



Urban Design Best Practices and Innovations

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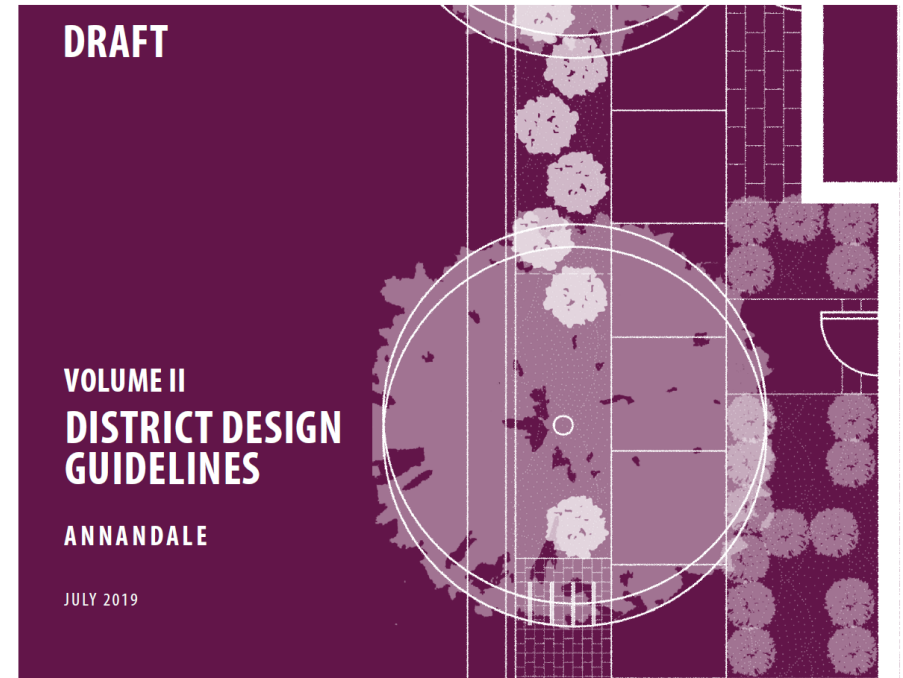
October 8, 2019

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Department of Planning & Development, Community Revitalization Section

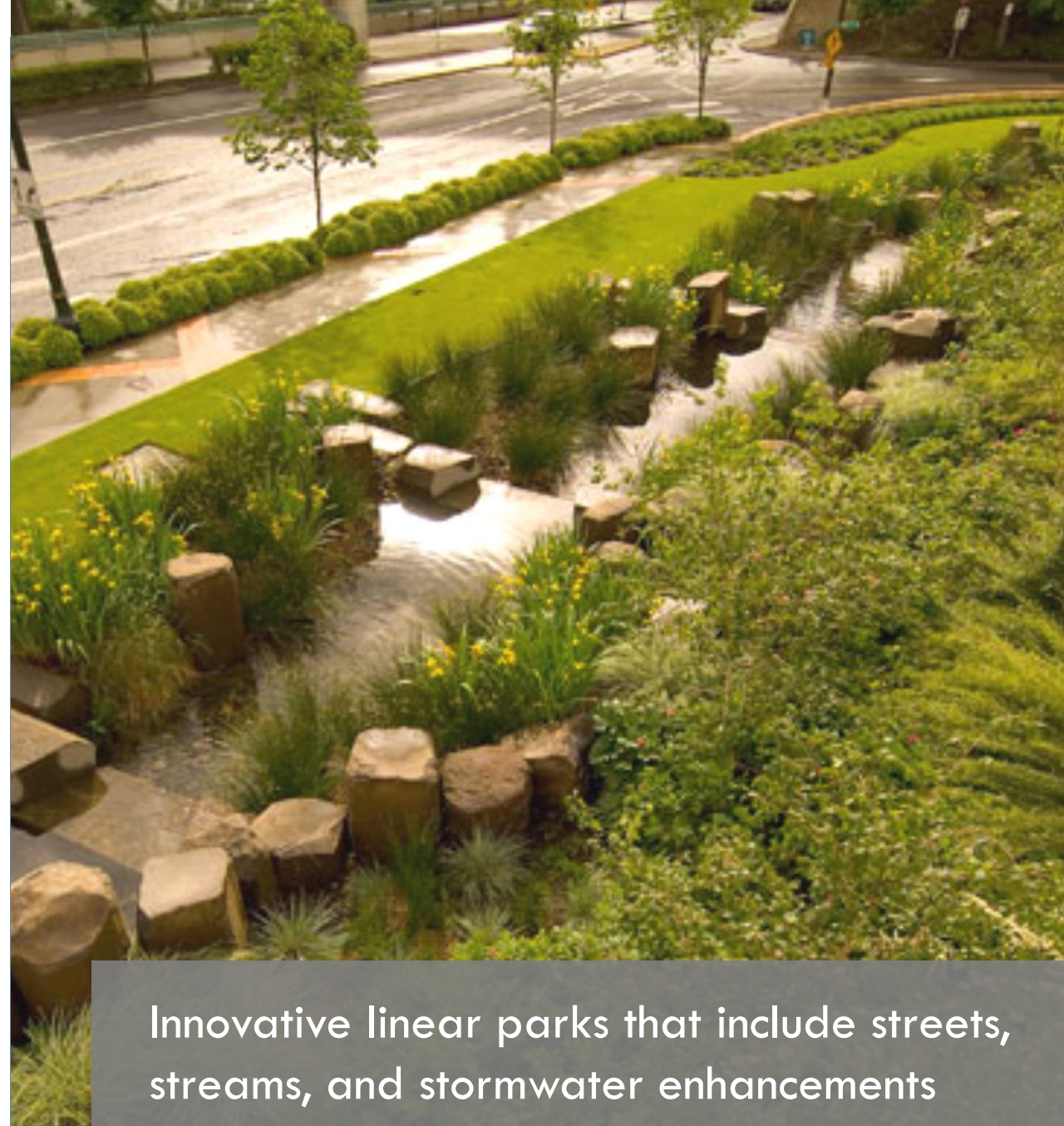


VOLUME I
URBAN DESIGN GUIDELINES
FOR FAIRFAX COUNTY COMMERCIAL REVITALIZATION DISTRICTS AND AREAS
SEPTEMBER 2018





Urban design best practices



Innovative linear parks that include streets, streams, and stormwater enhancements



More and more of what our communities desire:

- Socialization and experiences
- Sense of belonging to a place
- Places to walk and interact



People Places Employment Governance



COMPLETE STREETS



Fairfax County  Strategic Plan

Documented existing conditions in the CRDs/CRAs

- Evaluated quality/maintenance needs of existing infrastructure
- Analyzed property size and shape



Built partnerships with county agencies and created technical teams (internal and external) to provide expertise



Researched national best practices



Incorporating new guidance into updates to the Comprehensive Plan, Zoning Ordinance, Public Facilities Manual



Now, beginning to apply it countywide to a variety of activity centers (ex. Merrifield Suburban Center Study/WFC)

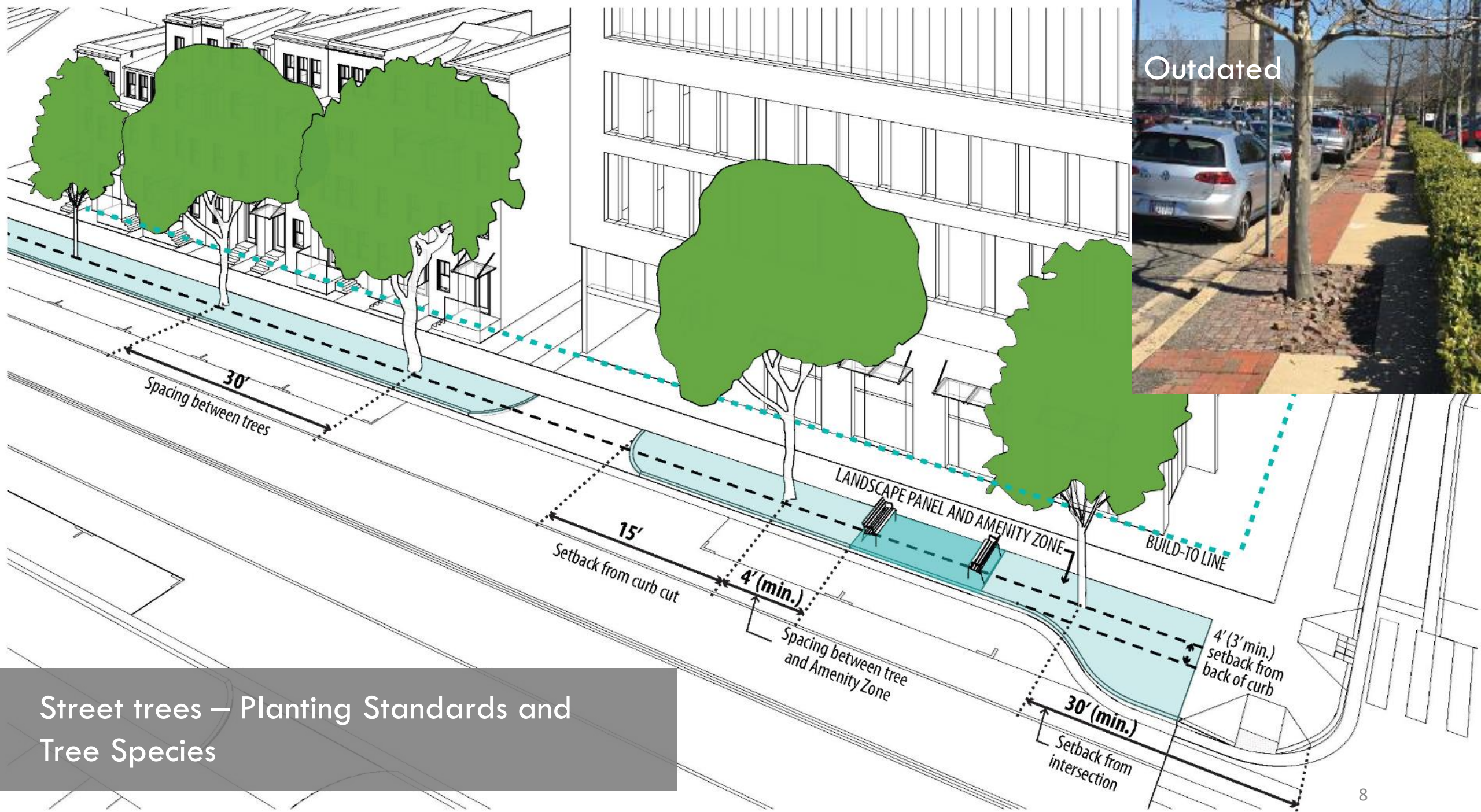




Streetscape and Urban Design Best Practices



Outdated



Street trees – Planting Standards and Tree Species



Alternative Strategy 1

Continuous tree wells provide adequate soil volumes by sharing soil among multiple trees

Image Credit: Kim Hartley Hawkins



Alternative Strategy 3

Amenity Zone cantilevered over a tree well

Image Credit: Fairfax County



Alternative Strategy 5

Street trees located in the Building Zone



Alternative Strategy 2

Structured soil system in a tree well

Image Credit: Keep Indianapolis Beautiful

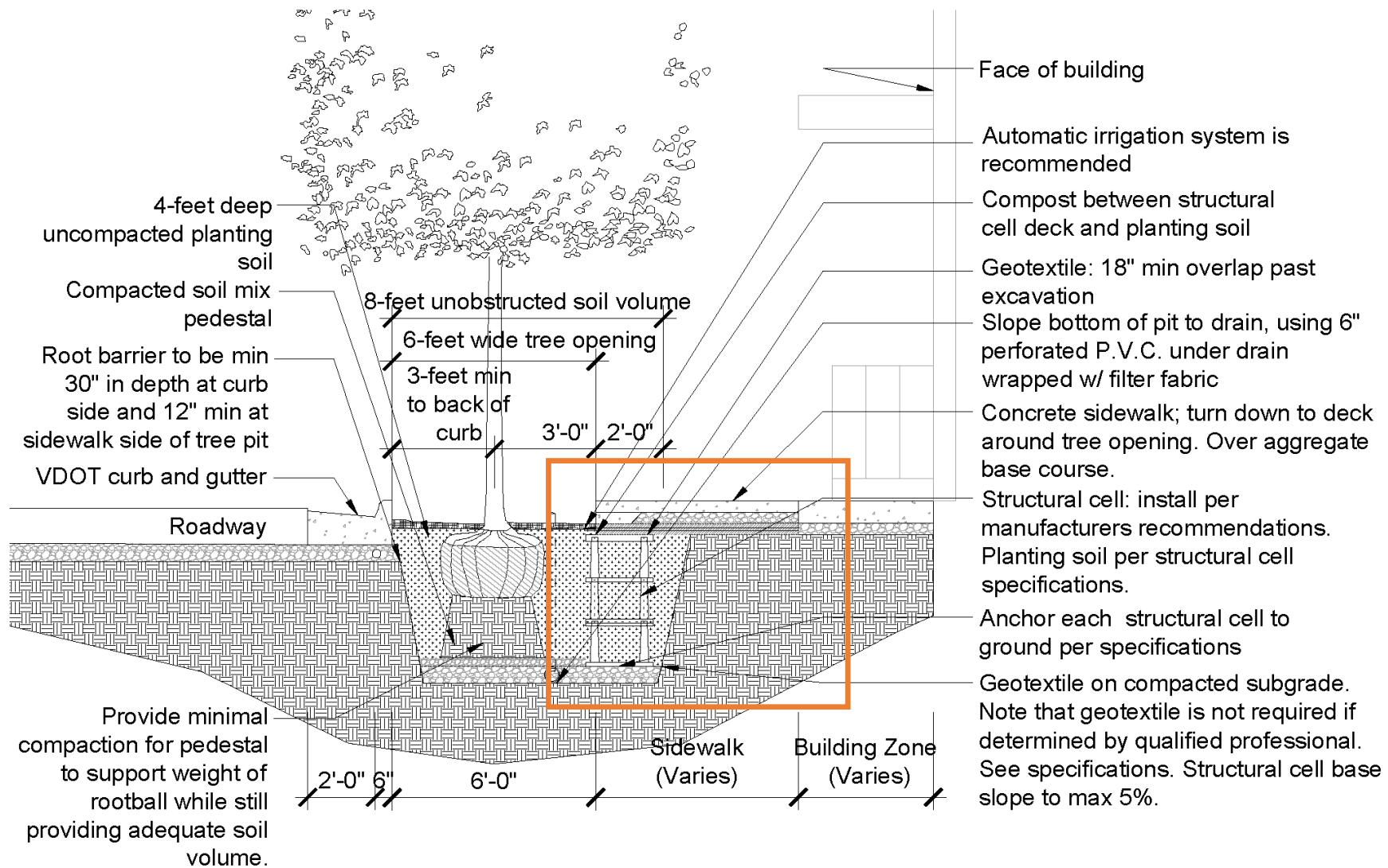


Alternative Strategy 4

Smaller Category II tree that requires less soil volume

Image Credit: Fairfax County

Options for how developers can provide street trees when space is limited



Street trees – Detail developed for the Design Guidelines based on Alternative Strategy #2



Image Credit: Fairfax County

Green Stormwater Infrastructure Toolkit



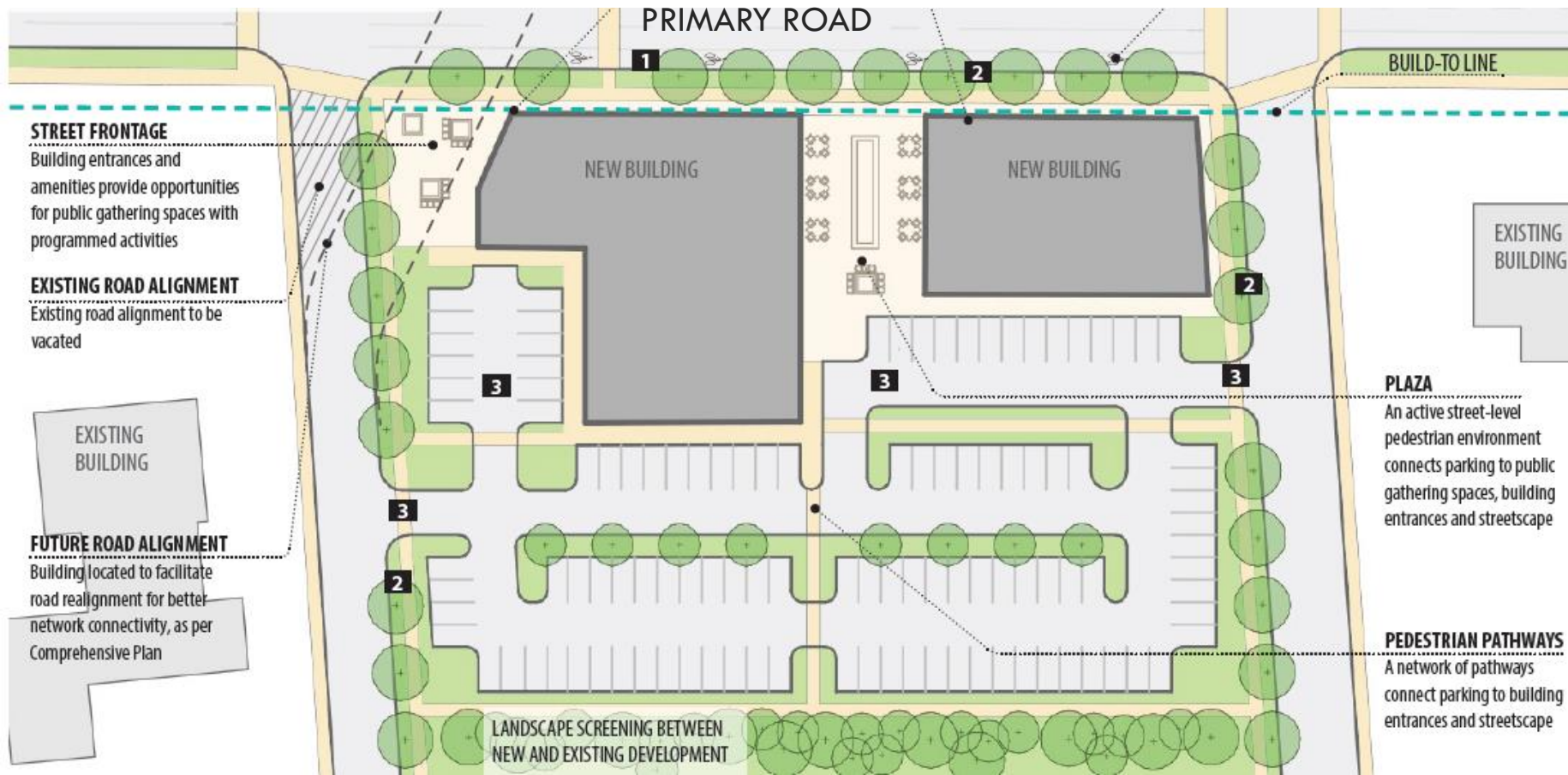
Image Credit: ASLA



Image Credit: Fairfax County

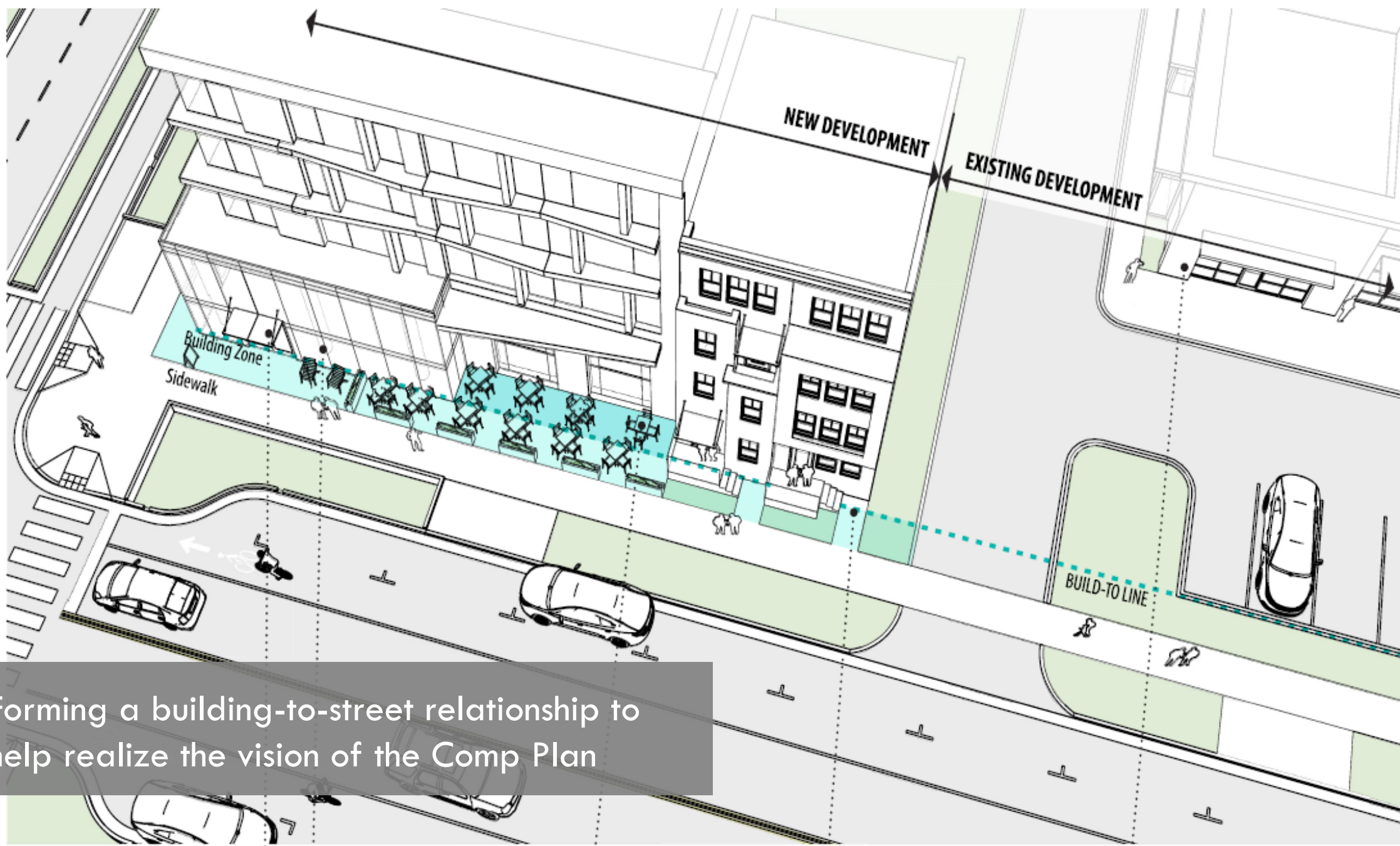
Green Stormwater Infrastructure
Bio-retention in the landscape panel





1. Buildings located close to the street
2. Parking on sides or rear
3. Planning for future road network
4. Street trees, streetscape and site landscaping
5. Public spaces and pedestrian walkways
6. Monument signs that aren't visually obtrusive

Small-scale and Incremental Development



Forming a building-to-street relationship to help realize the vision of the Comp Plan

BUILDING PROJECTIONS

FENESTRATION

AMENITY SPACE

BUILD-TO LINE

EXISTING DEVELOPMENT

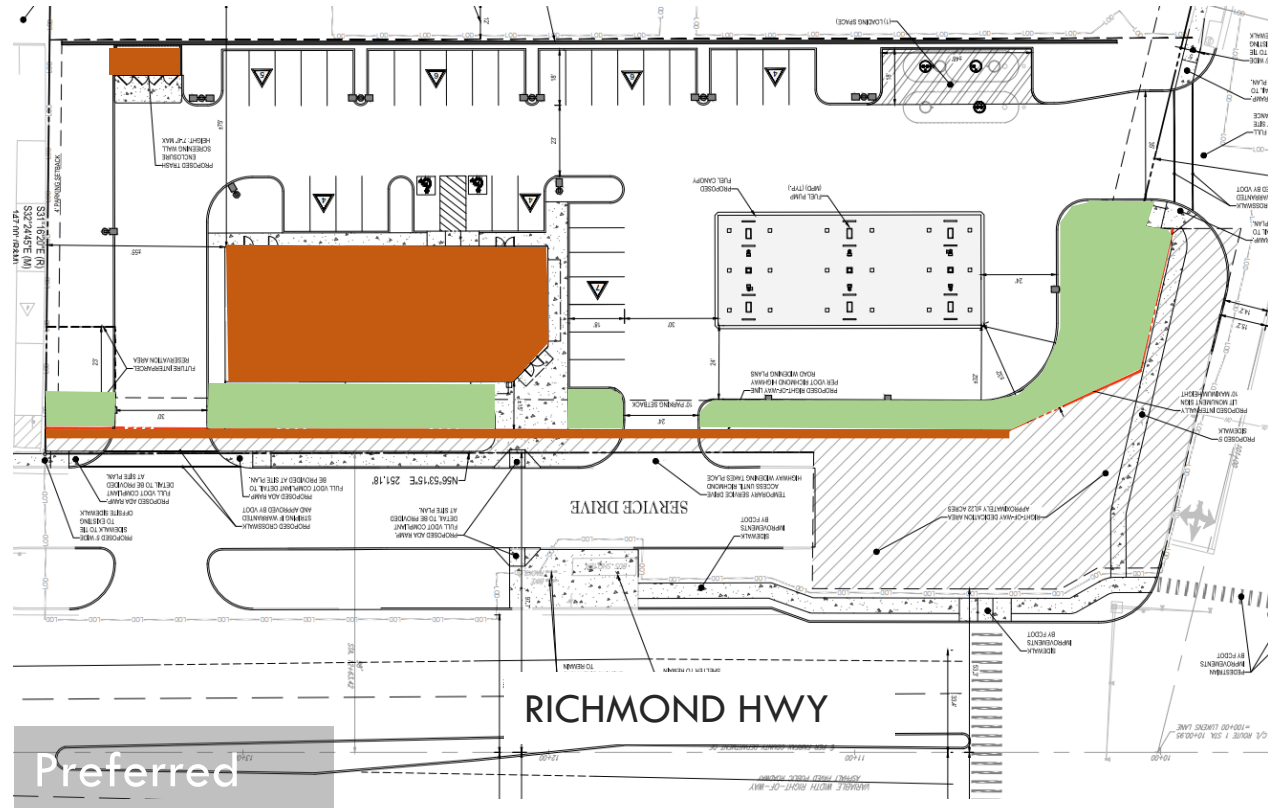
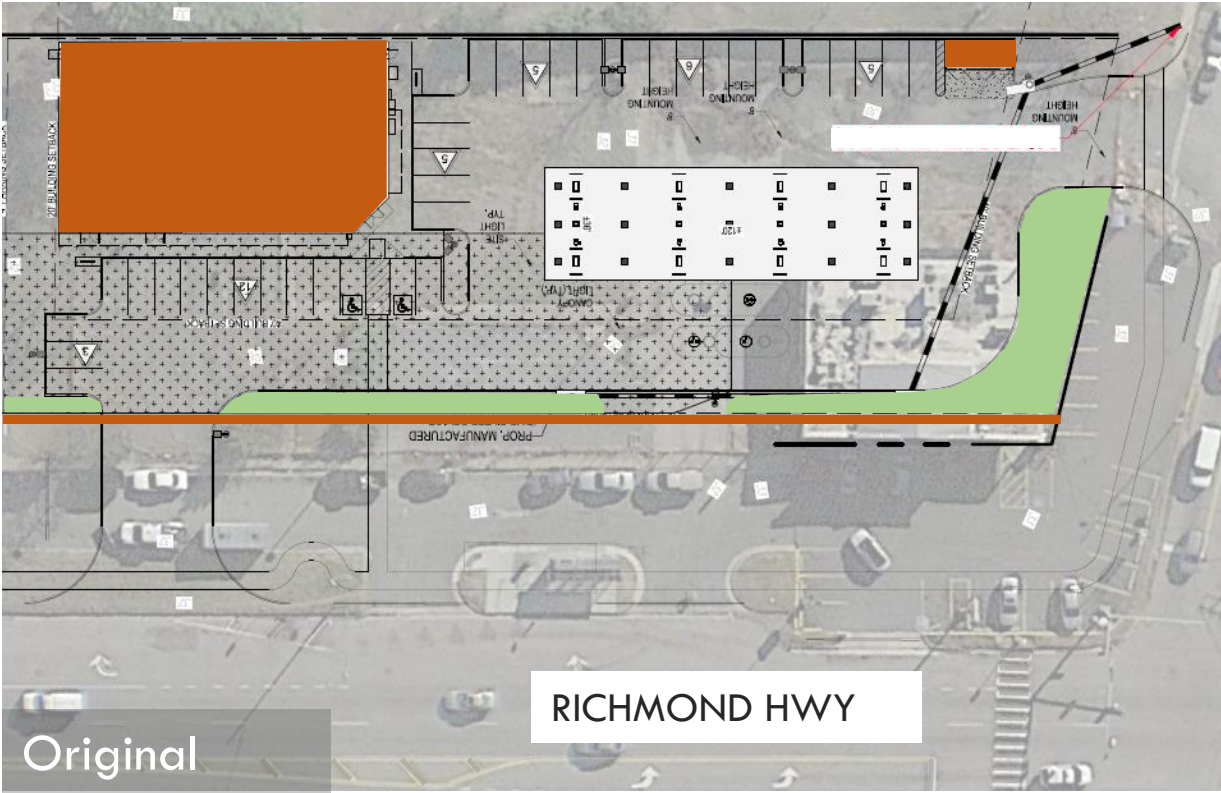


Typical



Preferred

Small-scale and Incremental Development



Small-scale and Incremental Development

1 Ecological Spines – passive parks within existing riparian corridors, adjacent to development



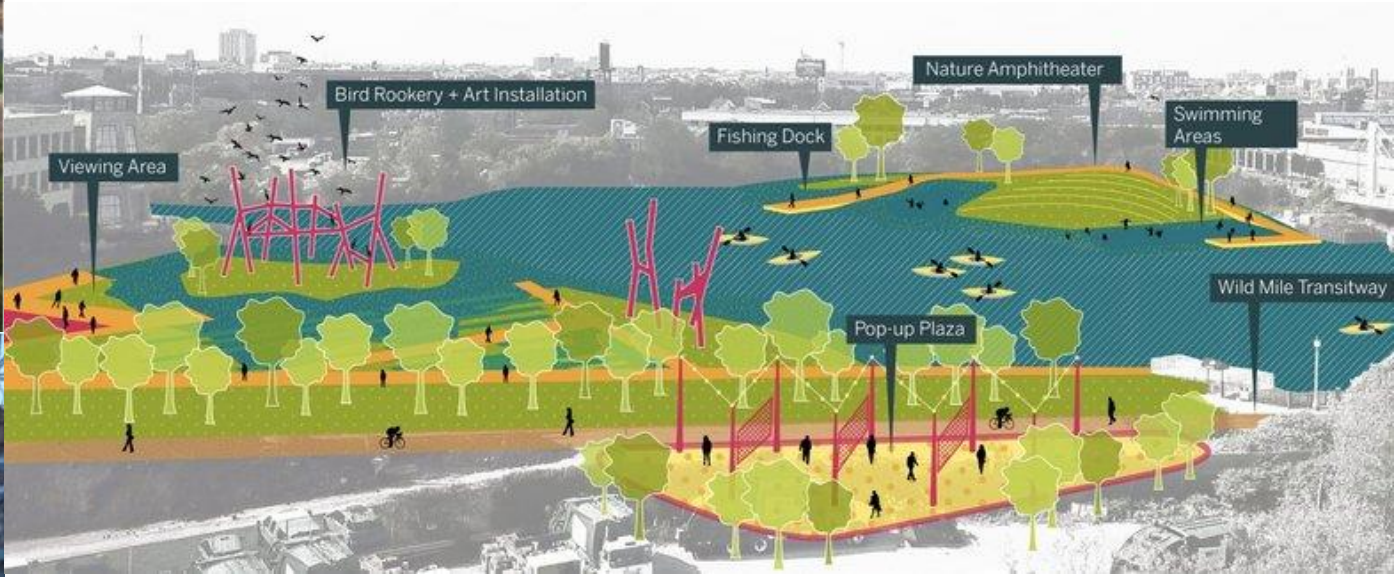
Innovative Linear Parks



Livability Spines – linear green spaces alongside streets, adjacent to development

2

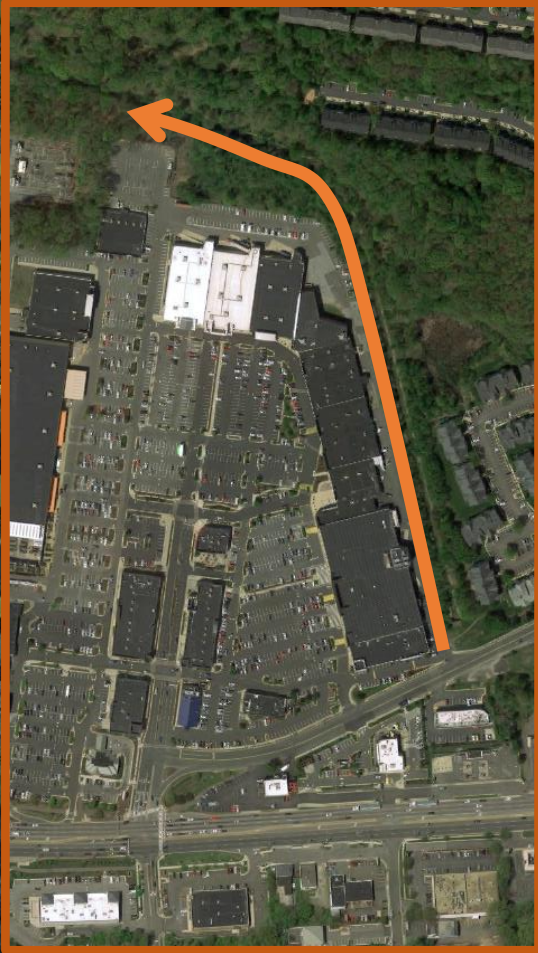
Wild Mile Chicago, IL



Linear Park along a roadway
Sydney, Australia



Ecological Spines – Existing Condition in the Hybla Valley CBC, Richmond Highway



Ecological Spines are linear parks and enhanced riparian corridors where there are surface or buried streams. Formed by daylighting covered streams or by enhancing existing streams and riparian buffer areas, Ecological Spines serve a range of environmental, recreational, and educational purposes while connecting people to nature. Some Ecological Spines also include local streets and stormwater management.

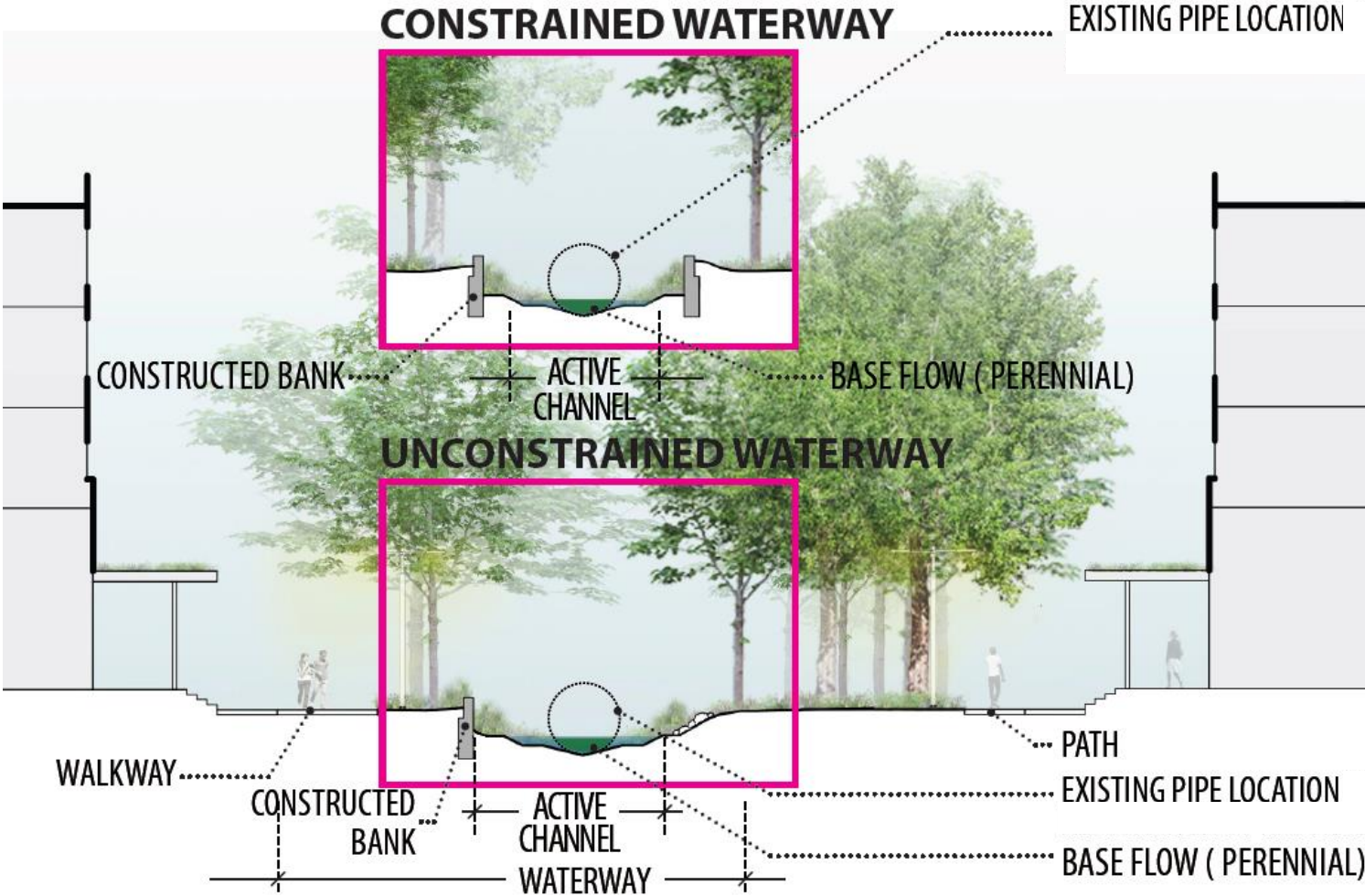
Function as resilient and ecologically sound riparian corridors

Provide mobility options for pedestrians, cyclists, and in certain instances, low-speed vehicles

Serve as open space amenities that enhance community character and identity

Foster strong connections between people and nature by providing immerse natural experiences

Ecological Spines – Constrained Scenario



Ecological Spines – Case Study Example Headwaters at Tryon Creek, Portland, OR

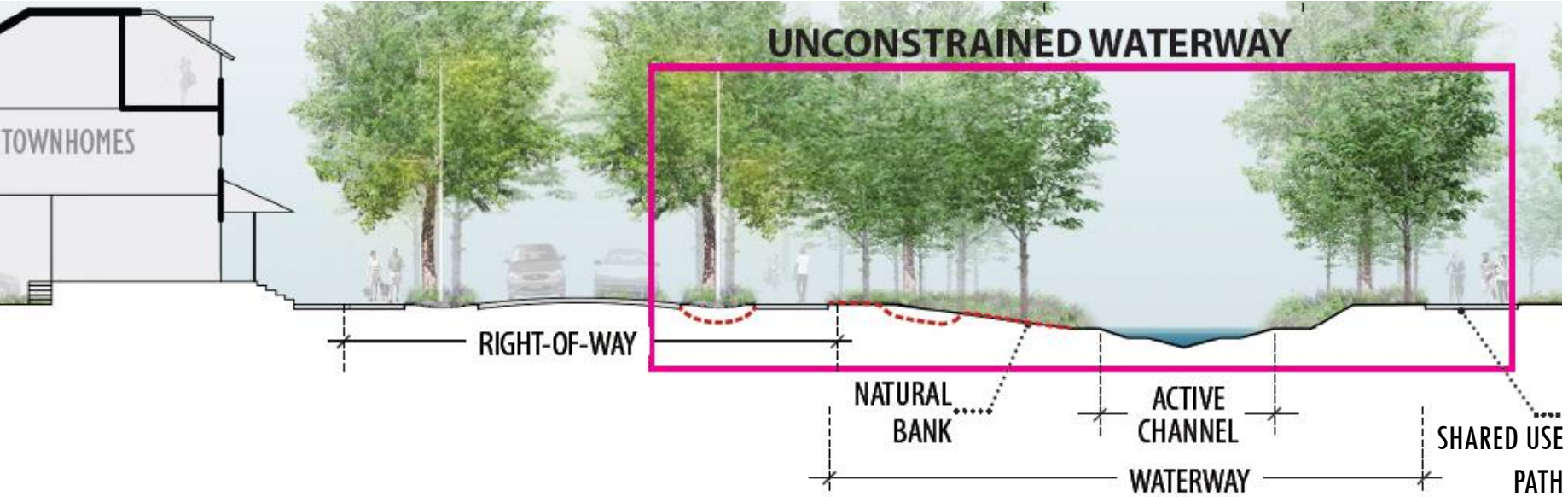


Pre-development Condition

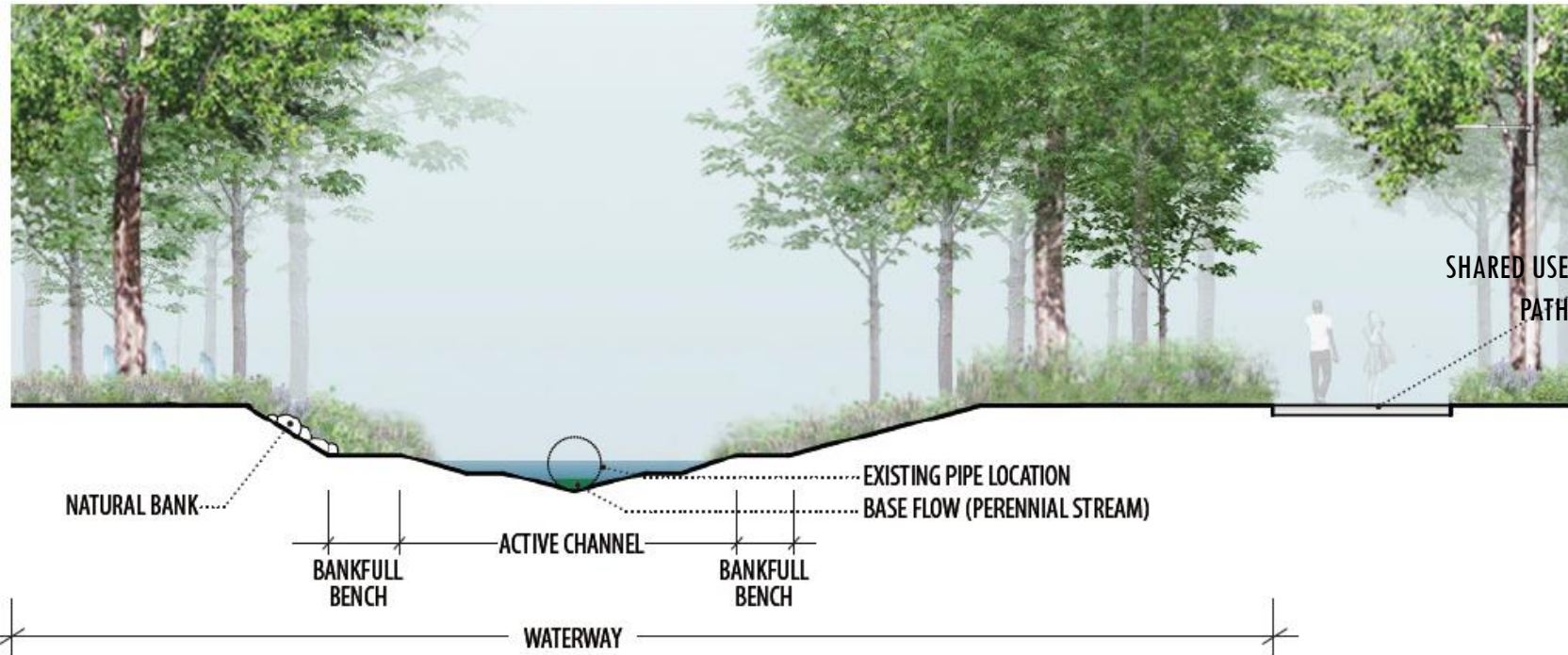


Site Plan

Ecological Spines – Unconstrained Scenario



Ecological Spines – Naturalized Scenario



Ecological Spines – Programming Examples



Nantes, France



Champaign, IL

Ecological Spines - Implementation Challenges

- Creation of an ecological spine is one way for developments to address stormwater guidance in the Comprehensive Plan. It can also help developers address open space and urban parks framework planning guidance
- Maintenance: responsible party, also ensuring durable and floodable designs
- RPA policy
- Research on case studies, Fairfax policies, and floodable designs, and strategies to encourage their implementation continues (ie. getting the barriers out of the way) – we don't have all the answers yet
- County may need to consider partnerships between developers and the county (to address financial or technical challenges), particularly in instances where there are improvements needed to the stream corridor beyond the project

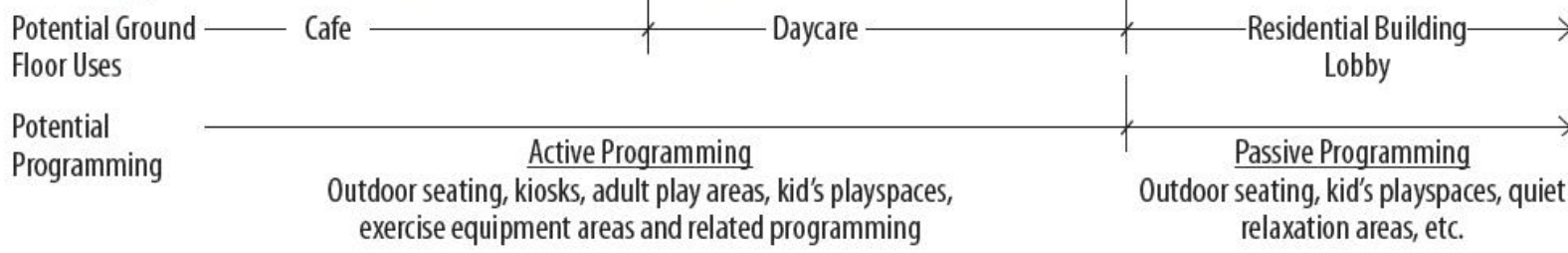
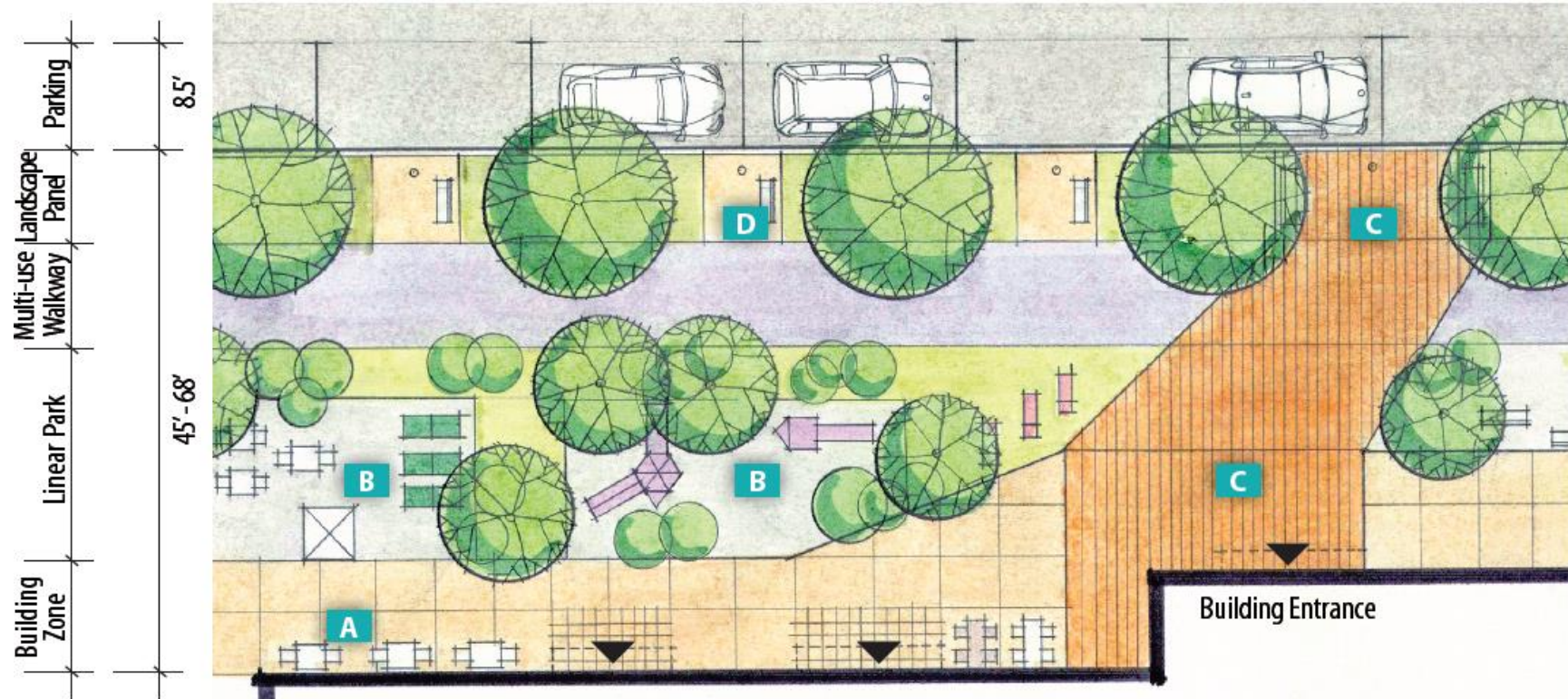
Livability Spines are roadways that include linear green spaces and plazas along their sides and across multiple developments and/or blocks. Livability Spines enhance multimodal mobility by integrating pedestrian and bicycle facilities. As linear parks with outdoor activities and active uses adjacent to the ground floors of buildings, Livability Spines can function as “main streets” and community gathering places as an alternative to very busy thoroughfares.

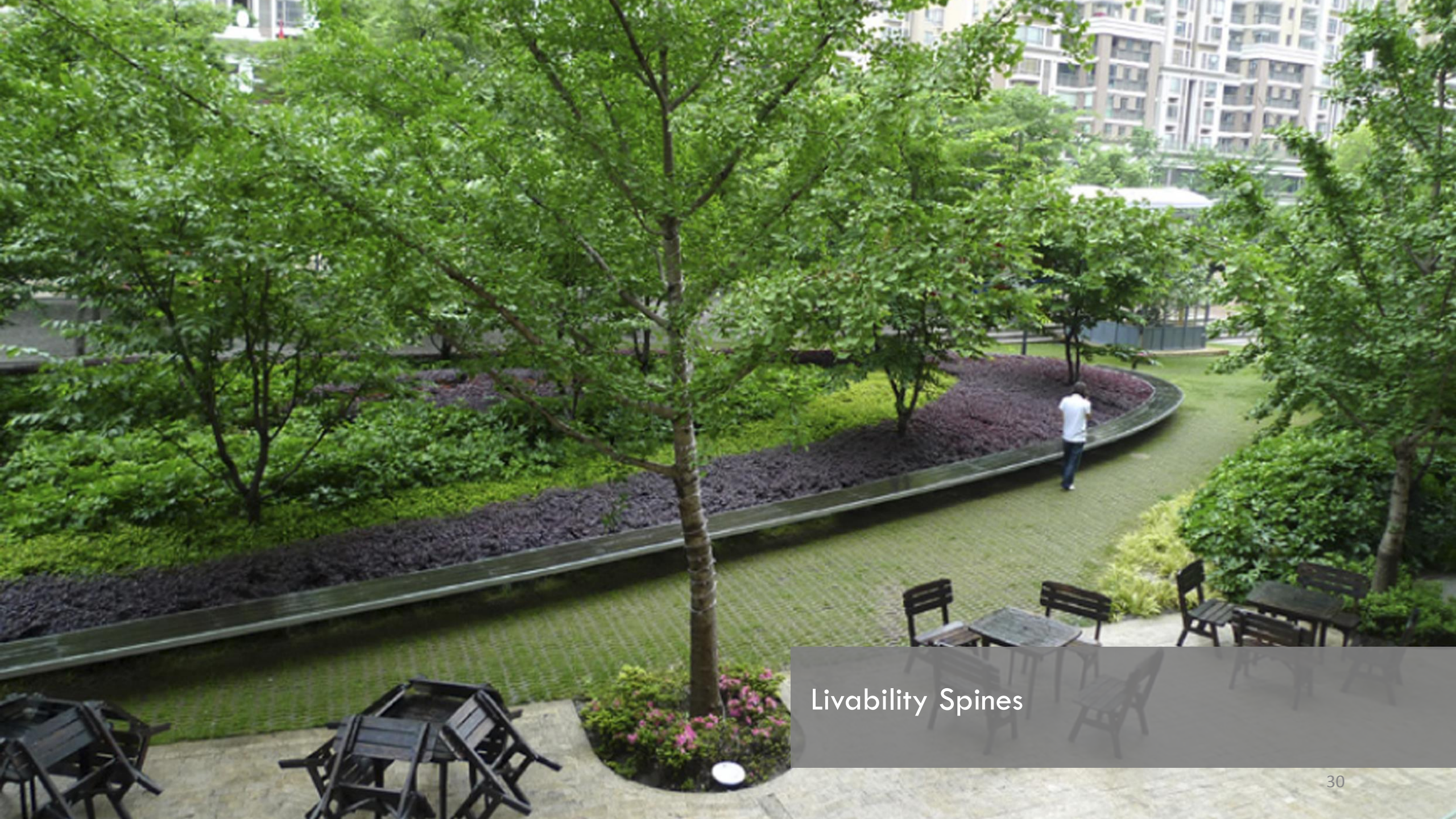
Create by aggregating park space contributions by individual properties

Accommodate a spectrum of active and passive uses

Foster an active street life

May serve as an alternate ‘Main Street’ to a busy thoroughfare

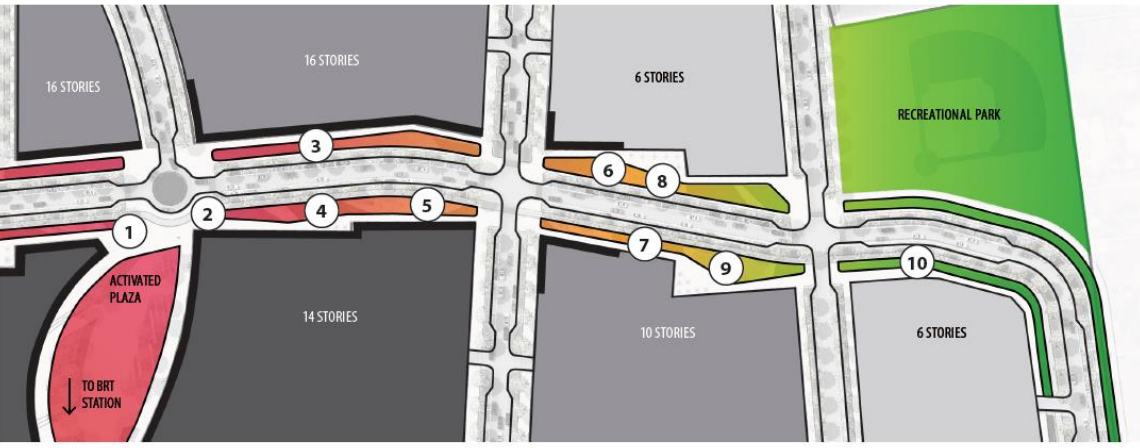
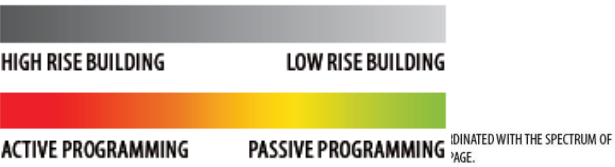




Livability Spines



Livability Spines



← + —

More active programming is located near retail/commercial, higher-density uses, and transit

DEVELOPMENT DENSITY

— ->

More passive programming is located near lower density development and single-family residential neighborhoods

ACTIVE PROGRAMMING



MORE ACTIVE **LESS ACTIVE**

MARKETS, FOOD TRUCKS, FESTIVALS

Permanent hardscape or structures that accommodate recurring markets or festivals
Image Credit: Stephen Elliot

ACTIVE PLAY

Water features and fixed or movable games that invite interaction, play, and gathering
Image Credit: Elisa Murray

ACTIVE PLAY

Permanent climbing walls or rope courses for safe play of all age groups
Image Credit: Gehl

ACTIVE PLAY

Swings, seesaws or movable objects whose movements activate sounds and lights. May accommodate small-scale performances
Image Credit: Olivier Blouin, Arlington Now

INFORMAL PLAY

Permanent or temporary large-scale board games that do not require specialized play equipment
Image Credit: Gehl

PASSIVE PROGRAMMING



LESS PASSIVE

MORE PASSIVE

MOVEABLE SEATING AREAS

Hardscape areas with movable chairs, tables and plantings to allow for informal lingering
Image Credit: Copley Wolff

OUTDOOR FITNESS

Permanently placed fitness equipment stations that allow for self-guided fitness routines

LAWNS FOR OCCASIONAL EVENTS

Flexible lawns that can accommodate occasional special events, but primarily host solitary activities or small, organic gatherings

GARDENS, TREE ALLÉES, NATURALISTIC PLANTINGS WITH SEATING

Soft and hardscaped areas that invite respite and contemplation
Image Credit: Ty Cole Studio, Scape

Heavily-planted areas with seating. Plantings might include dense tree canopies or special habitats

Livability Spines – Programming Scheme

Emerging Issues and On-going Work

- Managing needs/competing interests for the curb space
 - balancing comfort/needs of all users
 - minimizing impacts on property owners for additional ROW/land that could inhibit redevelopment
- Evolving mobility options (scooter, curb management)
- Exploring alternative shared-use path/bike facilities materials (other than asphalt) that are in keeping with the character of the activity centers
- Keeping up with rapidly changing industry practices for Green Stormwater Infrastructure design
- Considering impacts of One Fairfax policies in decision-making for streetscapes and public spaces
- On-going documentation and research work on Ecological Spines



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