

## **Attachment 3**

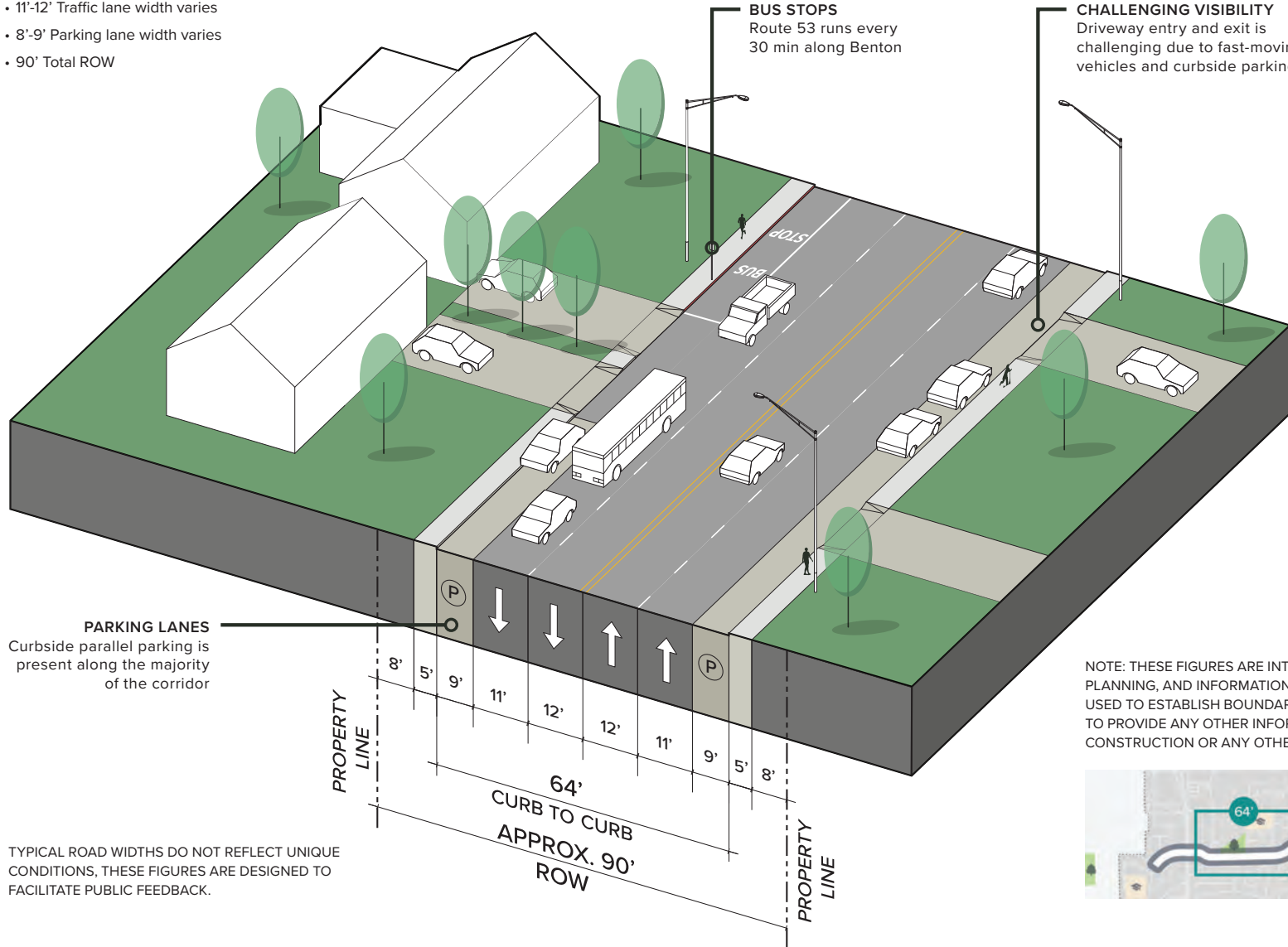
### Benton Street Design Concepts

## 64' WIDE TYPICAL

# Existing Conditions / No Build Option

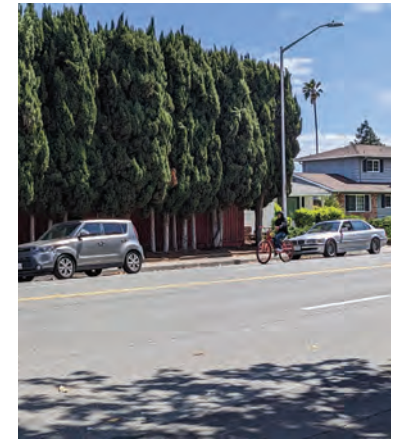
BENTON ST FROM LAWRENCE EXPWY TO LIVE OAK DRIVE + KIELY BLVD TO MARYANN DR

- Bike throughlanes from Las Palmas Dr to Maryann Dr
- 11'-12' Traffic lane width varies
- 8'-9' Parking lane width varies
- 90' Total ROW



TYPICAL ROAD WIDTHS DO NOT REFLECT UNIQUE CONDITIONS, THESE FIGURES ARE DESIGNED TO FACILITATE PUBLIC FEEDBACK.

PHOTO: EXISTING CONDITIONS ON BENTON



NOTE: THESE FIGURES ARE INTENDED ONLY FOR REFERENCE, CONCEPTUAL PLANNING, AND INFORMATIONAL PURPOSES. THESE FIGURES SHOULD NOT BE USED TO ESTABLISH BOUNDARIES, PROPERTY LINES, LOCATION OF OBJECTS, OR TO PROVIDE ANY OTHER INFORMATION TYPICALLY NEEDED FOR FINAL DESIGN, CONSTRUCTION OR ANY OTHER PURPOSE WHEN ENGINEERED PLANS ARE REQUIRED.



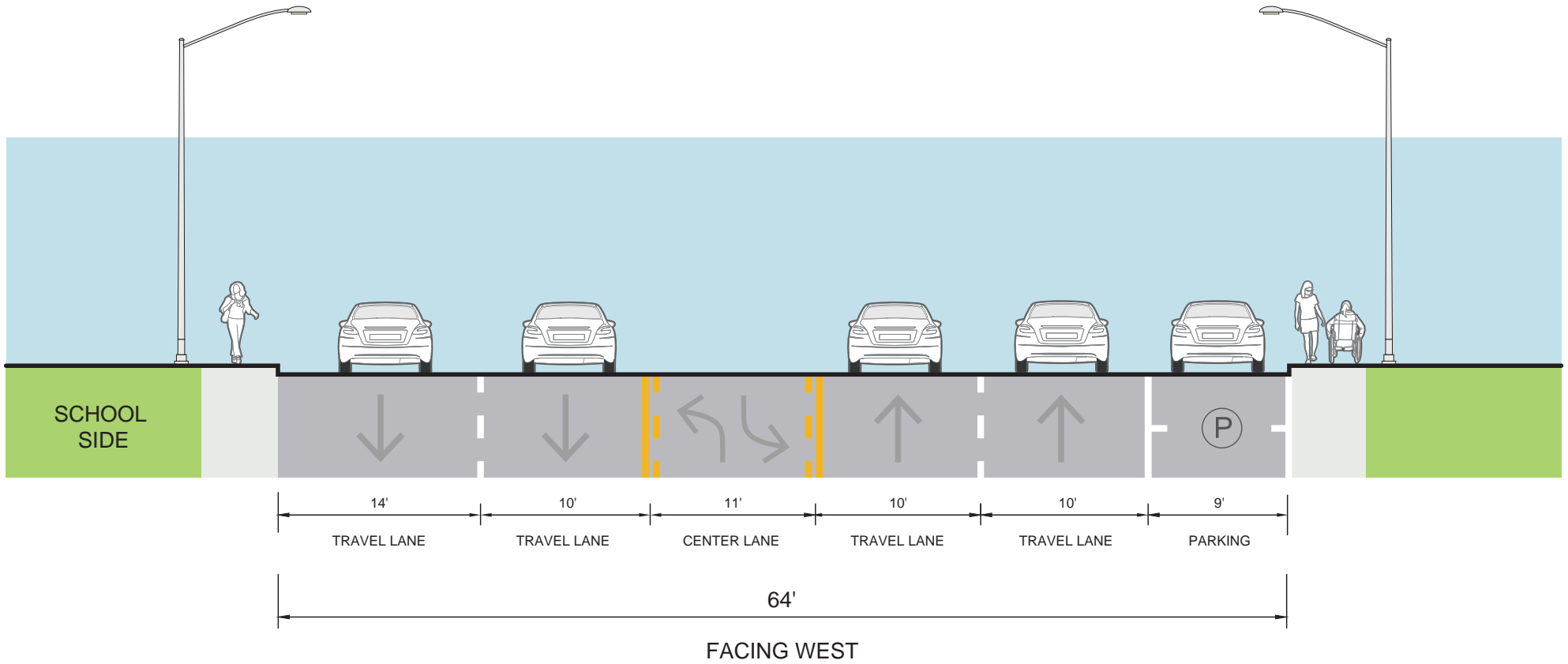
64' WIDE

# Existing Conditions / No Build Option

ALONGSIDE HIGH SCHOOL

BENTON ST FROM LIVE OAK DR TO KIELY BLVD

- One side parking + center lane



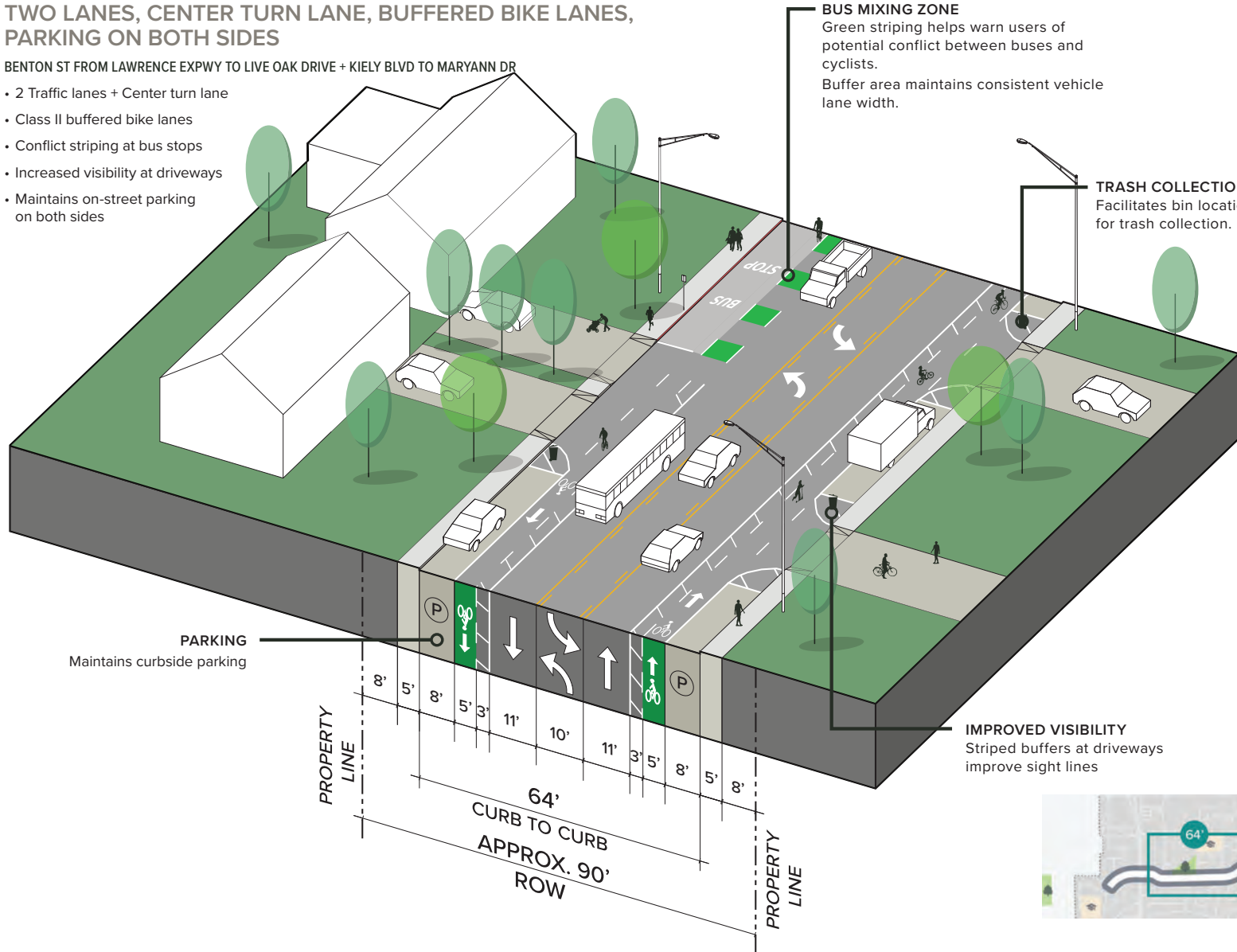
## 64' WIDE TYPICAL

# Concept A

### TWO LANES, CENTER TURN LANE, BUFFERED BIKE LANES, PARKING ON BOTH SIDES

BENTON ST FROM LAWRENCE EXPWY TO LIVE OAK DRIVE + KIELY BLVD TO MARYANN DR

- 2 Traffic lanes + Center turn lane
- Class II buffered bike lanes
- Conflict striping at bus stops
- Increased visibility at driveways
- Maintains on-street parking on both sides



**BUFFERED BIKE LANES**  
A buffer between vehicle traffic provides additional horizontal separation from vehicles.



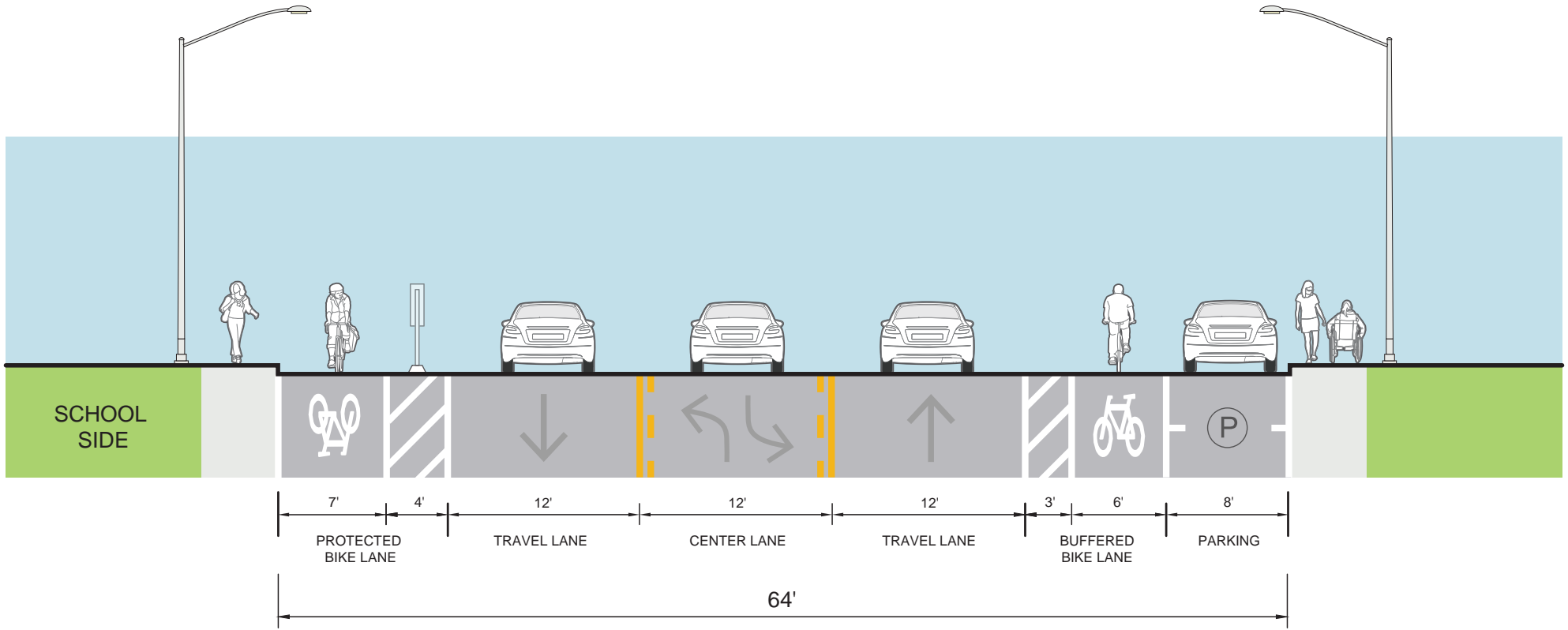
64' WIDE

# Concept A

## ALONGSIDE HIGH SCHOOL

BENTON ST FROM LIVE OAK DR TO KIELY BLVD

- South side protected bike lane - in front of high school
- North side buffered bike lane - in front of residences



FACING WEST



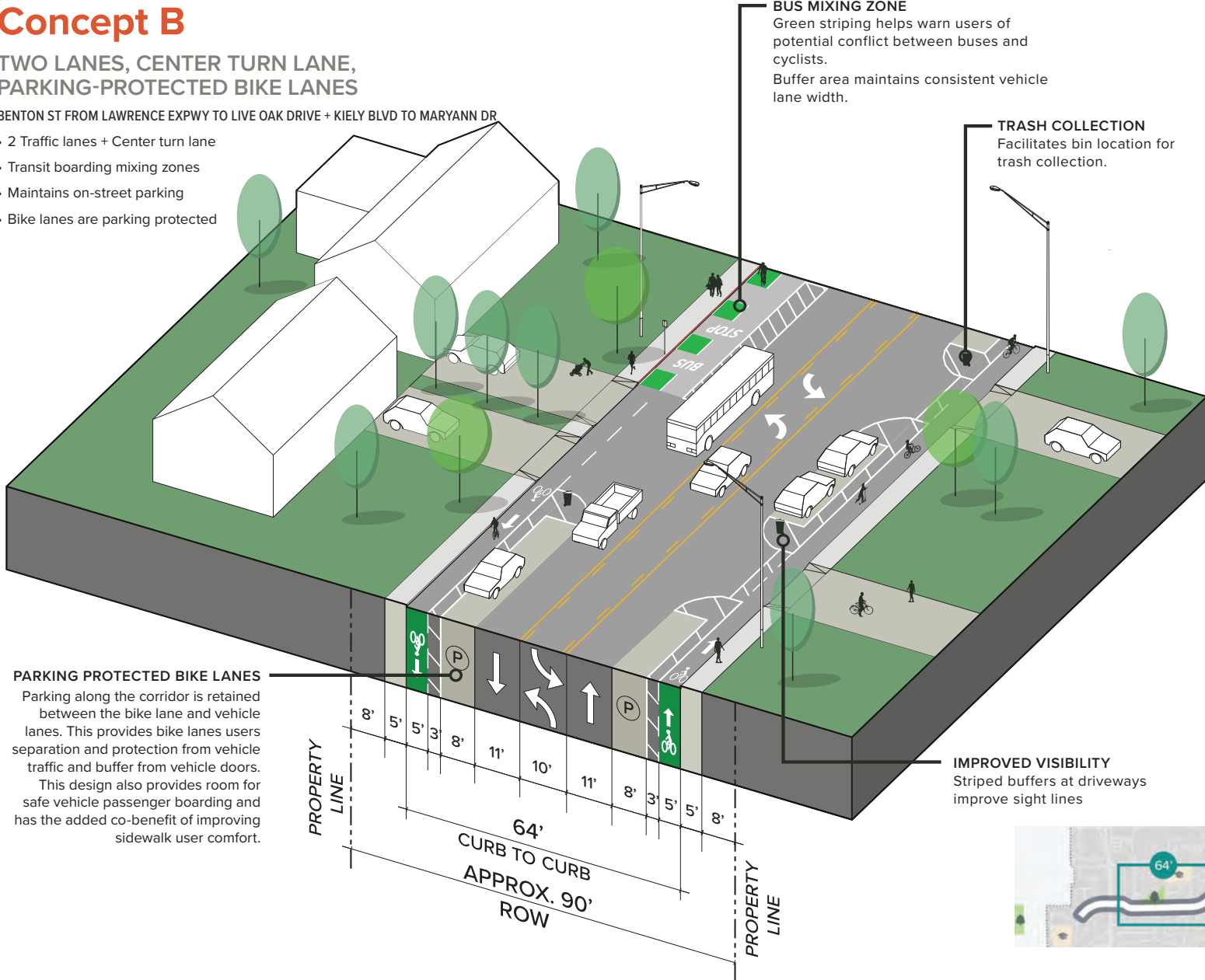
64' WIDE TYPICAL

# Concept B

## TWO LANES, CENTER TURN LANE, PARKING-PROTECTED BIKE LANES

BENTON ST FROM LAWRENCE EXPWY TO LIVE OAK DRIVE + KIELY BLVD TO MARYANN DR

- 2 Traffic lanes + Center turn lane
- Transit boarding mixing zones
- Maintains on-street parking
- Bike lanes are parking protected



**BUS MIXING ZONE**  
Green striping helps warn users of potential conflict between buses and cyclists.  
Buffer area maintains consistent vehicle lane width.

**TRASH COLLECTION**  
Facilitates bin location for trash collection.

**PARKING PROTECTED BIKE LANES**

Parking along the corridor is retained between the bike lane and vehicle lanes. This provides bike lanes users separation and protection from vehicle traffic and buffer from vehicle doors. This design also provides room for safe vehicle passenger boarding and has the added co-benefit of improving sidewalk user comfort.

**IMPROVED VISIBILITY**  
Striped buffers at driveways improve sight lines



EXAMPLE OF PARKING PROTECTED BIKE LANES



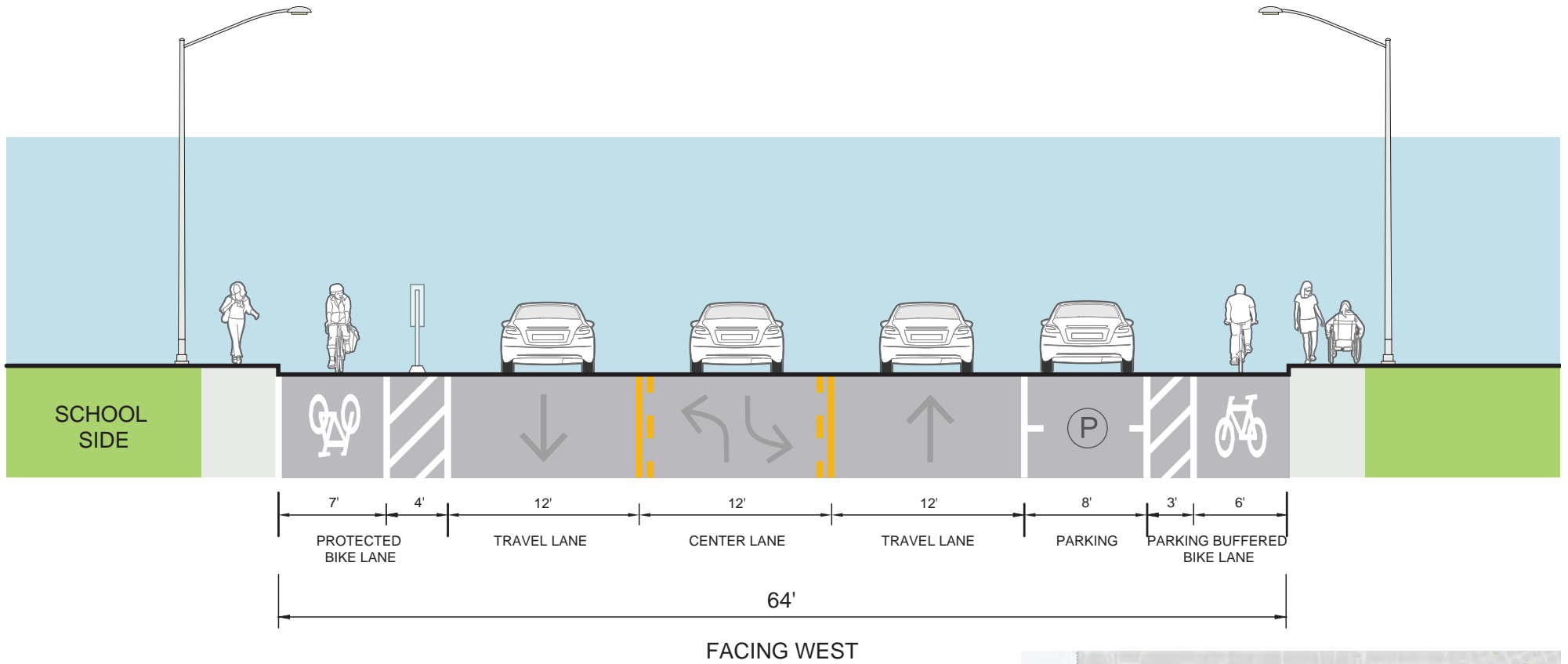
64' WIDE

# Concept B

ALONGSIDE HIGH SCHOOL

BENTON ST FROM LIVE OAK DR TO KIELY BLVD

- South side protected bike lane - in front of high school
- North side parking-protected bike lane - in front of residences



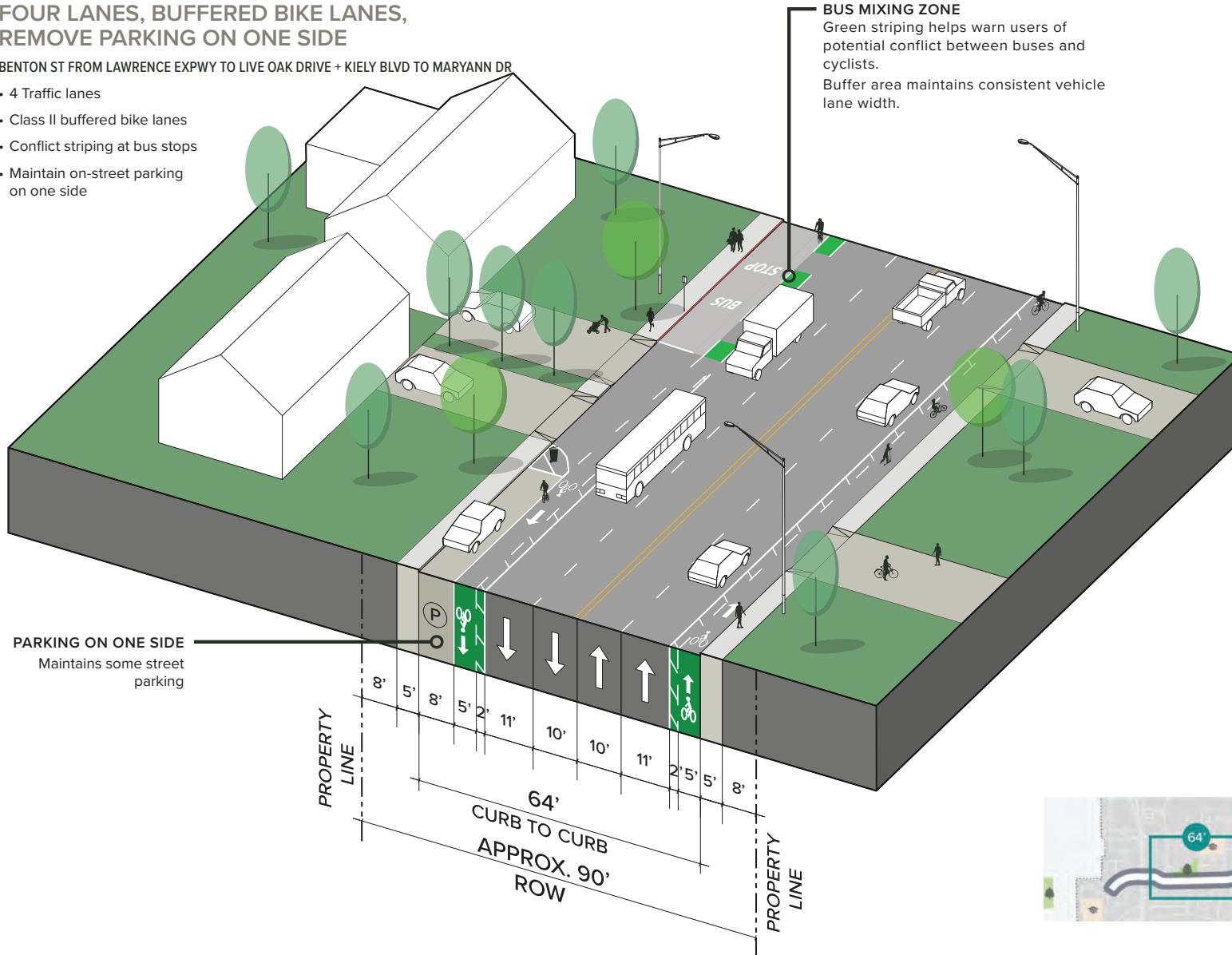


# 64' WIDE TYPICAL Concept C

## FOUR LANES, BUFFERED BIKE LANES, REMOVE PARKING ON ONE SIDE

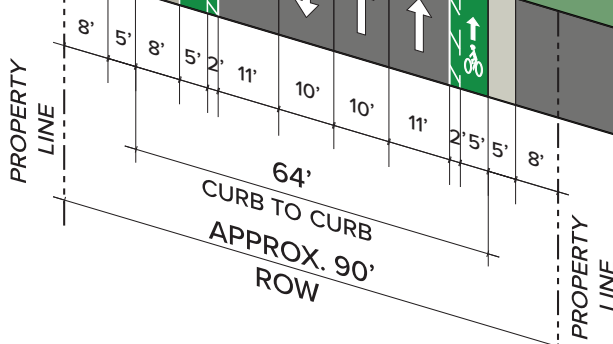
BENTON ST FROM LAWRENCE EXPWY TO LIVE OAK DRIVE + KIELY BLVD TO MARYANN DR

- 4 Traffic lanes
- Class II buffered bike lanes
- Conflict striping at bus stops
- Maintain on-street parking on one side



**BUS MIXING ZONE**  
Green striping helps warn users of potential conflict between buses and cyclists.  
Buffer area maintains consistent vehicle lane width.

**PARKING ON ONE SIDE**  
Maintains some street parking



**EXAMPLE OF BUFFERED BIKE LANES**  
A buffer between vehicle traffic provides additional comfort for cyclists.





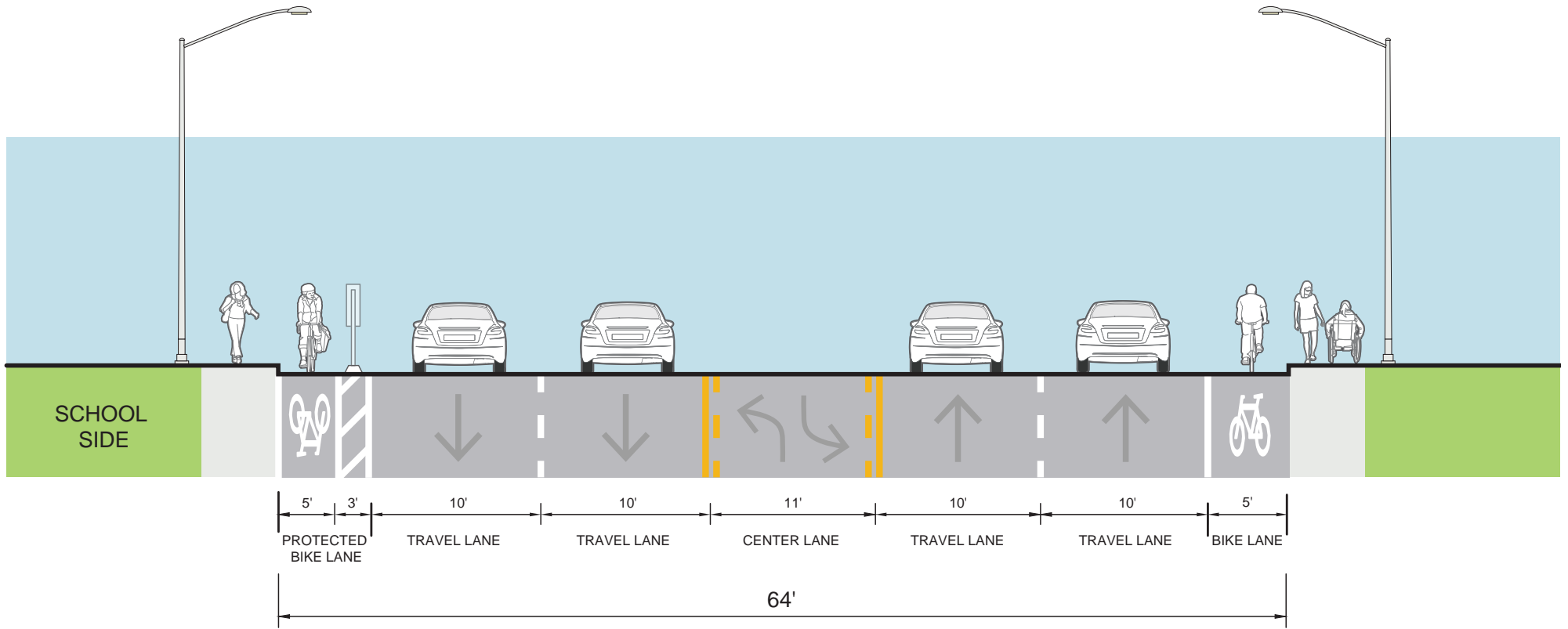
64' WIDE

# Concept C

## ALONGSIDE HIGH SCHOOL

BENTON ST FROM LIVE OAK DR TO KIELY BLVD

- South side protected bike lane - in front of high school
- North side bike lane - in front of residences
- Remove parking on residential side



FACING WEST

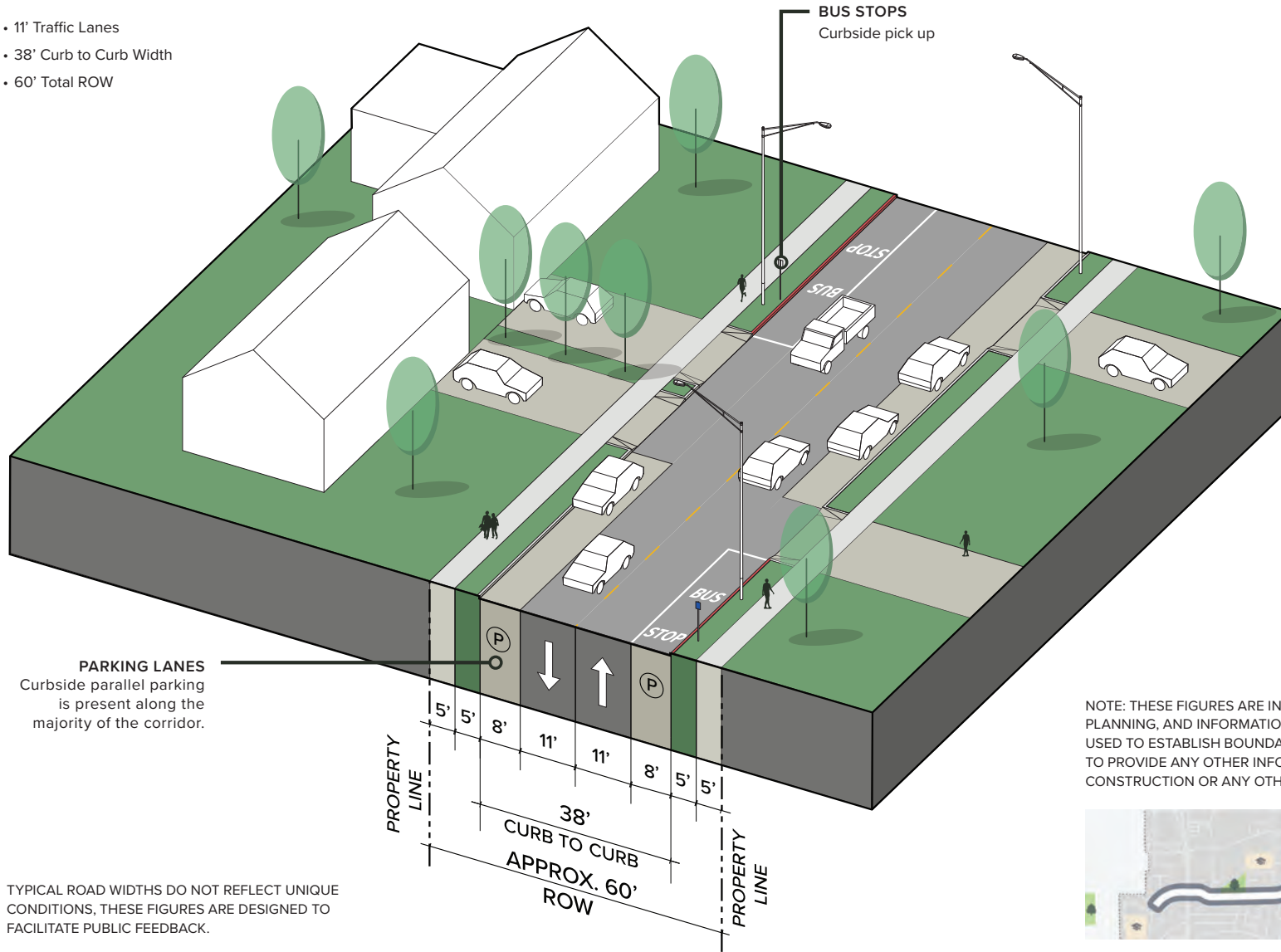


## 38' WIDE TYPICAL

# Existing Conditions / No Build Option

BENTON ST FROM MARYANN DR TO LINCOLN ST

- 11' Traffic Lanes
- 38' Curb to Curb Width
- 60' Total ROW

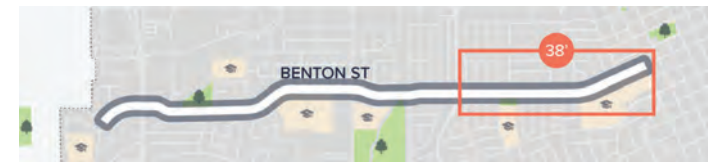


TYPICAL ROAD WIDTHS DO NOT REFLECT UNIQUE CONDITIONS, THESE FIGURES ARE DESIGNED TO FACILITATE PUBLIC FEEDBACK.

PHOTO: EXISTING CONDITIONS ON BENTON



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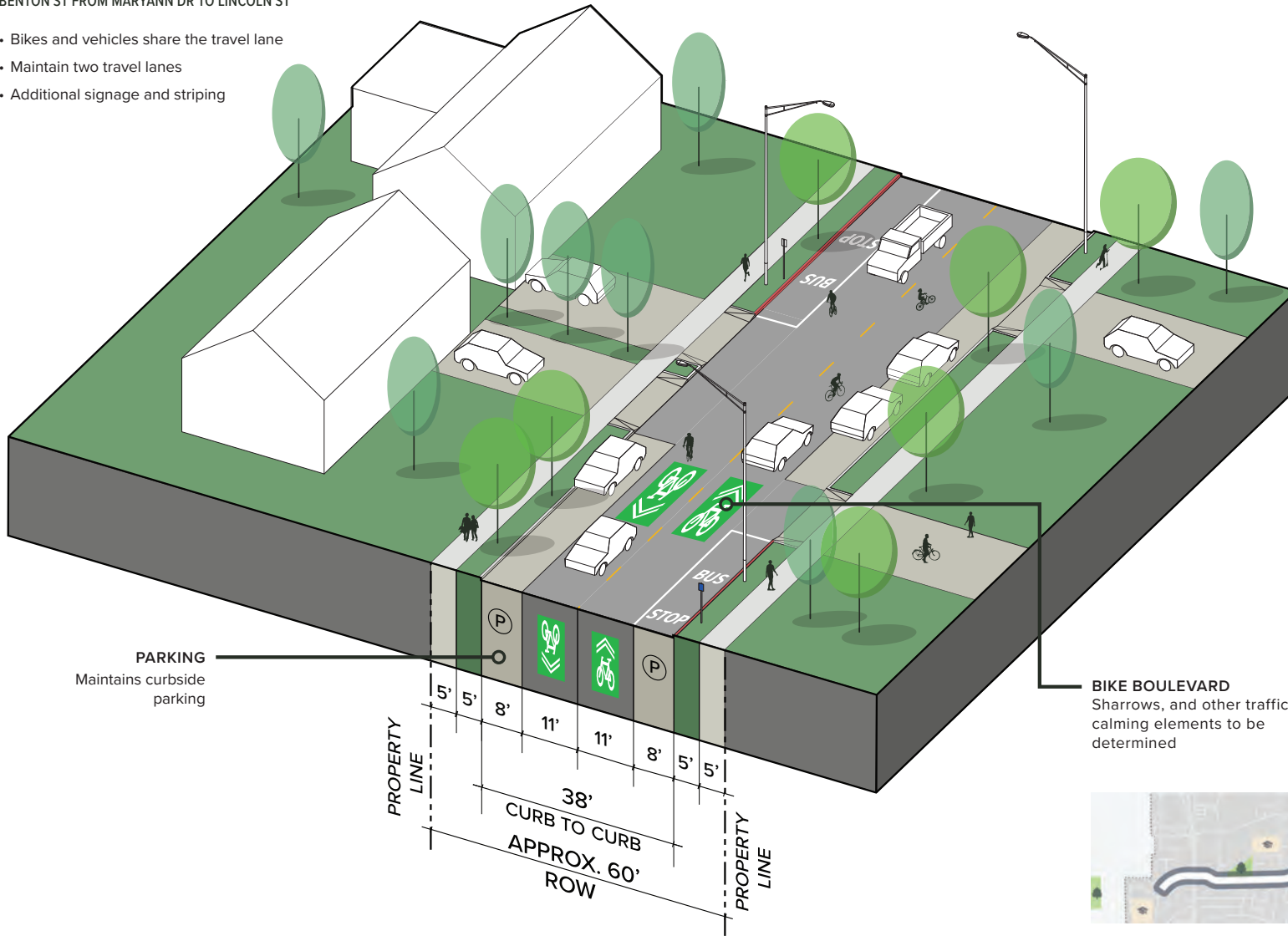
## 38' WIDE TYPICAL

# Concept D

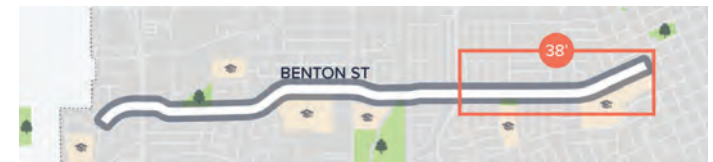
## BICYCLE BOULEVARD, PARKING ON BOTH SIDES

BENTON ST FROM MARYANN DR TO LINCOLN ST

- Bikes and vehicles share the travel lane
- Maintain two travel lanes
- Additional signage and striping



**BIKE BOULEVARD**  
Bike boulevards share roadway priority with cyclists. Traffic calming elements may be introduced to deter excess vehicle speeds for comfort and safety on the shared roadway.



## 38' WIDE TYPICAL

# Concept E

### BUFFERED BIKE LANES, REMOVE PARKING ON BOTH SIDES

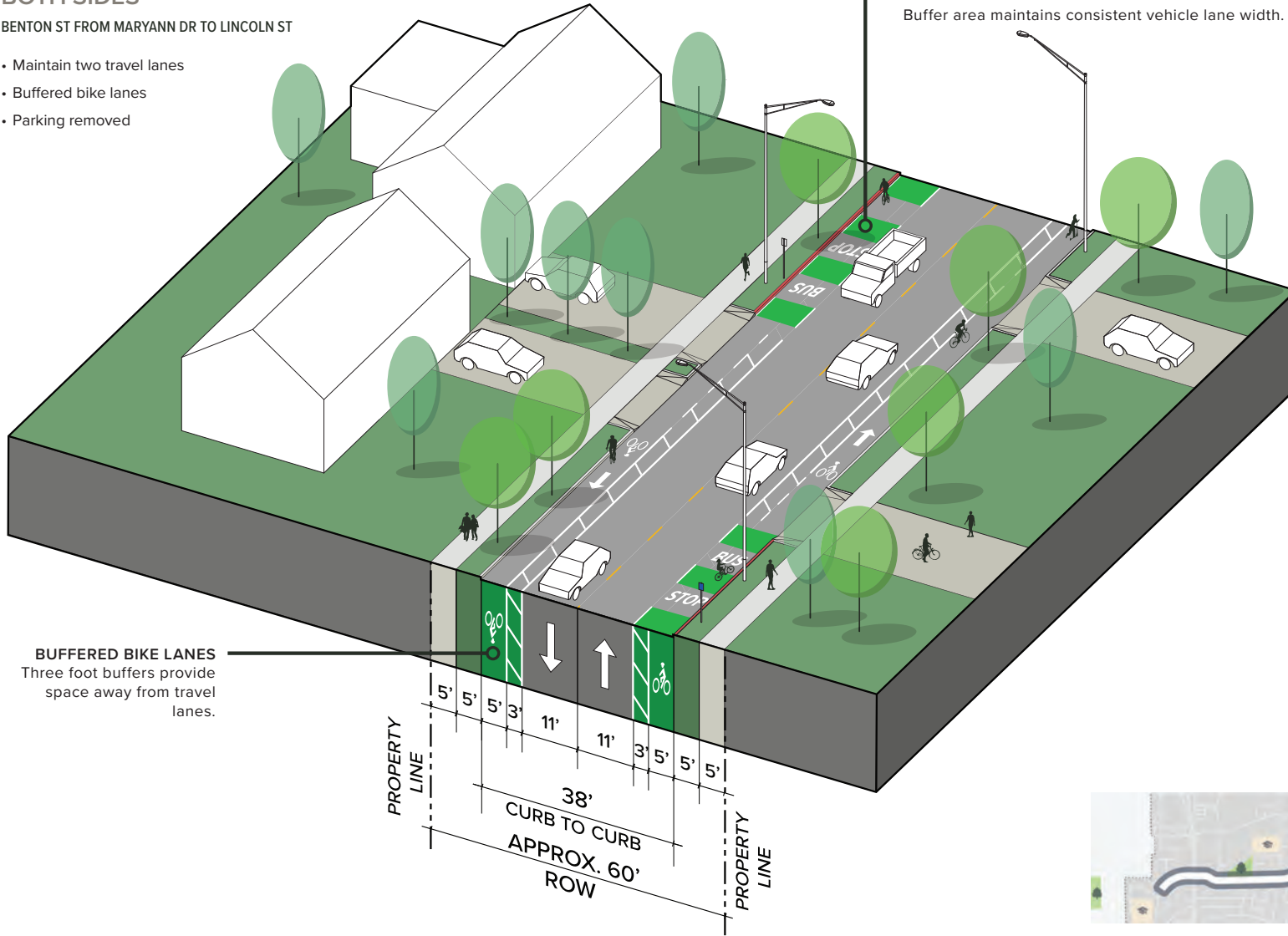
BENTON ST FROM MARYANN DR TO LINCOLN ST

- Maintain two travel lanes
- Buffered bike lanes
- Parking removed

#### BUS MIXING ZONE

Green striping helps warn users of potential conflict between buses and cyclists.

Buffer area maintains consistent vehicle lane width.



**BUFFERED BIKE LANES**  
Three foot buffers provide space away from travel lanes.



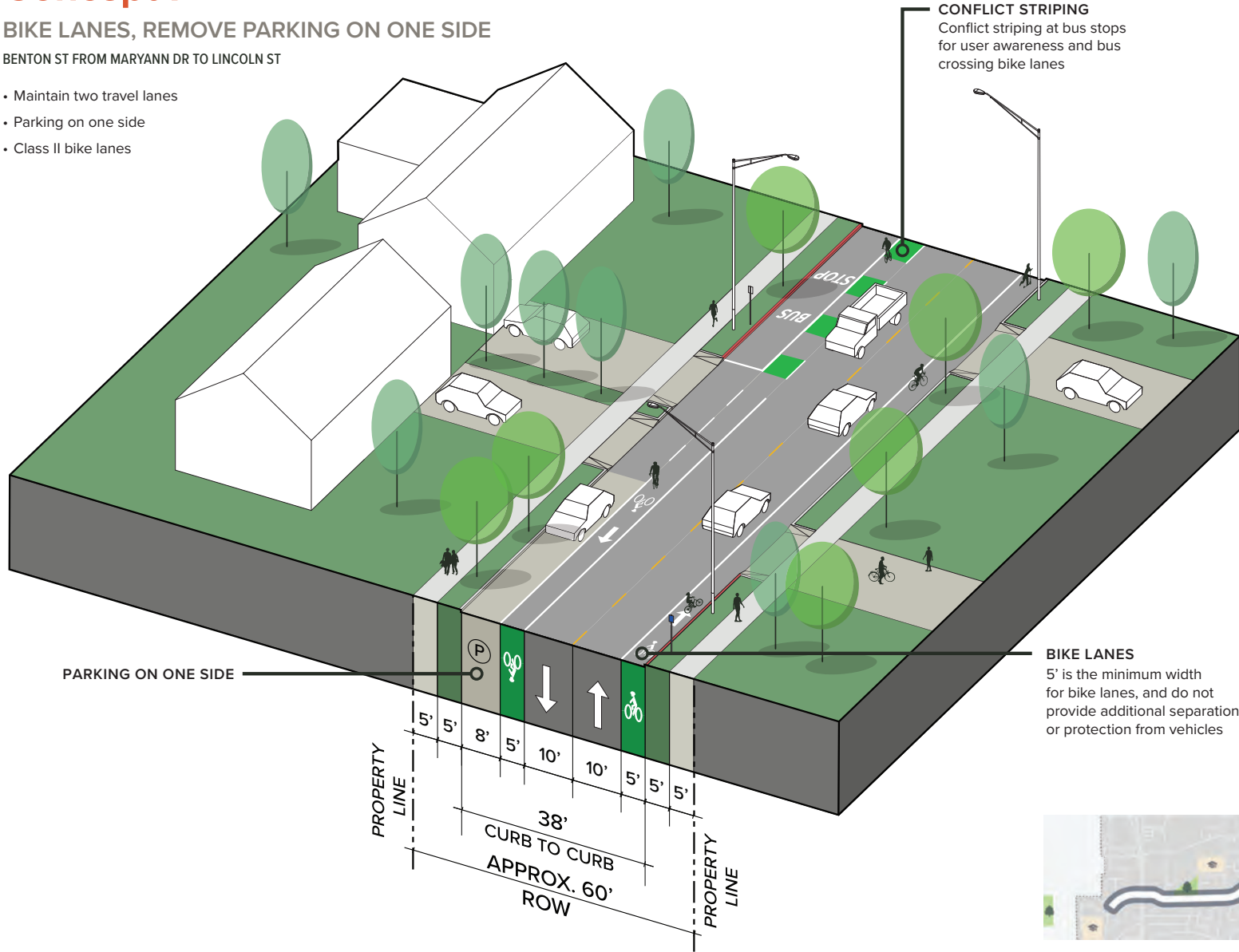
## 38' WIDE TYPICAL

# Concept F

### BIKE LANES, REMOVE PARKING ON ONE SIDE

BENTON ST FROM MARYANN DR TO LINCOLN ST

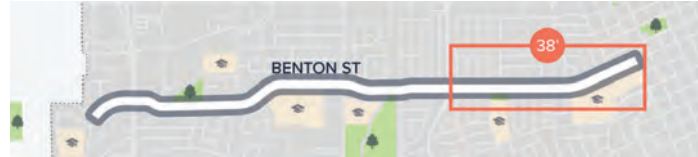
- Maintain two travel lanes
- Parking on one side
- Class II bike lanes



**CONFLICT STRIPING**  
Conflict striping at bus stops for user awareness and bus crossing bike lanes

PARKING ON ONE SIDE

**BIKE LANES**  
5' is the minimum width for bike lanes, and do not provide additional separation or protection from vehicles



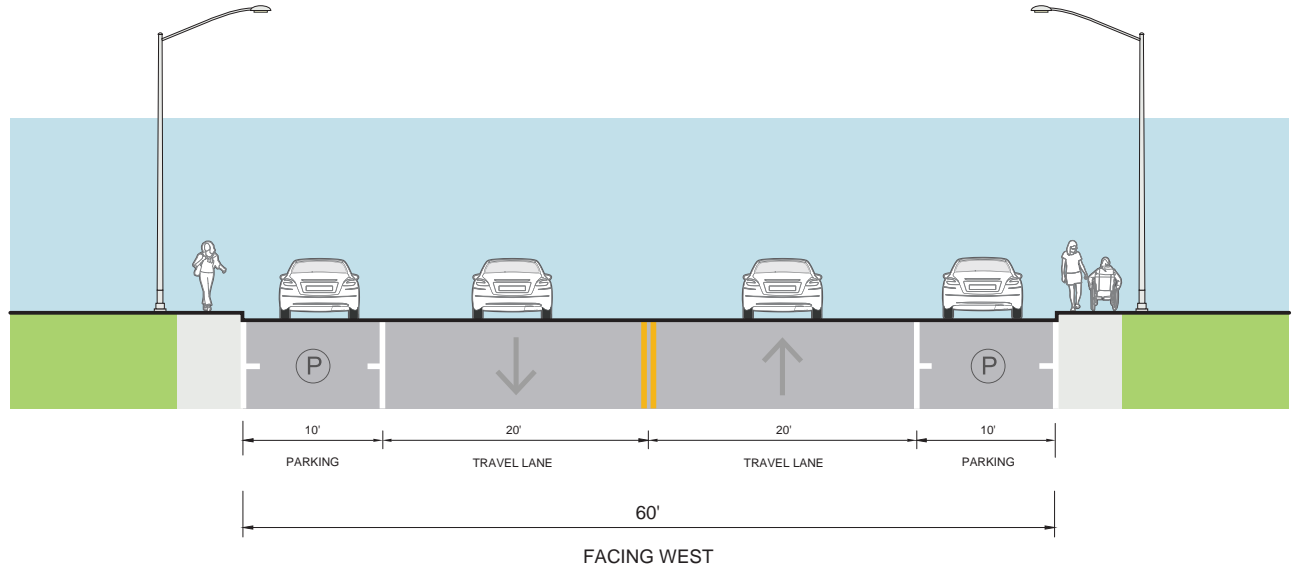
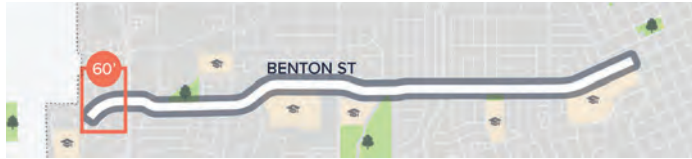
60' WIDE

## Existing Conditions / No Build

VARIATION FROM TYPICAL EXISTING CONDITION

BENTON ST FROM DUNFORD WAY TO LAWRENCE EXPWY

- Wide travel lanes



60' WIDE

## Proposed Concept G

VARIATION FROM TYPICAL EXISTING CONDITION

BENTON ST FROM DUNFORD WAY TO LAWRENCE EXPWY

- Buffered bike lanes
- Standardized travel lanes

