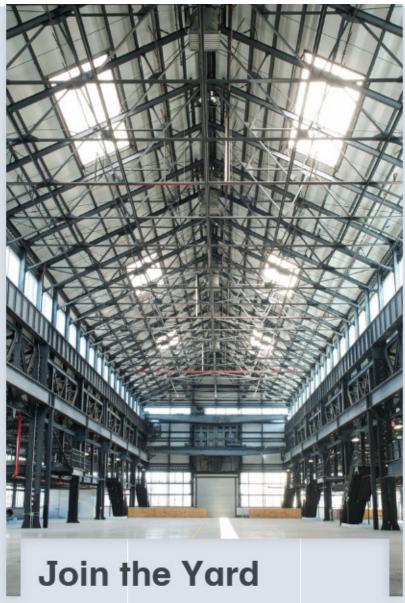
- Historically an industrial, warehouse and historic
 Civil War area
- Bordered by high profile sites and institutions such as dense development, transit stations, planned pro-soccer stadium and low income neighborhoods.
- Not connected to other areas of town including downtown because of highway system.

- Redeveloped into a thriving creative community blended of old, restored and new.
- New development reminiscent of industrial heritage of the area by re-imagining wood construction with mass timber.
- Thoughtful design of Urban Industrial Spaces with flexibility to accommodate many uses:

- Starter spaces as small as 500 s.f. with ability to expand up to 1,000 - 5,000 s.f.
- Ceiling heights 12-16' with manufacturers needing higher ceiling heights
- Second floor uses designed for individuals and companies who support the makers/ manufacturers
- Loading spaces requirements
- High electricity loads
- Separate HVAC systems to help air filtration
- Wedgewood-Houston & Chestnut Hill Planning Study 2019

Brooklyn Navy Yard







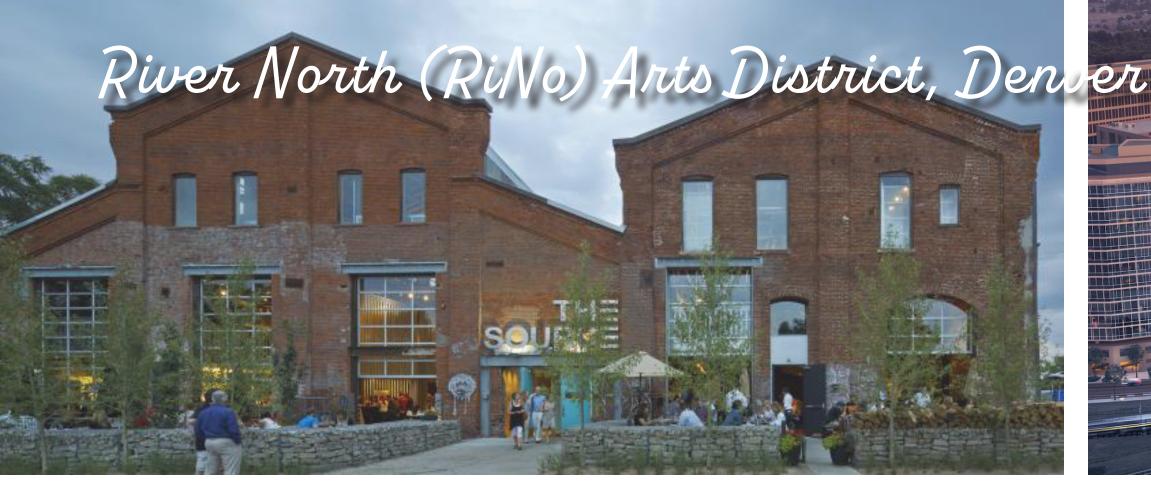


- Manufacturing, Design and Technology Center
- Living lab to test new technologies as they are being developed
- Mix of manufacturers and sizes jewelry, movie and tv sets, apparel and
 hi-tech hardware and rooftop farming
- Home to a high school to prepare students for jobs in the Navy Yard.
- Creatively designed event space for public and private events.
- Many small manufacturers offer education opportunities.



- Former warehouse district along the railroad tracks transformed into a creative arts center
- Multiple studios are housed in each warehouse building
- Planned new mixed-use development incorporates

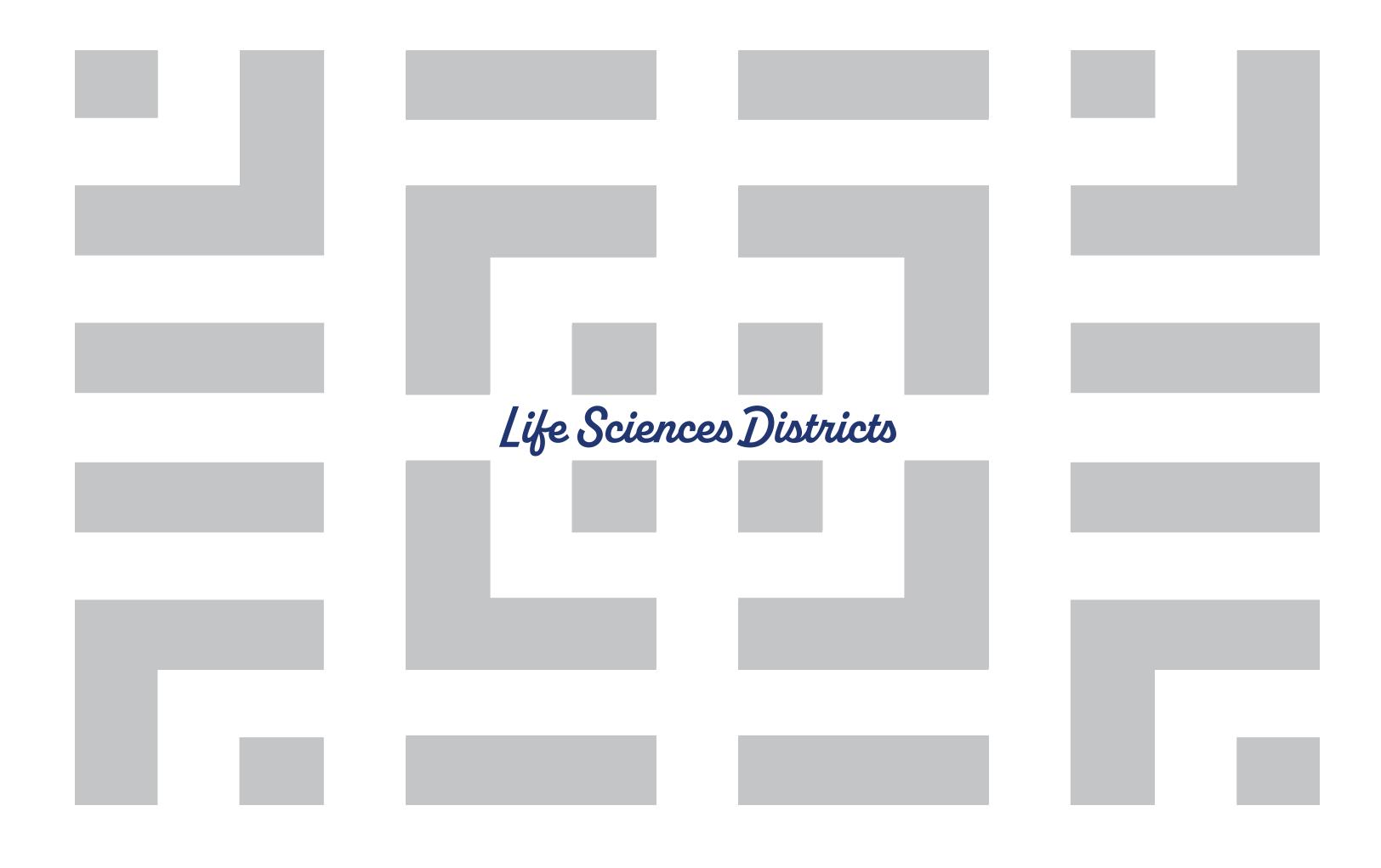
- existing smoke stack and mill building.
- Making a day trip to the area is an opportunity to see a wide range of art & entertainment: glass blowing, sculpture, painting, photography, music & film makers.





- Abandoned warehouse, reimagined & redeveloped into a popular arts and creative business district
- Located along a railroad corridor
- Continually evolving with influx of artists and tech start-ups.
- District has created design guidelines and requirements to preserve the character.







1 Adaptive reuse of former a US Army Arsenal including 2 historic buildings

2 Mixed Use site with housing, hotel, restaurant, retail & life science labs

3 Urban street environment, with plazas & green spaces between buildings

Yard Works

- State of the art, lab-ready, shell space
- Historic renovation with contemporary architectural interventions
- Authentic & unique material palette
- · Approx. 100,000 SQ. FT.

MIX OF STYLES & SCALES

TRADITIONAL MATERIALS CONTEMPORARY INTERVENTIONS



Yard Works

MIX OF STYLES & SCALES TRADITIONAL MATERIALS



PLACES FOR PEOPLE

BRANDING & PLACEMAKING

100 Forge

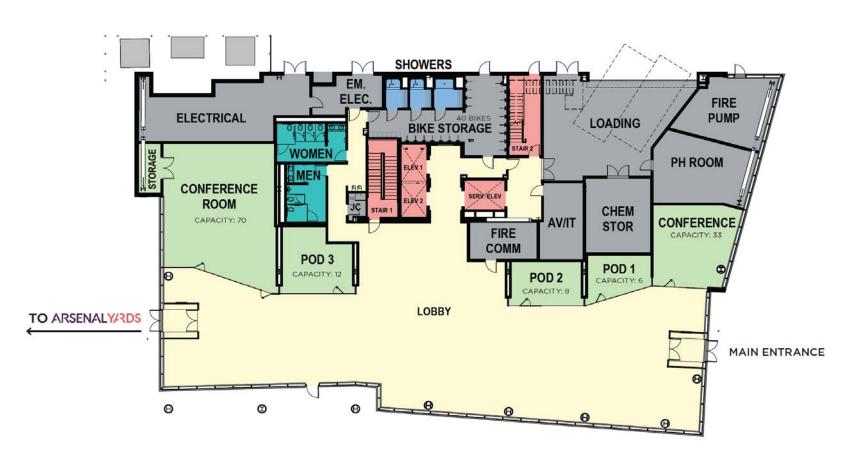
- Lab-ready based office space with shared conference, outdoor patio & meeting pods.
- High performance glass exterior to maximize view to Boston & Charles River
- \cdot Terracotta walls provide a sense of scale & warmth to adjacencies & park
- Efficient first floor design for back of house lab infrastructure
- · 9 floors, 165,000 SQ. FT.

TERRACOTTA CLADDING

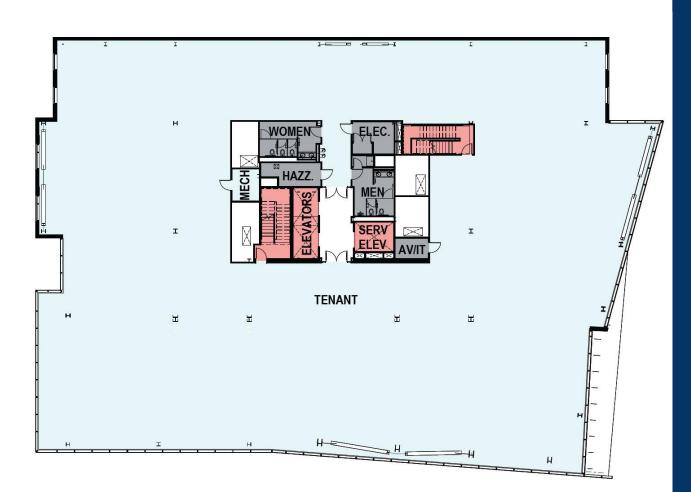
CONTEMPORARY CURTAIN WALL

PLACES FOR PEOPLE

100 Forge

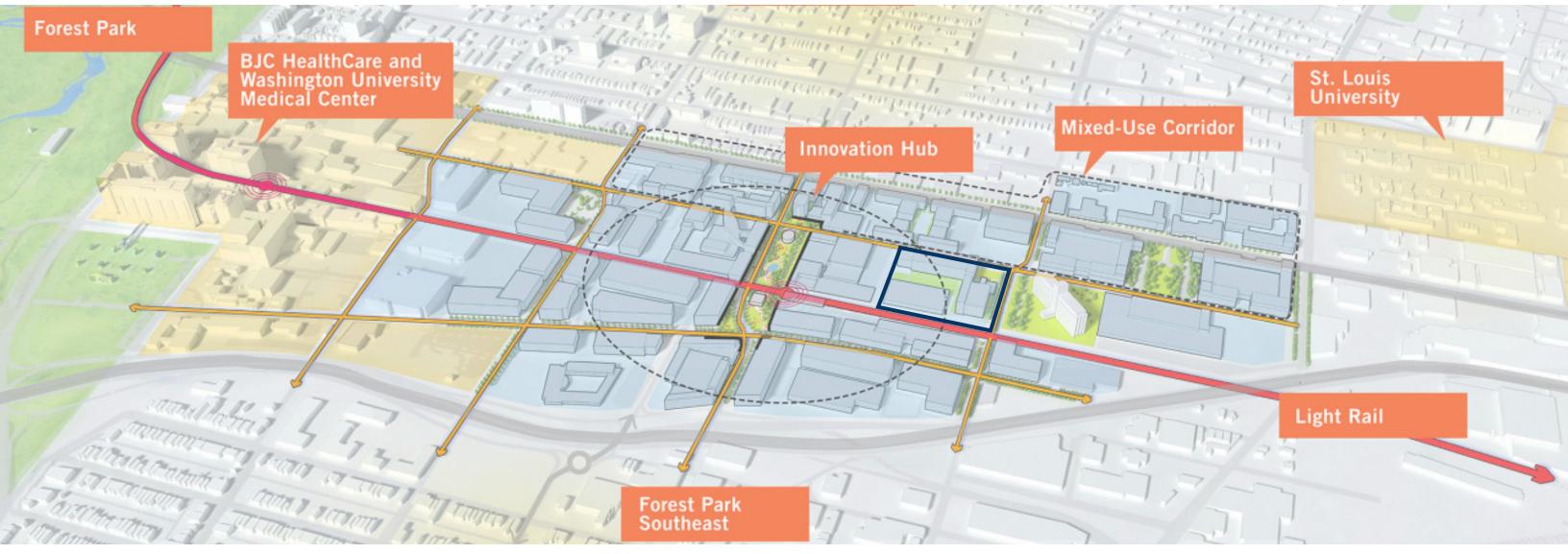


Ground Floor



Typical Upper Floor

Cortex St. Louis



- Adaptive reuse of former abandoned, underutilized industrial site/buildings
- 8 new buildings
- 3 building renovations

- 4 miles west of downtown St. Louis with focus on plant & life sciences
- 2 million square feet today
- 6k employees, 400 companies, startups to Fortune 100 today
- Mixed use with research, office, clinical, residential, hospitality & retail/restaurant space
- Cortex includes in between green spaces encouraging interaction to create integrated mixed use fabric

Cortex St. Louis

4210 Duncan

- Iconic Tower in the heart of Cortex
- Mix of office, lab, retail & restaurant
- Surrounded by activated public spaces
- · Large flexible floor plates
- · Approx 316,000 SQ. FT.



CURBLESS, SHARED SPACES

BRANDING & PLACEMAKING

Cortex St. Louis

ADJACENT MIXED USE

4210 Duncan OPEN OFFICE/ TECH GROUND FLOOR CAFE & PLAZA INNOVATION PLAZA

PLACES FOR PEOPLE

Science Square, Atlanta

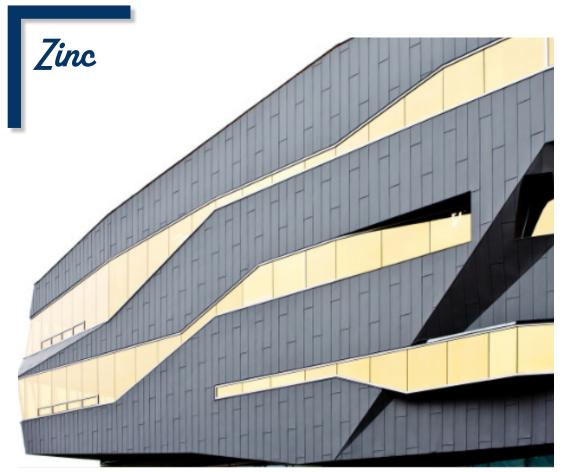


- Planned Life Sciences destination & ecosystem adjacent to Georgia Tech
- Designed to support bio-tech and life sciences research and commercialization.
- 18-acres to include 1.65 million s.f. office/lab space, 100,000 s.f. of retail, 416 residential units.



- GATV Innovation Labs shared lab space for life sciences that is fully outfitted for lab and office space with support services in the same building.
- Phase 1: 13-story Class A lab and office tower totaling 365,000 s.f. with adjacent 14-story, 280 unit apartment building.

Material Palette Ideas



- A historic building material that can last 100 years
- Little to no maintenance over life-time of the product
- Friendlier to the environment with low embodied energy
- · Requires less energy to extract than many other metals

Terracotta



- Traditional, natural, building material
- Unique color, patterning, application & paneling options
- · Reusable, does not fade, & reduces urban waste
- Adds to thermal insulation of a structure
- Adds uniqueness to facades

Mass Timber



- Beauty of natural wood with interior & exterior expression
- Sequester CO2 rather than release
- Weighing forestation issues of mass timber with opportunities
- Off-site fabrication of components to reduce construction timeline
- Workable in all temperatures

What Next?

- Research presented case studies for references & inspiration
- **Identify** life science, mixed-use and affordable housing partners
- Develop the Forge Atlanta brand to include the look & feel of the development, design standards & activated public spaces to create a sense of place
- Consider cost/benefit of creating pad ready site for life science component
- Plan a phasing strategy, with each including a housing, workplace & retail/ commercial component
- Continue discussions with Atlanta
 University Center schools, surrounding
 neighborhoods, Central Atlanta Progress,
 the City of Atlanta, Georgia Economic
 Development, Georgia Power & other
 stakeholders



Acknowledgments



Castleberry Hill, Atlanta

Castleberry Hill Neighborhood photo

https://discoveratlanta.com/explore/ neighborhoods/downtown/castleberry-hill/



Wedgewood-Houston, Nashville Nashville Warehouse Company photo





Brooklyn Navy Yards, Brooklyn Website homepage



River Arts District

www/pirstate.com/neighbrohood-river-artsdistrict/



River Arts District Jonal Gerard Gallery www.jonasgerard.com/jonas/riverview-station





Cortex St Louis: 4210

https://www.hok.com/projects/view/cortexinnovation-community/n



Gensler Mass Timber

https://www.gensler.com/news/pressreleases/next-generation-of-sciencebuildings-using-mass-timber



High Line Park New York

Michael Urmann

www.shutterstock.com



One River North, RiNO Arts District

Rendering - MAD Architects

5280.com - Denvers Mile High Magazine



The Source, RiNO Arts District

Photo - Timothy Hursley

Wheretraveler.com



One River North, RiNO Arts District

Rendering - MAD Architects

Mile High CRE

Cortex St Louis: 4210



https://www.hok.com/projects/view/cortexinnovation-community/



Science Square, Atlanta

Rendering - Perkins & Will

wwww.technologyenterprisepark.gatech.edu/



Science Square, Phase I, Atlanta

Rendering - RJTR Architects

www.technologyenterprisepark.gatech.edu/



Viaduct Park

Hood Design Studio

www.hooddesignstudio.com



Cortex St Louis Master Plan

HOK

https://www.hok.com/projects/view/cortexinnovation-community/



Cortex St Louis: 4210

HOK

https://www.hok.com/projects/view/cortexinnovation-community/



Arsenal Yards

https://www.arsenalyards.com/our-story/

Acknowledgments

The Rise, Fall, and Rise of Architectural Terra-Cotta



Architect Magazine

The Rise & Fall of Architectural Terracotta

https://www.architectmagazine.com/technology/the-rise-fall-and-rise-of-



Wedgewood-Houston, Nashville
Nashville Warehouse Company photo
www.nashvillewarehouseco.com



100 Forge

Arsenal Yards

https://www.arsenalyards.com/our-story/



Coffee Roaster

www.shutterstock.com



Vida at Sloans

CSH

https://www.csh.org/portfolio/vida-at-sloans-lake-denver-co/



Mass Timber Building

www.shutterstock.com



Arsenal Yards

https://www.arsenalyards.com/our-story/



Stephen Hawking Centre at the Perimeter Institute for Theoretical Physics

Teeple Architects, http://www.teeplearch.com/ portfolio/stephen-hawking-centre-perimeterinstitute-for-theoretical-physics/



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Arsenal Yards

https://www.arsenalyards.com/our-story/



CoLiving Floor Plan

https://www.xdenver.co/coliving



X Denver

DenverInfill

https://denverinfill.com/2018/11/new-project-x-denver.html



MAX IV Laboratory Landscape

Snohetta

https://snohetta.com/projects/70-max-iv-laboratory-landscape



Arsenal Yards

https://www.arsenalyards.com/our-story/



Markthal

MVRDV Architects

https://www.mvrdv.nl/projects/115/markthal



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Arsenal Yards

https://www.arsenalyards.com/our-story/



Viaduct Park

Hood Design Studio

www.hooddesignstudio.com



X Houston

The X Life

https://www.thexlife.co/



MTN

BIG

https://big.dk/#projects