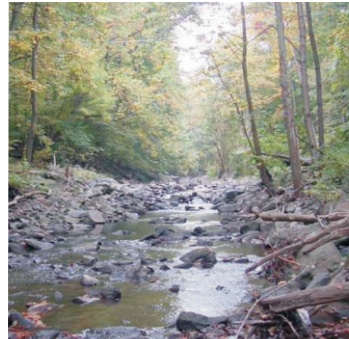


JULY 2014

White Oak Science Gateway Master Plan

APPROVED AND ADOPTED



LAND USE AND ZONING

The White Oak area developed in a quintessentially suburban pattern, where land uses -- residential, retail, and employment -- are separated rather than integrated and mobility is highly reliant on the automobile. Located along major roads and intersections, the existing commercial centers at White Oak, Hillandale, and Burnt Mills provide neighborhood retail services in grocery store-anchored shopping centers primarily serving the surrounding residential communities (see Maps 4 and 5). The White Oak and Hillandale shopping centers and adjacent commercial uses along New Hampshire Avenue have remained essentially unchanged for several decades, although the tenant mix has shifted through the years. The Life Sciences/FDA Village Center includes offices, service industry uses (automotive, contractors), public facilities, and some retail. This area also includes the 300-acre Percontee/Site 2 parcels that are proposed for significant new development.

This Plan envisions three major activity centers:

White Oak Center

- FDA Headquarters at the Federal Research Center at White Oak
- White Oak Shopping Center
- Commercial properties at Lockwood Drive and New Hampshire Avenue
- Residential communities

Hillandale Community

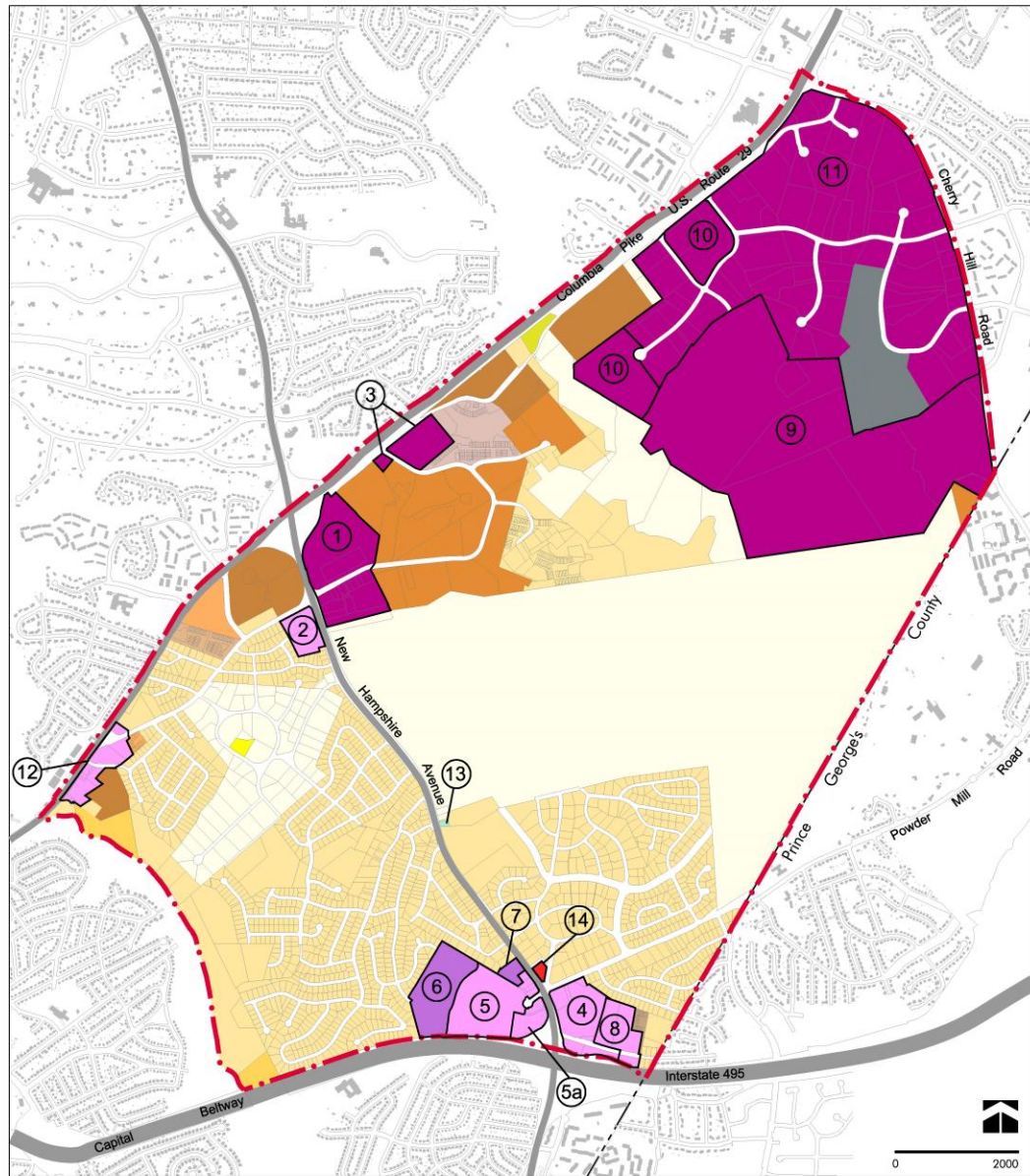
- Hillandale Shopping Center and Elton Road commercial properties
- New Hampshire Avenue commercial properties
- National Labor College site
- Hillandale residential community

Life Sciences/FDA Village Center

- Percontee and Site 2 properties
- Potential Washington Adventist Hospital site
- Montgomery Industrial Park
- Westech Business Park
- Paint Branch residential community

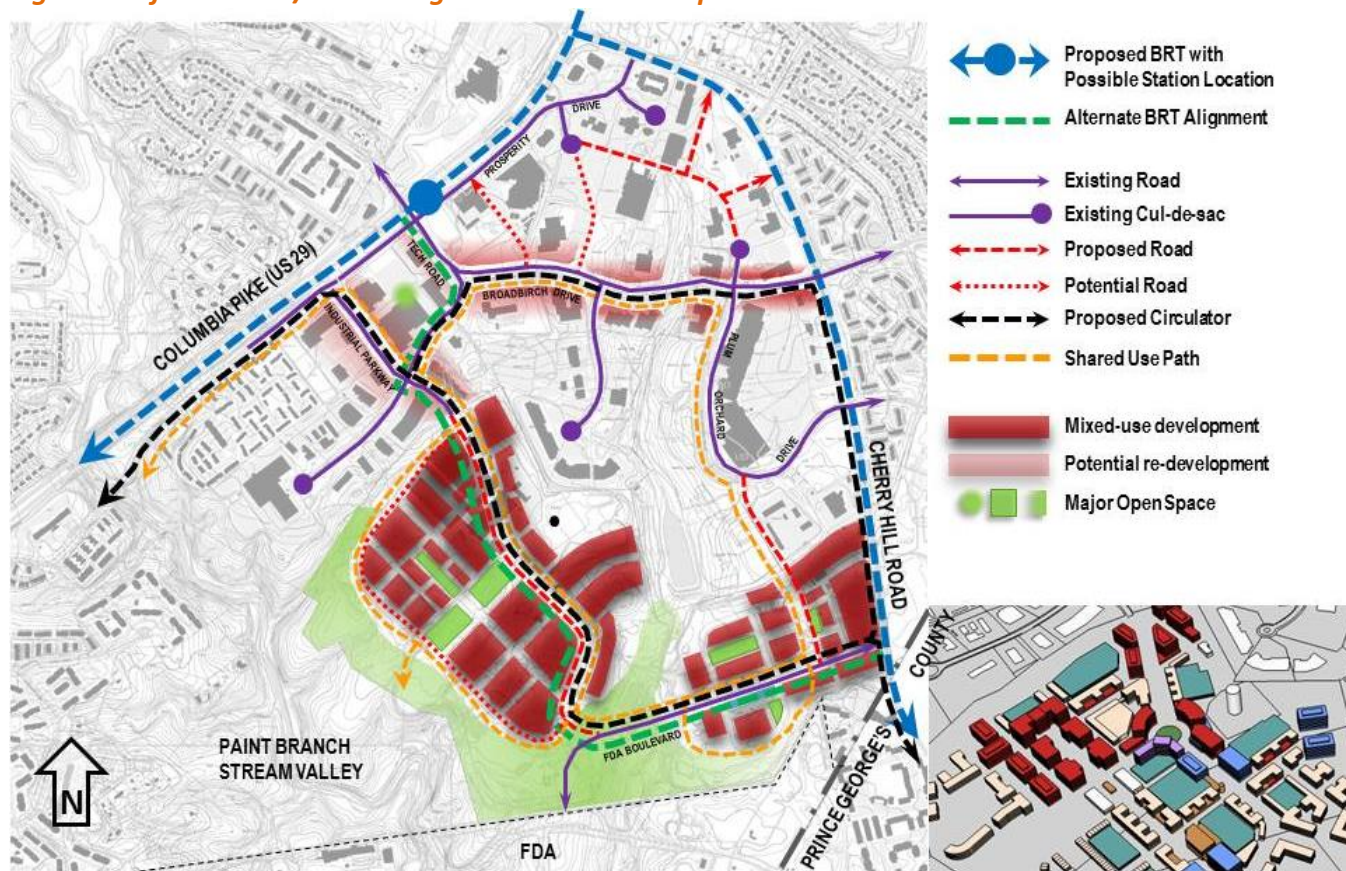
The Plan contemplates having the Life Sciences/FDA Village Center provide a focal point or Town Center for the broader community. Mixed-use zoning at this location will encourage a combination of commercial, residential, and retail uses within a compact walkable center. The recommended civic green and other elements described in this Plan should draw residents from the entire White Oak community.

Map 7 Proposed Zoning



---	Master Plan Area Boundary	CR	Commercial Residential	EOF	Employment Office
---	County Boundary	1 CR-2.5 C-1.5 R-1.5 H-200		13 EOF-0.75 H-45	
RE-2	Residential Estate, 2 Acres	3 CR-1.0 C-1.0 R-0.25 H-65			
RE-1	Residential Estate, 1 Acre	9 CR-1.0 C-1.0 R-0.50 H-220			
R-200	Residential Estate, 1 Acre	10 CR-1.0 C-0.75 R-0.75 H-75			
R-90	One-Family Detached Restricted Residential	11 CR-0.75 C-0.75 R-0.25 H-75			
R-60	One-Family Detached Residential	CRT	Commercial Residential Town	NR	Neighborhood Retail
RT-6	Residential, Town House	2 CRT-1.5 C-1.5 R-0.25 H-60		14 NR-0.75 H-45	
RT-8	Residential, Town House	4 CRT-1.5 C-1.0 R-1.0 H-75			
RT-10	Residential, Town House	5 CRT-1.5 C-1.0 R-0.75 H-75			
RT-12.5	Residential, Town House	5a CRT-1.75 C-0.5 R-1.5 H-85			
R-20	Multiple-Family Medium-Density Residential	8 CRT-1.0 C-0.75 R-0.25 H-45			
R-H	Multiple-Family High-Rise Planned Residential	12 CRT-0.75 C-0.5 R-0.25 H-45			
LSC	Life Sciences Center	CRN	Commercial Residential Neighborhood		
		6 CRN-0.25 C-0.0 R-0.25 H-45			
		7 CRN-1.0 C-1.0 R-0.0 H-45			

Figure 4 Life Sciences/FDA Village Illustrative Concept



Community where the brightest and best regulators, researchers, professors, students and medical professionals can meet and share ideas, research and information that will lead to continuing technological, scientific and medical advancements.”

Percontee representatives began meeting with community groups in 2006 to discuss their concept of a “LifeSci Village”-- a mixed-use center with residential, retail, and bioscience/biotech jobs. In December 2011, the County chose Percontee as its Site 2 development partner. The Percontee property and Site 2 total 300 acres and the developer’s proposed development program includes over seven million square feet of commercial space and 5,360 residential dwelling units (Figure 4 shows a conceptual layout). If residential development were to occur at these proposed amounts, as well as at other potential redevelopment sites within the Plan area, an elementary school would be needed in the future.

The Plan recommends that an adequate and appropriate site for an elementary school be dedicated on the Percontee property as part of the redevelopment of these two sites. This large development would also need to provide ample parks and open space amenities, including civic greens, a local park, and an integrated trail and bikeway system (see Parks section for more details). Development of this site could also be enhanced by orienting buildings along a perimeter road (with a shared use path) adjacent to and overlooking Paint

Branch Stream Valley Park, integrating the natural and built environments and creating a scenic route for driving, walking, and biking (see Figure 4).

Town Center on Percontee/Site 2

This Plan recommends that the Site II/Percontee properties (Area 9, Map 7) include a prominent civic promenade that can serve as a community focal point or Town Center, not just for the Life Sciences/FDA Village Center, but also for the broader Eastern Montgomery County area as well. The Town Center should include community-gathering attractions and features such as (but not necessarily specifically prescribed) entertainment venues, shops, restaurants, wide sidewalks for outdoor dining and merchandising, a civic green and streetscape that could accommodate community festivals and/or holiday celebrations, and other urban features that would encourage outdoor community activities (especially serving children and families). The street layout and signage should help attract visitors from other neighborhoods surrounding the property.

This Plan further recommends that the County consider locating a prominent County resource center or agency (such as a library and/or one or more County offices or County agency facilities) that would further activate this civic promenade. Because this civic promenade would be in such close proximity to the gates of the U.S. FDA Headquarters and Federal Research Center, this Plan further recommends the County seek potential collaborations with State, Federal, and/or International agencies or institutions to locate one or more prominent State, Federal, and/or International biomedical or bioscience facilities or programs proximate to this proposed civic promenade, which would further activate this East County community-gathering place.

Given the size of the property and the vision for this new community, the developer of the 300-acre Percontee/Site 2 properties should prepare one overall sketch plan for approval by the Planning Board through the CR zone regulatory process that demonstrates how the new community will achieve the vision of the Master Plan and reflect the themes described below.

Development in the Town Center shall include:

- Uses likely to create an active town center, including a complementary mix of uses.
- A central public space in the town center for community gatherings, supplemented by smaller public spaces or public squares in the various neighborhoods to encourage social interaction and recreation.
- Connections to the surrounding communities.
- Development scale that concentrates the tallest buildings near the existing water tower or at the center of the community along the main streets (Industrial Parkway extended and FDA Boulevard) to lower scale buildings at the edges of the community.

Throughout the entire 300 acre property, the design should encourage a pedestrian-oriented development with appropriate open space:

- A mix of uses, such as academic, research and clinical facilities, office, hotel, retail, and residential uses.
- Integrated active and passive recreational uses through the creation of formal and informal open spaces and parks, pedestrian trails linked to the street network and bicycle paths and lanes. See pages 89-90 for a complete list of open space and park recommendations for these properties.
- Integration with the surrounding community and uses, specifically by extending Industrial Parkway into the site and connecting it with FDA Boulevard.
- A hierarchical street grid network that focuses activities, defines circulation, and is integral with a series of public use spaces.
- Structured parking that is located at the back of lots or lined with residential or office uses to enhance the pedestrian quality of the entire community.
- Tree-lined streets and open spaces that form green links to the various uses and open spaces.
- Integrated multi-modal transportation featuring elements that may include shuttles, buses, cars and car sharing, bicycles, and extensive pedestrian sidewalks and trails so that visitors can park once and then use other forms of transportation.

Mobility

The Plan envisions the Life Sciences/FDA Village Center as a focal point of the BRT network serving the east County. Two of the three corridors in the Plan area (US 29 and Randolph Road) could potentially serve this area. Two additional BRT corridors, largely in Prince George's County – one serving Konterra/Muirkirk MARC via Powder Mill Road and the other serving the Greenbelt Metrorail Station - are also envisioned as part of an eventual Countywide network. One or more internal circulator bus routes that connect this center with the other areas – White Oak/FDA, Hillandale, and Burnt Mills -- could complement these BRT corridors (see “proposed circulator” on Figure 4).

The Plan proposes that the Old Columbia Road bridge over the Paint Branch Stream Valley Park be rebuilt and opened to vehicular traffic. This connection would improve circulation between the centers, create a direct route for a circulator bus to serve the BRT stations, and provide an alternative to US 29 for local traffic.

The large scale, mixed-used development proposed for Site 2 and Percontee will transform these industrial sites. The circulation network should include extending Industrial Parkway through Site 2 and connecting it with FDA Boulevard to form a “main street” through this area. The development will include a series of smaller, interior streets as well as amenities and a network of open spaces. Public access to the Paint Branch Stream Valley Park and opportunities for outdoor recreation along its edge should be provided.

To complement this new development, industrial properties to the north could, over the long term, introduce mixed uses and improve key properties to create adequate gateways to the area and enhance vehicular and pedestrian connections, both internally and with adjacent communities. This node includes several cul-de-sacs. When redevelopment occurs, the Plan recommends that these dead-end streets be extended and connected to improve circulation. Other opportunities to improve connectivity should be considered as this area redevelops (see possible future connections on Figure 4 and Map 12).

Zoning Recommendations

As with the other commercial nodes, the Plan recommends CR Zones for most properties in the Life Sciences/FDA Village Center to encourage redevelopment and provide land use flexibility. The CR Zones provide the appropriate mechanism to achieve the vision of a high tech/bio-science center with supportive services and amenities or some other land use mix, depending on the market.

- Rezone Site 2 and the Percontee property from I-2, I-4, and C-1 to CR-1.0, C-1.0, R-0.5, H-220 (see number 9 on Map 7). Include a new elementary school site in any redevelopment as well as parks, open spaces, bikeways, and trails.
- Rezone the block bounded by Industrial Parkway, Tech Road, and Old Columbia Pike and the property at 11800 Tech Road from I-1 and I-2 to CR-1.0, C-0.75, R-0.75, H-75 to accommodate redevelopment plans of new owners of these parcels (see number 10 on Map 7). These areas could redevelop with either all residential or all commercial but are more likely to become mixed-use with residential above retail, which the proposed CR Zone will accommodate.
- Rezone the remaining non-residentially zoned parcels from I-1, I-3, and C-6 to CR-0.75, C-0.75, R-0.25, H-75 (see number 11 on Map 7) to allow eventual transition of the area from service industrial to a mix of commercial and publicly-owned uses.
- Rezone the five parcels owned by AHC and proposed for Washington Adventist Hospital from I-1 and I-3 to the Life Sciences Center Zone, to promote research, academic and clinical facilities that advance the life sciences, health care services and applied technologies. The LSC Zone allows hospitals by right and has been successfully used by Shady Grove Adventist Hospital in the *Great Seneca Science Corridor Master Plan* area. If development of the Hospital does not occur, it would be appropriate to retain the LSC zone to encourage life science and medical service uses. Alternatively, rezoning to the CR or CR floating (CRF) zone (at a density of 1.0 FAR) would also be appropriate to permit development comparable to the adjacent CR-zoned properties.
- Retain the R-20 Zone for the parcel along Cherry Hill Road at the County line that is part of a larger multi-family development in Prince George's County.
- Retain the R-H Zone for the Paint Branch residential community along Old Columbia Pike.

The Bikeway Network and Pedestrian Circulation

It is important that the increased emphasis on transit and connectivity be complemented by bikeway and pedestrian networks that also support the overall goal of reducing trips by single occupant auto drivers. Well-designed, safe, and interconnected bike and pedestrian facilities reinforce the commitment to travel options and visually communicate that the area is transitioning to a place where people can get from one activity to another without necessarily depending upon auto travel for every trip (see Table 4 and Map 14). This Plan designates Bike-Pedestrian Priority Areas (see Map 15).

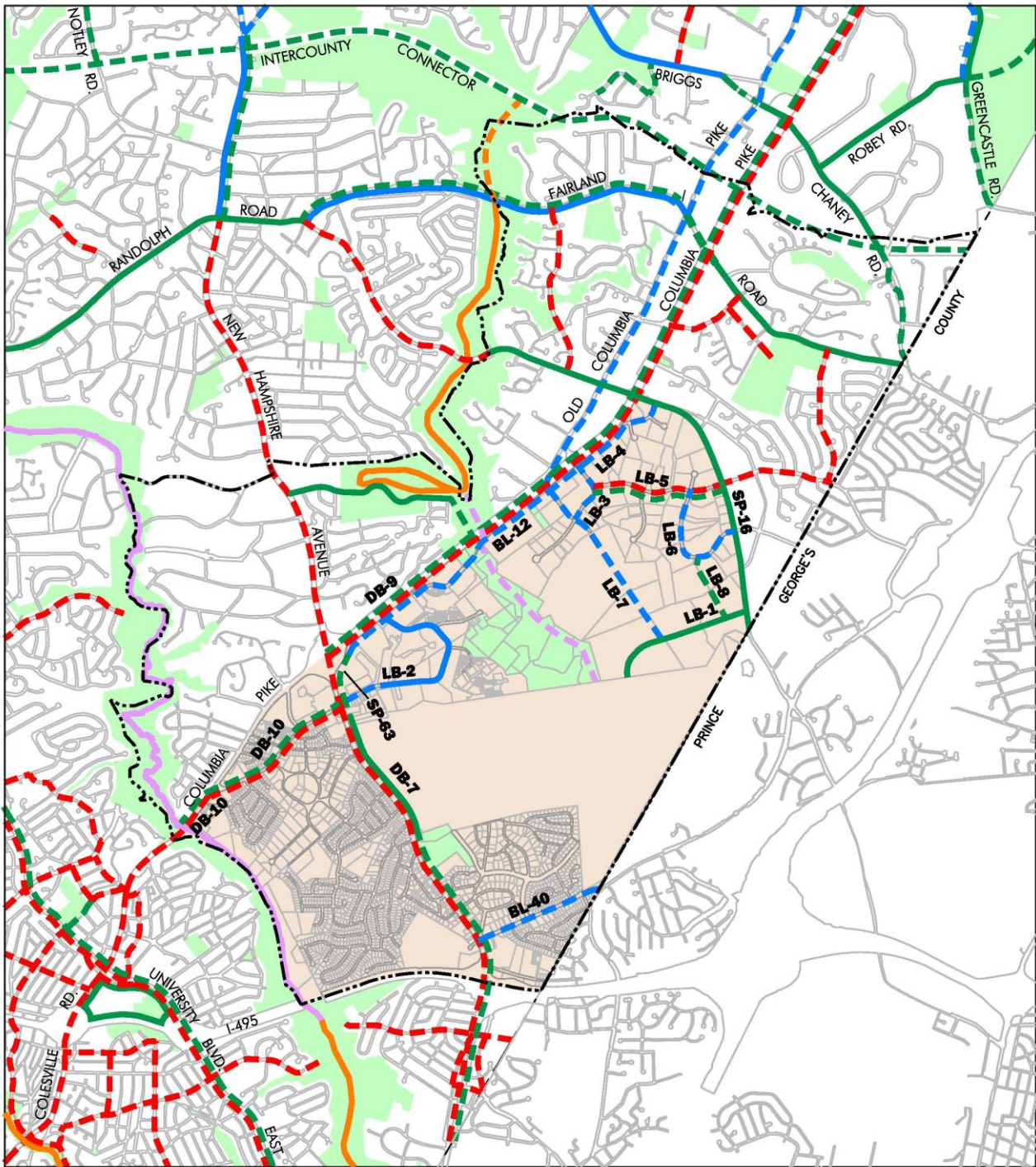
The following new bike routes are recommended:

- Shared Use Path on FDA Boulevard (LB-1)
- Bike Lanes on Prosperity Drive (LB-4)
- Bike Lanes on Powder Mill Road (BL-40)
- Bike Lanes on Plum Orchard Drive (LB-6)
- Bike Lanes on Industrial Parkway (LB-7)
- Bike Lanes on Proposed Road B-5 (LB-8)
- Shared Use Path and Signed Shared Roadway on Broadbirch Drive (LB-5)

Table 4 Bikeway Facilities

Name and Type	From	To	Route Number	Status
Dual Bikeways (DB) Shared Use Path and Signed Shared Roadway				
Columbia Pike (US 29)	Randolph/Cherry Hill Rd	New Hampshire Avenue	DB-9	Proposed
Columbia Pike (US 29)	Northwest Branch	Lockwood Drive	DB-10	Proposed
Lockwood Drive	White Oak Shopping Center	Columbia Pike (US 29)	DB-10	Proposed
New Hampshire Avenue	US 29	Capital Beltway (I-495)	DB-7	Partially Existing
Broadbirch Drive	Tech Road	Cherry Hill Road	LB-5	Proposed
Shared Use Paths (SP)				
Cherry Hill Road	US 29	Prince George's County	SP-16	Existing
White Oak Shopping Center	US 29	Lockwood Drive	SP-63	Proposed
FDA Boulevard	Cherry Hill Road	FDA Entrance Gate	LB-1	Existing
Bike Lanes (BL)				
Old Columbia Pike	White Oak Shopping Center	Industrial Parkway	BL-12	Proposed
Powder Mill Road	New Hampshire Avenue	Prince George's County	BL-40	Proposed
Stewart Lane	US 29	Lockwood Drive	LB-2	Existing
Lockwood Drive	New Hampshire Avenue	Stewart Lane	LB-2	Proposed
Tech Road	US 29	Industrial Parkway	LB-3	Proposed
Prosperity Drive	Industrial Parkway	Cherry Hill Road	LB-4	Proposed
Plum Orchard Drive	Cherry Hill Road	Broadbirch Drive	LB-6	Proposed
Industrial Parkway	US 29	FDA Boulevard	LB-7	Proposed
Proposed Road (B-5)	Plum Orchard Drive	FDA Boulevard	LB-8	Proposed

Map 14 Existing and Proposed Bikeways and Trails



Master Plan Boundary
Study Area Boundary
Parkland

Existing	Proposed

Shared Use Path
Bike Lanes
Signed Shared Roadway
Hard Surface Park Trails
Natural Surface Park Trails

0 4000 ft

Travel Demand Management

This Plan recommends a 25 percent Non-Auto Driver Mode Share (NADMS) goal for all new development, residential and commercial, in the White Oak Center and Hillandale Center of the Plan area based on the area's future transit service (assuming BRT) and connectivity opportunities.

This Plan recommends a 30 percent NADMS for all new development, residential and commercial, in the Life Sciences/FDA Village Center of the Plan area based on the area's future transit service and connectivity opportunities.

Mode Share Goals

Non-Auto Driver Mode Share (NADMS) is the percent of travel to work trips via transit (bus or rail), walking, biking, or carpooling during the peak travel period of a typical weekday. Urban areas typically have a high NADMS while rural areas often have a low NADMS. High NADMS numbers typically correspond to urban areas that tend to be more walkable, are better for cyclists, and have a higher level of transit service and a mix of uses.

The location of the Plan area near the edge of the County's urban ring communities is one constraint that results in an NADMS that is below that of Bethesda and Silver Spring — areas with more development density and Metrorail stations. Proposed mode share targets for employees working in the Plan area are based on analysis of observed travel behaviors in other County activity centers with a high quality of transit service. The Plan's NADMS goal is based on a gradient of NADMS, as shown below, which is highest in the urban, down-County planning areas and lower farther from the region's urban core.

Non-Auto Driver Mode Share Goals*	
Area	Master Plan Goal
Germantown	25%
WOSG Master Plan	25-30%
Bethesda	37%
Silver Spring	50%
White Flint	50%

*With the exception of the WOSG Master Plan Area, all NADMS goals are applicable to employees working in the respective Plan area. See discussion above for the applicability of NADMS goals in the WOSG Master Plan Area.

Based on 2010 U.S. Census data, current non-single occupant vehicle travel to jobs by employees working in the Plan area is estimated at 14 percent. Based on data derived from the County's Census Update Survey, current non-single occupant vehicle travel to work trips by residents living in the Fairland planning area is estimated at roughly 20 percent. As the Plan area becomes a more vibrant mixed-use center, one objective will be to ensure that transit, bicycling, and walking remain viable options for future residents who also choose to work in the Plan area.

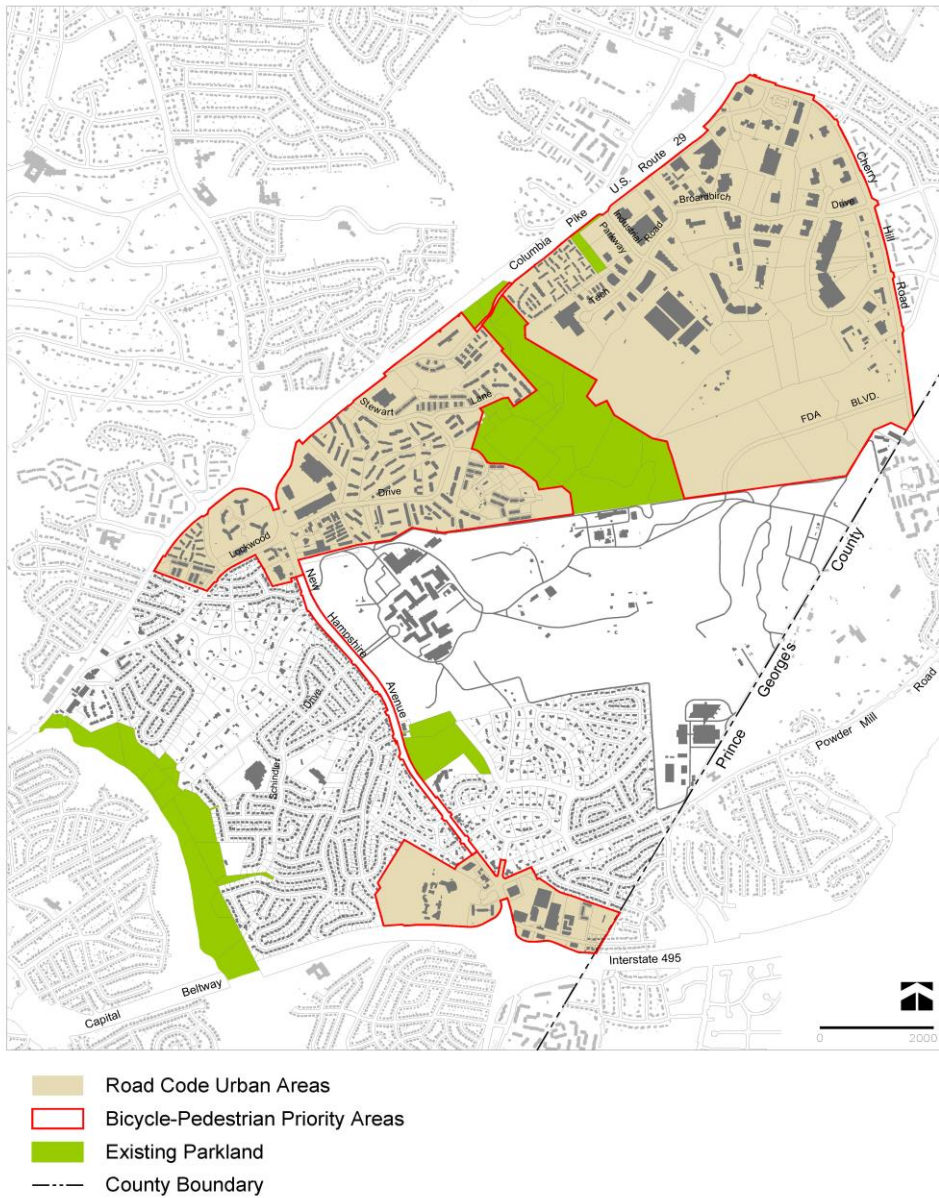
Parking Management

The Plan discourages land dedicated to surface parking. New projects and redeveloping properties should consider shared parking strategies —preferably using structured parking compatible in size and design with both the associated uses and the adjacent area.

The Plan proposes leveraging the County’s ownership of properties currently used for public parking lots to attract mixed-use development that will include public parking structures. The proposed CR Zones facilitate the provision of publicly available parking, and the County is investigating alternative parking management schemes to promote the most effective use of Parking Lot District resources.

- Encourage a balance of short- and long-term on-street parking within the activity nodes.
- Retain some convenient parking for the BRT stations, but devote primary efforts to ensure opportunities for BRT passengers to walk, use local bus service, or bike to and from the BRT stations.

Map 15 Road Code Urban Areas and Bicycle-Pedestrian Priority Areas



of building materials, as well as emissions created through landscape disturbance (by both soil disturbance and changes in above ground biomass). Building energy emissions are created in the normal operation of a building, including lighting, heating, cooling, and ventilation, and operation of computers and appliances. Transportation emissions are released by the operation of motorized vehicles such as cars, trucks, buses, and motorcycles.

The embodied emissions contribution to total greenhouse gas emissions will increase, due to the demolition of existing structures and construction of new structures. However, both the building energy emissions and transportation emissions will decrease on a per capita basis. Newly developed buildings have decreased energy emissions due to substantial advances in energy efficiency. Total transportation emissions will decrease with increases in fuel efficiency and reductions of vehicle miles traveled. The proposed mixed-use development will have a lower carbon footprint than the redevelopment of the existing development under current zoning due to the reduction of single-function automobile trips.

Specific Property Recommendations

Percontee

The Percontee property is a sand and gravel operation, with a landform dramatically altered by the land use. The Percontee property is bisected by the West Farm tributary of the Paint Branch and is bordered on the west by the Lower Mainstem of the Paint Branch. The stream valleys are degraded and should be restored and reforested. Redevelopment of this site should improve the local environment by reducing the sediment load and adding a natural land cover.

Recommendations

- Orient development to maximize exposure to the natural environment while minimizing disturbance of buffers and retaining forest.
- Avoid new stream crossings and use existing stream crossings, where possible, when redeveloping the site and creating a circulation system.
- Minimize disturbance of steep slopes when new development occurs.
- Restore and protect streams and buffers, while still allowing non-motorized access and visibility.
- Work with adjacent property owners to create a trail system to take advantage of natural features.
- Integrate stormwater management as urban design features.
- Preserve and plant forest adjoining existing areas of forest on adjacent properties.
- Investigate options for power generation.
- Work with WSSC to ensure adequate sewer volume at time of development.
 - Minimize disturbance in Paint Branch and investigate option of extending the sewer line in Cherry Hill Road.

Site 2

Site 2 is a grey field site that was previously used as a WSSC sludge composting facility. It is directly adjacent to the Paint Branch Stream Valley Park and contains several tributaries. The stream valleys are partially forested but present opportunities for restoration and reforestation. The location and quantity of groundwater is unknown due to the disturbed nature of the site. Additionally, there may be contamination from the previous industrial use, which will need to be remediated through the development process.

Recommendations

- Intensive investigation of subsurface conditions may be required at time of development.
- Stream and buffer restoration efforts should coincide with any cleanup and removal of contaminated materials, if necessary. The actual extent and location of groundwater is not easily apparent due to the amount of fill on this site.
- Development should be oriented to maximize exposure to the natural environment while minimizing disturbance of buffers and retaining forest.
- Integrate stormwater management as urban design features.
- Any trails should minimize encroachment into areas of steep slopes and environmental buffers.

White Oak Shopping Center

The White Oak Shopping Center is almost completely paved and has no environmental features. All parking is provided by surface lots with no tree cover. Redevelopment provides an opportunity to reduce imperviousness and the impacts of development through site design.

Recommendations

- Minimize surface parking.
- Provide 25 percent tree cover on this site.
- Integrate stormwater management into redevelopment.

National Labor College

The National Labor College is partially forested with significant open space adjacent to the current development. The property is bisected by a piped Northwest Branch tributary with an associated floodplain. Redevelopment should preserve and be enhanced by the natural resources.

Recommendations

- Future development of the site should investigate options for possibly daylighting the piped stream, which may be compromised by existing utilities and natural conditions.
- Retain existing trees that serve as a buffer to surrounding single-family communities to the extent feasible.

- Pursue acquisition of the Hillandale Volunteer Fire Station site for purposes of expanding the area of Hillandale Local Park if the Fire Station relocates to a larger site and there is a willing seller.
- Consider acquiring land or an easement from the FRC property adjacent to Hillandale Local Park to allow for needed facilities such as an adult rectangular field.

Life Sciences/FDA Village Center

This Center, bounded by Colesville Road, Cherry Hill Road, and the Paint Branch Stream Valley Park, includes the 185-acre Percontee parcel and the 115-acre Site 2 parcel that are planned for new mixed-use development, including retail, residential, and offices. The area also includes the 49-acre Adventist Healthcare property that has development approval for a new Washington Adventist Hospital.

New development on the 300-acre Percontee/Site 2 properties should be sensitive to the adjacent Paint Branch Stream Valley Park and should provide extensive open space opportunities. Parks, trails, and recreational opportunities are needed for the future population of residents, workers, and visitors, including places for formal and informal gatherings, active recreation, spontaneous play, contact with nature, as well as connections within this center and beyond to other destinations. The existing 4.4-acre Stonehedge Local Park, which contains two playgrounds, a basketball court, and a small multi-use field, is inadequate to meet the needs of a new high-density, mixed-use center.

Recommendations

- Provide a Civic Green Urban Park, approximately one acre, to serve as a gathering space and focal point in the highest density cluster of retail and residential uses that may function as a “town center.” The Civic Green should be a formally planned, flexible, programmable open space, with a central lawn area.
- Provide a Local Park with a large adult-sized rectangular athletic field and other amenities such as a community garden, dog park, basketball courts, community open space, urban wooded areas, and play areas. Provide on-street parking to the extent possible and assume a reduction from the typical parking standards applied by the Department of Parks, since many park users could walk or take transit. For the athletic fields, consider synthetic turf and lighting to provide longer hours of use and higher overall capacity. To maximize efficiencies of parking and community use, co-locate with a proposed elementary school, which will be needed if potential residential densities are achieved. If other potential public amenities, such as a community meeting space or a library are proposed, also consider co-location with the park.
- Incorporate privately owned and managed public use spaces similar to Neighborhood Green Urban Parks for each district in the 300-acre development with open lawn areas, shaded seating, play structures, community gardens, and dog spots, or similar neighborhood recreation facilities.

- Incorporate a trailhead on parkland with interpretive signage, and a natural surface trail to the stream along the old roadbed, at the eastern edge of the Paint Branch Stream Valley Park. Dedication of additional land may be needed to accomplish this.
- Create an integrated trail and bikeway system that connects perimeter trails to destinations throughout the development. All trails and park facilities, except for a carefully sited natural surface trail to the river along the old roadbed, should remain outside of sensitive areas. Accordingly, a perimeter trail, whether a bikeway along a road right-of-way, or a hard surface trail on expanded parkland, should be located adjacent to the top of the stream valley, thereby offering visual access into the stream valley park throughout its length, and physical access only by the natural surface trail. Any hard surface trails should be outside the environmental buffers, except where needed as a crossing, in accordance with the practice of first avoiding, then minimizing, and then mitigating impacts. To reinforce public access to the edge of the stream valley, there should be no private lots backing up to the stream valley park.
- Explore provision of a trail connecting to the potential walking path around the regional storm water pond on the proposed Washington Adventist Hospital site.
- Designate approximately 20 acres of steeply sloped, mature forest at the edge of development along the Paint Branch Stream Valley Park as a Legacy Open Space Natural Resource site. At time of regulatory review, determine whether this forest resource should be preserved through easement and/or dedication to Parks.
- Locate trails or bikeways along the edge of the regulatory stream buffers by providing additional parkland (approximately 50-100 feet wide) to keep the trails out of the buffers.
- Include a sustainably designed multi-use natural surface trail connecting the Plan area to Martin Luther King Recreational Park. A hard surface trail is not recommended because it adversely impacts sensitive resources, entails significant topographic challenges (connecting to Old Columbia Pike), and requires long stretches of boardwalk, which is expensive to install and maintain in a floodplain.

Burnt Mills

- Activate the Robert B. Morse Filtration Plant Buildings (built in 1936 and also known as the WSSC buildings) through a “directed partnership,” coordinated with the Department of Parks’ Public Affairs and Community Partnerships Division, investing in the adaptive reuse of the structures and in improvements to environmental conditions at Northwest Branch. Coordinate with the Historic Preservation Commission since the buildings are designated on the *Master Plan for Historic Preservation* and with the Maryland Department of the Environment due to the dam and potential stream restoration.

Public Schools

The Master Plan area is part of Montgomery County Public School’s Northeast Consortium high school cluster, an innovative program that allows students to choose from three high schools in the area - James Hubert Blake, Paint Branch, and Springbrook. In addition to the three high schools, the cluster includes five middle schools and seventeen elementary schools. Cresthaven Elementary School and Francis Scott Key Middle School, both recently modernized, are located within the Plan area’s boundaries in the west Hillandale neighborhood. Elementary school

students in the area attend Roscoe Nix Elementary School for grades K-2 and Cresthaven Elementary School for grades three to five.

Many of the elementary schools serving the Plan area are at or over capacity, while others are under capacity and are projected to remain so. The schools where enrollment exceeds capacity use re-locatable classrooms to handle the extra students until additions are built. The three elementary schools that serve the majority of the plan area, Galway, Cresthaven, and Roscoe Nix, are all projected to be slightly over capacity in the future, but not by enough to warrant additions. If the residential development projected in this Plan comes to fruition, a new elementary school site will be needed.

Five middle schools serve the Northeast Consortium and all are currently within capacity. Three of the five middle schools – Banneker, Francis Scott Key, and White Oak – are projected to be slightly over capacity in the future, but not by enough to warrant additions. At the high school level, students in the Plan area may choose between the three Northeast Consortium high schools depending on their academic interests. Paint Branch and Springbrook high schools are projected to be within their capacities. Blake High School is projected to slightly exceed its capacity by 2017, but not by enough to warrant an addition.

Recommendation

This Plan recommends that an adequate site for a future public elementary school be dedicated on the Percontee property, should the enrollment projections prepared by Montgomery County Public Schools determine that a new school is necessary. Explore co-locating a child care center with the new elementary school.

Libraries

The nearest library serving the Plan area is the White Oak Library, at 11701 New Hampshire Avenue, less than one mile northwest of US 29. The 16,205-square foot library was built in 1967 and renovated in 1989. The library has two meeting rooms that can be reserved by community groups. The County Council encourages exploration of options to renovate or refurbish the White Oak Library. The Marilyn J. Praisner, Wheaton, Silver Spring, and Long Branch libraries also serve east County residents.

The Marilyn J. Praisner Library (formerly named the Fairland Library) opened in 1995 and is located at 14910 Old Columbia Pike in Burtonsville. The 17,454-square foot library is co-located with the 25-acre Columbia Local Park and the Marilyn J. Praisner Community Recreation Center. The library includes two meeting rooms that can be reserved by community groups and a Discovery Room for early childhood learning that can be reserved by parents or caregivers with small children.

The Wheaton Library is located at 11701 Georgia Avenue (at Arcola Avenue) adjacent to the Wheaton Neighborhood Recreation Center. It is one of the County's busiest branches with over 600,000 items circulated each year and more than 425,000 annual visits. Plans to replace the library and the adjacent community center in a joint library/community center facility are

Public Benefits in the CR Zone

The CR and CRT Zones have two development methods: standard and optional. The standard method allows a total density of up to 0.5 FAR in the CR zone and a total density of up to 1.0 FAR in the CRT zone and requires compliance with a specific set of development standards. The optional method allows for greater density and height, but requires projects to provide public benefits to achieve the incentive density above the standard method density. The additional optional method density may be achieved through a series of incentive increases that can be combined to achieve the maximum allowable density, subject to Planning Board approval.

Public benefits provided under the optional method must be drawn from among seven categories outlined in the Zoning Ordinance. Depending upon the zone and the proposed FAR, applicants must provide public benefits in a minimum number of the seven categories. While applicants for the optional method of development may propose any of the thirty-six (36) public benefits listed in Section 4.7.2 of the Zoning Ordinance, there are certain benefits that should be prioritized for this Plan area. These include the following:

- Provision of major public facilities, including but not limited to: Bus Rapid Transit; a bus circulator to connect centers and/or transit; conveyance of an acceptable site for (or construction of) a new public elementary school, fire station or library; and dedication of land for parks and trails.
- Connectivity and mobility, including but not limited to: transit access improvement and trip mitigation.
- Diversity of Uses and Activities, particularly care centers and affordable housing, including workforce housing.
- Quality building and site design, including but not limited to: structured parking, exceptional design, and the amenities listed on pages 87-90 to the extent they exceed the requirements of the zone.

This list of priorities does not preclude consideration of other public benefits, as listed in the Zoning Ordinance, to achieve the maximum permitted FAR. All public benefits requested by the developer will be analyzed to make sure they are the most suitable for the Plan area, that they are consistent with the Plan's vision, and that they satisfy the changing needs of the area over time.

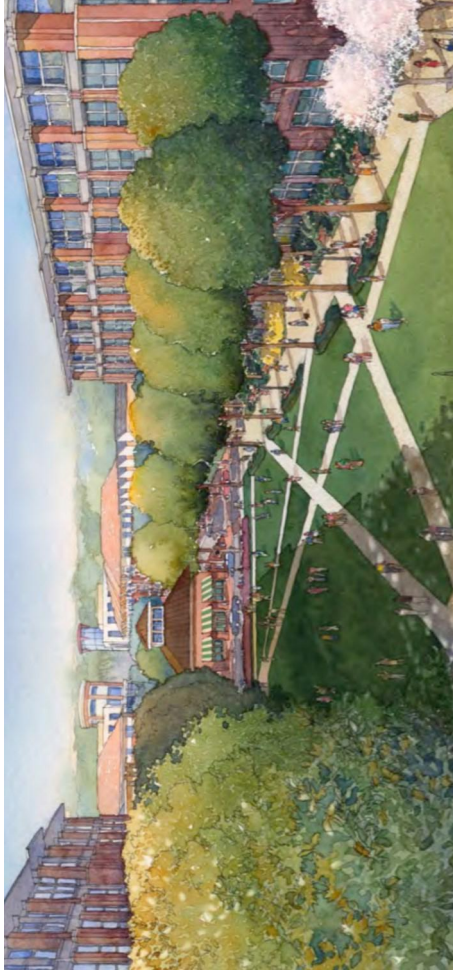
Trip Reduction Agreements

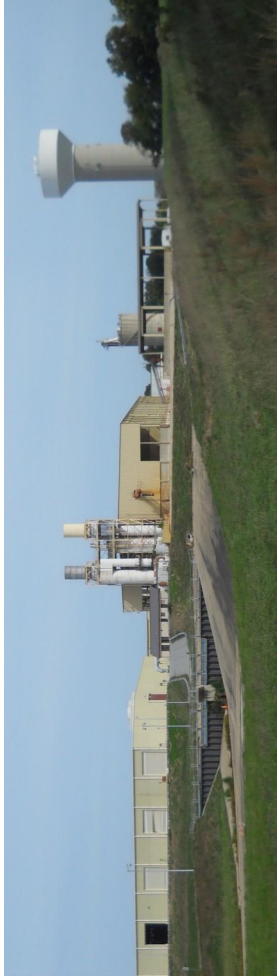
Through the 1990 Trip Reduction Amendment to the 1981 *Eastern Montgomery County Master Plan*, trip reduction restrictions were placed on certain properties in the Cherry Hill Road Employment Area. This Plan supports the removal of those restrictions so these property owners are not at a disadvantage relative to other developers in the area. Property owners who executed voluntary trip reduction agreements with the Planning Board may take action to have these restrictions removed from the land records.

NOVEMBER 2014

White Oak Science Gateway Master Plan

DESIGN GUIDELINES





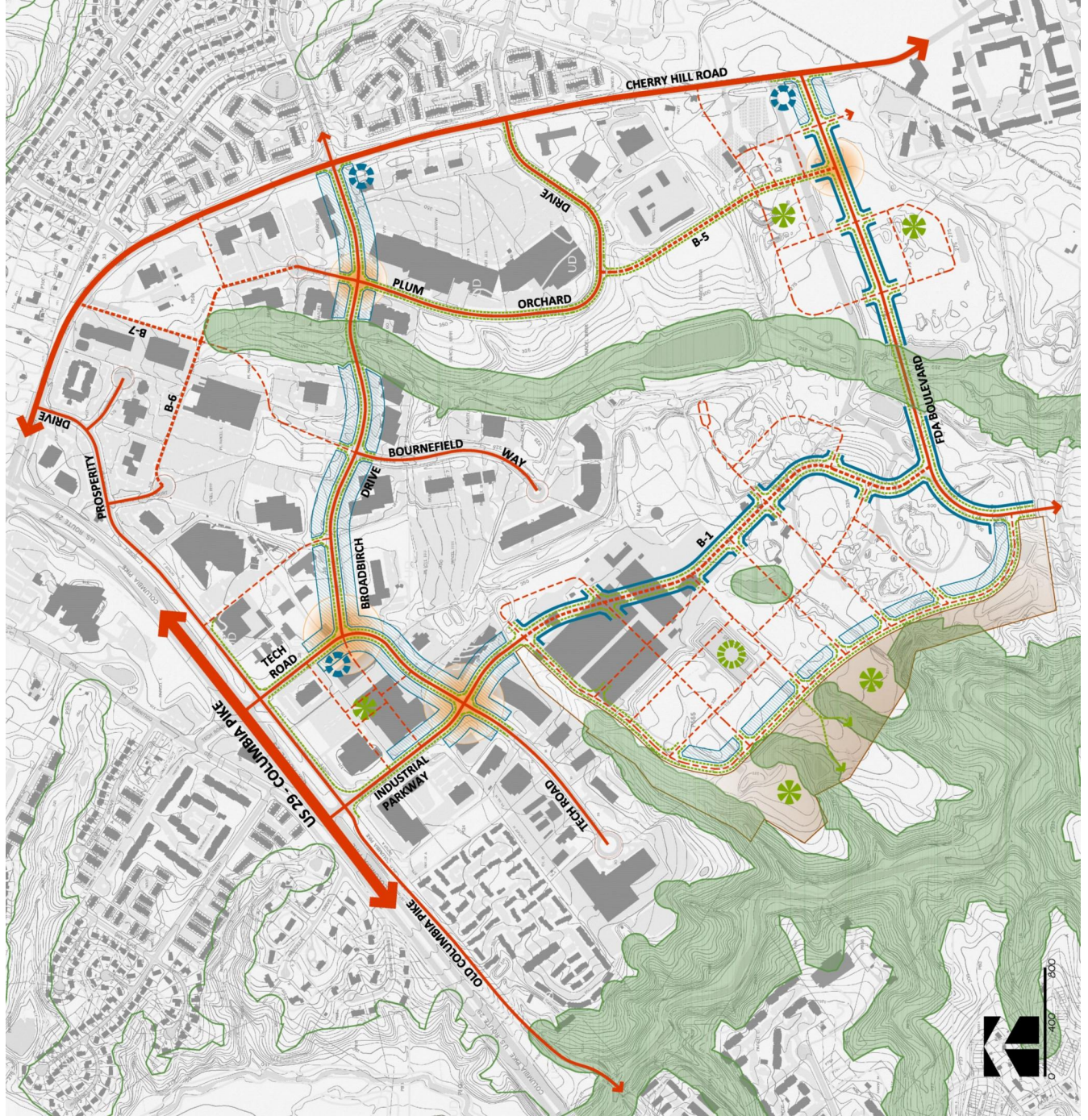
*Top:
Existing Conditions,
County Site 2*

*Bottom from Left:
Holland Lane, Alexandria VA
Town Center, Reston VA
Tree-lined Street,
Omotesando, Japan*

Life Sciences | FDA Village Center

This is a large area that is currently home to light industrial /office park type uses. Mixing of existing light industrial uses and other commercial uses that could benefit surrounding residential neighborhoods is encouraged, as well as sensitive integration of new development with significant existing environmental resources.

The redevelopment of County-owned Site 2 and the adjacent Percontee property will introduce a mix of institutional/commercial/residential uses, representing a shift from the node's predominantly light industrial character. Besides including a number of interior streets, amenities, and a network of open spaces, this development could enhance east-west mobility by creating a main street connecting Industrial Parkway with FDA Boulevard. It should also enhance public access to the Paint Branch stream valley, and provide opportunities for outdoor recreation along its edge. Industrial properties to the north could, over the long term, redevelop to introduce complementary mixed uses. Improvements to key properties could create gateways to the area and better connections to adjacent communities.



Legend

- Existing Road
- Proposed Road
- Potential Road
- Build-to-line
- Build-to-area
- Streetscape
- Environmental Area (*)
- Civic Green
- Proposed Park
- Potential Open Space
- Landmark | Gateway Structure
- Enhanced Intersection

(*) Delineation of environmentally sensitive areas is shown for illustrative purposes. Actual extent of environmental buffers will be established during the regulatory review process.

Blocks 1, 2

Tech Road and Industrial Parkway at US29

- Redevelopment of key properties should create a gateway to the area at US29 that integrates a possible BRT station.
- Development should improve pedestrian areas along Tech Road and Industrial Parkway.
- Development at Block 1 should create a visual terminus for westbound Broadbitch Drive.
- Create an accessible central open space within Block 1.

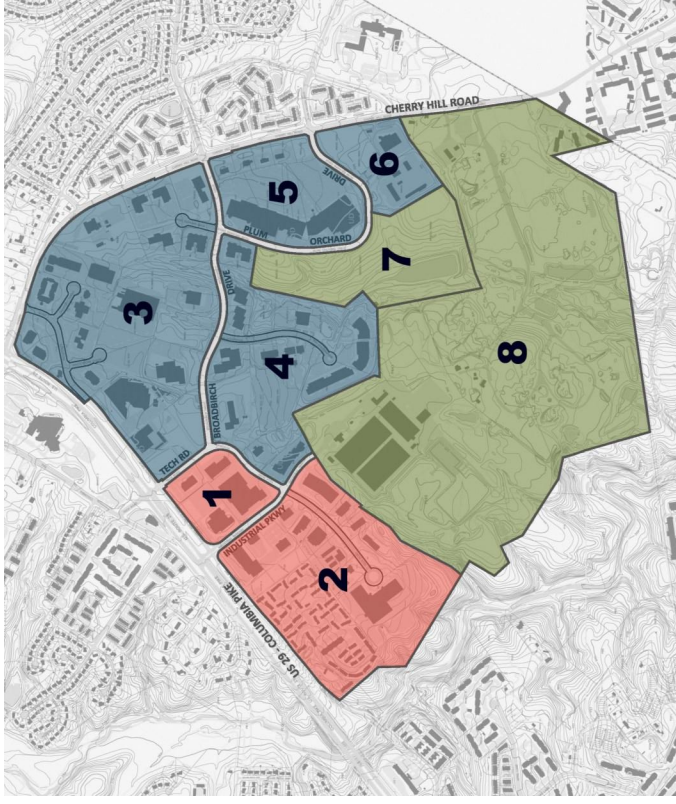
Blocks 3, 4, 5, 6 Tech Road and Broadbitch Drive

- Redevelopment of properties along Broadbitch Drive should create destinations to encourage pedestrian activity.
- Existing tree-lined character of Broadbitch Drive should be maintained.

Blocks 7, 8

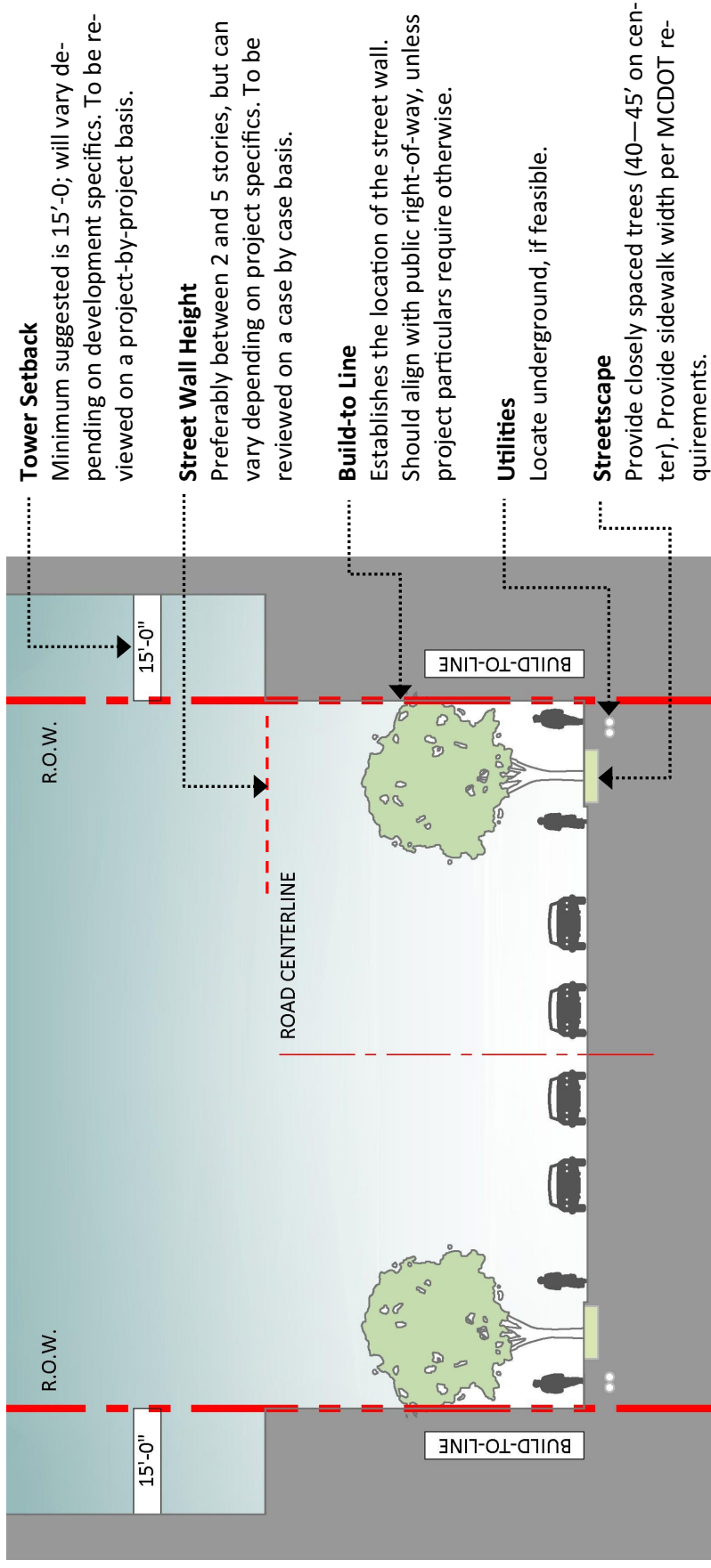
Industrial Parkway Extended and FDA Boulevard

- Industrial Parkway Extended should develop as a pedestrian-oriented central spine. Tallest structures in this area should be concentrated along this road segment.
- Development along FDA Boulevard should be compatible with development along Industrial Parkway Extended, but should transition to a lower scale along Cherry Hill Road, to be compatible with existing residential communities to the east.
- Development should enhance the edge along the Paint Branch stream valley to the south with conservation and/or restoration efforts, to include the creation of accessible recreational areas for public use.



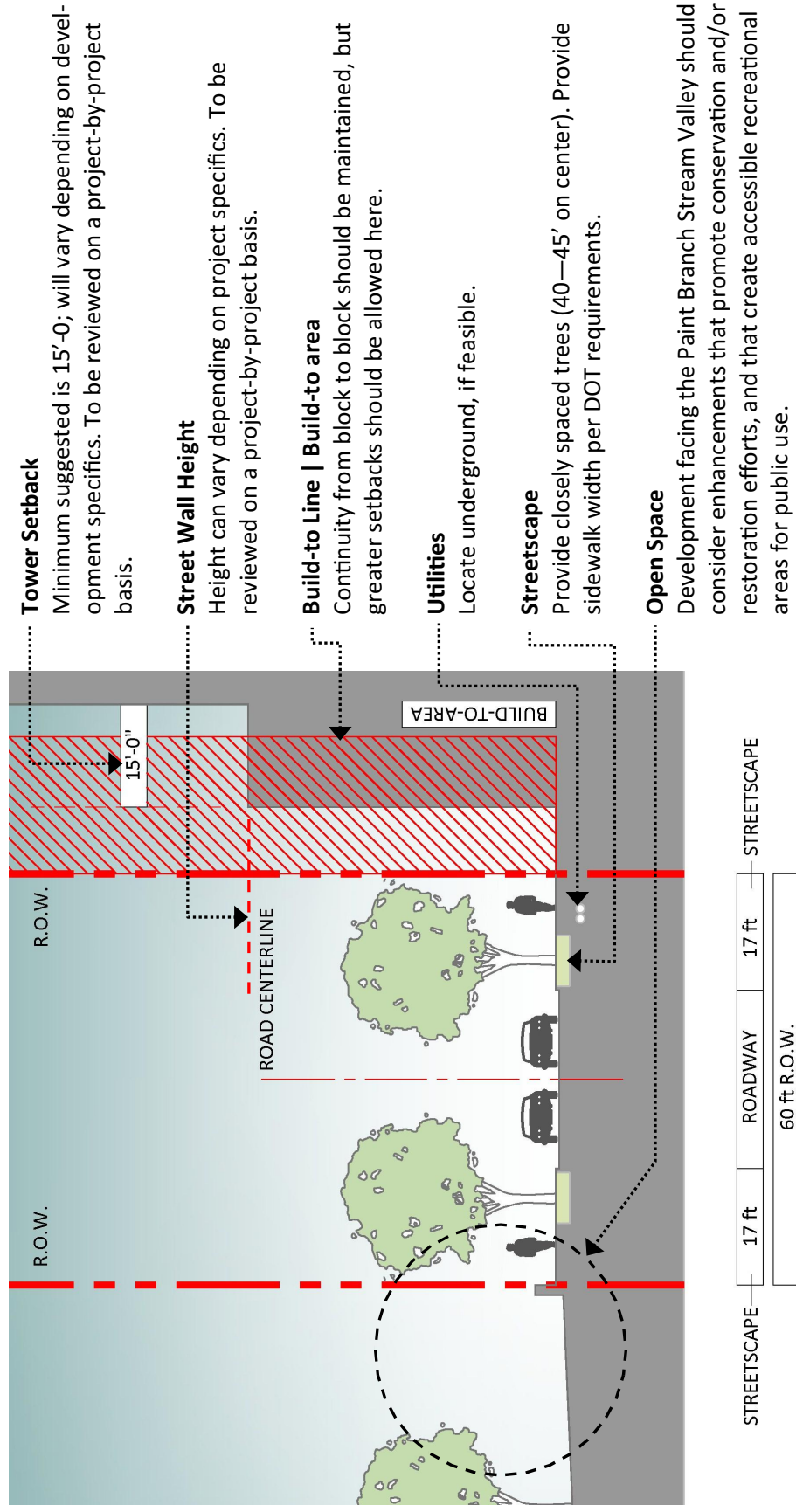
Dockside Green, Victoria, BC
Example of development with a strong sustainable agenda. Proximity to the Paint Branch Stream Valley, and important environmental resource, should present opportunities to use similar development strategies.

Industrial Parkway Extended



Substantial redevelopment will transform underused land into a new business district for the region.

Paint Branch Overlook



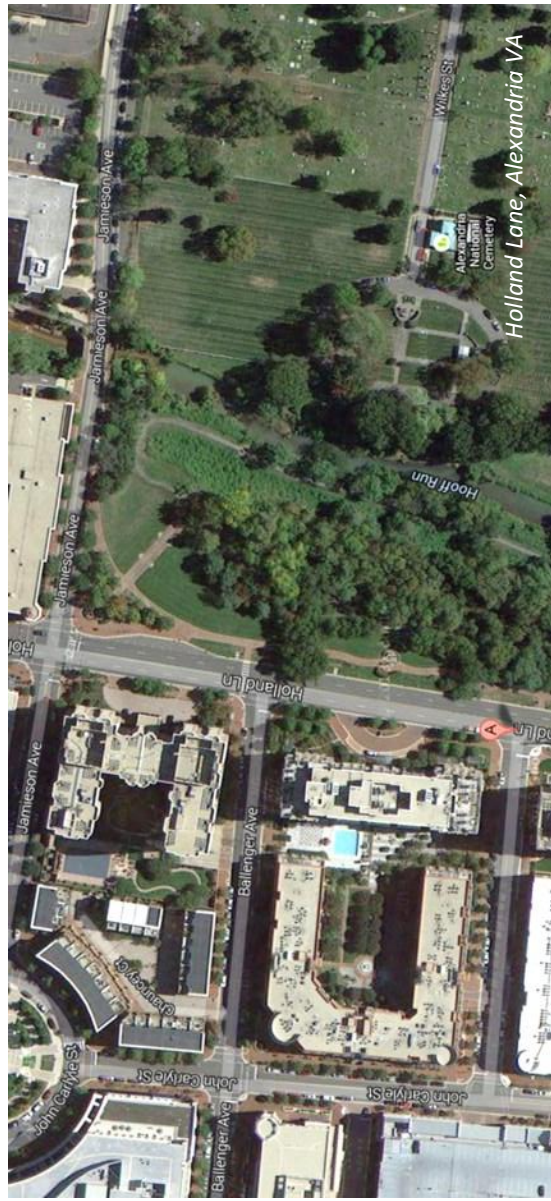
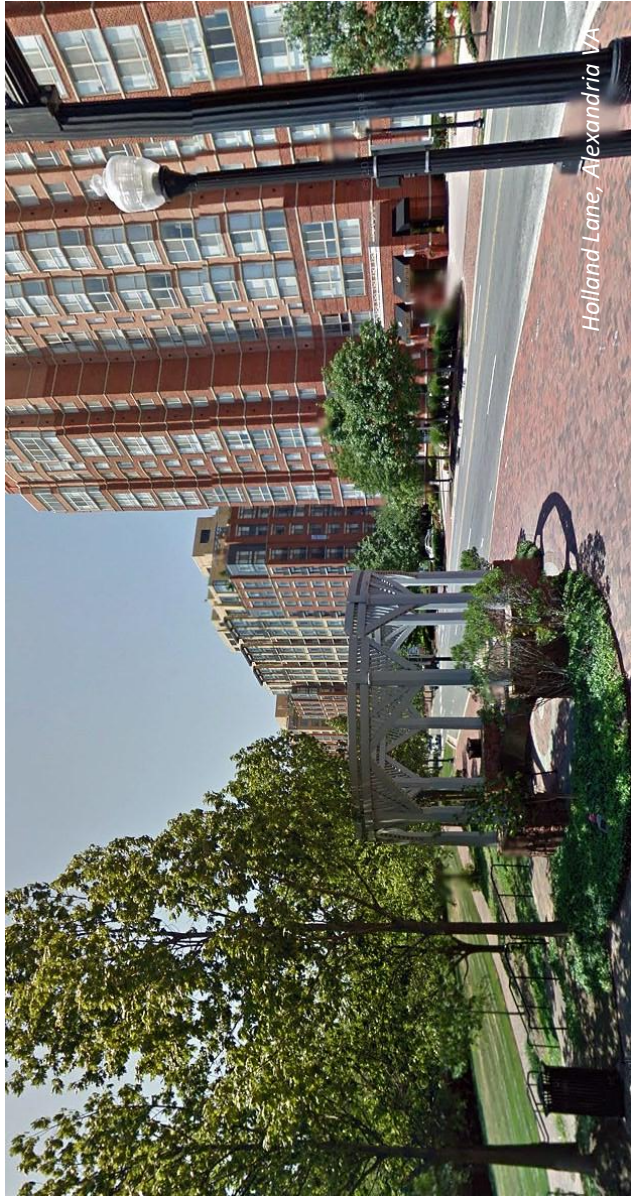
2014 White Oak Science Gateway Master Plan, p. 89

New development on the 300-acre Percontee/Site2 properties should be sensitive to the adjacent Paint Branch Stream Valley Park and should provide extensive open space opportunities. Parks, trails, and recreational opportunities are needed for the future population of residents, workers, and visitors, including places for formal and informal gatherings, active recreation, spontaneous play, contact with nature, as well as connections within this center and beyond to other destinations.

Paint Branch Overlook



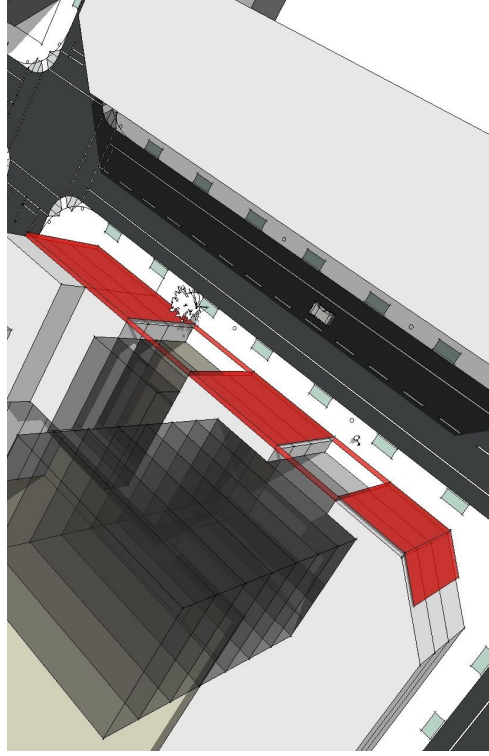
Paint Branch Overlook Diagram



Right: Example illustrates the implementation of development –enhanced environmental resource, including recreational areas.

Implementation

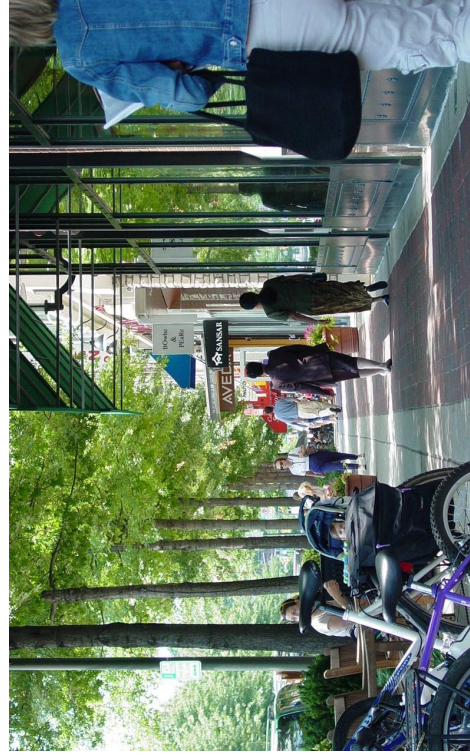
These guidelines utilize various design elements to illustrate the integrated environment envisioned by the Master Plan. Their primary focus is on the role played by buildings in defining the public domain. Redevelopment should incorporate these elements to achieve well connected pedestrian environments within each center.



Design Elements: Buildings

Build-to-Zones

Build-to-lines indicate where a building's street facade should be located to create continuous street walls that define and contain the public realm, and that may include retail or other street activating uses, primarily in areas where density is the highest. Build-to-areas allow for greater flexibility in locating the street wall within pre-established distances away from the public right-of-way. The Master Plan contains several areas where such flexibility might be appropriate or necessary; the guidelines use both strategies to build the pedestrian environments envisioned by the Plan.



Streetscape

Improving the streetscape along public corridors would promote safe pedestrian activity and enhance the character of the public realm through each center. Improvements should build on existing conditions where possible, to enhance local character. Incorporating sustainability measures is strongly encouraged.



Enhanced Intersections

Development should enhance existing intersections to improve connectivity, and to concentrate density in areas where it can become a focus for the neighborhood.

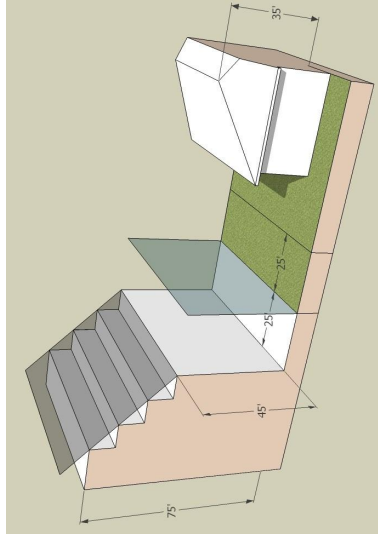
Enhanced intersections should include:

- Street defining buildings at all corners, with entrances and/or activating uses oriented toward the corner, when feasible.
- Sidewalk streetscape elements (including trees) that pull away from the corner to improve visibility across the intersection for pedestrians, cyclists, and motorists.
- Building corner articulation that allows adequate space for pedestrians to congregate safely, away from vehicular traffic.
- Consider speed-reducing measures at the road surface such as alternative materials at crosswalks. This would require MCDOT approval and coordination.



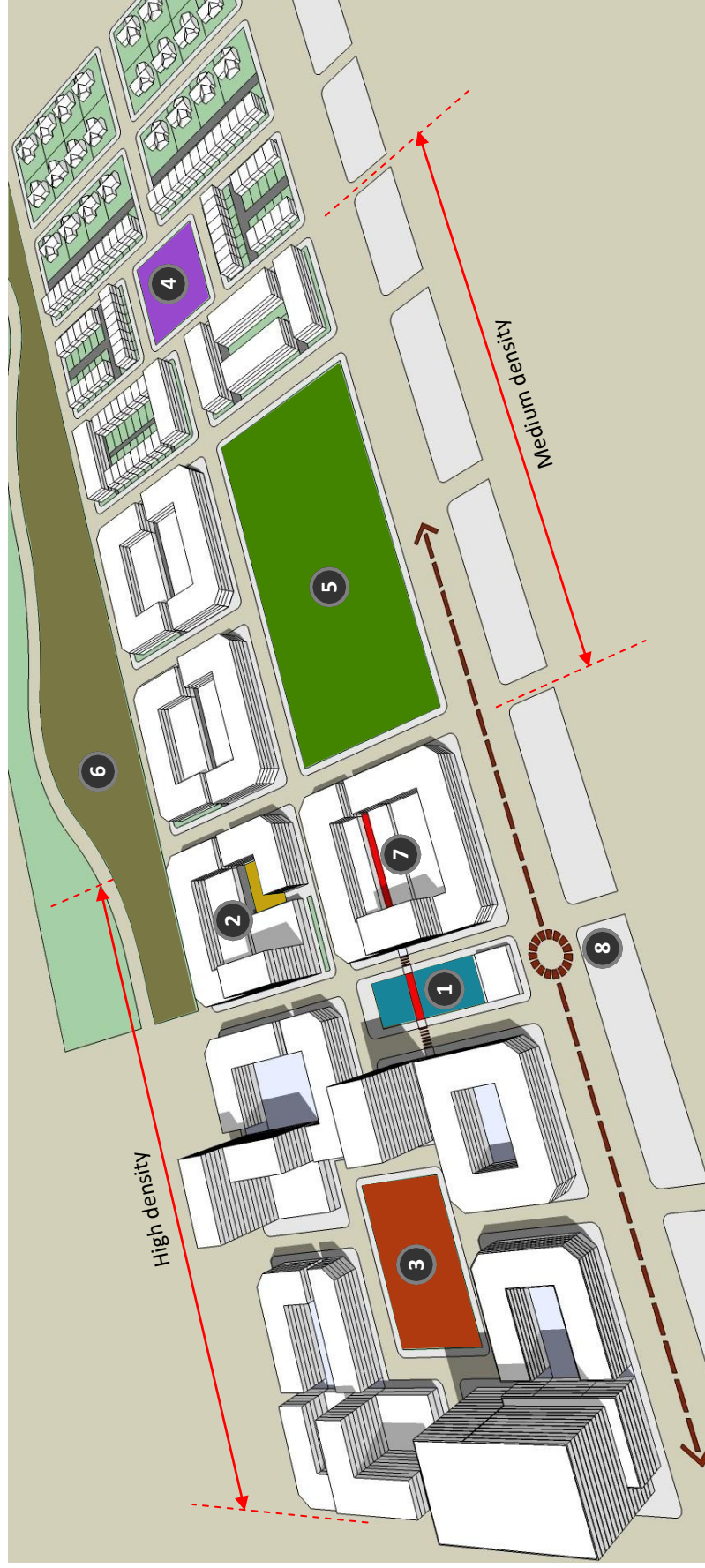
Landmarks and Gateways

Landmark structures can provide points of orientation for both pedestrians and motorists. A key element of a landmark is its singularity; the quality that makes it stand out from its context. Landmarks should be easily identifiable, whether by form, contrast with their background, or because of prominence or special location. Landmark elements can also signal transitions to neighboring communities, or highlight access to mass transit or to prominent public spaces.



Transitions

The illustrative diagrams for each of the centers outline areas where appropriate transitions should be considered between existing residential neighborhoods and areas with development potential. The Master Plan and Design Guidelines rely on tools in the Commercial –Residential (CR) zones as approved by the County Council in the Zoning Ordinance Rewrite scheduled to take effect October 30, 2014, such as rear yard setbacks and building height planes, to limit the extent of new building mass near single-family zones and uses.



- 1 Urban Plaza (*)
- 2 Neighborhood Green
- 3 Civic Green
- 4 Neighborhood Park
- 5 Active Local Park
- 6 Greenway | Linear Park
- 7 Through-block Pedestrian Connection (*)
- 8 Transit (**)

Design Elements: Spaces for Public Use

The Master Plan recognizes that a successful system of parks and open spaces must be provided through a combination of public and private efforts. The Guidelines provide descriptions for a variety of open space types that could be provided by developing properties within the master plan area. The list is limited to the opportunities identified by the Plan, so it is not exhaustive.

Note:

Open space types listed are from **2012 Park, Recreation and Open Space (PROS) Plan**.

(*) Space Type not included in PROS Plan

(**) Not a space type



Urban Plaza

Public use space integrated into commercial or mixed-use development, to serve as focal point for community activity. Depending on size and location, may support organized activities and special events.

Location: Integrated with development; convenient to mass transit

Size: Less than 1 acre; actual size could be dependent on programmatic requirements

Design:

- Defined by building walls containing ground floor activating uses on at least two sides
- Visibility and access from adjacent sidewalks, streets, and buildings



Elements:

- Primarily hardscape – considerations for pervious surfacing are encouraged
- May include trees for shading
- Should include variety of seating options
- May include limited landscaped areas

Urban Plaza, World Wide Plaza, New York, NY

Example of an urban plaza integrated with commercial and residential development, with access to mass transit, and including a variety of seating alternatives, amenities, and landscaped areas.



Neighborhood Green

Privately developed small scale urban open space tucked into and scattered throughout urban fabric. These are intended to serve the immediately local population as a refuge from the bustle of surrounding urban life, and to offer opportunities for rest and relaxation.

Location: Integrated with development

Size: Approximately 1/4 acre or less

Design:

- Design as a single “room”, but may include spaces for small gatherings
- Defined by building walls on at least three sides; these may or may not contain activating uses
- Direct access to a local street
- Visibility and access from adjacent sidewalks, streets, and buildings

Elements:

- Primarily hardscape – considerations for pervious surfacing are encouraged. May include lawn areas if feasible
- May include trees for shading, planting areas, water features, art
- Should include variety of seating options

John F Collins Park (Chestnut Park), Philadelphia, PA

Example of a small park in the city’s central core, constructed of local building and plant materials, and that also includes seating options, art, and water features.





Civic Green

Formally planned, flexible, programmable public use space that can provide places for informal gathering, quiet contemplation, or large gatherings and special events.

Location: Centrally located within higher -density development area

Size: Approximately 1/2 acre minimum; preferable 1 to 2 acre area

Design:

- Designed to incorporate several activity zones
- Flexible space to accommodate a variety of public gatherings
- Adjacent to major roads and/or business streets
- May be surrounded by local streets lined with high to medium density development, with continuous street walls and activating uses
- Visibility and access from adjacent sidewalks, streets, and buildings

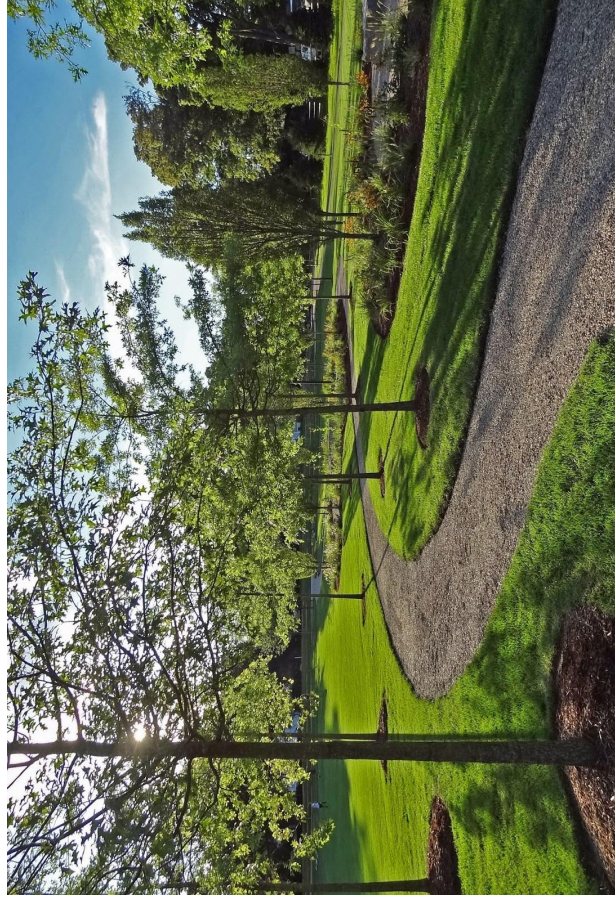
Elements:

- Substantial central lawn area as a focal point
- Include trees for shading
- Plantings, lawn area, shaded sitting and pathways
- Might include play areas, community gardens, or similar neighborhood facilities
- Multiple options for seating
- Public Art
- Identity Features

Rockville Town Center, Rockville, MD

Example of a successful central square that includes a variety of activity zones and landscaped areas, and that is surrounded by medium to high density development that provides a periphery of ground floor active uses.





Neighborhood Park

Small park providing informal recreation in primarily residential areas.

Location: Integrated with development with a primarily residential component

Size: 1 acre minimum

Design:

- Surrounded by local streets and medium to low density development
- Visibility and access from adjacent sidewalks, streets, and buildings

Elements:

- Include trees for shading
- Plantings, lawn area, shaded sitting and pathways
- Active recreation areas might include play equipment or multi-use courts
- May include community gardens, or similar neighborhood facilities

Neighborhood Park, White Horse Beach, Plymouth, MA
Example of a small neighborhood park serving as an oasis for a primarily residential area, that includes extensive lawn areas, and tree covered trails and seating areas.



Active Local Park

Large Park to provide athletic fields as well as space for programmed and un-programmed recreation facilities.

Location: Equally accessible from redeveloping properties and existing surrounding communities

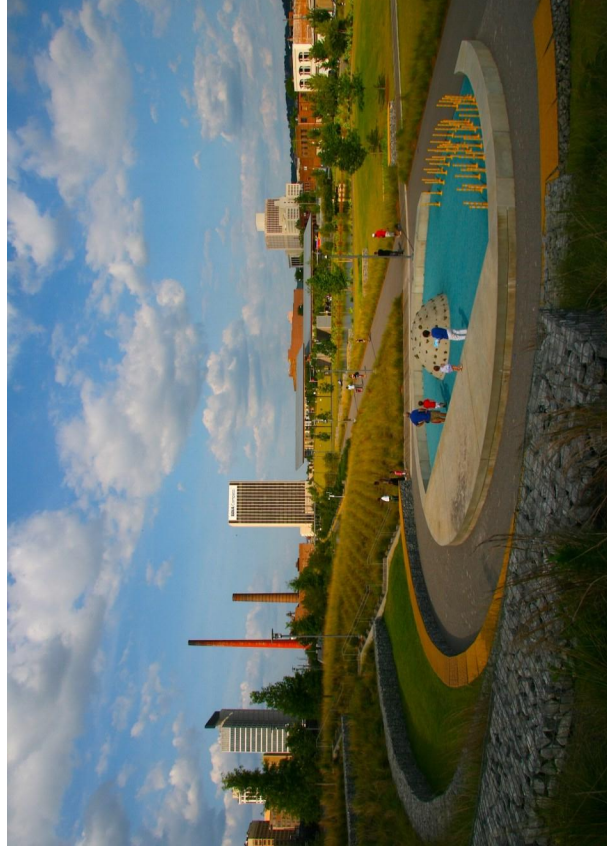
Size: 4 acres minimum

Design:

- Designed to incorporate several intense activity zones
- Flexible space to accommodate a variety of public gatherings
- Adjacent to major roads and/or business streets
- Equally accessible from high to low density development areas

Elements:

- Consider amenities such as a community garden, a dog park, urban wooded areas, and play space.
- Include trees for shading
- Plantings, lawn area, shaded sitting and pathways
- Include at least one large adult-sized rectangular athletic field
- Provide field illumination to increase hours of use
- On-street parking to the extent possible
- Consider co-location with elementary school, should a school be required



Railroad Park, Birmingham, AL

Example of a large active park that highlights the city's industrial past, and that includes substantial landscaped areas and water features, as well as trails and areas for family activities, concerts, and large cultural events.



Greenway | Linear Park

Linear park that provide trails or wide landscaped walkways and bikeways and may include other recreational and natural amenities

Location: Integrated into mixed-use development with a primarily residential component

Size: Varies

Design:

- Surrounded by local streets and medium to low density development
- Visibility and access from adjacent sidewalks, streets, and buildings
- Should link to other green spaces, trails, and natural systems

Elements:

- Include trees for shading
- Plantings, lawn areas, and shaded sitting areas
- Trails, walkways and bikeways, with extra space for vegetative ground cover and trees
- Incorporate public art
- May include community gardens, or similar neighborhood facilities
- May include rest areas with facilities for passive recreation



African American Heritage Memorial Park, Alexandria, VA

Example of a linear park that creates a public amenity along the residential edge of major development, including trails, landscaped areas, art, and that integrates historic elements and environmental features.



Pedestrian Through-Block Connection

Through-block pedestrian connections can shorten walking distances, create connections between open spaces, and add frontages to promote retail activity.

Location: Higher-density development areas

Size: As suitable for development area

Design:

- Maintain continuity with street walls along adjacent streets
- Flexible pedestrian-priority space to accommodate a variety of public activities
- Adjacent to public roads and/or business streets
- Use Crime Prevention Through Environmental Design (CPTED) principles to design pedestrian links as effective public spaces



Elements:

- Create safe spaces that are well monitored, well illuminated, and adequately furnished to promote pedestrian activity
- Include limited planted areas, if feasible.
- Seating alternatives to serve pedestrians and surrounding active uses.
- Incorporate public art

Bethesda Lane, Bethesda, MD

Successful cobblestoned pedestrian alley lined with retail and defined by street walls including residential uses and good surface articulation.

Design Elements: Streets and Streetscape

Transforming the Master Plan's centers into great pedestrian friendly places will require enhancing the area's mobility system. In addition to the network of master planned streets, local or private streets will also contribute the implementation of a robust system that promote safe interaction between transportation modes.

Design objectives should include:

Hierarchical Street Grids

To establish grids of streets that improve local access for vehicles, pedestrians, and bicyclists.

Underground Utilities

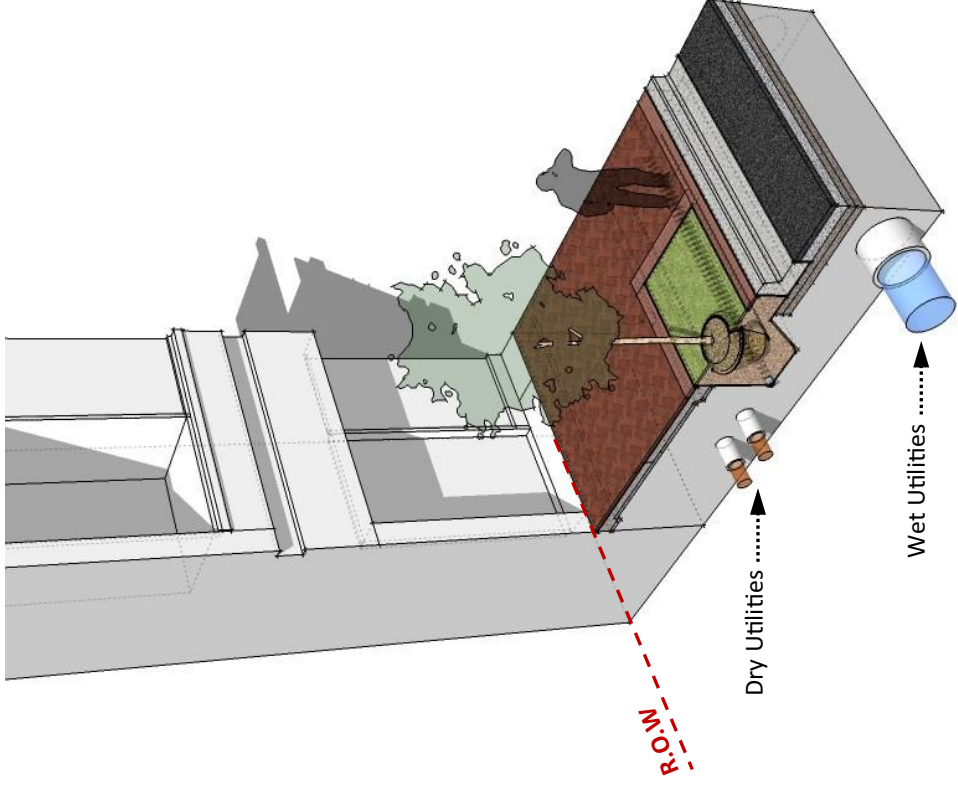
To accommodate all utilities underneath sidewalk paving within right-of-way limits, in coordination with MCDOT and utility companies.

Walkable Blocks

To create short blocks that expand pedestrian access, maximize building frontage, and increase sidewalk activity.

Safe Intersections

To recommend crosswalks at all intersections to improve pedestrian access and safety.



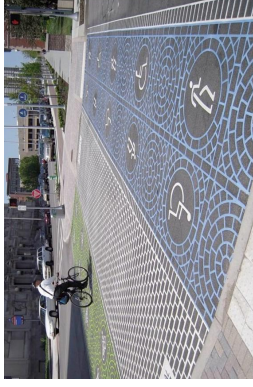
Typical streetscape section

Example of a typical streetscape application including building front at the sidewalk, wider pedestrian zone, underground utilities, and individual tree pits. Implementation will vary depending on site constraints and road requirements.

Local Streets

Local streets can expand the street network to provide a more finely grained street grid that will improve connectivity throughout the area. While establishing continuity in the public realm is a priority for the guidelines, local streets offer opportunities to introduce variety and character within redeveloping areas. Features for local streets might include:

- Utilizing road standards that allow for narrower travel lane widths and provide wider sidewalks;
- Streetscape components (e.g., sidewalk paving, tree spacing, lighting) compatible with adjoining public streets, and in conformance with MCDOT standards;
- Alternative roadway pavement materials (in conformance with MCDOT);
- Ground floor active uses;
- Character elements to distinguish between neighborhoods;
- Limited on-street parking;
- May be implemented as private streets.



Clockwise from top:
Curbless Street, Director's Park, Portland, OR
North End Way Pedestrian Alley, New York, NY
Ellsworth Street, Silver Spring MD
Indianapolis Cultural Trail Street Crossing, Indianapolis, IN
Hillcrest Neighborhood Street Trees, San Diego, CA