



Proposed Changes for Street Trees

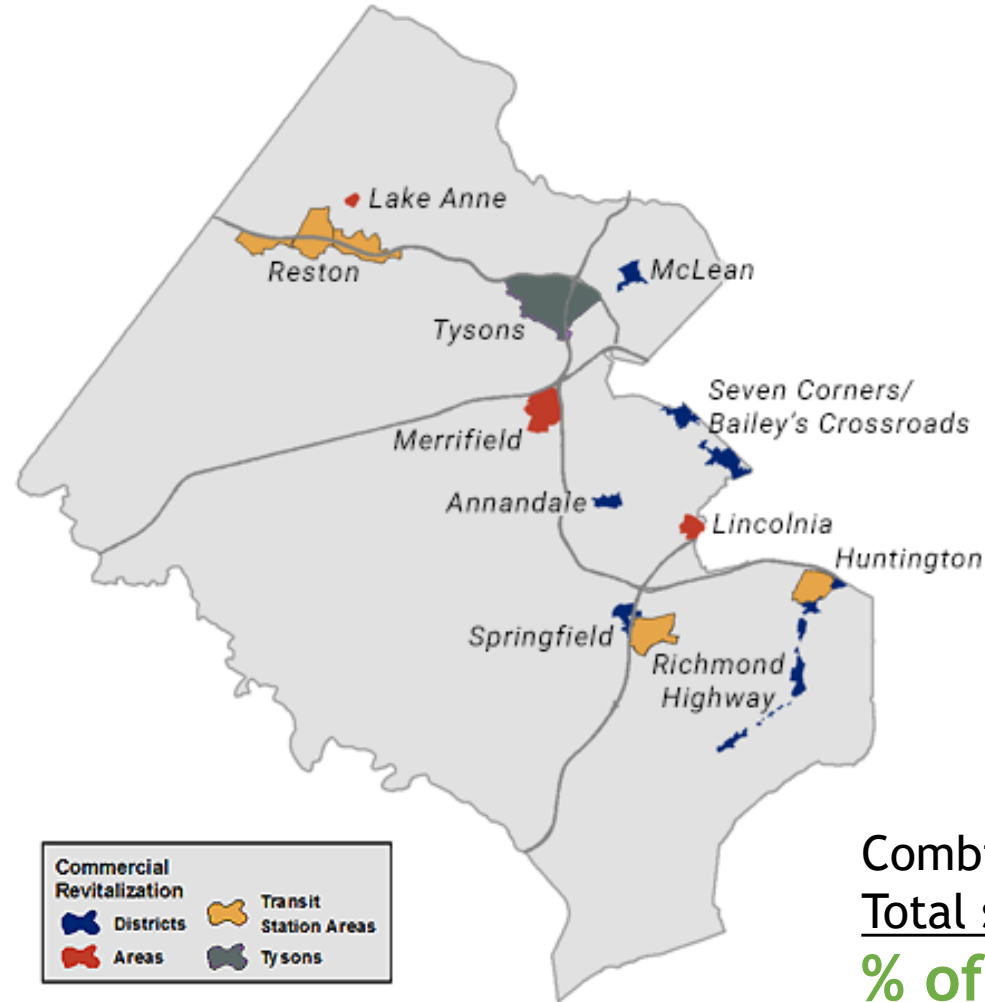
Tysons, Transit Station Areas,
& Community Revitalization
Districts/Areas

Presentation to Stakeholders
July - October 2022

Where would changes apply?

Regions

Annandale CRD
Bailey's Crossroads /
Seven Corners CRD
Huntington TSA
Lake Anne CRA
Lincolnia CRA
McLean CRD
Merrifield CRA
Reston TSAs
Richmond Highway
CRD
Springfield CRA / TSA
Tysons Urban Center



Combined size TSAs, CRDs, Tysons: 9,486 acres
Total size Fairfax County: 260,323 acres
% of Fairfax County: 3.64%

Purpose: Encourage Street Trees!

1. Count street trees toward 10-year canopy credit (currently canopy credit is offered in Tysons only)
2. Offer an Alternative Tree Planting Standard to make it easier to plant trees where:
 - Walking and biking are common
 - Constrained existing conditions makes planting difficult

Landscape architect Henry Arnold once said, *“Fifty percent of urban design is, street trees.”*

On a tree-lined street, look up; the canopy forms the ceiling of our collective room. Arnold wrote, *“An urban street without street trees is like a building without a roof.”*



What's the Issue?



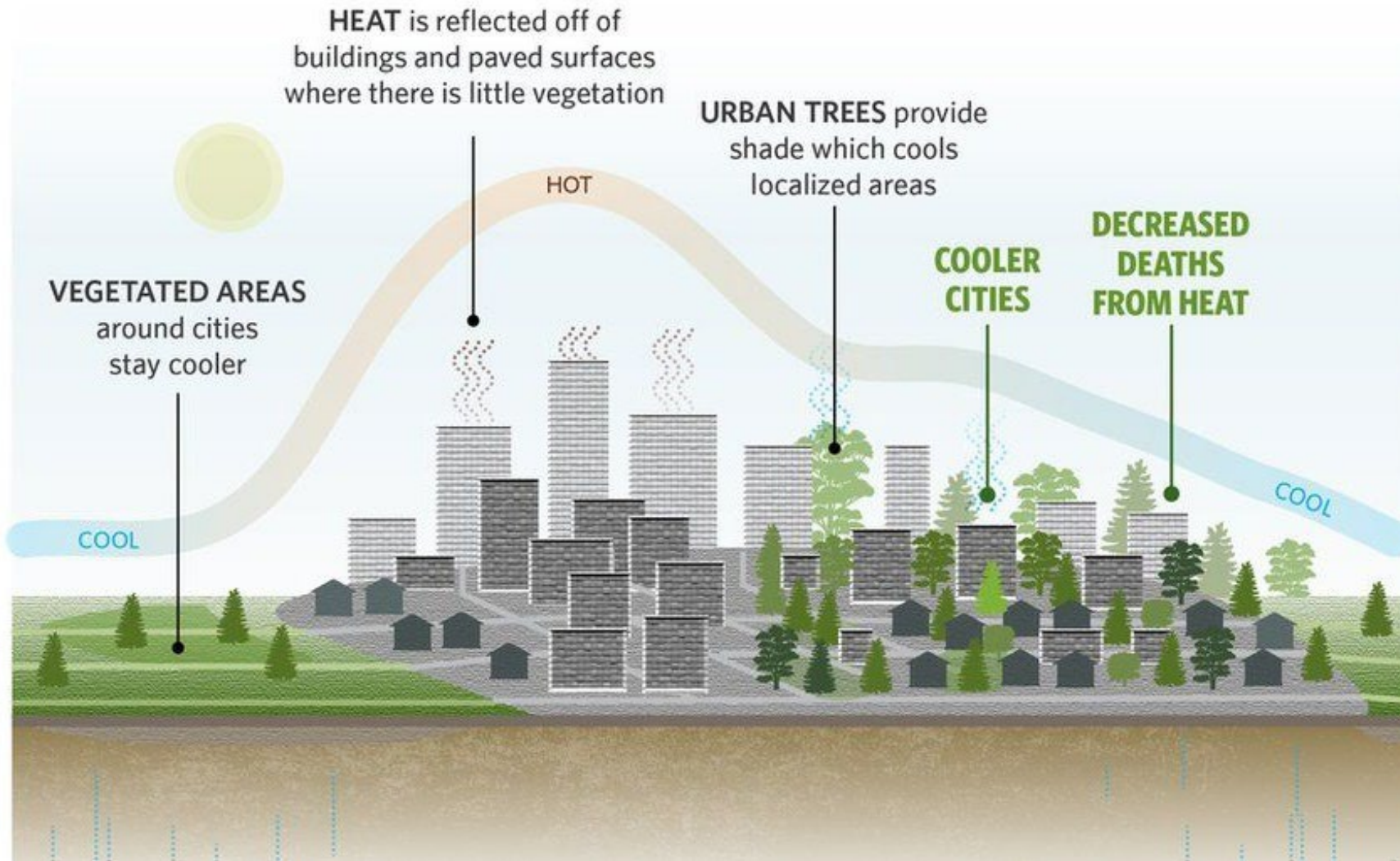
7 Roles of Trees in Urban Street Design

(Victor Dover and John Massengale):

- ☐ Define the street space.
- ☐ Define the pedestrian space.
- ☐ Calm traffic/separate pedestrian & cars.
- ☐ Filter sunlight.
- ☐ Bring order to street.
- ☐ Visually soften streetscape.
- ☐ Introduce nature.

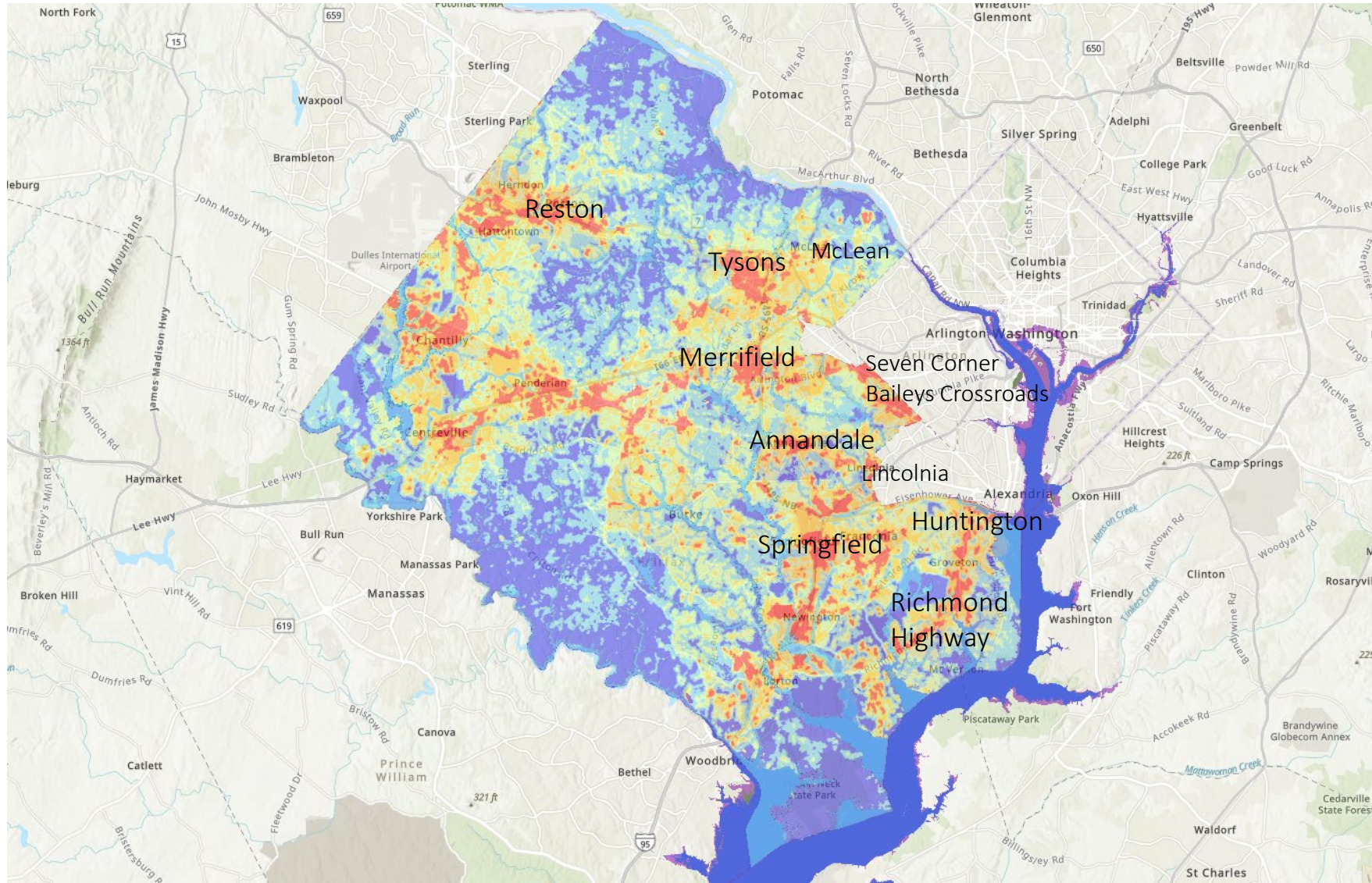


Urban Heat Island



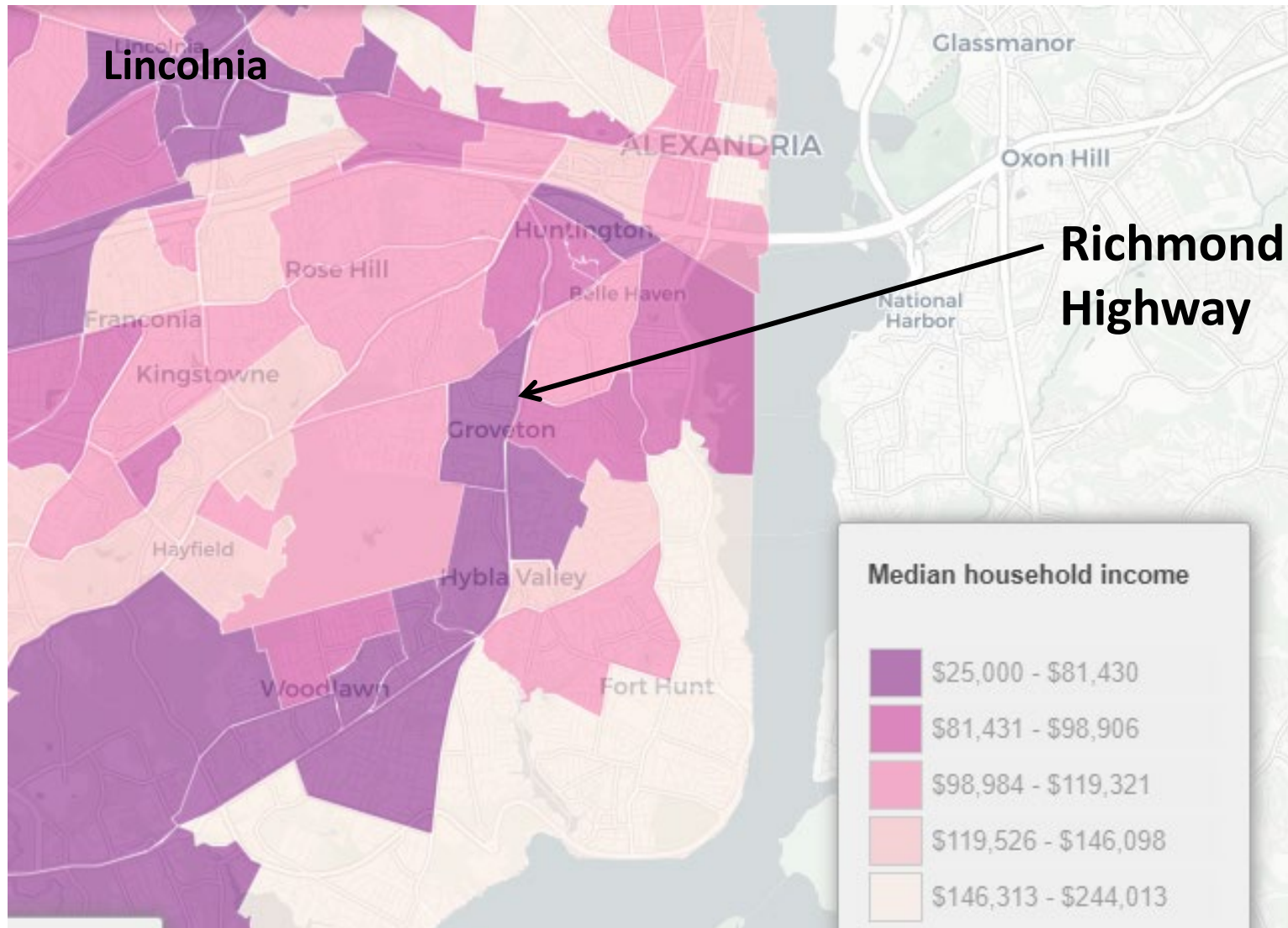
- Unshaded impervious surface increases urban heat island
- Increasing # of days > 95 degrees
- Disproportionate effect on lower income households
- CRDs have been left behind, higher rate of households without vehicles

Urban Heat Island - Fairfax County



Hottest areas
overlap areas
where street trees
changes would
apply

Treeless Areas are Lower Income Areas



Ten-year Tree Canopy Credit for Trees in ROW

Incentive
to follow
current
PFM
standards



PFM 12-0310.4E
standards met!

1st
Place



*Soil volume standards
met, but other PFM
provisions are not.*

2nd
Place



**ALTERNATIVE TREE
PLANTING
STANDARD**

*Smaller planting
area =
less credit + more
responsibility*

3rd
Place

Existing PFM Tree Planting Standard



Soil Volumes:

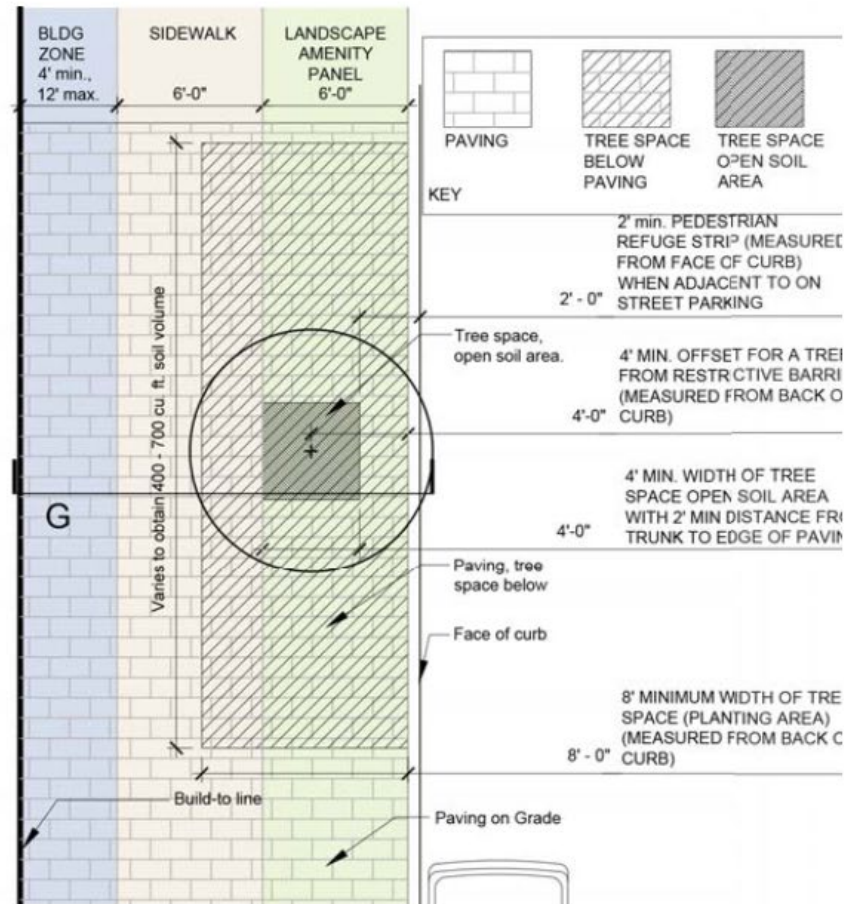
- 700 CF soil/tree
- 1200 CF soil/2 trees
- 1500 CF soil/tree for 3 trees.
Each additional tree in grouping requires an extra 500 cubic feet of soil.

Width: 8' min. (6' min. at surface)

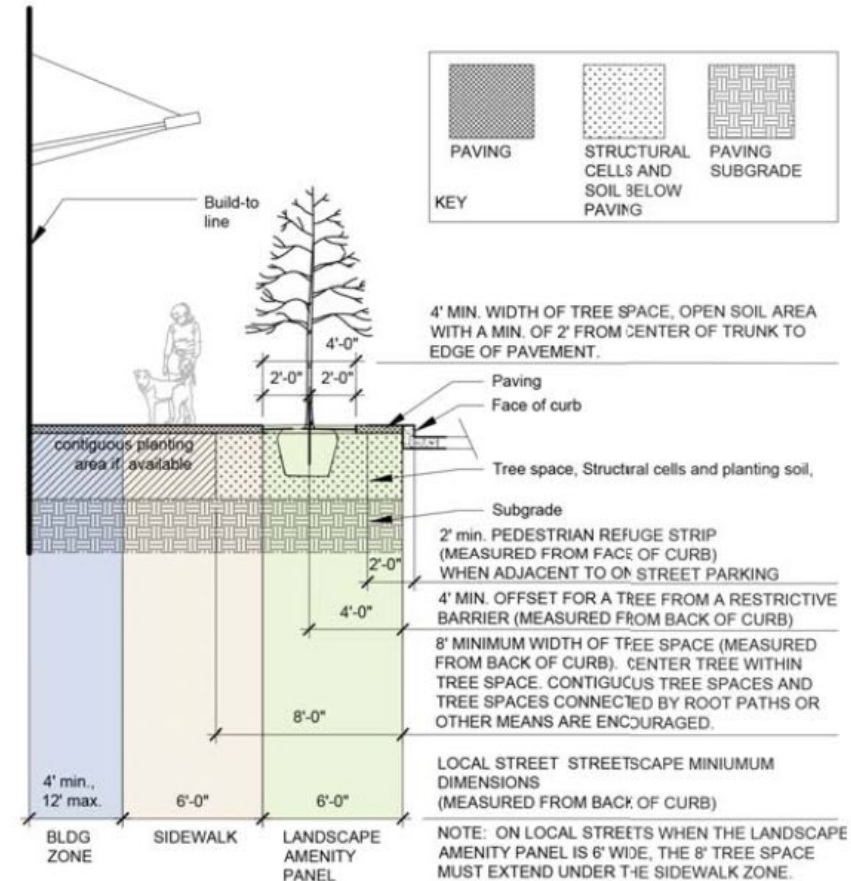
Distance from curb (or any restrictive barrier): 4' min.



Tyson's Tree Planting Standard (Local Street)



Tree Space Design Local Street - Plan



Tree Space Design Local Street - Section G

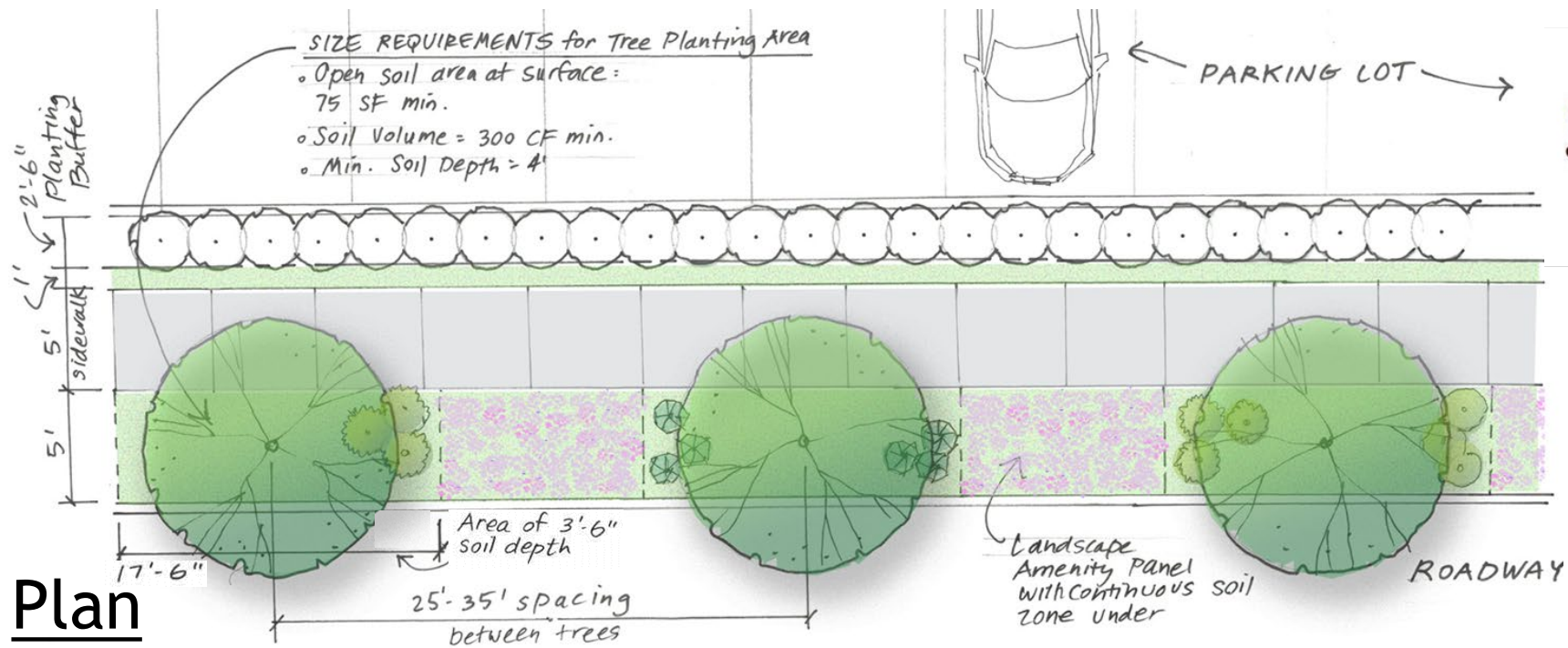
- 400 minimum CF of soil (range is 400-700 CF)
- 6' wide at surface (extra 2' width below surface)
- Tree trunk - 4' min. from inside edge of curb

Key Features of the Alternative Standard

Trees planted in the right-of-way of the designated districts will now receive partial 10-year canopy credit if the following minimum conditions are met:

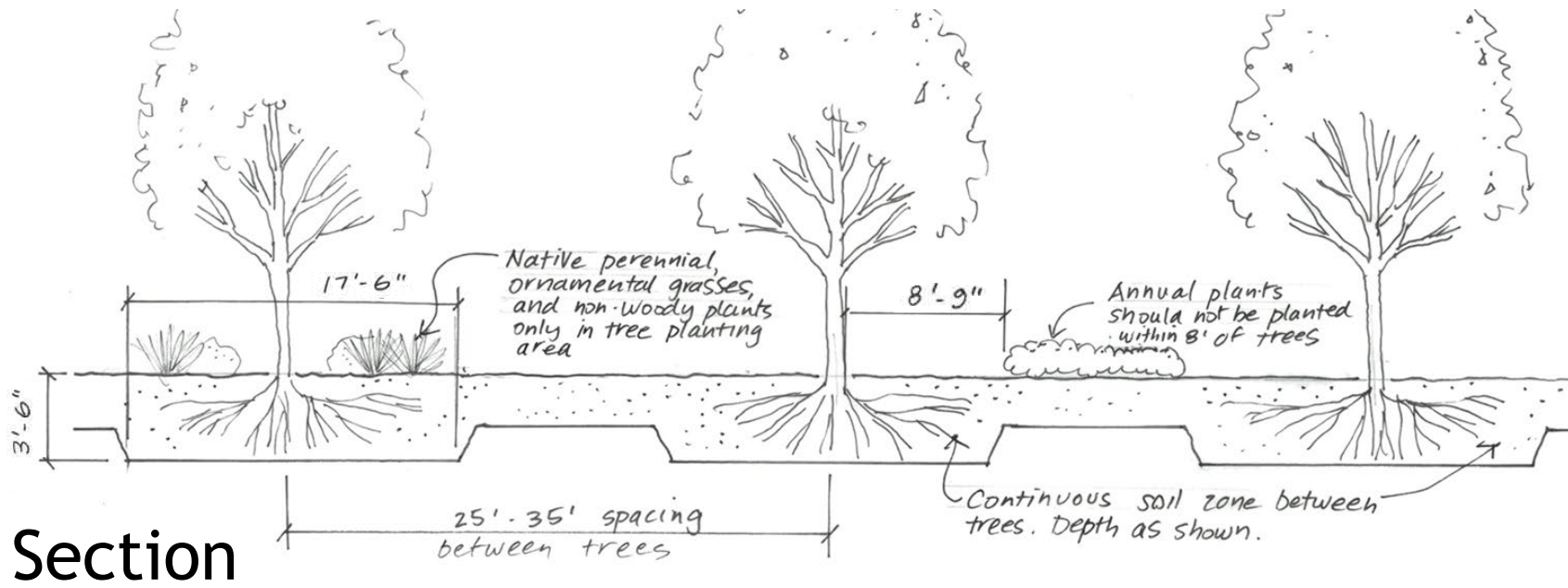
<u>Min Planting area</u>	<u>Soil volume</u>	<u>Tree species</u>	<u>Tree size</u>	<u>Maintenance</u>
5' wide x 17.5' long x 3.5' deep	<ul style="list-style-type: none">• 300 CF soil/tree• 75 SF open soil at surface	Volume I Urban Design Guidelines	2.5" - 3.99" caliper	Perpetual maintenance & replacement

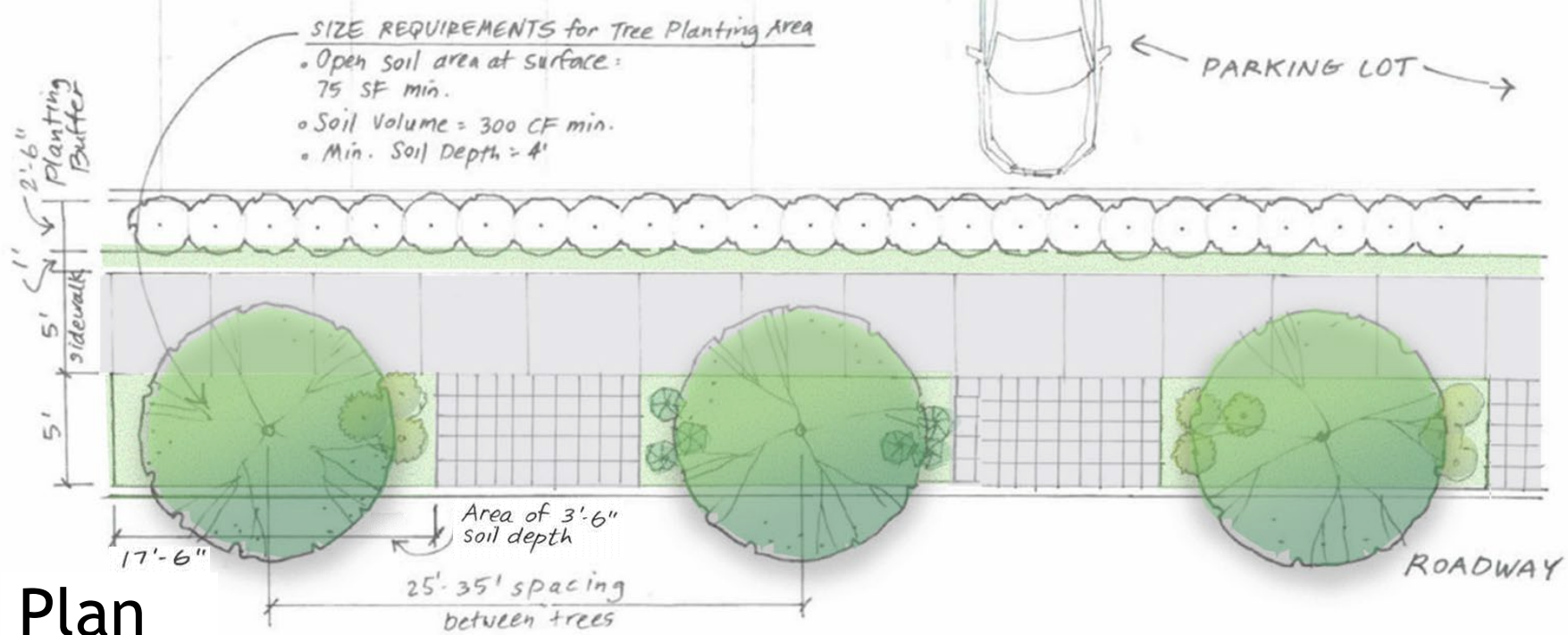
*** These are minimums and do not negate the current Comp Plan recommendations or Urban Street Standards**



Soil volume standards met, but other PFM provisions are not.

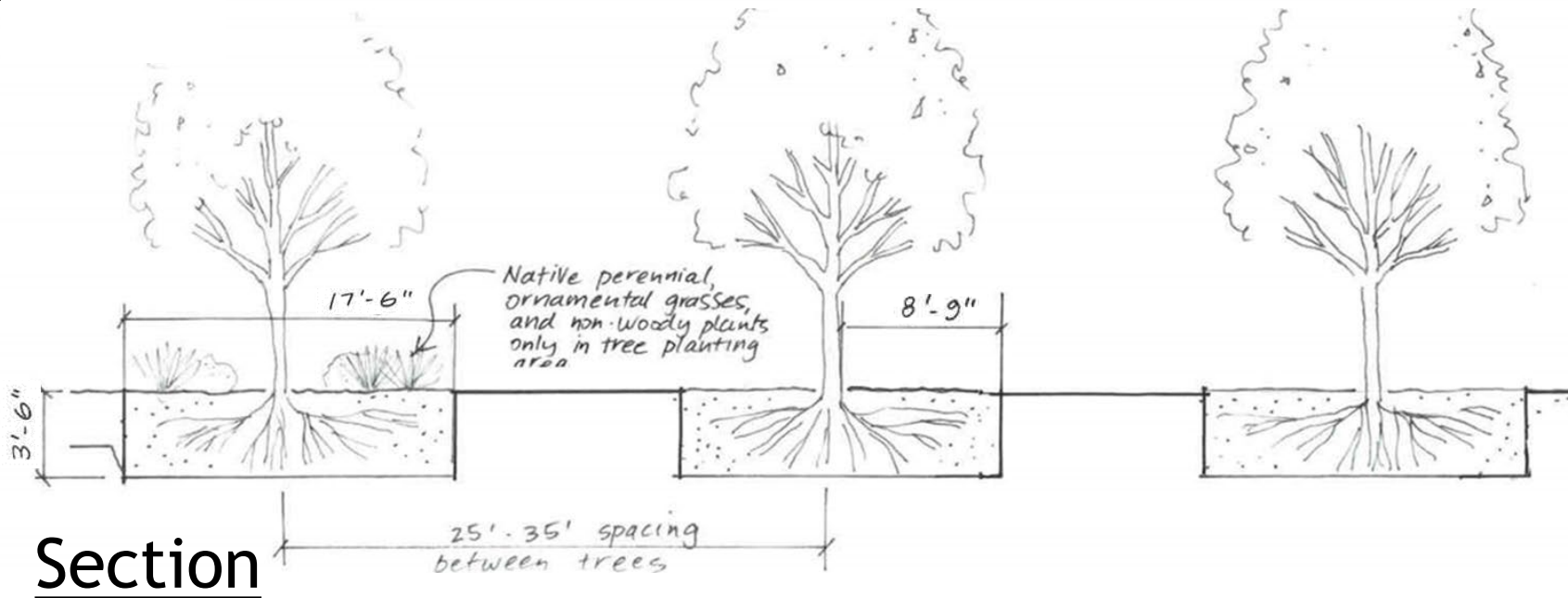
2nd
Place



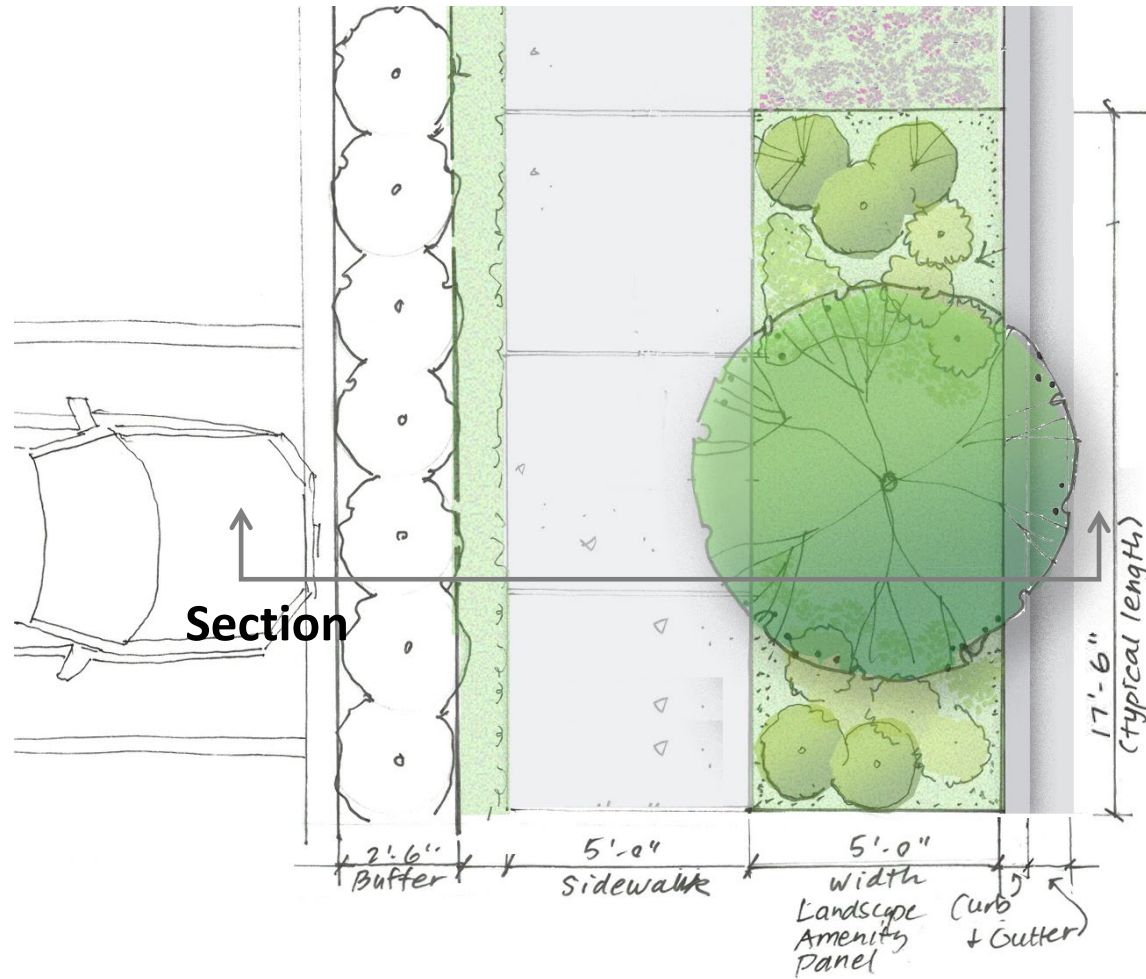


ALTERNATIVE TREE PLANTING STANDARD
Smaller planting area = less credit

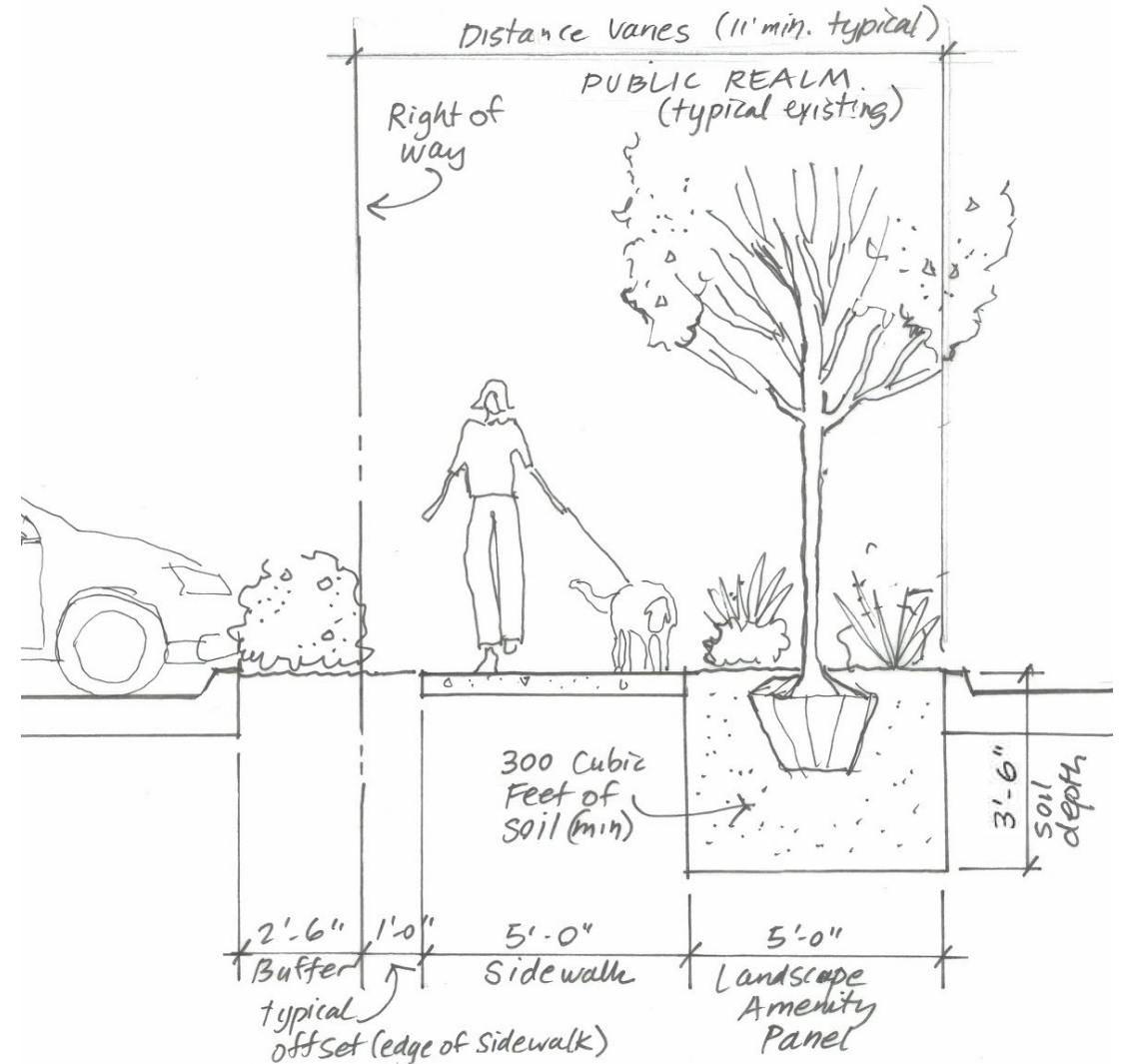
3rd Place



Example: Retrofit Site



Plan



Section

Staff feedback

- Soil depth should be not be greater than 3'-6" (no oxygen for tree roots at greater depths).
- Category IV trees planted in reduced soil volumes should receive .50 canopy credit.
- Alternative dimensions could be considered provided that 300 cubic feet of soil is achieved.

Challenges moving forward

- Enforcement of perpetual maintenance agreement
- Monitor potential ADA issues with sidewalks heaving
- Future project impacts (DOT and utility)
- Accessibility needs adjacent to on-street parking
- Limited species selection
- No stormwater credit for smaller tree planting areas
- Soil – high quality required

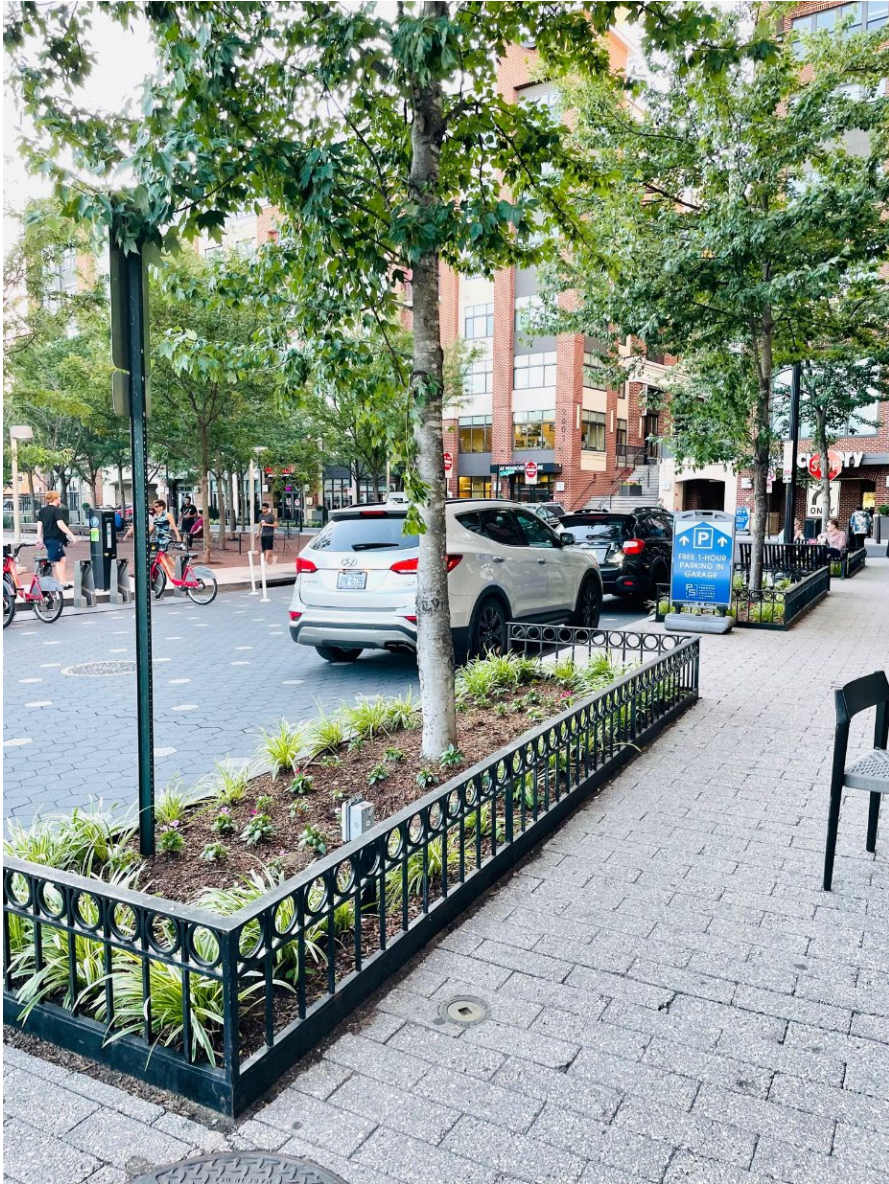
Next Steps

(Held 6 meetings with internal stakeholders on the proposed recommendations in June and July)

- External outreach – late summer/fall 2022
- Prepare an amendment to the Urban Design Guidelines
- Take to the Board of Supervisors (December 6 hearing date)
- Issue an announcement to industry after BOS endorsement

Let's Look at Some Examples





5 x 17.5 feet

Assuming quality
soil, this
example would
get .75 canopy
credit

Penrose Apartments, Columbia Pike, Arlington County



Arlington County

X

Expand planter
box size to
5 x 17.5 feet
and
add good soil
= 0.75 credit



Arlington County

X

Arlington County
Minimum Planting
Space Standard

4 feet x 8 feet

Expand planter box
to 5 x 17.5 feet
to receive
.75 canopy credit



Arlington County



Current PFM Standards
continue to work and will
be incentivized

This is what we prefer,
planting spaces that will
work in the long run

Knowing that there are
structural soil cells, this
example would get 1.5x
credit



Eisenhower area, City of Alexandria



Fairfax County

More Examples



Arlington County



What we are trying to avoid:

- Sidewalk lifting
- Damages to utilities
- Outgrowing Planting Spaces
- Unneeded risk to Public Spaces

Smaller planting spaces can work



Pickett Road/Blake Lane, City of Fairfax



6-feet wide
x
continuous
landscape
panel