Master Plan

develop
work
play
be onMain
live
innovate
collaborate
create

onMain
Dayton's Imagination District

About this document

This master plan summarizes the advancement of the planning and design to transform the former Montgomery County Fairgrounds into a vibrant mixed-use district. Since the release of the vision plan in the autumn of 2018 significant site design and engineering work has been undertaken. This document summarizes that work and expresses the intentions of the onMain leadership to move toward implementation.

Ackowledgments

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Lindsay Lease, Former Project Manager onMain
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December 2020

Letter from onMain CEO

Momentum is building for onMain. We have moved from a blank slate to a vision and now to this master plan. And from the journey to date, we know we are building toward an unprecedented addition to our community.

During the master planning process, we engaged in a rigorous analysis and, just as important, asked for the community's insight. The result is an innovative plan that is authentically of Dayton, Ohio. To set the stage for development—and implement the master plan—the former fairgrounds site has been prepared for development and a formal organization created to manage the work.

OnMain is a once-in-a-generation opportunity to establish a special place that reflects the mission of the two anchor institutions, capitalizes on the positive momentum occurring in downtown, and be a place that brings the Dayton community together. The 38-acre site—a practically clean slate from which to start—has the potential to reflect the entrepreneurialism that has been an important part of Dayton's past. It also can represent the hopes and dreams of our region's bright and equitable future.

I am honored to have been selected to serve as the first CEO for onMain. I have already had the privilege of collaborating with a diverse group of institutional leaders, government officials and community representatives as well as a talented team of planners, designers and technicians to bring us to the starting point of implementation.

Amidst the growing excitement, it is important to remember this will take time. Long-term buildout of the mixed-use development of up to 2.9 million square feet will take many years. However, the return on patience and investment will be well worth it.

As you review this document, I hope the anticipation of what onMain holds for this community will grow in you as it already has in so many of us committed to making onMain a special place for Dayton.

Buddy LaChance
CEO, onMain

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OnMain is a place that embodies the best of Dayton; as we were, as we are today, and as we'll forever be. A place where tinkerers will tinker, inventors will invent and dreamers will dream. A place where curious and open minds come together to work, live and play. It's a place that sparks innovation and echoes Dayton's can-do, creative spirit. A place with a distinctive identity and personality and a vibe that is open, welcoming, and inclusive for everyone. It's a place where people of all cultures and backgrounds go to learn and discover, to play and relax, to work and to live. To be.

The rise of innovation districts...

In essence, onMain is a model innovation district. Brookings Institute defines innovation districts as "geographic areas where leading-edge anchor institutions and companies cluster and connect with start-ups, business incubators and accelerators. Districts are also physically compact, transit-accessible, and offer mixed-use housing, office and retail. Unlike the hyper-segregated business parks or residential districts that have for decades populated most cities and suburbs, innovation districts include a range of distinctive traits and assets."

Advancing a new wave of urban competitiveness: The roles of Mayors in the rise of innovation districts. Brookings Institute and Project for Public Spaces

1. Introduction

Process
Background
Vision and Principles

A catalytic building...

To catalyze development activity on the site, an employment-oriented building is envisioned at Stewart and Main streets. The Think Dayton building will be the first employment building on the site and will focus on research, development, business incubation and acceleration as well as state-of-the-art education and training. The Think Dayton building will be flexible, have a mix of tenants, create a cultivating space for creative design, facilitate cross-disciplinary collaboration, and serve as an education and training center for professionals using cutting edge tools and technology.

Process

Two important inputs guided the Master Plan development process, a technical planning process focused on site design and engineering and continued community engagement with the surrounding neighborhoods and the larger Dayton community.

Technical Planning

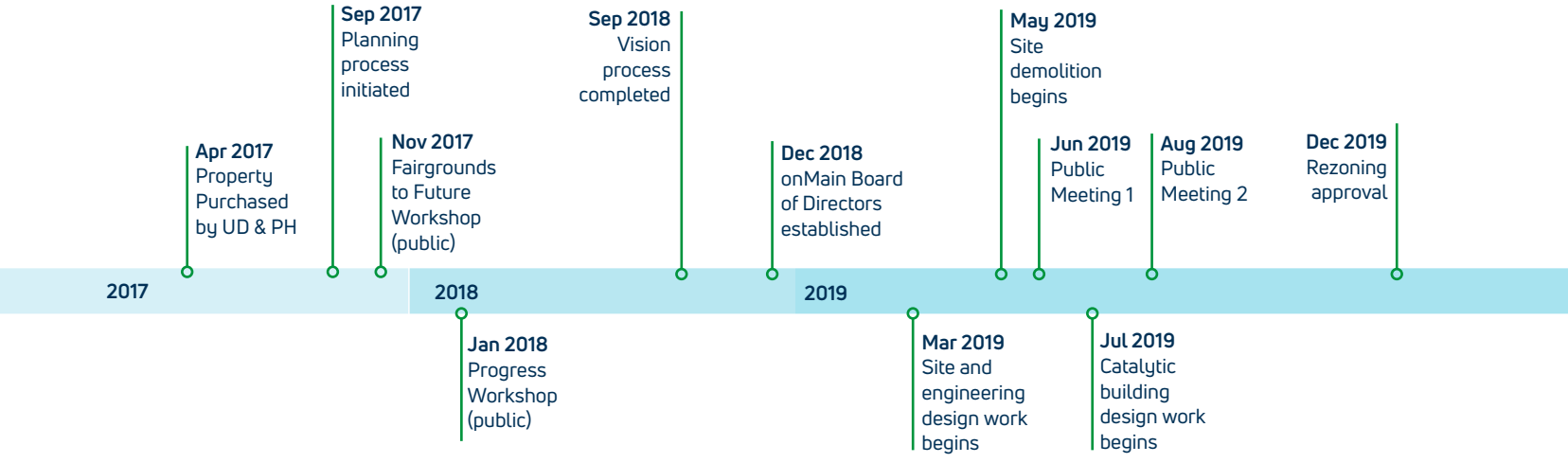
The technical planning work centered around a series of work sessions with the urban designers, planners, engineers and landscape architects in order to turn the vision into reality. During these work sessions the site design work was closely coordinated with engineering needs for site infrastructure. Engineering plans for all utilities (stormwater, gas, electric, water, fiber, etc.) based on the development program and site layout were prepared. In addition to the utility work, the street layout and specifications were developed to support the urban design features and a range of mobility options.

Community Engagement

Community engagement and input continued to be an important part of the process as the vision was articulated into a detailed Master Plan. Two public meetings were held during the development of the Master Plan.

The first public meeting was held on June 27, 2019 and included an introduction to the site design and engineering work needed to realize the vision. Participants were able to provide feedback on the plans and ideas for the public realm, open spaces and streets being designed within the development.

On August 1, 2019 the conversation continued at a second public meeting, this time centered around how the private development might take shape. Conversation and feedback centered around how the development can create a setting that connects people, and creates a density of ideas, activity and collaboration.



Advisory Committee

An Advisory Committee was formed to provide for the ongoing involvement of the community leaders and residents from the surrounding neighborhoods. This 13-member Advisory Committee represents the larger Dayton community. They meet quarterly and have provided their direct input and guidance into the master planning process. They will continue to meet as the site transforms to ensure that the broader Dayton community voice is represented and included.

Zoning Approval

A re-zoning process was undertaken to allow for the different types of uses envisioned and planned for the site. The re-zoning process involved several steps as outlined below.

- Extensive pre-application consultation and coordination with Dayton planning staff
- Drafted amendments to the Planned Development chapter of the City of Dayton Zoning Code to enable a multi-phase planned development
- Preparation of the Planned Development and Development Standards
- Preparation and submission of the full zoning map amendment application packet
- Work sessions with the Downtown Land Use Committee and the City Plan Board
- Formal review with the Downtown Land Use Committee with subsequent unanimous recommendation for approval
- Formal review with the City Plan Board with subsequent unanimous recommendation for approval
- Formal review with the Dayton City Commission and unanimous approval

TENTATIVE FUTURE MILESTONES

2020

April 2020
Site and engineering design work completed

2021

Spring 2021
Phase 1 site infrastructure construction begins

Fall 2021
Catalytic building construction begins

2022

Spring 2022
Phase 1 site infrastructure construction complete

Winter 2022
Catalytic building complete

Background

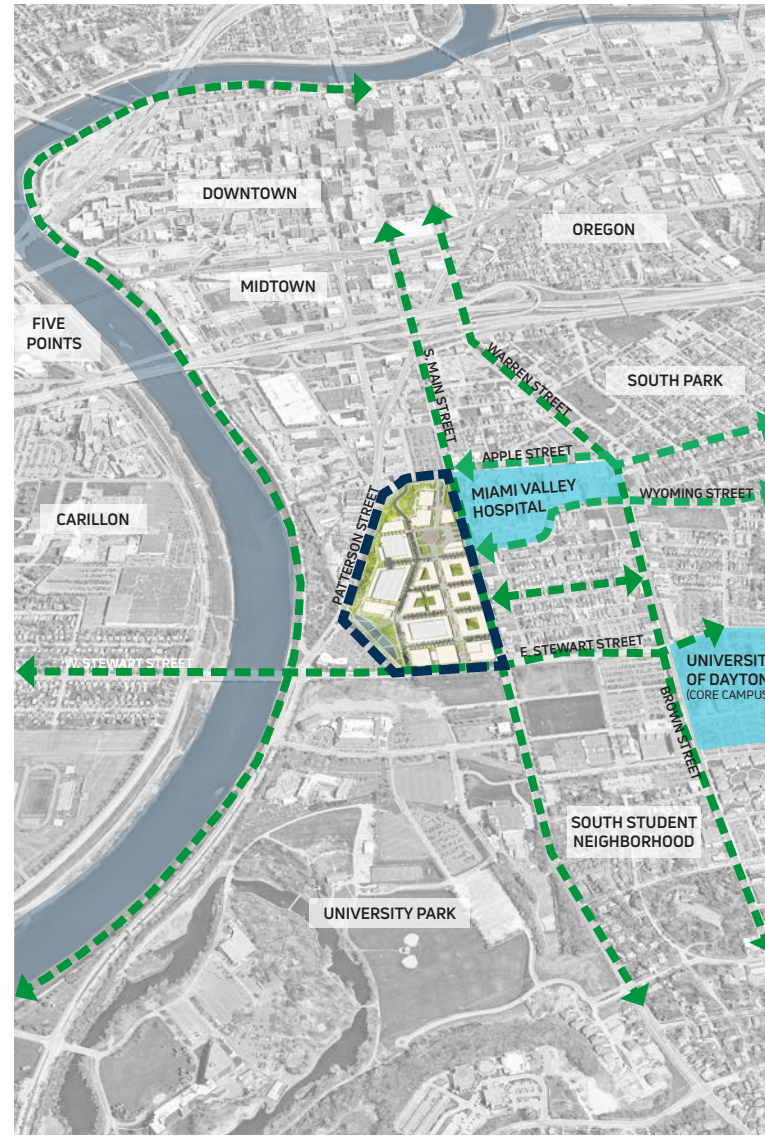
For 160 years, the fairgrounds site and the intersection of Stewart and Main streets served as a community destination. There were also decades where this area was the economic and innovation engine for the city and region.

In April 2017, Premier Health and the University of Dayton came together to purchase and redevelop the 38-acre former Montgomery County Fairgrounds site.

Premier Health and University of Dayton are values-based, community-serving institutions with a long history of partnership on initiatives that advance and support community and economic development.

As anchor institutions, the partners are committed to a plan that authentically builds on their institutional missions and values, promotes economic development, and fosters a unique sense of place that serves broad community interests.

In late 2018 OnMain, a not-for-profit development organization was created to lead the day-to-day operations. The board of trustees meets monthly to lead and direct this important work.



Site preparation

This first step in preparing the site for redevelopment was to remove the existing structures and regrade the site for the first phase of development and possible interim uses that might activate parts of the site waiting to be developed.

It is important to the community, as well as to onMain, that the history of the site be preserved and celebrated. As part of a historic preservation strategy, Dayton History relocated horse barn No. 17 to Carillon Historical Park. Barn No. 17 is a stable built in the late 19th century and thought to be the oldest remaining structure at the former fairgrounds other than the Roundhouse. Once moved to Carillon Historical Park, horse barn No. 17 will be used to tell the history of the Montgomery County Fairgrounds and the significant events that occurred on that site. The relocation of this barn presents an opportunity to aid in Carillon Park's fulfillment of its master plan, and will bridge three themes; early Dayton, transportation and agriculture.

Additional historical artifacts from the onMain property were previously moved to the new Montgomery County fairgrounds in Jefferson Township, including the cast aluminum reliefs depicting agricultural life that were part of the main gate.

Demolition of the other structures on the site began in the summer of 2019 and was complete by end of November 2019.

Vision and Principles

This is an opportunity to...

- Represent the best of Dayton as a city of innovation, entrepreneurialism, creativity, sustainability and inclusiveness.
- Establish a unique platform to create, build and demonstrate solutions across a range of disciplines from health care, energy, housing, environment, business creation and neighborhood wellbeing.
- Create a density of ideas, activity and collaborations that can propel the next wave of businesses and entrepreneurs to bring jobs and opportunity to Daytonians and the Miami Valley.
- Create a setting that connects people, neighborhoods, businesses and institutions in a meaningfully diverse, equitable and inclusive way.
- Establish a neighborhood unlike any other in the Miami Valley that demonstrates a new type of walkable urban environment.
- Establish development standards that reflect the missions and values of the two institutions by integrating environmental sustainability and wellness into the design.

Principles

Twelve principle statements describe the intended characteristics of development of the site.

DEVELOPMENT POLICIES ARE INTENDED TO PROMOTE...

1. Sustainable values

Development of the site will reflect the institutions' values for holistic sustainability: environmental, economic, social and emotional. This means: respect for nature and environmental systems; commitment to realizing financial benefit for the investors, community and individuals; inclusion of community spaces and housing choices for a range of community members; and fostering affection for the place.

2. Advanced and integrated technology

The site and its structures will reflect creative thinking for building materials, energy use, data analytics and sensor technology. Dayton has a powerful history of invention and innovation. This site represents the future for these same attributes.

3. Flexibility (adaptable) over time

The site of the former fairgrounds is relatively large at 38 acres. It also exists in real estate market with less than a robust demand. Build out of development will take several years and there is a need for flexibility and adaptability over time.

4. Healthy living choices

The layout of the site will be thoughtful in supporting the wellness of its employees and residents. This includes an attractive and safe public realm for walking, biking and other recreation. It will also be a place that minimizes unhealthy emissions.

5. A distinct but integrated "place"

Living, working, learning and playing will be possible throughout the site. It will be a place that is occupied 24-hours a day, seven days a week. It will become an integrated, mixed-use neighborhood in the truest sense, distinct from conventional development.

6. A high-quality public realm

A great neighborhood must have high-quality, carefully-designed streets and public spaces and this site will have them. This also means strong "edges" of the development where buildings are built to the street, framing the public place for people to move (walk, bike and drive) as well as congregate.

PHYSICAL DESIGN IS INTENDED TO FEATURE...

7. Unique amenities to enliven streets and common spaces

The site development will create a vibrant neighborhood where the streets, sidewalks, plazas and parks are well-designed. Opportunities to animate the streets and ground-level activity of buildings will be maximized.

8. Regard for the bluff and its potential

The north side of the site is a bluff with steep slopes down to Apple and Stewart streets. While it offers unique views to downtown and other neighborhoods, it is a barrier for connectivity. The development of the site will respect the unique landform and maximize its potential as an amenity.

9. Respect for the site's history

Future development will respect the site's—and adjacent area's—history, especially as it relates to the fairground activities. This can be large gestures, like the goal of maintaining the Roundhouse, or small gestures, like public art.

10. Connection to anchors and larger community

The site will be not be an "island." It will have connections—physical and visual—to Miami Valley Hospital, the University of Dayton and adjacent neighborhoods. It will also have connections to the Great Miami River trail network.

11. Concentrated mass in initial phase

The initial development activity will be concentrated in a way that creates a density of activity and interest. This will create a more impactful demonstration of progress than if development is dispersed.

12. Development progressing from the edges inward

To create a positive tone for initial development, the initial projects should be constructed along Main and Stewart streets. This will signal progress (while deeper parcels take longer to develop) and build confidence in the community and from potential investors.

"As we have said about this site, it is one of the few last greenfields in our entire city and so it's one that takes a special place for development. When Premier and UD announced they were going to be the caretakers—and make sure this was done right—we felt a lot of relief because of the longevity of those two organizations...I know Premier and UD hope this will be a transformative development that will be talked about not only across Dayton but across the country."

Nan L. Whaley

Mayor, City of Dayton

2. Site Overview

Site Plan
Development Program

Site Plan

The fairgrounds site was an isolated island in the city, only accessible for public events. onMain is designed to be an integral part of the city and adjacent neighborhood. It will bring new life and activity to the site and welcome residents, employees, neighbors, and visitors every day of the year.

The site will better connect to its surroundings.

- New streets and sidewalks will extend west of Main Street connecting existing neighborhood streets to the site.
- A new intersection on Stewart Street will welcome people coming from west of the river.
- Existing and new RTA bus stops on Main Street will connect onMain to the transit hub downtown.
- A future connection over Patterson Boulevard to the Great Miami River Recreation Trail will provide convenient access for bicyclists, joggers, and walkers to take advantage of this regional asset.

Stewart Street will house the innovation activity of onMain. The sidewalk will demonstrate sustainable stormwater management. Dedicated curbside pick-up/drop-off zones for ridesharing will encourage people to move around without their own cars. The buildings along Stewart will house the next generation of employers who will boost Dayton's economy and spur the innovative thinking for which the city is known.

The shared street parallel to Main Street will be a unique space.

- The Roundhouse will be featured by a view corridor between the Roundhouse and Stewart Street.
- Curbless street with pavers and extensive landscaping that sustainably manages stormwater.
- Cars will be encouraged to travel slowly due to pedestrians and bicyclists mixing in the street.
- Entrances to individual ground floor housing units and corner cafes that offer seating will animate the street.

The Roundhouse will be re-imagined as a distinguishing feature.

- While its future use is still being determined, the Roundhouse will serve as both a physical reminder of the site's history and a living example of its creative, welcoming future.
- Removing the retaining wall along Main Street in front of the Roundhouse will physically and visually connect this landmark back to the city.
- A multiuse plaza around the Roundhouse will provide flexible space for daily use as well as the ability to host both large and small community events.

Main Street will become the pedestrian-friendly seam that connects onMain to its surroundings.

- Local retailers, dining, and community uses along Main Street will invite people to meet their neighbors and try something new.
- New sidewalks will provide shade trees, bicycle parking, and benches to create a safe, welcoming place for people.

Development Program

The district will contain a mix of employment, residential uses and community uses. The uses allowed within the development are described generally below

- Employment-oriented uses include office and professional services and lodging or any similar use with a minimum intensity employment of 500 square feet of floor area per full-time equivalent employee
- Retail uses include all retail and personal services, this would include shopping, restaurants and services geared towards those living within walking distance.
- Innovation uses includes additional non-residential uses associated with innovation including fabrication and assembly, makers spaces, laboratories, manufacturing of prototypes, incubator spaces for start-up and mid-level businesses, artisan production, arts exhibition, shared workspaces, and other arts and creative enterprises
- Residential uses include apartments and live/work units
- Community uses include community facilities/institutions, educational facilities, recreation and open spaces, and community gardens including plant nurseries/greenhouses.

The table indicates the program mix and planned square feet of each type of use across the site.

Mix of Uses

Total Site Area	38 acres	100%
Streets and Building Area	30.4 acres	80%
Common Open Space	7.6 acres	20%
Community Use	20,000-35,000 sf	1-2%
Residential Use	1,300,000-1,500,000 sf	45-70%
Employment-oriented Use	750,000-1,100,000 sf	26-52%
Retail or Ground Floor Active Use	60,000-85,000 sf	3-4%
Total Program	2,130,000-2,920,000 sf	100%

**Percentages will fluctuate based on the future market demands*

3. Site Components

Public Spaces
Buildings
Streets
Mobility
Parking
Health and Wellness
Sustainability
Advanced Technology

Public Spaces

The common areas will encourage both active and passive recreation while providing welcoming community gathering places and natural areas.

Public spaces will be built concurrent with the infrastructure and buildings. Twenty percent of build out will be common space.

The common areas by definition are for the public and their design was influenced by public input.

The map to the right and the information following convey the character and details for each of the public spaces being planned for the development.

At an appropriate time formal, branded identities will be created for each space.

Public Spaces

1	Think Dayton Plaza
2	Canal Park
3	Roundhouse Plaza
4	Northern Bluff
5	Community Trail

1. Think Dayton Plaza

A space for creative conversations. This open space is approximately 18,000 sf and will be a formal gathering space that accommodates special events and encourages social interaction. The landscape will be a blend of hard and soft surfaces and complement the building lobby. This open space is planned in the first phase of development.

Design Examples




Plan View

2. Canal Park

Nature in the City. This open space is approximately 2.5 acres. It will enhance stormwater detention and create a water feature amenity that combines ecological services and aesthetics. The landscape will be a mix of natural and hard edges that includes a walking path and provides a connection to the Great Miami Trail. This open space is planned in the first phase of development.

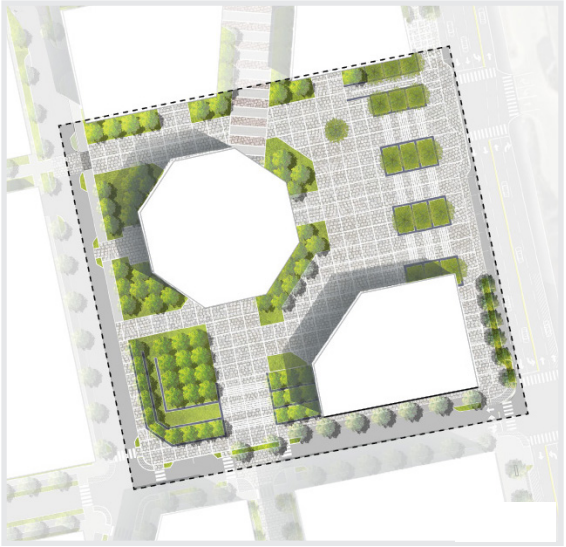
Design Examples




Plan View

3. Roundhouse Plaza

Community's living room. This open space is approximately three acres and will be the primary community gathering space with flexible areas for a variety of events. It will function as an outdoor extension of the Roundhouse and highlight this important historic building. This open space is planned for a later phase of development.



Plan View

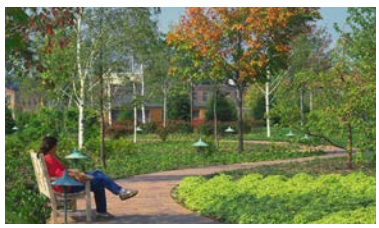
Design Examples

4. Northern Bluff

Contemplative space. This open space is approximately two acres and will celebrate the views of downtown and the river over the hillside. The landscape will be a passive green space with hardscape features for strolling and relaxing. The space will be strongly linked to the Roundhouse Plaza and offer outdoor amenity spaces that serve office users. This open space is planned in the final phase of development.

Design Examples



Plan View

5. Community Trail

The multi-use community trail extends along the western edge of onMain, connecting the Roundhouse Plaza and Northern Bluff south to the stormwater park and Stewart Street. The trail encourages an active lifestyle and provides an engaging frontage for housing that face west toward the river. It will connect to the existing Great Miami River Trail via a bicycle and pedestrian bridge over Patterson Boulevard that reuses the remaining bridge abutments from a former rail bridge. This open space is planned for a later phase of development.

Plan View

Design Examples

Buildings

Similar to the importance of defining a high quality public realm, the buildings will be designed in an intentional way. Buildings within onMain should...

1. Create a neighborhood, not a development

- Support an organic feel that develops over time – buildings at onMain should not all look the same: encourage creativity and innovation in building design that meets the development standards for creating a walkable, mixed-use urban neighborhood.
- Encourage variation in building styles and heights – from four to eight stories.

2. Shape buildings to define the shared public realm

- Buildings frame streets and public spaces to provide a sense of enclosure at ground level while maintaining access to sky views and sunlight above.
- Variations from build-to lines are purposeful and designed to add variety and amenity to the public realm, such as café seating, pocket parks, front gardens, etc.

3. Create streets where people want to walk

- Variety at sidewalk level: retail frontage, views into actively used ground floor space (research, fitness, daycare, lobbies), entries to individual housing units, building lobbies, etc.
- Active ground floors: retail and dining in key locations bring life and activity to sidewalks.
- Windows into ground floor spaces to provide eyes on the street and avoid any blank walls.
- Residential front doors and stoops: entries to individual ground floor units (flats or 2-floor units embedded in multistory buildings) allow people to see neighbors coming and going. Prioritize this along the shared street and encourage it throughout onMain.
- Awnings and other structures to provide shade in summer and protection from inclement weather.

4. Support human scale public space

- Help pedestrians experience something different roughly every 5-7 seconds while walking at 220 feet to 264 feet per minute (2.5-3 mph).
- Street scale: 330 feet is often considered the farthest distance the human eye can perceive people or objects in motion.
- Building scale: 60-70 feet is the distance at which the human eye can begin to read facial expressions.
- Unit scale: 25 feet is the distance at which the pedestrian is visually engaged with façade details, building entries, windows into interior spaces, signage, etc.
- Design façade articulation that creates variety: visually engage pedestrians at sidewalk level and subdivide larger buildings with bays, material changes, or other features.
- Use durable materials that provide a variety of texture, color, and shadow lines.

5. Support a critical mass of people living, working, and visiting onMain

- Provide support for local businesses and events: create a critical mass of people (density) living and working here in four to eight story buildings.
- Bring life to streets throughout the day and week: integrate a mix of uses horizontally across the site and vertically within buildings; actively program public spaces with a variety of uses throughout the year.

6. Encourage interaction, collaboration, and help build social connectivity

- Design indoor and outdoor shared spaces like lobbies, event rooms, and courtyards to encourage random meetings and promote familiarity with others.
- Consider the needs of all potential users, including the very young, teens, and the elderly, to provide accessibility and safety in welcoming spaces.

7. Use LEED design principles and healthy living principles to promote sustainability and wellbeing and create a place that reflects the mission and values of the two institutions

- Use energy- and water-efficient systems and fixtures, renewable and low-carbon building materials, and local products in building design; provide ample daylight and fresh air to interior spaces.
- Promote active lifestyles, healthy eating, mental wellbeing, and social connectedness through site and building design and programming.

Heights

The maximum height of any building and structure in the district will not exceed eighty-five (85) feet.

Build-to lines

In order to provide a sense of place and orientation, build-to lines have been articulated.

Build-to lines will generally follow Main Street and Stewart Street, internal streets, and framing common open spaces. Build-to lines are not planned for the Patterson Boulevard edge due to the change in topography and minor breaks along streets where mid-block connections are expected. Residential use setbacks will provide for front gardens, forecourts, porches, and stoops. Non-residential use setbacks will create additional common open space or mid-block accessibility and include features to enhance the space's use and enjoyment, such as tables and chairs, seating, street furniture, shade structures, and public art.

Height and Build-to line

- 85' max height area*
- Build-to lines
- No build-to lines

*** Remainder of site 65' max height**

Active Ground Floor

Active ground floor uses include retail and community uses. Along portions of Main Street and internal streets, the portion of the ground floor of a building* at frontages determined to have active ground floor uses within 20 feet of a public street will primarily consist of spaces that are active and community oriented. Uses could include retail stores, sales areas, consumer service businesses, general, professional and agency offices, institutional offices, classrooms and dormitories, building lobbies, residential units, research and development activities.

*defined as the first floor of a building located either at mean grade or no more than four feet above the mean grade of the building.

Ground Floor Uses

- Retail
- General active uses

Roundhouse

The Roundhouse structure dates from 1874 and was reconstructed after a fire in the 1950's. This barn is one of the few remaining of its kind in Ohio and the only original building retained on the site. The Mt. Vernon Barn Company completed a barn assessment of the structure in February of 2018 and found that while there was no major structural issues some work is needed in order to stabilize the structure. Additional work will be needed such as upgrading electric and plumbing infrastructure and addressing Americans with Disability Act (ADA) and other life safety code requirements to make it a fully occupiable space. Restoration of the cupola would be also be a key piece of the restoration work. Key structural stabilization tasks include:

- Correct grading on northwest side which has resulted in some foundation issues
- Repair charred rafters and studs
- Reinforce columns that were damaged by termites
- Replace exterior wood siding which is at the end of its lifespan

onMain has committed to exploring re-use strategies for the Roundhouse structure given its historic designation and prominence on the site. The site plan for the district showcases the structure by having all roads lead to the roundhouse and incorporating a large plaza around the structure to serve as a community destination and gathering space.

Streets

The plan includes a compact grid of walkable streets and short blocks with connections to regional recreation corridors.

Street Grid

The street network will achieve the City of Dayton Comprehensive Plan's goals for urban core area streets, utilizing a grid pattern, small building setbacks, mixed land uses, pedestrian-oriented retail and on-street parking. The street network will balance the need for quick and easy car access with the desire to create a safe and comfortable environment for cyclists and pedestrians.

The street grid will respond to the surrounding blocks by extending the alignment of neighborhood streets east of Main Street into the site and by integrating and improving the contextual public realm including along Main Street.

The blocks are designed from street to street for the purpose of creating a human-scaled walkable environment. In the case where there are longer blocks, a mid-block pedestrian connection will be provided.

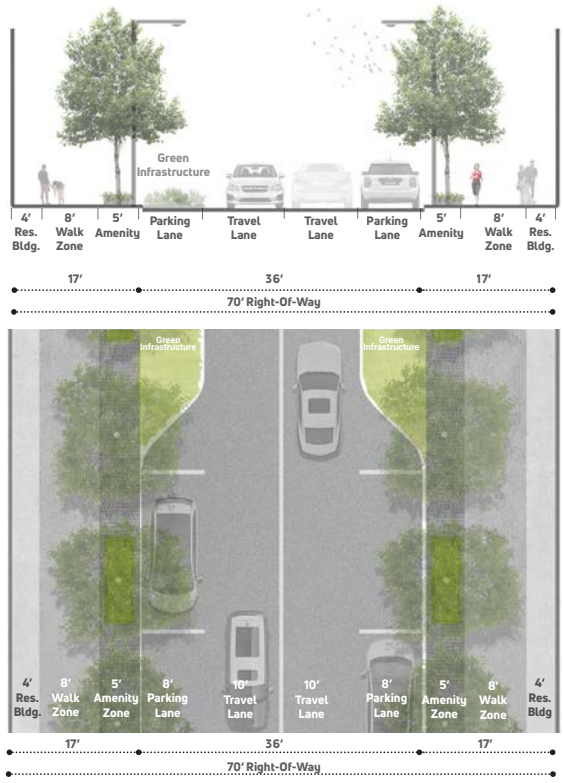
Main entrances into the neighborhood have been identified on the map to the right. Urban design and architectural expression in these areas will create a sense of arrival, define boundaries of the neighborhood, and enhance the area's identity.

Streets

- Internal street type A
- Internal street type B
- Internal street type C
- Collector (Stewart Street, Main Street)
- Arterial (S Patterson Blvd)
- Main entrances

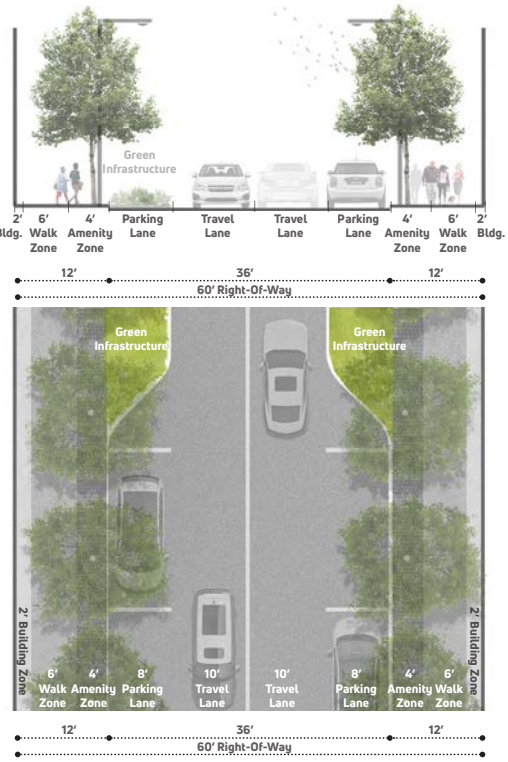
Internal street type A.

Street type A will have the widest right-of-way of the three internal street types. It will support two travel lanes and two on-street parking lanes. The sidewalk will consist of a furnishing zone for trees and lighting, a clear walkway, and a wide frontage zone along the building face for supporting active ground floor uses. At intersections, the curb will extend into the parking lane to support green infrastructure and improve the pedestrian experience.



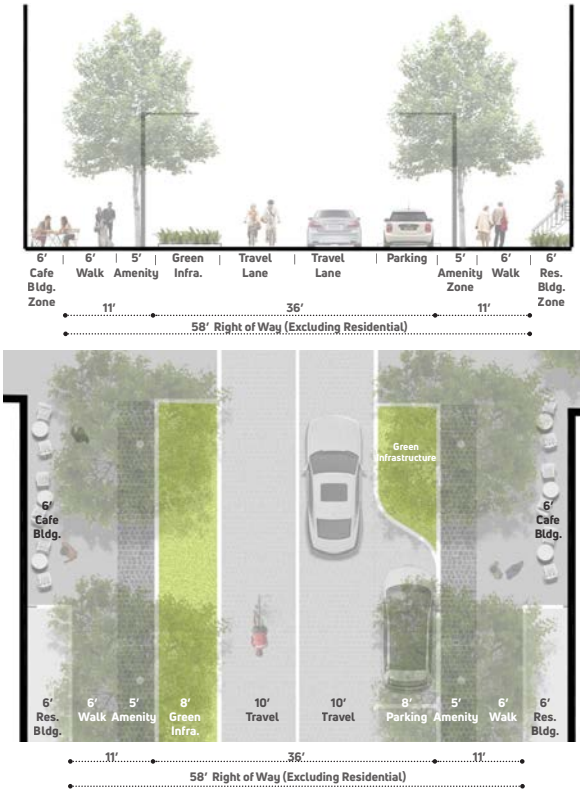
Internal street type B.

Street type B will have a narrower right-of-way than street type A. It will support two travel lanes and two on-street parking lanes. The sidewalk will consist of a furnishing zone for trees and lighting, a slightly narrower clear walkway, and a narrow frontage zone along the building face. At intersections, the curb will extend into the parking lane to support green infrastructure and improve the pedestrian experience.



Internal street type C.

Street type C will be a level, curbless thoroughfare extending from building face to building face. The street will support two-way traffic in two travel lanes. On-street parking and green infrastructure will alternatively be present next to the travel lanes for the length of the street. The street will have a furnishing zone on each side to support tree plantings and lighting. The street will have a sidewalk on both sides of the street.



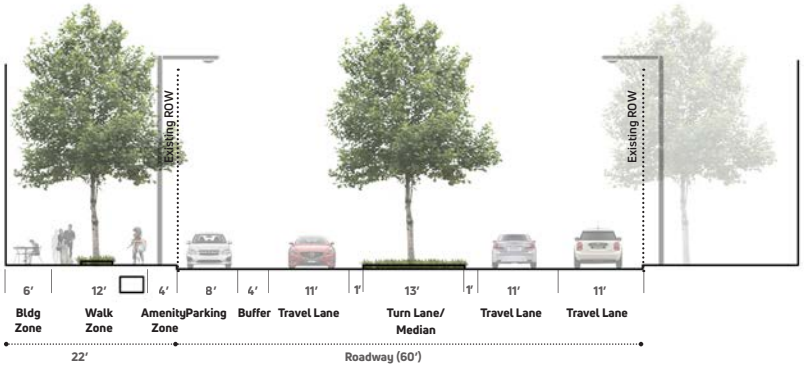
Shared street (type C)

The quality of streets and public experience is a priority for onMain. A distinct street-type is intended for the heart of the district: a shared street. This street will visually and physically connect the Think Dayton Plaza and Roundhouse. While cars can use the street, the design and materials make it easy for the pedestrians and bicyclists to use the street (the actual space between curbs) as well. To reinforce the unique character of the shared street the entrances to the buildings will address the sidewalks in ways different from others in the district. (As illustrated, there will be "walk-ups" to townhomes and apartments.) There are several, varied public gathering places in the district, but the shared street is considered the "neighborhood's."

Collector Streets

Main Street

Main Street anchors the eastern edge of the development site. The vision for the street is for it to become more pedestrian friendly and safer while still fulfilling its function as the primary connection from Dayton's south suburbs to downtown Dayton. This will require incorporating on-street parking, street trees, first floor active uses like retail and facilitating multiple modes of transportation.



Importance

Main Street—the inspiration for onMain's identity—is envisioned to become a signature street. Part of the conditions for success at onMain is a high quality public realm on the edges of the private development. While the current condition of the Main Street supports easy vehicular movement, there is little consideration for pedestrians.

Configuration

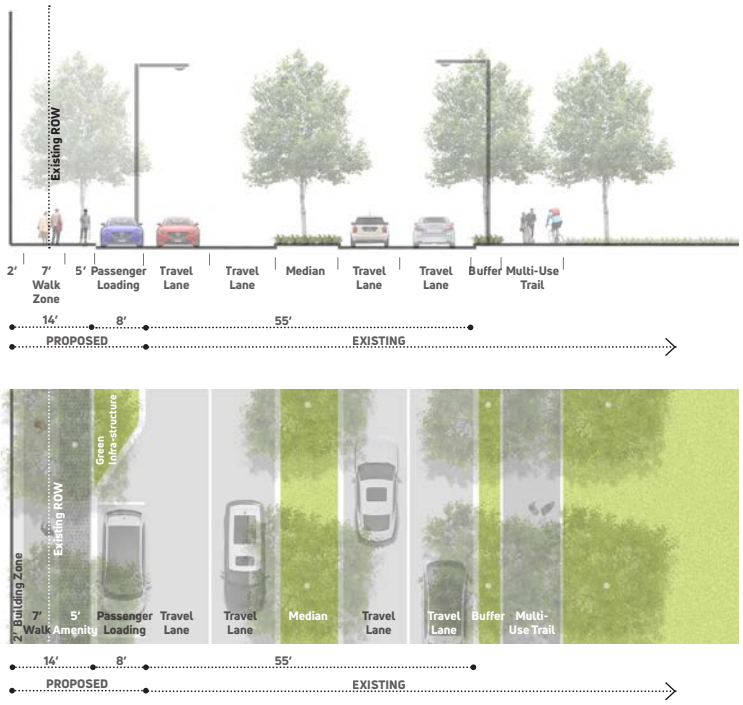
The proposed lane configuration for Main Street includes two through lanes southbound to the emergency vehicle entrance for Miami Valley Hospital and two lanes northbound to Wyoming Street. This configuration allows for the safe lane capacity in accessing key emergency care destinations. This new configuration will also allow for medians at certain points along the corridor as well as on-street parking on the west side of the street, wider sidewalks, and street trees to make a better pedestrian experience.

Implementation of a new configuration along Main Street will be tested through a phased pilot process to determine impacts to traffic flow and other mobility factors.

Stewart Street

Stewart Street's northern sidewalk will be expanded to provide additional width within the site boundary. The extended sidewalk will support a wider clear zone for pedestrian travel.

A vehicular and pedestrian drop off will be provided on the south end of the Think Dayton Plaza. This will provide a vista to the Roundhouse at the northern end of the site.



Walk zone details

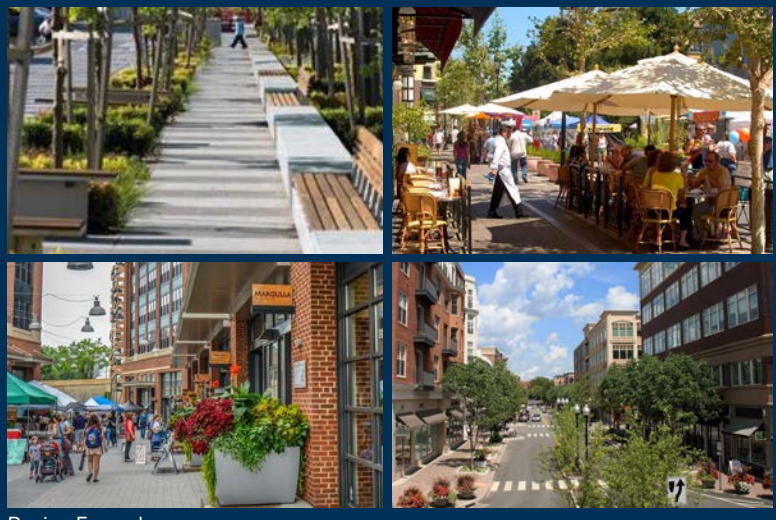
The following streetscape provisions are intended to create lively streets filled with activity.

Sidewalk furniture and objects:

- Benches will be provided along retail frontages at a minimum of one per block face. Benches will ideally be placed near the curb facing another bench perpendicular to the street.
- Drinking water fountains will be available at every common open space and playground

Any fire hydrants, mailboxes, parking meters, bicycle racks, or other impediments to foot traffic will be located toward the curb.

Crosswalks will be located to continue all sidewalk trajectories across all intersections and will be paved in a material that contrasts with the street surface. At minimum dimension and quality of finish, crosswalks will be 10' wide with zebra striping.



Design Examples

Mobility

The development is committed to support a variety of mobility options including walking, biking, transit as well as accommodating automobiles.

Pedestrian

The proposed mixed-use development will provide a sense of place through various landscape experiences and include a network of open spaces connected by pedestrian sidewalks and bicycle routes to adjacent neighborhoods. Sidewalks will be present on both sides of every street. Sidewalks will have unobstructed walking area with a minimum width of 5 feet when a tree zone is provided and 6 feet otherwise. Tree zones will be a minimum of 3 feet wide, with a preferred width of 5 feet.

Outdoor café seating will promote window shopping and easy access into shops and cafes, the unobstructed sidewalk area will directly abut the building edge along retail and restaurant-oriented streets. Outdoor café seating areas may be located within a sidewalk or common open space provided a clear walkway is maintained. Outdoor café seating will only use movable furnishings and will be made from durable materials, such as wood and metal.

Pedestrian Connections

Bicycle

The neighborhood's robust circulation network for pedestrians and cyclists alike promotes ease of access for all users. Bicycle infrastructure includes a combination of shared streets, in-street bicycling markings, and off-street multi-use paths connecting to regional trails. Off streets paths will have a minimum width of ten feet.

In-street bicycle markings. Vehicular lanes shared with bicycles will be demarcated with shared arrow markings, also know as sharrows. Sharrows are a reminder of the bicyclist's right to occupy the lane and do not require increased lane width. In such lanes, sharrow markings will be placed approximately ten feet on either side of each intersection and repeated between intersections at a minimum spacing of one hundred feet. Sharrow markings will be placed in the center of the lane between wheel treads to minimize wear and to encourage riders to avoid the hazardous vehicle door-opening area.

Transit

The district is currently served by several bus routes connecting the site to downtown and other destinations. The design of the district will support people taking transit by making transit an attractive choice, for example by ensuring that on-street transit stops have sufficient sidewalk widths to provide adequate capacity without interrupting the flow of pedestrians.

Precedent Examples

Bicycle and Transit

- Off-street multiuse trail
- In-street sharrow marking
- Bus stops

Traffic

A traffic study was undertaken to understand the impacts of the onMain neighborhood on the surrounding streets and transportation network. The study found that proposed roadway system can accommodate the projected traffic volumes at acceptable levels of service.

Traffic recommendations

1. Access and Street Network

- Align onMain internal streets with: Wyoming, Frank, Fairgrounds, Jasper, Discovery
- New traffic signals at Fairground/Main and Discovery/Stewart
- Stop signs at EB Frank/Main and EB Jasper/ Main
- No left turn from NB Main to Jasper or Frank
- No direct access to site from Patterson

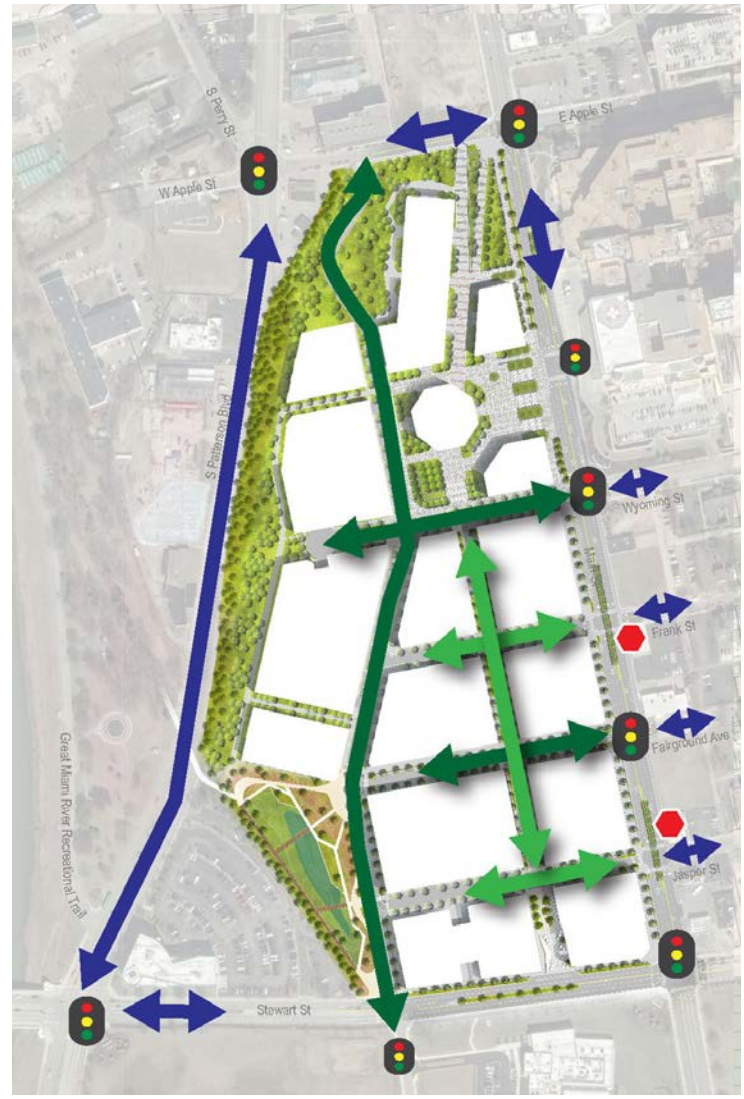
2. Support walkability and retail development along Main Street

- Allow on-street parking on SB/NB Main Street (initially parking will only be implemented on the SB side)
- Allow for special paving at key intersections

3. Add emergency vehicle pre-emption to traffic signals on Main Street

4. Provide pedestrian/bike bridge over Patterson Boulevard

- Connect onMain to the River Corridor Bike Path System and other nearby amenities like Carillon Park



Traffic Recommendations

Parking

To minimize the cost of providing parking, all parking will be shared to the fullest extent possible.

Parking will be built in tandem with phasing of the construction. Parking utilization will be monitored and reported to assess actual demand. In the initial phases of development, building sites set aside for future development will be used for temporary surface parking. Parking supply for later phases will be adjusted to account for over- or under-supply of parking in earlier phases. The phasing of parking build-out will also reflect the influence of changing travel modes and transportation technologies.

As the site develops there will be a transition from surface parking to structure parking. At full build-out of the district, there will be no surface parking lots.

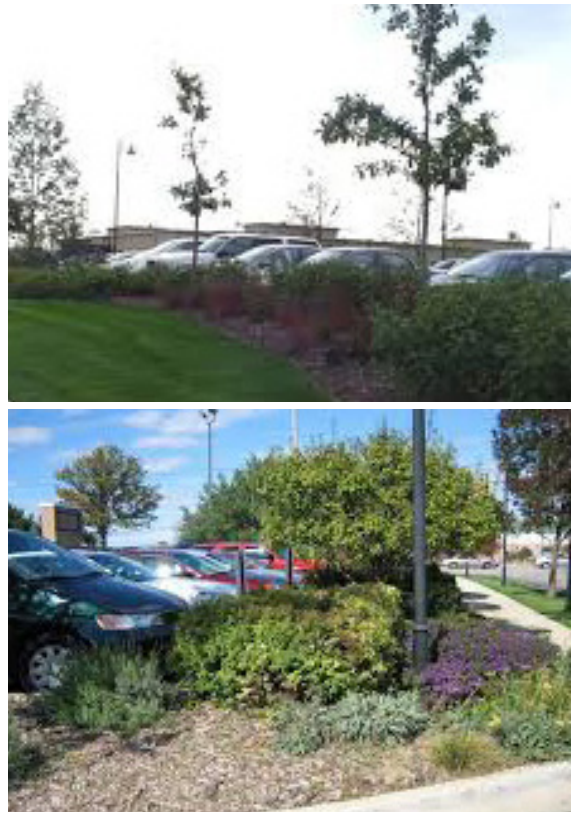
On-street parking will be provide throughout the district to accommodate short trips and retail.

Parking

- Parking and service access locations
- Planned parking structure locations
- Internal on-street parking locations

Temporary Surface Parking

The regulations governing the design and maintenance of temporary off-street parking facilities are intended for surface lots that are placeholders for future phases of development. The design of the temporary facilities should reduce construction waste while still protecting the health, safety and welfare of the users of the parking facility and of abutting properties including pedestrians and motorists. Considerations for the quality of temporary surface parking include materials, buffering, setbacks and landscaping. It is intended that the trees used in surface parking lots be re-used as street trees in later phases.



Parking lot screening

Vehicle Access

Buildings will be serviced through drives located to minimize their impact on the pedestrian experience.

Surface motor vehicle parking will be generally avoided in the area between building frontages and streets or parks.

Parking garages will be located within the interior of the site where feasible. Garages will be wrapped with a "liner building" to minimize visibility from public streets.

People walking and using wheeled devices will have direct access to parking garages from a street.

Parking provided by a project will be designed to have the ability to be shared with other users.

Two-way parking lot drive curb cuts may not exceed 22 feet in width, plus curb radii

One-way curb cuts may not exceed 11 feet in width, plus curb radii

Sidewalks crossing parking lot drives and driveway curb cuts will maintain a level grade, creating a vehicular speed table.

Health and Wellness

OnMain elevates human health to the forefront of district-scale design to improve well-being throughout the community.

Thinking outside the walls of home and office, comprehensive and interdisciplinary approaches have been taken to improve health outcomes throughout onMain's public places. The onMain development is committed to providing a framework for healthier design that supports personal and collective wellness.

The following list highlights how the overall neighborhood and buildings within the district will strive to address health and well-being through a number of innovative features:

- Active transportation: Designed for movement, the district's trails, sidewalks, parks, playgrounds, and mix of uses make it easy to get steps in.
- Air and water quality monitoring: Real-time sensing and public reporting within the district.
- Healthful food: Access to and promotion of healthful food, including fruits and vegetables.
- Appropriate lighting: Smart outdoor lighting zones promote safety while minimizing light pollution and light trespass that contribute to sleep disruption.
- Human-scale design: Street-facing facades minimize blank wall areas and use features such as street-level windows into actively used spaces, murals or artistic installations, biophilic or other landscape elements, and mixed building textures and colors to create a visually interesting place to walk.
- Sound planning: Noise mitigation strategies reduce the impact on sensitive spaces, including homes and parks.
- Materials management: onMain provides a safe and central location to dispose of batteries, mercury-containing lamps, and hazardous chemicals to limit the risk of exposure.
- Mental well-being: The neighborhood is designed to promote social connectivity in the public areas and shared courtyards. Essential mental health services are available at Miami Valley Hospital within a short walk of the district.
- Restorative spaces: Green and blue spaces are designed to provide relief from stress and positively affect short- and long-term mental health.

Precedent examples

Sustainability

Sustainable design and healthy living are integral parts of the onMain vision. These two intertwined principles benefit both the environment and the people who will live and work at onMain.

Sustainability design initiatives help onMain demonstrate the district's commitment to a new standard of neighborhood development. LEED for Neighborhood Development (LEED ND) is a benchmark used to identify best practices that inform site and building design. These standards provide input on the design of the neighborhood, with the results being verified after construction to ensure strong performance. Many of the design features help both planet and people, including onMain's support for walking and biking, air quality, urban heat island reduction, and green open space.

Sustainable Design

OnMain's sustainability targets include reducing the carbon footprint related to heating and cooling, promotion of active transportation and transit use, and minimizing impacts on the city's stormwater system. To achieve these goals and others, onMain is rethinking what can be done at the scale of a neighborhood to improve efficiency and contribute to a better environment. The following list highlights the district's features for sustainability and contributions to LEED ND performance:

- Smart location: onMain improves the efficiency of existing infrastructure and transportation networks by adding compact land uses in the core, thereby offsetting the need for urban sprawl.
- Walkable streets: The district's mix of uses and connected pattern of sidewalks and trails allows residents to reach many daily destinations by foot, bicycle, or transit. Buildings support walkability with frequent entries along sidewalks and ground-level design that engages pedestrians.
- Range of housing types: Multifamily buildings provide a range of unit types, from studios to larger family-sized units (3+ BR) and live-work spaces to enable a wide range of residents to live in the community.
- Reduced parking footprint: Parking is shared between different uses and buildings, and its cost is unbundled from the cost of renting where feasible. Carpool, shared vehicles, and electric vehicles have preferred spots.
- Bicycle facilities: Buildings provide short-term bicycle storage for visitors and long-term bicycle storage for occupants.
- Optimized building energy performance: Buildings reduce energy use by at least 5% below the baseline through smart and efficient design.
- Indoor/outdoor water use reduction: Buildings reduce indoor water usage by at least 20% from baseline.
- Heat island reduction: Public spaces and buildings use a combination of highly reflective materials and vegetation to minimize heat island impacts.

Roadside Rain Gardens

Advanced Technology

onMain will demonstrate a variety of advanced technologies that improve performance and quality of life. Doing so will help onMain live out the district's commitment to a new standard of neighborhood development.

A number of strategies are being explored that take advantage of advanced technologies including;

Renewable and resilient energy supply

- onMain is actively exploring geothermal district heating and cooling for low-carbon, ultra-reliable thermal energy.
- Distributed rooftop solar for environmental performance and resilient electricity supply.
- Smart grid and meters for dynamic electricity and thermal energy pricing and resilience to network blackouts.

Smart streetlights

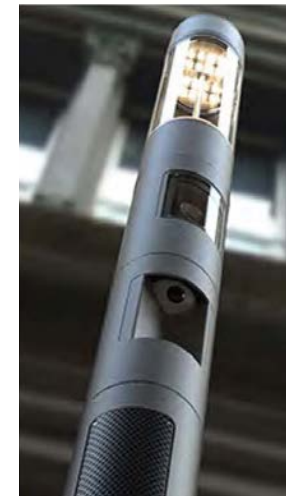
- Streetlights will reduce energy usage by using LED fixtures and remotely managing illumination levels and colors by time of night.
- Smart streetlight poles will be enabled to provide an outdoor public WiFi network. Sensors mounted on streetlight poles will monitor air quality, temperature, or even pedestrian and vehicle traffic. Cameras can also be mounted to address any safety perception issues, although public concerns about surveillance should be proactively addressed.

Electric vehicle (EV) charging stations

- The vast majority of EV charging happens either at home or at work, so parking areas should provide enough charging capacity to handle demand that is anticipated to increase over time. Level 2, or 240-volt charging, is most common for publicly available charging stations.
- At least two EV charging stations will be provided in all parking lots and garages over 400 spaces. In smaller parking areas, at least two parking spaces will be 'EV Ready' for future installation as demand increases over time

5G readiness

- 5G cellular service is the next evolution in data transmission. It will provide huge bandwidths, high speeds, and low latency for almost instantaneous transmission of large amounts of data needed to support the Internet of Things (IoT) revolution, including autonomous and connected vehicle technology.
- 5G WiFi-enabled smart streetlights will provide a publicly accessible high-speed network in public spaces that anyone can use.
- Cellular signals are disrupted by building materials which limits performance in buildings. For example, low-E glass is a significant barrier for wireless signals.
- Distributed antenna systems (DAS) within buildings can help send cellular signals from outside deeper into buildings. The technology is rapidly changing as 5G spreads and developers should consider the ability to upgrade over time.



Smart Pole

Curbside management

- Manage curbside access as a valuable resource, including vehicle charging, short term parking, drop-offs, deliveries, and shuttles.
- Smart parking app to route visitors to open space in garages and on the street.
- Actively manage curbside delivery zones and/or restrict deliveries to certain times of the day.

Freight management/delivery coordination

- Next-day and even same-day delivery options have dramatically increased the amount of package deliveries occurring throughout the day in neighborhoods. Increased truck traffic can increase local congestion and air pollution. Actively managing deliveries is a practical way to mitigate these issues.
- Create alternate delivery sites like neighborhood pick-up points (within a retail store or similar use) or automated parcel systems (kiosk + 'smart' lockers in a storefront). These consolidate deliveries in one location, particularly relevant for residential deliveries across multiple buildings.
- Coordinate and consolidate deliveries. Businesses at onMain should use technology-enabled coordination. Either schedule one delivery consolidating shipments from multiple shippers, or coordinate one delivery to a central location for multiple receivers.
- Use alternate delivery vehicles inside the neighborhood. Smaller vehicles can manage "last mile" local deliveries from a central receiving point. Freight bicycles or automated robots are two increasingly common options.

Waste management

- Sensor-enabled public and private garbage bins for just-in-time collection have a strong return on investment. Solar-powered self-compacting receptacles increase the capacity of each bin.
- Provide tenant and building maintenance education about waste reduction and waste stream separation.
- Separate trash/landfill, recycling, and composting containers within buildings and outdoors.

Building systems

- Creating an outstanding user experience is key to successful implementation.
- Data security is critical. Transmission speed and latency need to meet the highest standards. Dashboards and apps are needed to create a seamless experience and clearly present the most important conclusions from the data.
- Challenges include data security concerns and user acceptance. Equipment installations must be updatable and scalable to meet changing needs and evolving technology.
- Interior lighting provides many opportunities to make a building smarter: technology such as occupant sensors, light intensity management, LED fixtures, etc.

Autonomous vehicles

- Autonomous or self-driving shuttles will augment the multi-modal mobility strategy at onMain over time. Shuttle loops connecting onMain to the University of Dayton campus, Miami Valley Hospital, the Brown Street commercial district, and potentially downtown Dayton could be implemented in the near-term to safely get people between their destinations without needing to move and park their cars in different locations.
- Autonomous vehicle (AV) technology facilitates cars and trucks that can drive themselves without a person at the wheel. Existing technology includes features like adaptive cruise control, parking assistance, lane keeping assistance, and automatic emergency braking. The benefits of greater levels of autonomy more widely adopted include drastically improved road safety and reduced or eliminated traffic fatalities.
- This technology is currently being road-tested in several Ohio locations, including downtown Columbus and a recently opened test track in East Liberty. Dayton is one of several cities currently developing pilot projects in partnership with DriveOhio.

4. Moving Forward

First Step

Think Dayton Building

Interim Uses

First Step

The development will begin at the southern end of the site and move north in phases, which may be broken down into subphases. The sequence of construction is subject to change in reaction to market demand. Land uses will be developed in an orderly, coordinated and comprehensive manner.

Initial Phase

The initial phase begins along Stewart Street and Main Street, moving to the west to complete the Stewart Street frontage and the development of the Canal Park and to the north to include the first residential building. To catalyze development activity, an employment-oriented building called the Think Dayton Building is envisioned at Stewart and Main streets.

Initial Phase

Full build out

Buildout of the site could follow several scenarios depending identification of partners, strategic investments, market demand and early design decisions. Realizing the build out will take time and is determined by the rate of success of the initial phase.

Full Build Out

Think Dayton Building

The Think Dayton building will be the first employment building on the site. The program will focus on research, development, business incubation and acceleration as well as state-of-the-art education and training.

Vision

The building will...

- Be flexible with a mix of high-bay research space with wet-lab capability, research space, classrooms, open offices, and conference space.
- Have a mix of tenants such as smaller tech firms, outside research and development teams and traditional office users and may include the University of Dayton and Premier Health.
- Accommodate the broader community and local schools through an accessible open studio / lab facility.

Program Elements

The Think Dayton Building will be a place that...

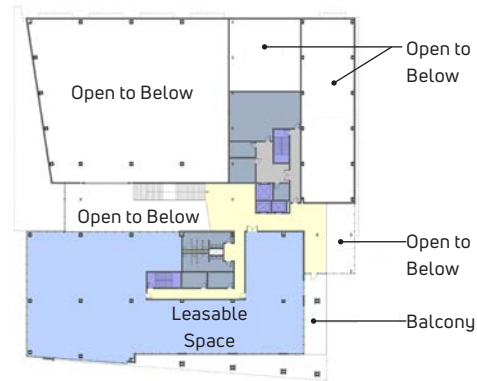
- Creates a cultivating space for creative design.
- Facilitates cross-disciplinary collaboration.
- Translates ideas to implementation
- Educates and trains professionals using cutting-edge tools and technology.
- Promotes interdisciplinary collaborations and hands-on interactions with researchers and peers.
- Incorporates Well Building Standards into the built environment.
- Promotes sustainable initiatives through its operation and maintenance consistent with the anchor institutions' missions.
- Fosters the health and well-being of its tenants and surrounding community members.

Conceptual Floor Plans

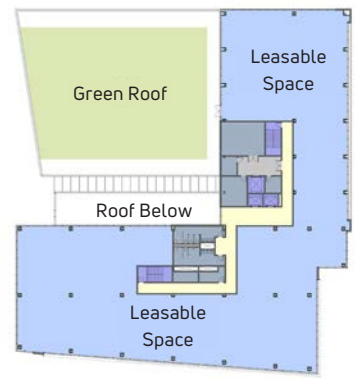
- The building is projected to be approximately 120,000 SF.
- The building will be five stories and include an occupiable roof deck.

Site Plan

Ground Floor



Level 2



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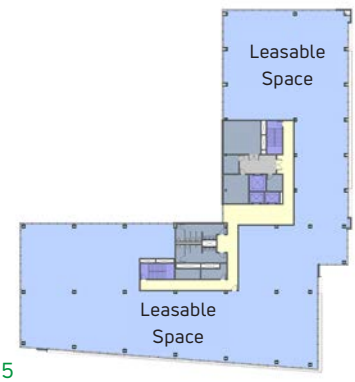


Level 4 & 5

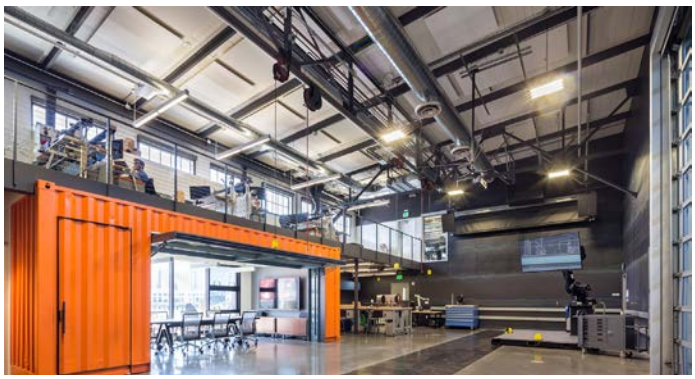
Exterior renderings

Main Street Entry

High Bay Research

Corner of Stewart Street and Main Street

Interior renderings and precedent images



Precedent Images of interior of high bay research

Lobby (looking towards Think Dayton Plaza)

Interim Uses

The onMain site will develop in phases over time, potentially 10 to 20 years. Strategic interim uses can provide amenities for residents and workers at onMain while attracting visitors to the site, helping to build awareness and publicity about what's happening.

When evaluating potential interim uses, onMain will consider a range of issues such as community needs, specific populations such as children and seniors, requirements of the uses, partnership opportunities, city regulations, expenses (one-time and ongoing), management, and liability concerns. Simple interim uses may only require space while others may need electricity or water hook-ups. Marketing and promotion will be needed to raise awareness of what is available at different times. Community partnerships will help distribute ownership among different groups while reaching multiple audiences.

Pop-up Retail

- Pop-up shops, restaurants, or office space in shipping containers
- Retail, dining, and/or office spaces can be created for local entrepreneurs to test ideas. Retail and dining users can use this space to build a following before "graduating" to permanent space as Main Street retail/dining tenants.
- These spaces could be paired with business training courses provided by the Chamber of Commerce or local universities to prepare fledgling entrepreneurs to plan and grow their business.
- Electricity and water connections would be required.

Examples: Box Office in Providence, RI (http://www.boxoffice460.com/); OKSea in Oklahoma City, OK (https://smithdesigncompany.com/oksea)

Pop-up retail examples utilizing shipping containers.

Urban Agriculture

- Food can be grown on-site in raised beds or shipping containers for commercial use or community distribution. Potential buyers should be identified first, such as the Miami Valley Hospital cafeteria, UD Dining, or local restaurants.
- Commercial food growing would require staff to operate and maintain the facility. Recruiting could target local residents with job-training opportunities or UD students looking for real-world experience.
- Community gardens for private use could also be considered but present challenging logistics. Resident groups may be hesitant to invest time and materials in a temporary space. A successful garden could build a strong following that would object to displacement as development continues.

Urban Agriculture example.

» A water connection would be required, and electricity would be required for a container farming installation.

Example: Freight Farms (https://www.freightfarms.com/home/), with 200+ farms in 42 states (including Ohio) and 22 countries.

Seasonal Artist Village

» Partnerships with local arts organizations could plan and program a temporary fall festival, winter market, spring flower festival, etc.

» Semi-permanent structures like small cottages can create a village-like atmosphere and be built to last for a season or a year or more. Tents would provide quick set-up and tear-down for weekend events.

» Electricity may be required; a water connection would probably not be necessary.

Seasonal art villages and temporary public art can activate spaces in new ways

Public Art

» Local arts organizations can help curate rotating public art installations. Rotating installations help attract repeat visitors by providing new art and experiences over time.

» Interactive art can encourage collaboration with others and creative play. It can also become fodder for social media apps like Instagram to informally promote onMain.

» Movie screenings, either outdoors or inside the Roundhouse, can provide fun activities for kids and adults.

Example: Blink Cincinnati 2019 is a short-term event that uses large-scale projection for installations, murals, and immersive art on buildings. (https://blink2019.com/about/)

Pop up events involving art can transform places temporarily

Street tree arboretum

» Future phases of development will require planting new street trees along sidewalks and in public spaces. These trees can be grown on-site and transplanted at the appropriate time. Growing them on-site will absorb stormwater and provide shade while they grow.

» Trees should be planted in the ground instead of planter boxes which restrict root growth and could compromise the tree's long-term health.

» Maintenance staff will be required to water, fertilize, and monitor trees for healthy growth.

Example: The City of Dayton created the Arlington Street Tree Arboretum in 2012 with an initial planting of 260 trees on 1.5 acres. It partnered with community groups to care for the trees.

Rotary Street Tree Arboretum Albany, OR

Street Tree Arboretum educational signage

Native Wildflower plantings

» Native wildflowers are a low-cost, low-maintenance strategy to beautify an area while providing natural habitat and food sources for butterflies, bees, and other animals. Care should be taken to select native, non-invasive species that provide color throughout the year.

Examples: https://www.nature.org/en-us/about-us/where-we-work/united-states/ohio/stories-in-ohio/ohio-wildflowers/

10,000 Suns Interim Park in Providence, RI

Tecumseh Land Trust Yellow Spring,OH

onMainDayton.com