

BARBER STREET: Boulevard - Prince Avenue Bike & Pedestrian Design Alternatives

Introduction

The decision matrix below is a tool to illustrate the trade-offs of each proposed alternative for bicycle and pedestrian facilities along the 1/3rd of a mile segment of Barber Street, from Boulevard to Prince Avenue, and to compare the proposed alternatives to one another. Three overarching categories comprise the decision matrix—costs, impacts, and user comfort. Funding availability may limit the potential for costly design elements (such as utility relocation). User comfort for people walking and bicycling along Barber Street is an important consideration for corridor concept design. Framing the decision matrix within these categories is intended to assist Athens-Clarke County and relevant stakeholders in choosing the design that provides the highest quality bicycle and pedestrian facilities while considering financial impacts.

DECISION MATRIX CATEGORIES & SCORE			
CATEGORY		LEAST → MOST	
TYPE	DESCRIPTION	LEAST	MOST
Conflict Reduction	Based on the concept's ability to reduce conflicts between parked vehicles, bicyclists, and pedestrians.	Concept will provide minimal reduction in conflicts between users.	Concept will produce the greatest reduction in conflicts between users.
Bike/Ped Access	Based on the concept's ability to provide or create new access for bicyclists and pedestrians along the corridor.	Concept produces the smallest improvement in corridor access.	Concept results in the largest increase in corridor access.
Bike/Ped Comfort	Based on the enhancements perceived by bicyclists and pedestrians.	Concept produces the smallest improvement in user comfort.	Concept results in largest improvement to user comfort.
ROW & Property Impacts	Based on the need to acquire adjacent right-of-way (ROW) and temporary construction easements.	Concept has the smallest impact to ROW.	Concept has the greatest impact to ROW.
Construction Costs	Based on concept material type, material amount, and constructability.	Concept is the least expensive alternative.	Concept is the most expensive alternative.
Maintenance Costs	Based on the municipality's ability to maintain the concept.	Concept requires lowest level of maintenance.	Concept requires highest level of maintenance.
Parking Impacts	Based on retaining or repurposing existing street parking.	Concept retains street parking.	Concept removes street parking.
Landscape Impacts	Based on preserving existing trees and other landscaping elements.	Concept removes the least trees and has the smallest impact on landscaping.	Concept requires removing the most trees and has the greatest impact on landscaping.
Utility Relocation	Based on the need to relocate utilities such as light poles, fire hydrants, etc.	Concept will require the least utility relocations.	Concept will require the most utility relocations.
Drainage Impacts	Based on the need to relocate or upgrade existing drainage structures.	Concept will have the least impact on existing drainage structures.	Concept will have the most impact on existing drainage structures.

COMBINED DECISION MATRIX OF ALL ALTERNATIVES

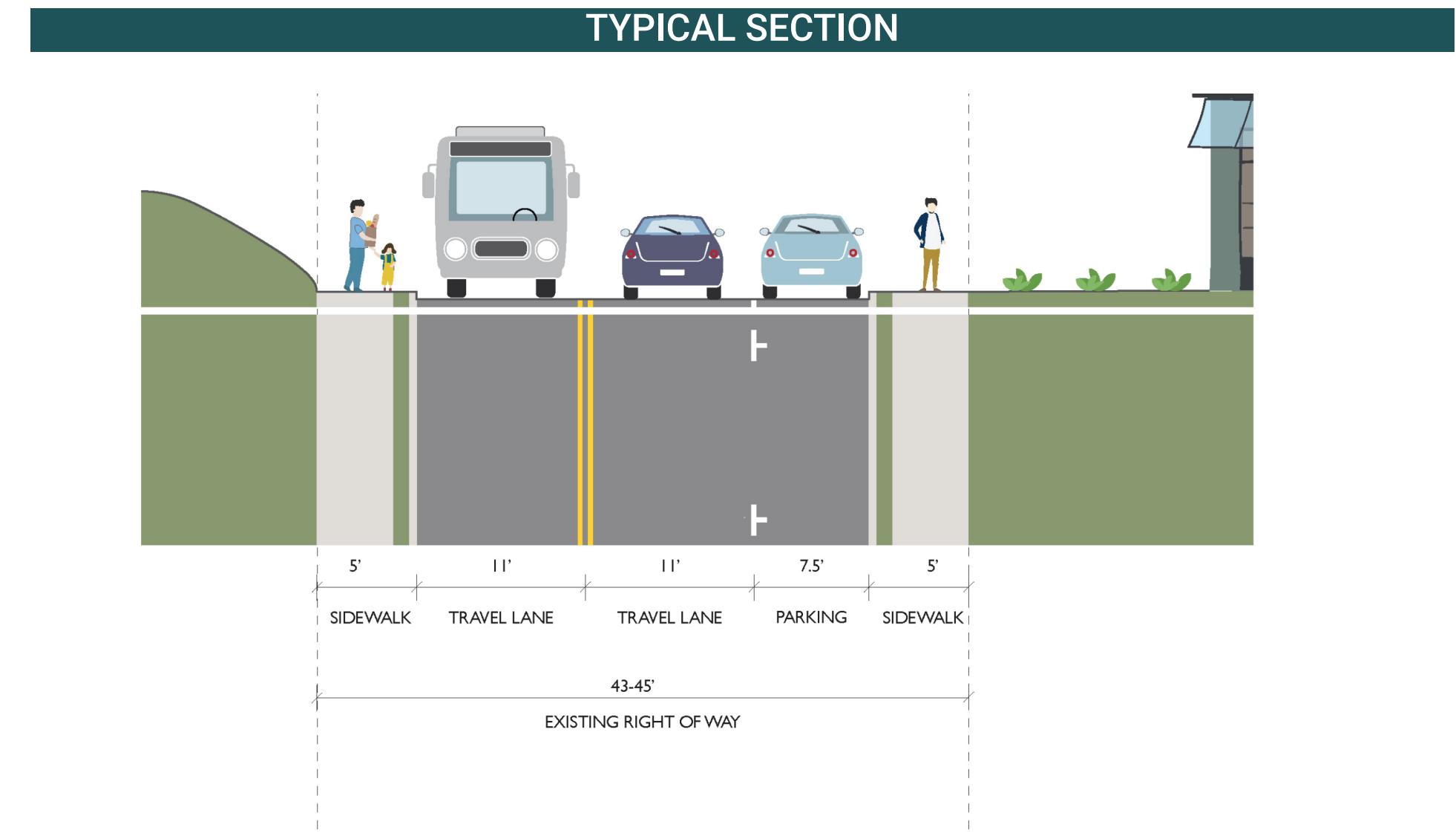
	COMFORT			COST							
	Conflict Reduction	Bike/Ped Access	Bike/Ped Comfort	ROW & Property Impacts	Construction Costs	Maintenance Costs	Parking Impacts	Landscape Impacts	Utility Relocation	Drainage Impacts	
ALTERNATIVE 1 SHARED LANE MARKINGS AND SIDEWALK WITH PARKING	◎○○ ○○○	◎○○ ○○○	◎○○ ○○○	◎○○ ○○○	◎○○ ○○○	◎○○ ○○○	◎○○ ○○○	◎○○ ○○○	◎○○ ○○○	◎○○ ○○○	
ALTERNATIVE 2A 12' MULTIUSE PATH WITH PARKING	○○○○ ○○○○	○○○○○ ○○○○○	○○○○○ ○○○○○	○○○○○ ○○○○○	○○○○○ ○○○○○	○○○○○ ○○○○○	○○○○ ○○○○	○○○○○ ○○○○○	○○○○ ○○○○	○○○○ ○○○○	
ALTERNATIVE 2B 12' MULTIUSE PATH WITHOUT PARKING	○○○○ ○○○○	○○○○○ ○○○○○	○○○○○ ○○○○○	○○○○○ ○○○○○	○○○○○ ○○○○○	○○○○○ ○○○○○	○○○○○ ○○○○○	○○○○○ ○○○○○	○○○○ ○○○○	○○○○○ ○○○○○	
ALTERNATIVE 3A 12' TWO-WAY BIKE LANE AND SIDEWALK WITH PARKING	○○○○ ○○○○	○○○○○ ○○○○○	○○○○○ ○○○○○	○○○○○ ○○○○○	○○○○○ ○○○○○	○○○○○ ○○○○○	○○○○ ○○○○	○○○○○ ○○○○○	○○○○ ○○○○	○○○○○ ○○○○○	
ALTERNATIVE 3B 12' TWO-WAY BIKE LANE AND SIDEWALK WITHOUT PARKING	○○○○ ○○○○	○○○○○ ○○○○○	○○○○○ ○○○○○	○○○○○ ○○○○○	○○○○○ ○○○○○	○○○○○ ○○○○○	○○○○○ ○○○○○	○○○○○ ○○○○○	○○○○ ○○○○	○○○○○ ○○○○○	

* This preliminary concept is for planning purposes only. Field verification, detailed intersection design, signal modifications, right-of-way impacts, site condition assessments, engineering analysis, and design are necessary prior to implementing recommendations contained herein.

EXISTING CONDITIONS

NOTES

- The existing section along Barber Street includes two 11' travel lanes, a 7.5' parking lane and 5' sidewalks along both sides of the corridor.
- The existing curb to curb distance is 29.5'.
- The existing right-of-way (ROW) typically extends from the back of sidewalk to the back of sidewalk and ranges from 43-45'.
- Existing sidewalk and existing curb to curb distances are shown on all of the following concepts for reference.



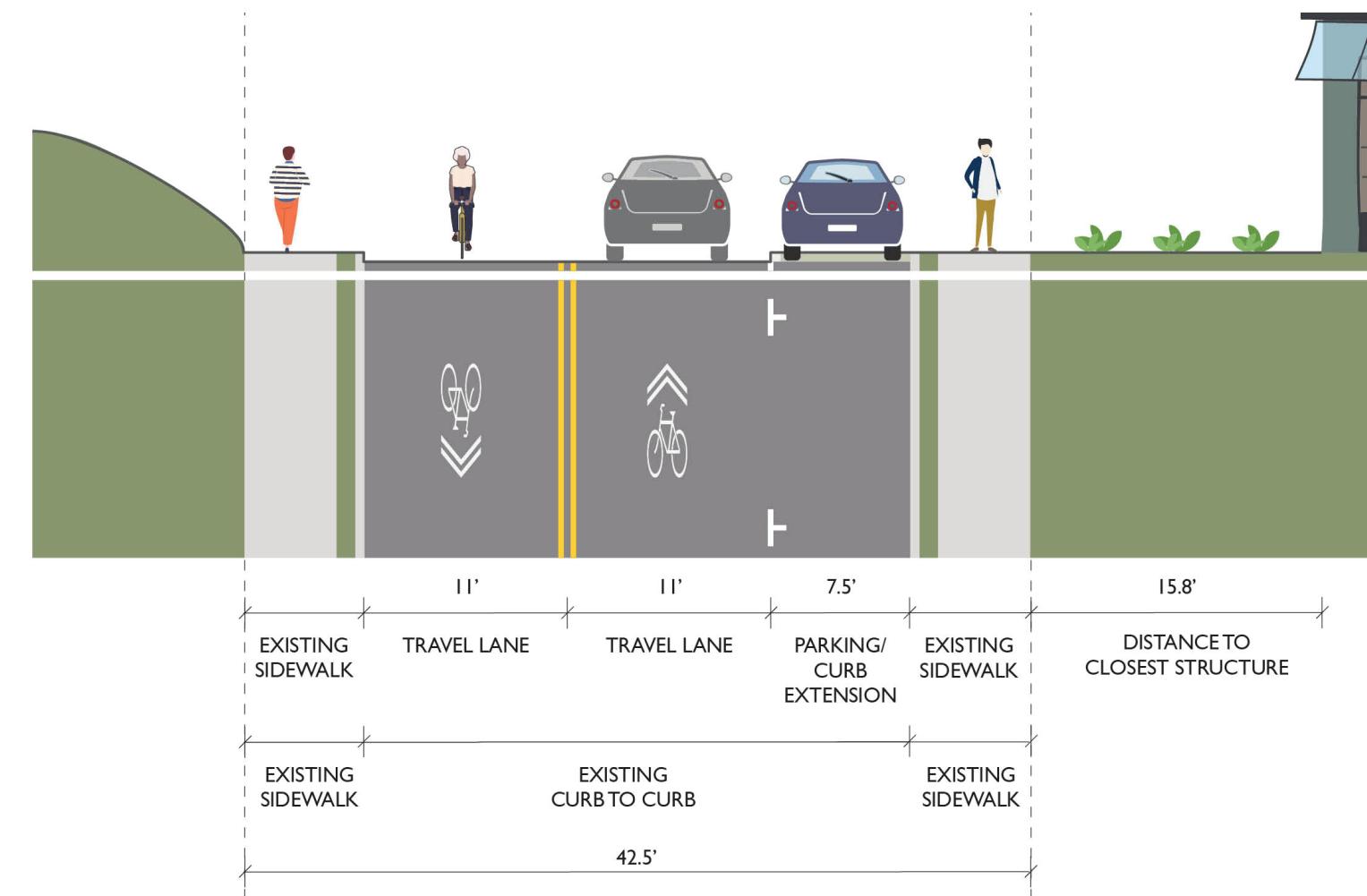
ALTERNATIVE 1

SHARED LANE MARKINGS AND SIDEWALK WITH PARKING

ALTERNATIVE NOTES

- This alternative retains 26 parking spaces on the east side of the corridor.
- Adding shared lane markings to the street will make vehicles more aware that the road must be shared with bicyclists.
- This alternative repurposes a few parking spaces as curb extensions, concrete or landscape areas where the curb bumps out into the parking lane, to slow vehicle traffic and improve safety.
- This alternative has the lowest construction cost, however it will have the smallest impact on conflict reduction.
- Cost Estimate: \$254,464

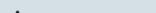
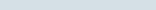
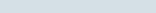
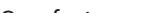
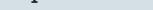
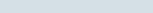
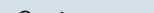
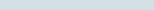
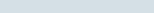
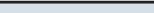
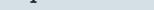
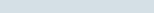
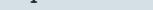
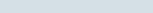
TYPICAL SECTION



* Preliminary Alternative - Not for Construction

** Street buffer treatments are for illustrative purposes. A variety of options are available for street buffers.

DECISION MATRIX

COMFORT			COST						
Conflict Reduction	Bike/Ped Access	Bike/Ped Comfort	ROW & Property Impacts	Construction Costs	Maintenance Costs	Parking Impacts	Landscape Impacts	Utility Relocation	Drainage Impacts
    	    	    	    	    	    	    	    	    	    

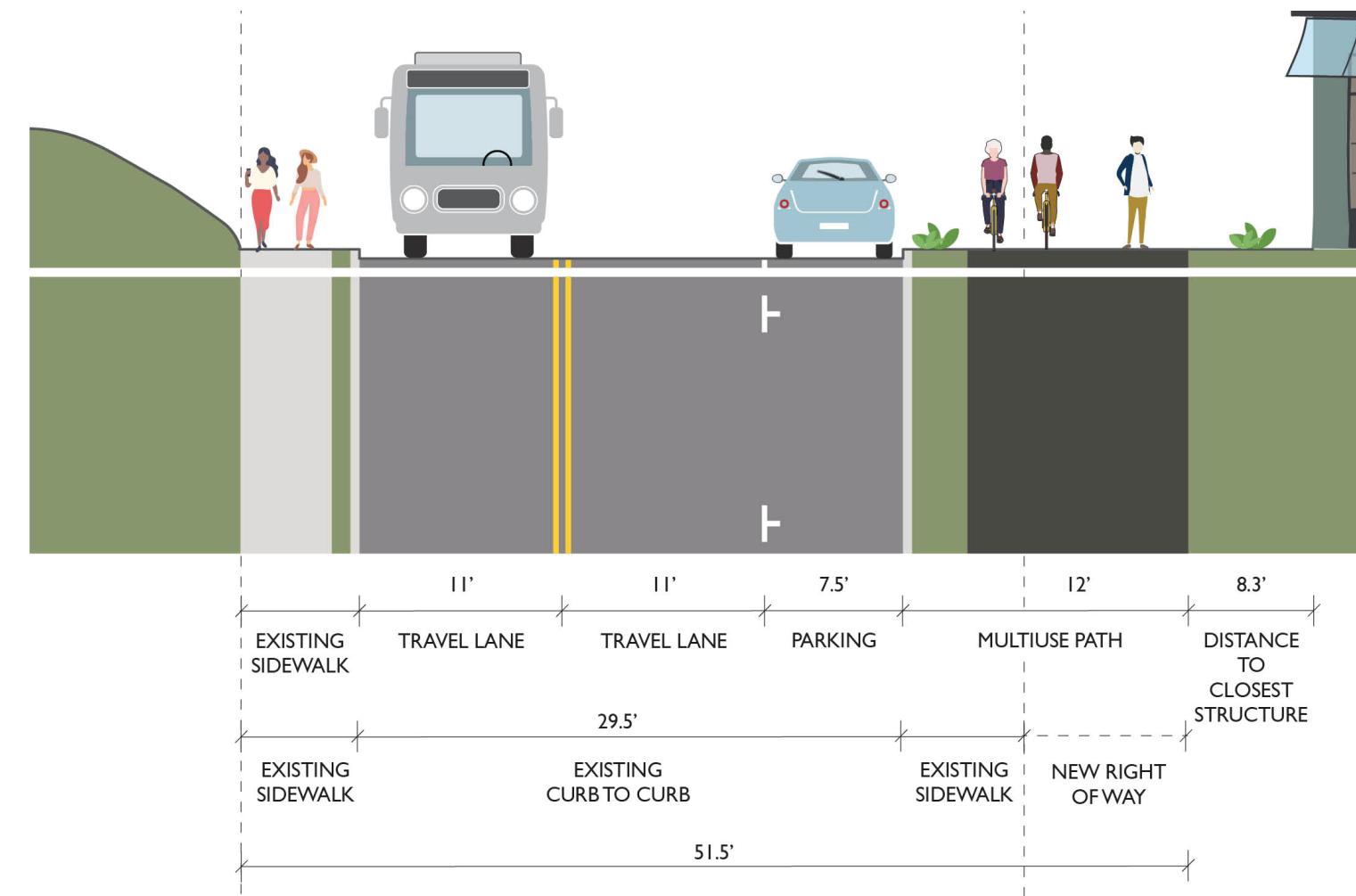
ALTERNATIVE 2A

12' MULTIUSE PATH WITH PARKING

ALTERNATIVE NOTES

- This alternative retains 26 parking spaces on the east side of the corridor with the addition of a 12' multiuse path.
- Multiuse paths provide a shared space for all non-motorized users and can be marked with a centerline to designate two-way travel.
- This alternative includes a 3' landscaped buffer between street parking and the multiuse path that also serves as a door zone.
- Cost Estimate: \$850,700

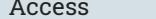
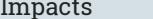
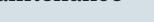
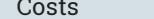
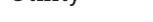
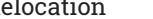
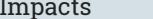
TYPICAL SECTION



* Preliminary Alternative - Not for Construction

** Street buffer treatments are for illustrative purposes. A variety of options are available for street buffers.

DECISION MATRIX

COMFORT			COST						
Conflict Reduction	Bike/Ped Access	Bike/Ped Comfort	ROW & Property Impacts	Construction Costs	Maintenance Costs	Parking Impacts	Landscape Impacts	Utility Relocation	Drainage Impacts
 	 	 	 	 	 	 	 	 	 

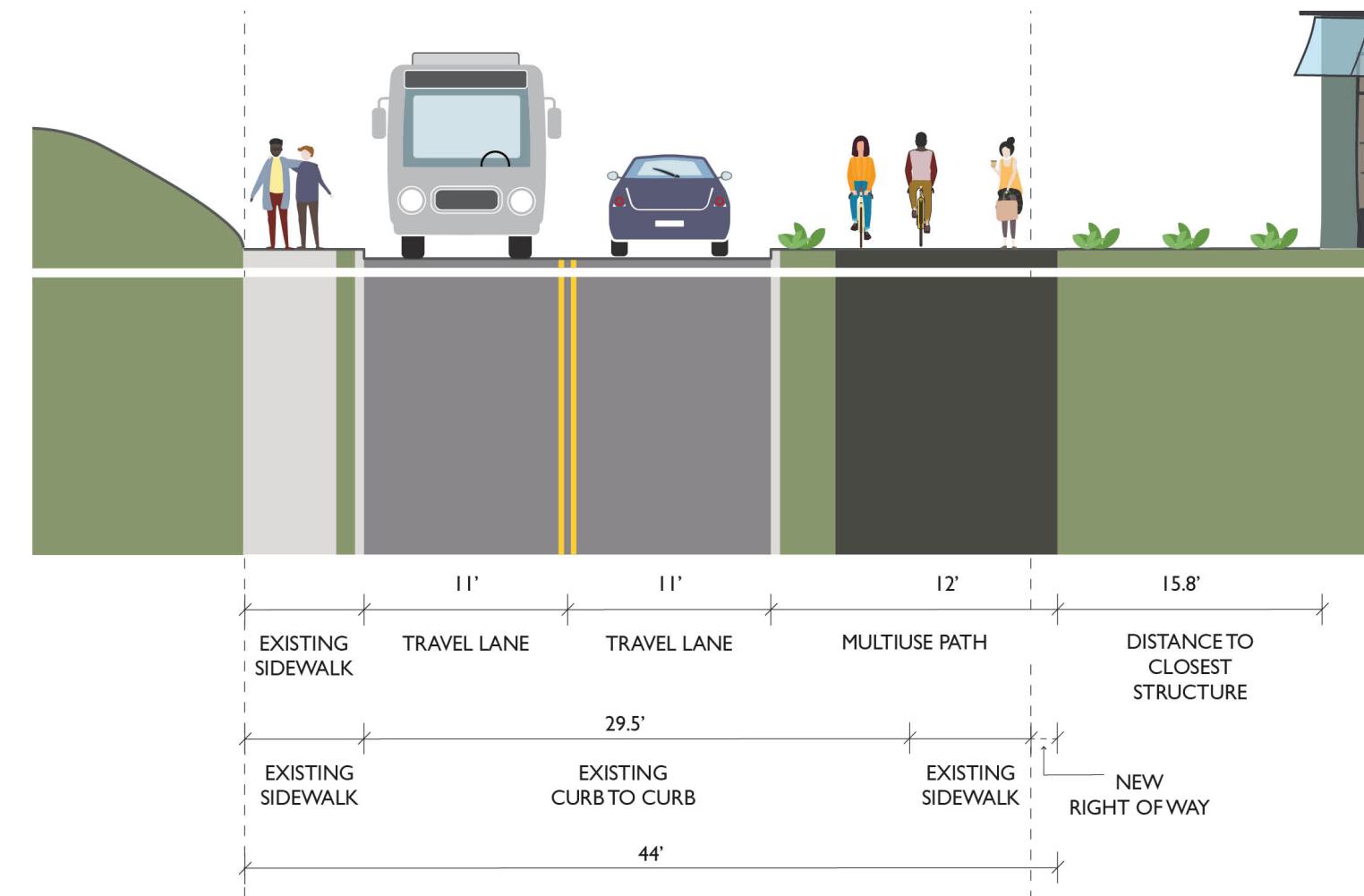
ALTERNATIVE 2B

12' MULTIUSE PATH WITHOUT PARKING

ALTERNATIVE NOTES

- This alternative repurposes street parking on the east side of the corridor with the addition of a 12' multiuse path.
- Multiuse paths provide a shared space for all non-motorized users and can be marked with a centerline to designate two-way travel.
- This alternative includes a 3' landscaped buffer between vehicles and the multiuse path.
- Cost Estimate: \$1,101,300

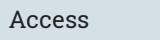
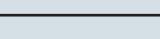
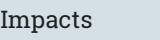
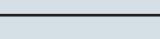
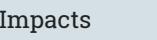
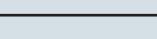
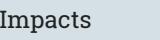
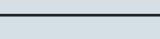
TYPICAL SECTION



* Preliminary Alternative - Not for Construction

** Street buffer treatments are for illustrative purposes. A variety of options are available for street buffers.

DECISION MATRIX

COMFORT			COST						
Conflict Reduction	Bike/Ped Access	Bike/Ped Comfort	ROW & Property Impacts	Construction Costs	Maintenance Costs	Parking Impacts	Landscape Impacts	Utility Relocation	Drainage Impacts
 	 	 	 	 	 	 	 	 	 

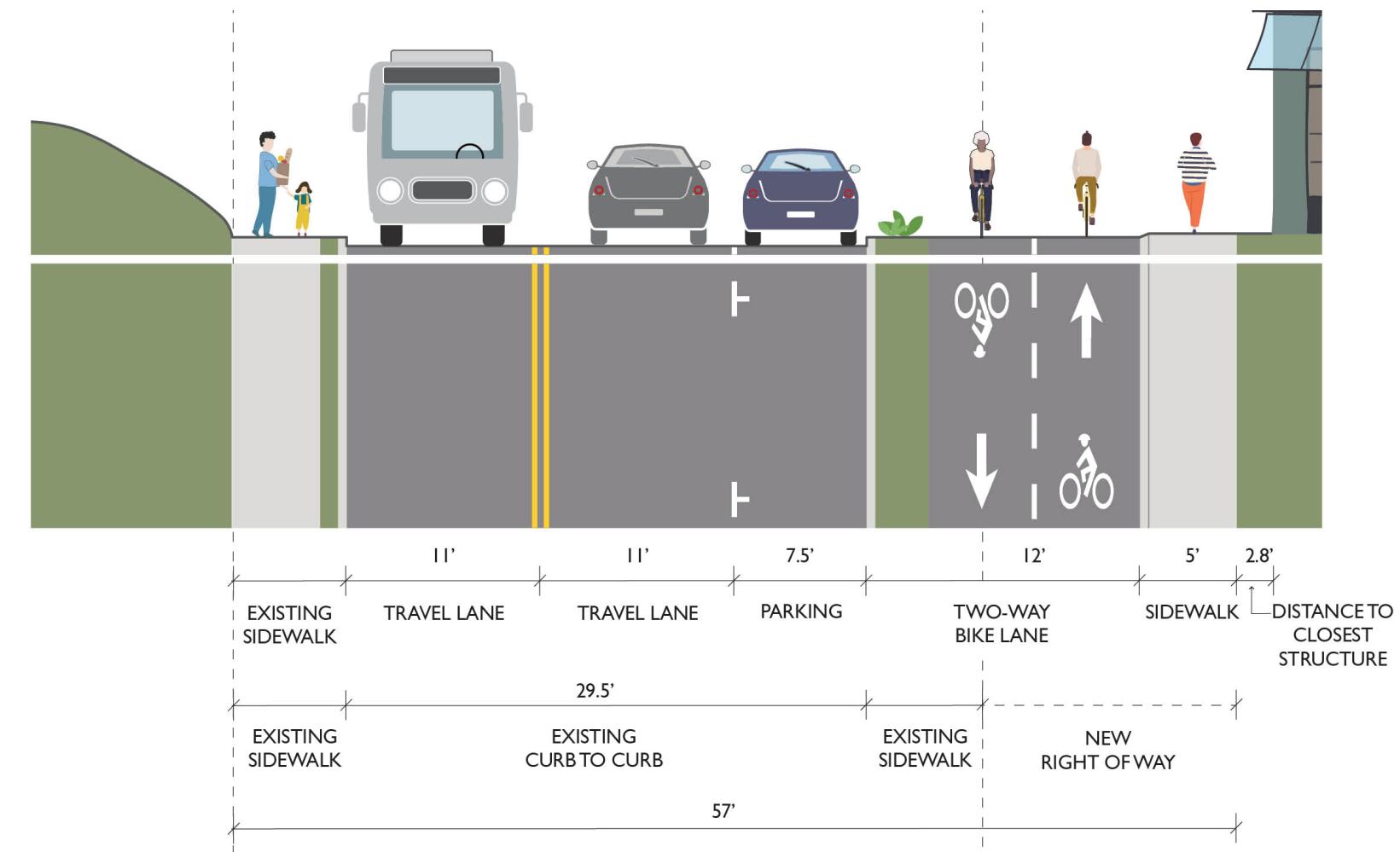
ALTERNATIVE 3A

12' TWO-WAY BIKE LANE AND SIDEWALK WITH PARKING

ALTERNATIVE NOTES

- This alternative retains 26 parking spaces on the east side of the corridor with the addition of a two-way separated bike lane and 5' sidewalk.
- Two-way separated bike lanes provide an exclusive space for bicycles along the roadway that is vertically and horizontally separated from vehicles and pedestrians.
- This alternative includes a 3' landscaped buffer between street parking and the two-way separated bike lane that also serves as a door zone.
- Cost Estimate: \$1,213,500

TYPICAL SECTION



* Preliminary Alternative - Not for Construction.

** Street buffer treatments are for illustrative purposes. A variety of options are available for street buffers.

DECISION MATRIX

COMFORT			COST							
Conflict Reduction	Bike/Ped Access	Bike/Ped Comfort	ROW & Property Impacts	Construction Costs	Maintenance Costs	Parking Impacts	Landscape Impacts	Utility Relocation	Drainage Impacts	
●●●●	●●●●	●●●●	●●●●	●●●●	●●●●	●○○○	●●●●	●●●●	●○○○	

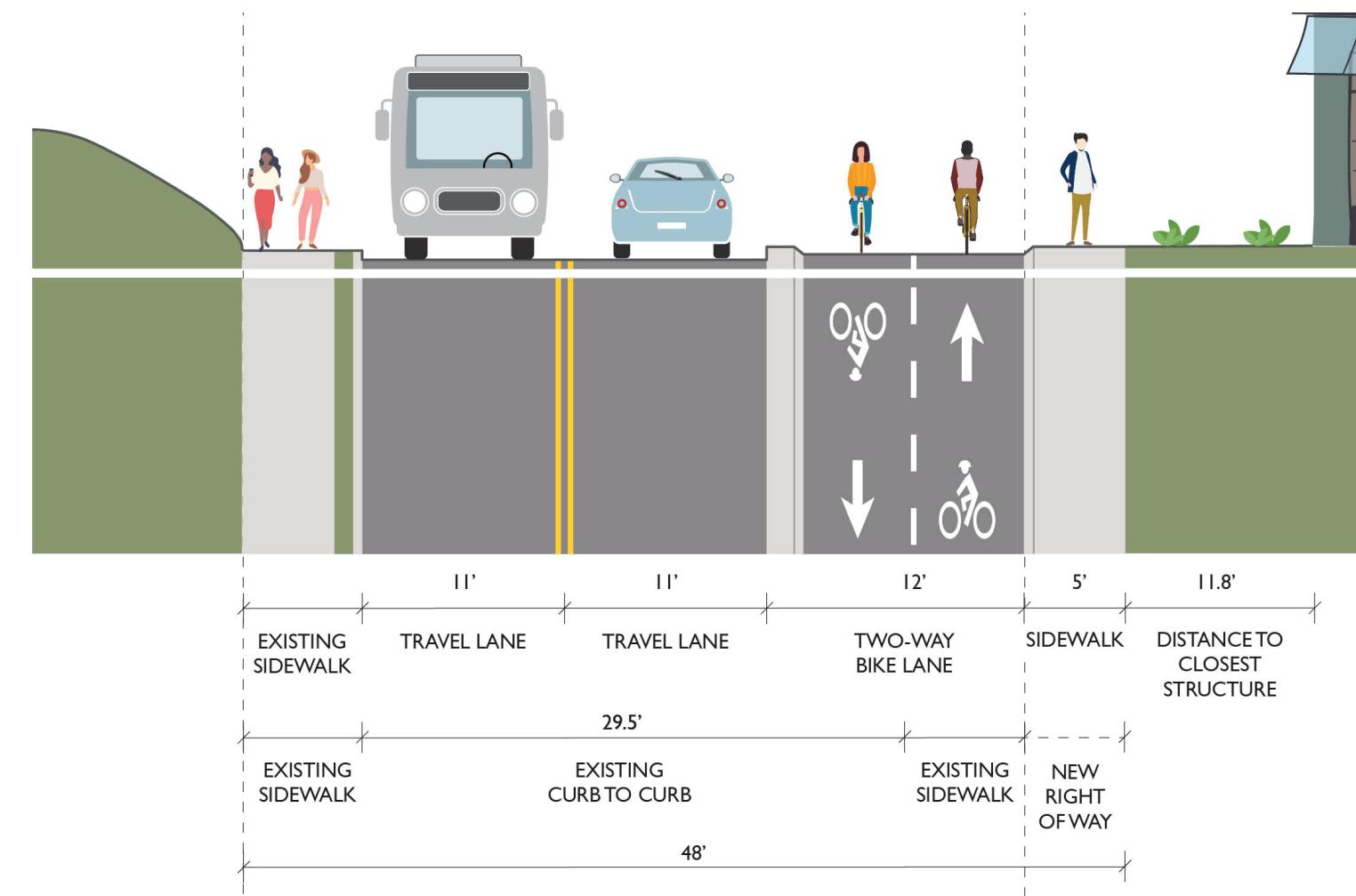
ALTERNATIVE 3B

12' TWO-WAY BIKE LANE AND SIDEWALK WITHOUT PARKING

ALTERNATIVE NOTES

- This alternative repurposes existing street parking on the east side of the corridor for a two-way separated bike lane and 5' sidewalk.
- Two-way separated bike lanes provide an exclusive space for bicycles along the roadway that is vertically and horizontally separated from vehicles and pedestrians.
- This alternative includes a 2' buffer between vehicles and the two-way separated bike lanes.
- Cost Estimate: \$1,158,900

TYPICAL SECTION



* Preliminary Alternative - Not for Construction

** Street buffer treatments are for illustrative purposes. A variety of options are available for street buffers.

DECISION MATRIX

COMFORT			COST						
Conflict Reduction	Bike/Ped Access	Bike/Ped Comfort	ROW & Property Impacts	Construction Costs	Maintenance Costs	Parking Impacts	Landscape Impacts	Utility Relocation	Drainage Impacts
 	 	 	