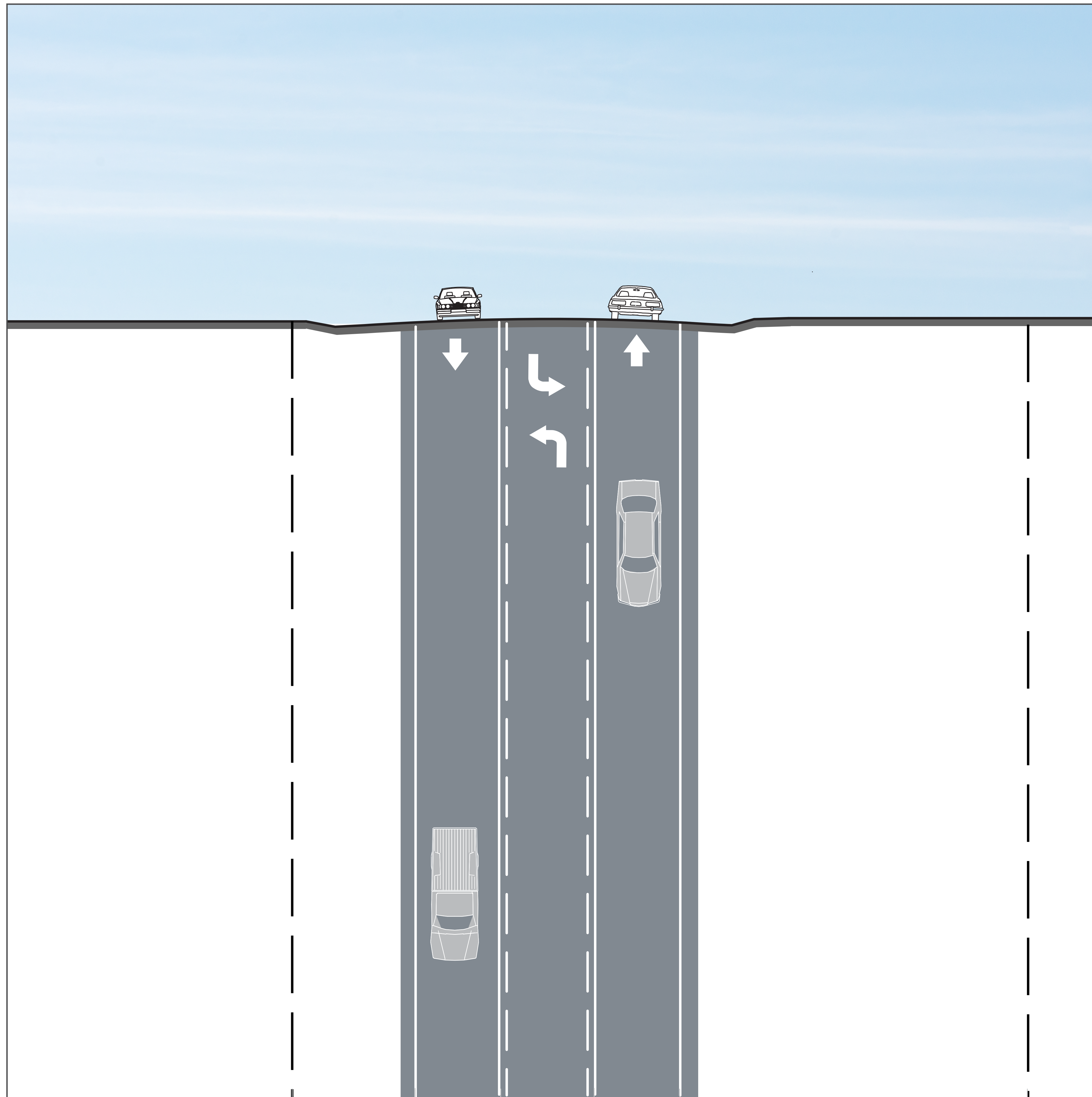


# Columbia Avenue

Widening & Improvements Project

## EXISTING CONDITIONS AND NO-BUILD OPTION



### SUMMARY

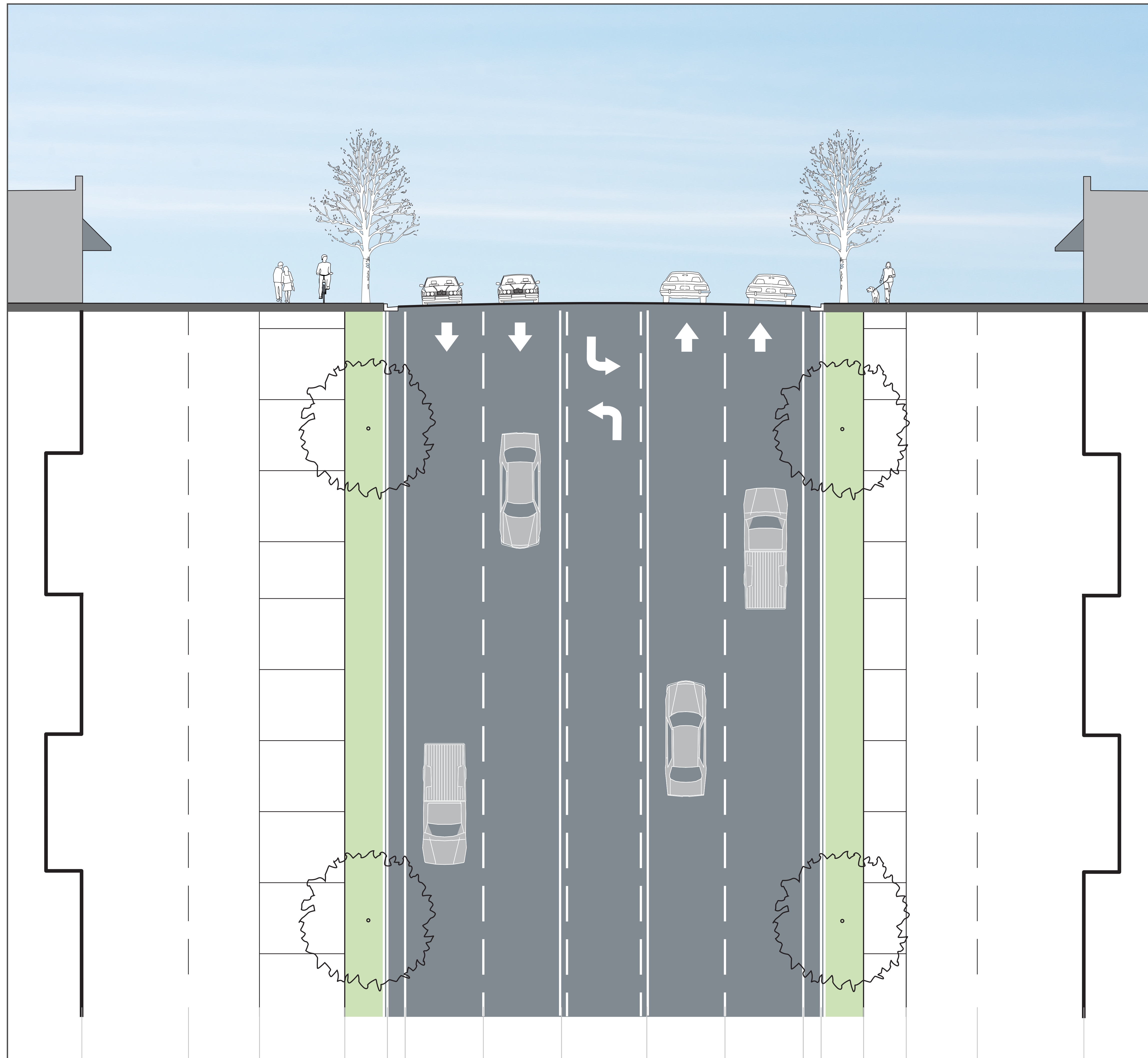
- Traditional rural three-lane roadway. One through lane in each direction with a two-way center turn lane.
- Limited pedestrian facilities. No bicycle facilities.
- Daily congestion and delay is persistent for both mainline, side roads and driveways.
- With no improvements or modifications (allowing existing conditions to remain), existing conditions for safety and delay are expected to significantly worsen.



# Columbia Avenue

Widening & Improvements Project

## FIVE-LANE ROADWAY CONCEPT



### SUMMARY

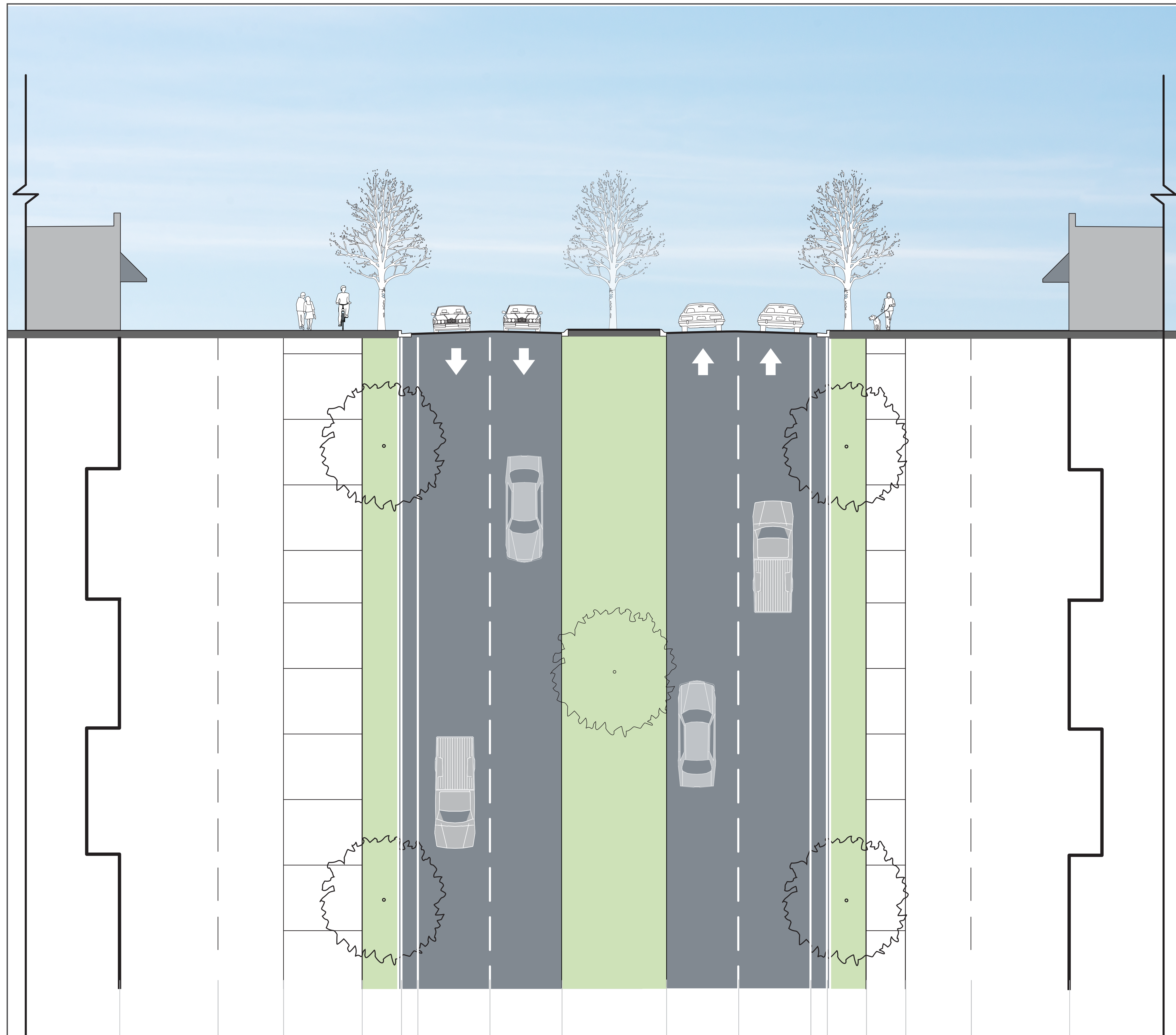
- Traditional five-lane roadway. Two through lanes in each direction with a two-way center turn lane. Few, if any, left turn or driveway restrictions. Additional turn lanes provided at side roads and intersections as needed.
- Signalization maintained and a potential additional traffic signal at the intersection of Columbia Avenue and Confederate Drive will be studied.
- Mainline travel time and delay expected to improve or be maintained. Side road and driveway travel time and delay worsen or remains poor. Additional improvements and modifications required to achieve City's minimum operational standards at all intersections and driveways.
- Expected crash rate and severity anticipated to increase.
- Additional bicycle and pedestrian facilities included.



# Columbia Avenue

Widening & Improvements Project

## FOUR-LANE MEDIAN DIVIDED CONCEPT



### SUMMARY

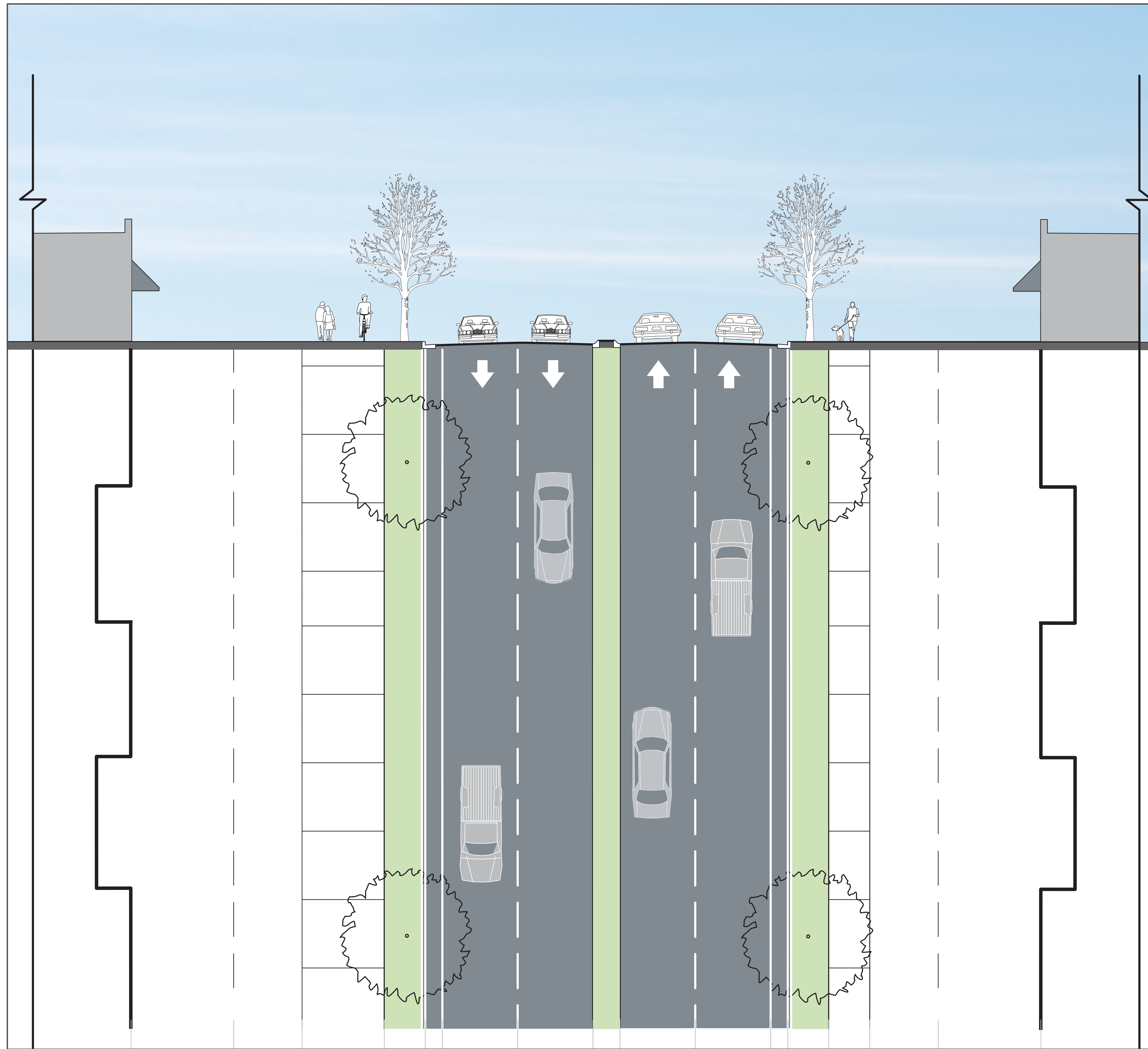
- Traditional Four-Lane Roadway. Two through lanes in each direction with a center median. Left turns and additional laneage provided at signalized intersections, side roads and select locations.
- Right-in/right-out movements allowed at unsignalized side roads and driveways with u-turn operation supported and designed at signalized intersections.
- Signalization maintained and a potential additional traffic signal at the intersection of Columbia Avenue and Confederate Drive will be studied.
- Mainline, side road, and driveway travel time and delay all expected to improve.
- Expected crash rates and severity anticipated to be reduced from the five-lane concept.
- Additional bicycle and pedestrian facilities included.



# Columbia Avenue

Widening & Improvements Project

## ROUNDAABOUT CONCEPT



## SUMMARY

- Existing traffic signals and key intersections replaced with multi-lane modern roundabouts. Two travel lanes in each direction provided between intersections separated by a narrow median.
- Right-in/right-out movements allowed at side roads and driveways between roundabouts with u-turn operation supported and designed at each roundabout.
- Mainline, side road, and driveway travel time and delay all expected to significantly improve with crash rate and severity for all users expected to be reduced.
- Cross section and expected right-of-way impacts between intersections reduced.
- Multi-use path and sidewalks for bicycle and pedestrian facilities with increased pedestrian facilities at major intersections and roundabouts.