Urban Roadway Design and the Planned Network in Tysons

Background

- Recognition that denser urbanization of areas of Fairfax County provides opportunities to address elements of Complete Streets guidance within the road network.

- Effort begun within FCDOT to define roadway cross-sections and apply these principals to ‘standard’ roadway types.

- Because VDOT maintains the public roadway network, their acceptance of a general standard for urban design is critical.

Roadway Types

- Based on functional classification
- Urban functional classifications:

a. Principal Arterial – Functions primarily for traffic throughput. Example: Route 7

b. Minor Arterial – Functions for higher level of traffic throughput but mobility is reduced and the roadway serves adjoining properties more effectively than a Principal Arterial. Example: International Drive

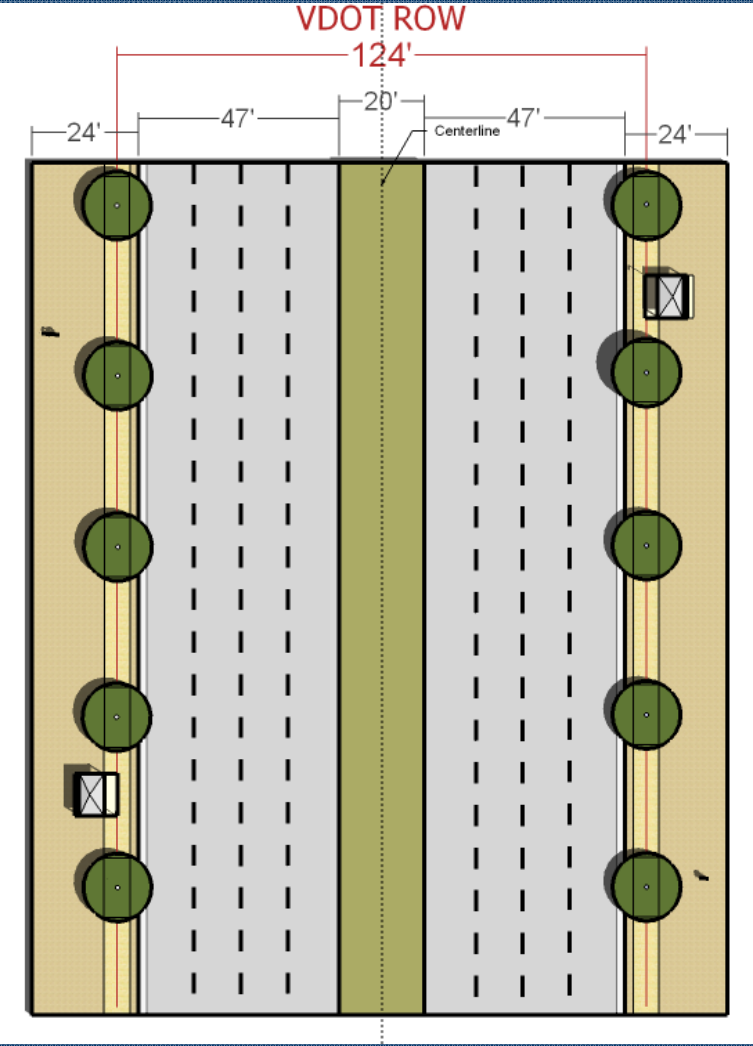
c. Collector – Functions to carry local traffic to the arterial network. Mobility is not a priority. Example: Anderson Drive

d. Local – Low speed facility functions to serve neighborhood trips. Example: Residential street

Principal Arterials

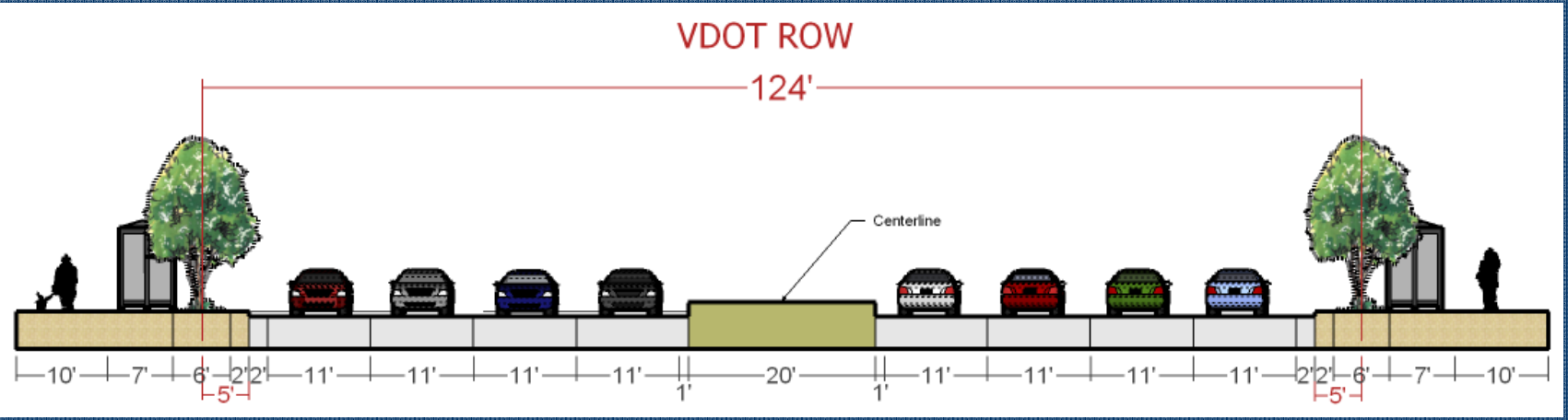
- No parking or on-road bicycle facilities expected
- Minimum 20 foot median
- Sidewalk and streetscape beyond right-of-way limits generally under private maintenance with public easements - (*construction and maintenance standards TBD*)
- Commonly referred to as 'Boulevard' in urban design guidance. (Routes 7 and 123)

Principal Arterials



Typical Section Right-of-Way Requirements	
Eight Lanes as shown	124 feet in width
	Pavement Width
Six Lanes	Subtract 22 feet
Four Lanes	Subtract 44 feet
Dual Lefts	Add 11 feet
Circulator	Add X feet *(TBD)*

Principal Arterials

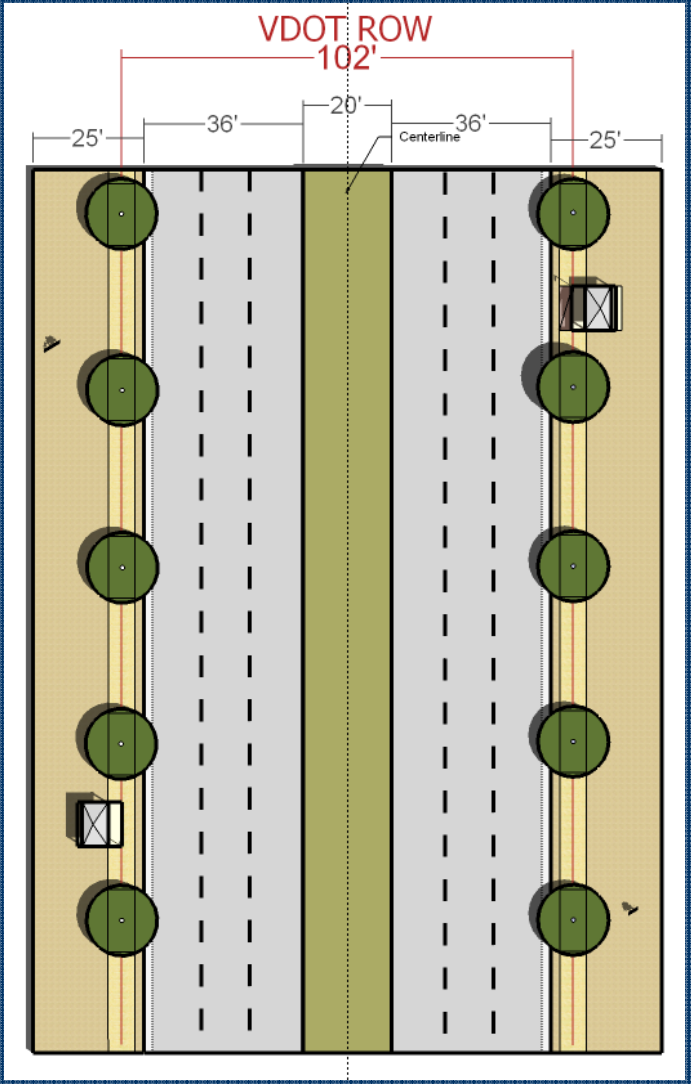


Minor Arterials – Option 1

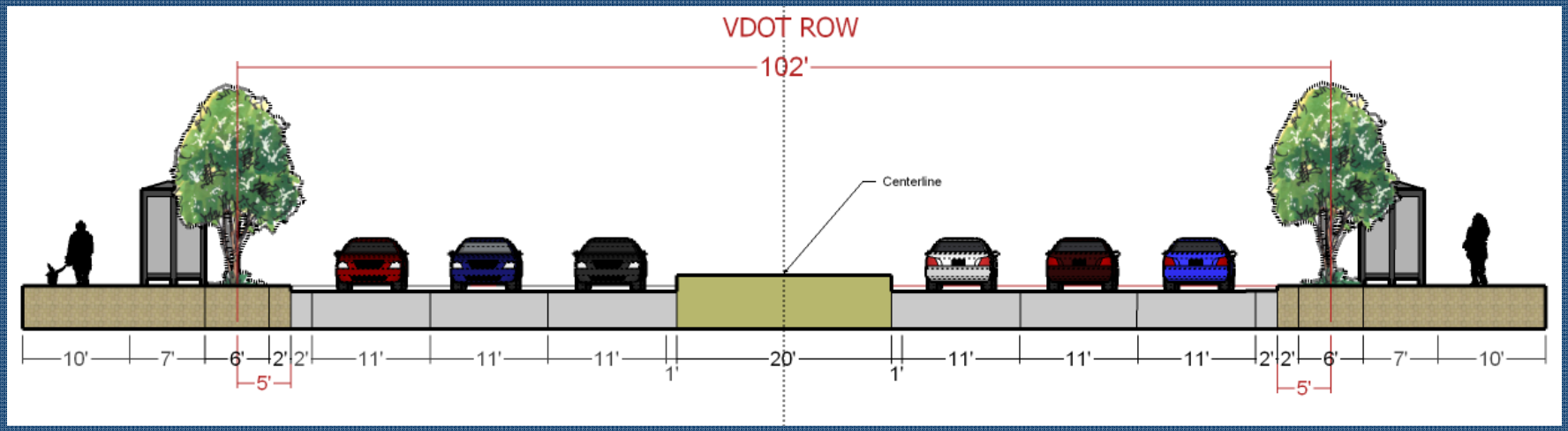
- On-road bicycle facilities and parking can be accommodated.
- Depending on design speed and function of the roadway, bumpouts to enhance streetscaping, traffic calming, and pedestrian safety are possible on this roadway.
- Minimum 20 foot median.
- Sidewalk and streetscape beyond right-of-way limits generally under private maintenance with public easements - (*construction and maintenance standards TBD*)
- Commonly referred to as ‘Boulevard' in urban design guidance. (International Drive)

Minor Arterials – Option 1

Typical Section Right of Way Requirements	
Six Lanes as shown	102 feet in width
	<u>Pavement Width</u>
Four Lanes Divided	Subtract 22 feet
Dual Lefts	Add 11 feet
On Street Parking	
Bump Outs	Add 8 feet
Curbside	Add 6 feet
On Road Bike Lane	
with Bump Out Parking	Add 4 feet
with Curbside Parking	Add 5 feet
without Parking	Add 4 feet
Circulator	Add X feet *(TBD)*



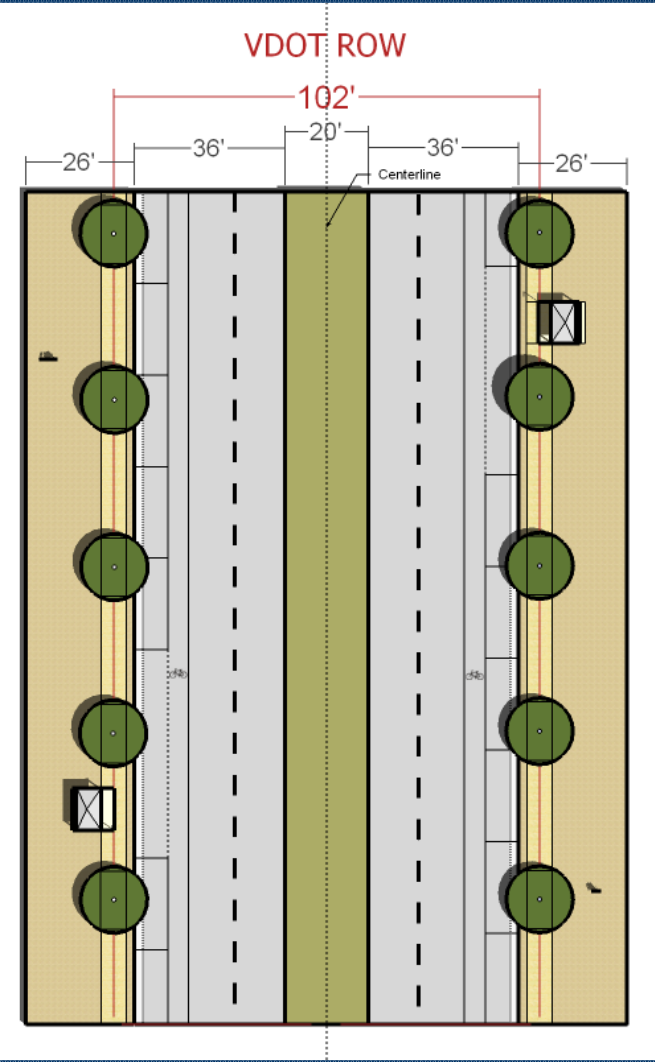
Minor Arterials – Option 1



Minor Arterials – Option 2

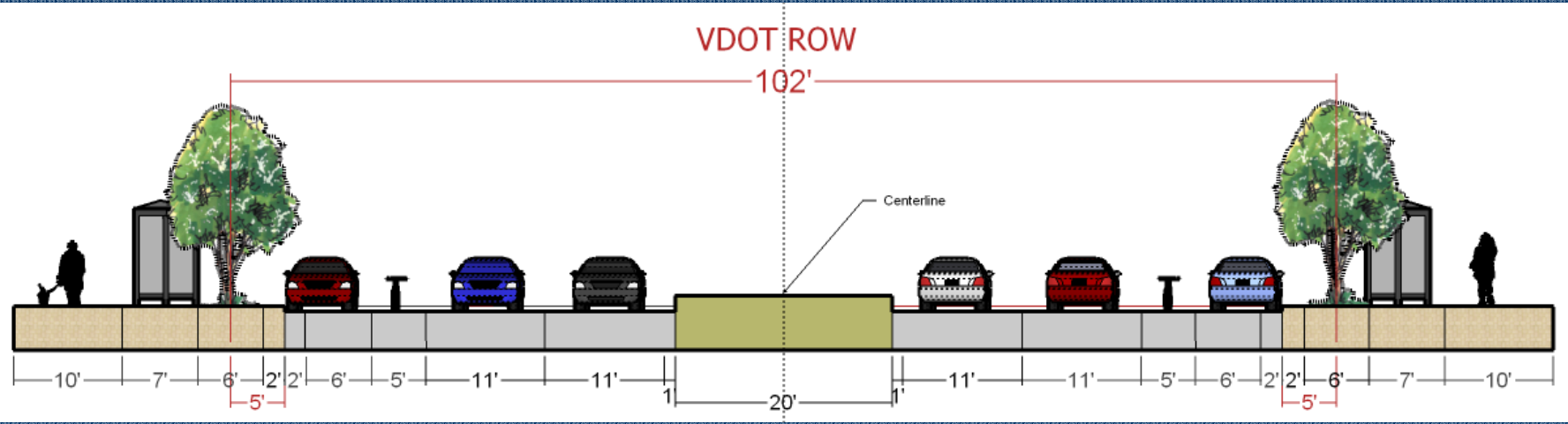
- On-road bicycle facilities and parking can be accommodated.
- Bumpouts to enhance streetscaping, traffic calming, and pedestrian safety are possible on this roadway.
- Minimum 20 foot median.
- Sidewalk and streetscape beyond right-of-way limits generally under private maintenance with public easements - (*construction and maintenance standards TBD*)
- Commonly referred to as ‘Avenue’ in urban design guidance. (Greensboro Drive and Boone Boulevard)

Minor Arterials – Option 2



Typical Section Right of Way Requirements	
Four Lanes as shown	102 feet in width
	<u>Pavement Width</u>
Six Lanes Divided	Add 22 feet
Four Lanes Undivided	Minimum of 52 feet of pavement width
Dual Lefts	Add 11 feet
On Street Parking	
Bump Outs	Add 2 feet
On Road Bike Lane	
with Bump Outs	Add 1 foot
without Parking	Subtract 7 feet
Circulator	Add X feet *(TBD)*

Minor Arterials – Option 2



Collectors

- On-street parking and on-road bicycle facilities are compatible with this roadway.

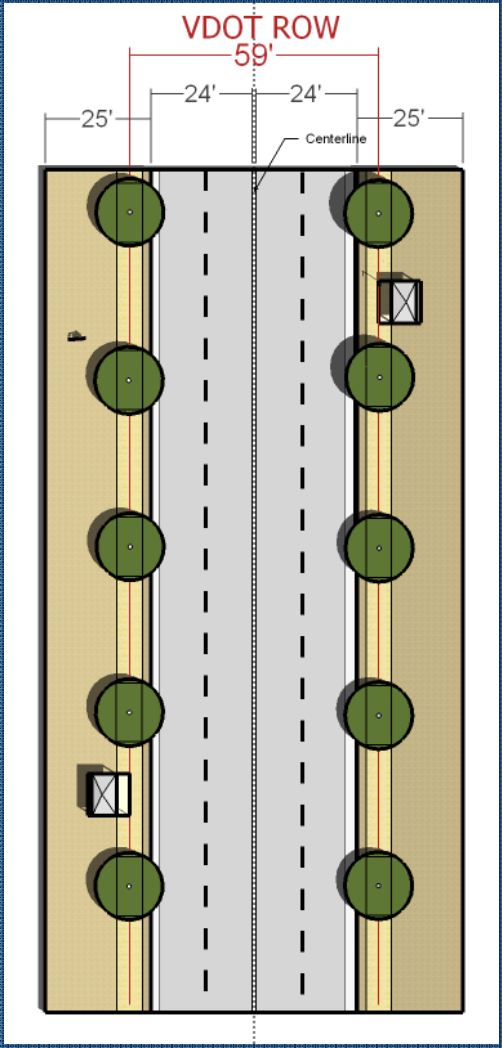
- Bumpouts to enhance streetscaping, traffic calming, and pedestrian safety are possible on this roadway.

- For an undivided roadway an absolute minimum of 48 feet of pavement width is recommended to provide maximum flexibility for roadway conditions.

- Sidewalk and streetscape beyond right-of-way limits generally under private maintenance with public easements - (*construction and maintenance standards TBD*)

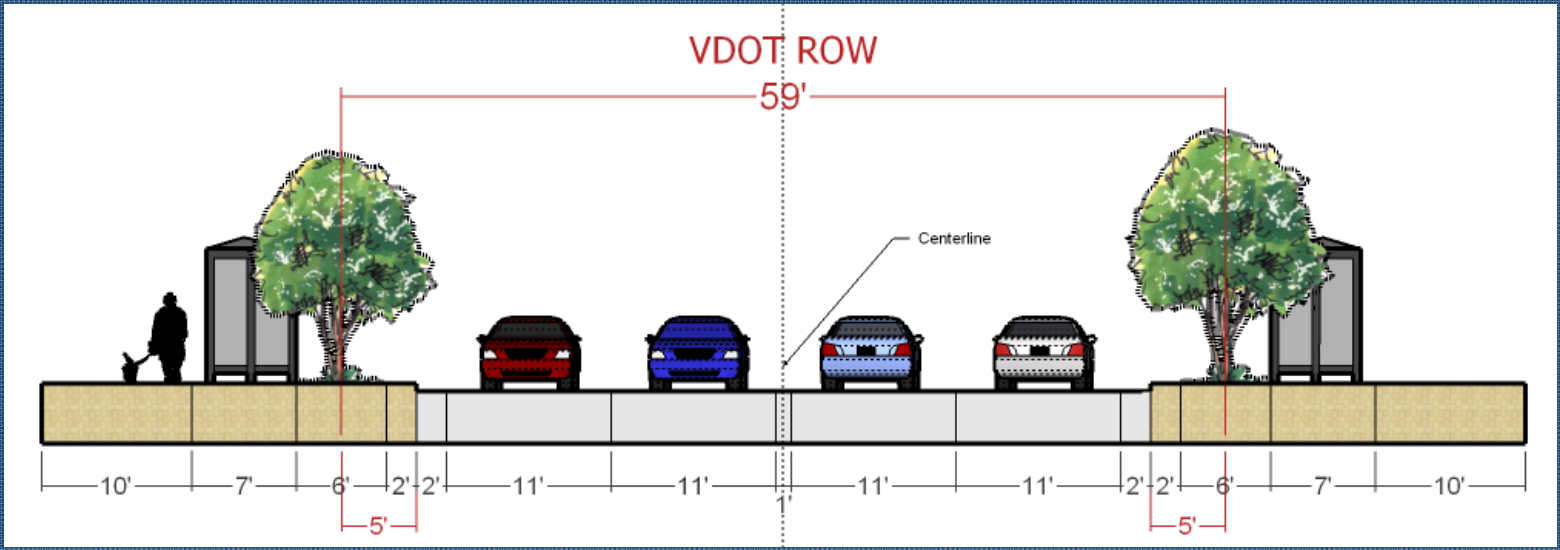
- Commonly referred to as 'Main Street' in urban design guidance. (Part of future grid network)

Collectors – Option 1

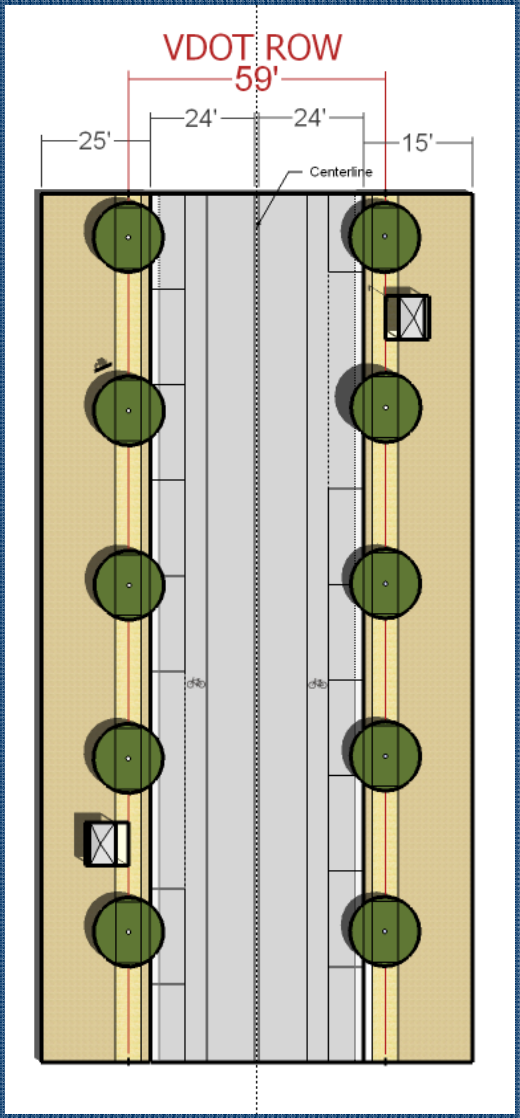


Typical Section Right of Way Requirements	
Four Lanes as shown	59 feet in width
	Pavement Width
Four Lanes Divided	Add 22 feet
On Street Parking*	
Bumpouts	Add 8 feet
Curbside	Add 6 feet
On Road Bike Lane*	
with Bumpout Parking	Add 4 feet
with Curbside Parking	Add 5 feet
without Parking	Add 4 feet

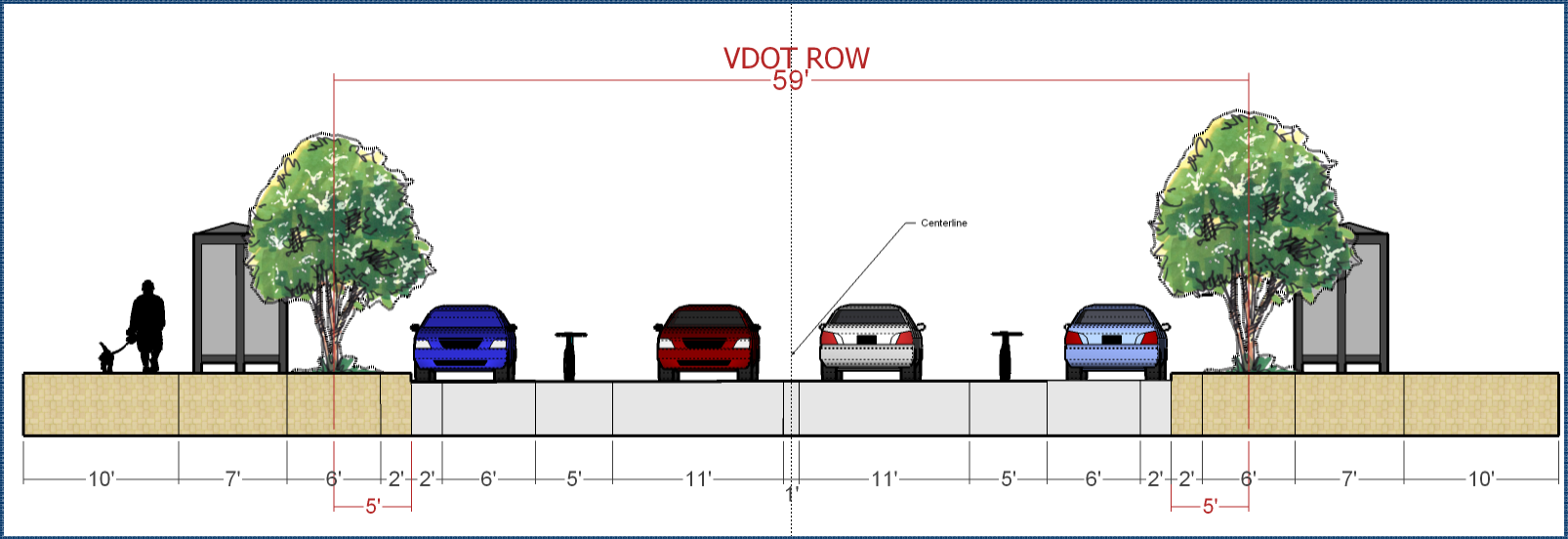
Collectors – Option 1



Collectors – Option 2



Collectors – Option 2

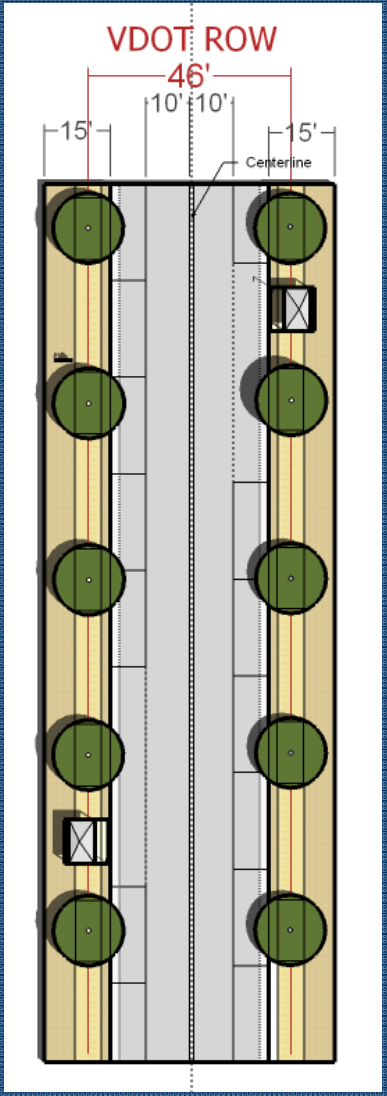


Locals

- On-street parking expected. Bicycles expected to share the roadway with vehicles. Bumpouts to enhance streetscaping, traffic calming, and pedestrian safety are possible on this roadway.

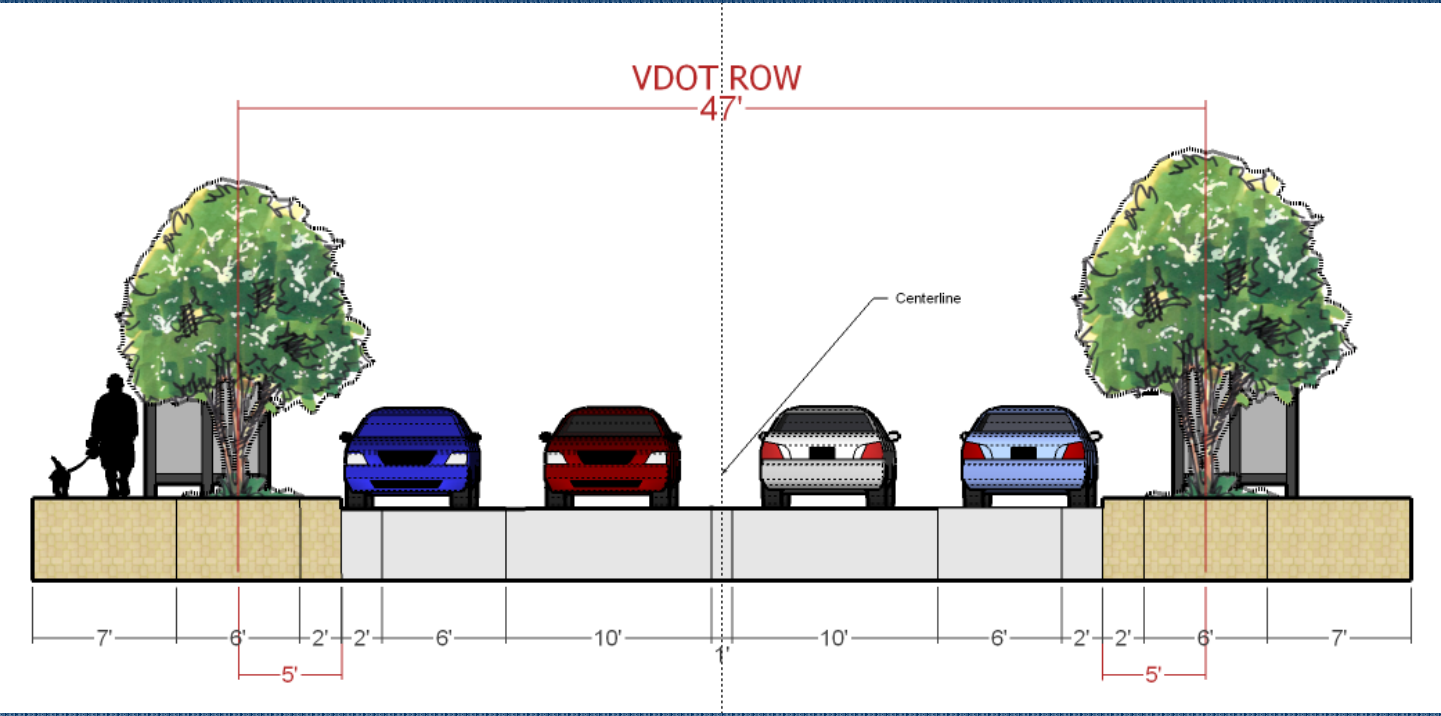
- Sidewalk and streetscape beyond right-of-way limits generally under private maintenance with public easements - (*construction and maintenance standards TBD)*

Locals



Typical Section Right of Way Requirements	
Two Lanes as shown	47 feet in width
	<u>Pavement Width</u>
No On Street Parking	Subtract 12 feet (6 feet from each side)
On Street Parking	
Bumpouts	Add 2 feet
Angle Parking	Add 16 feet total for stall
On Road Bike Lane (if desired)	
with Bumpout Parking	Add 4 feet
with Curbside Parking	Add 5 feet
without Parking	Subtract 2 feet

Locals



Next Steps

- Expansion of the current designs to incorporate intersections and entrances.
- Discussion with VDOT with the goal of seeking agreement on a general standard for road types.