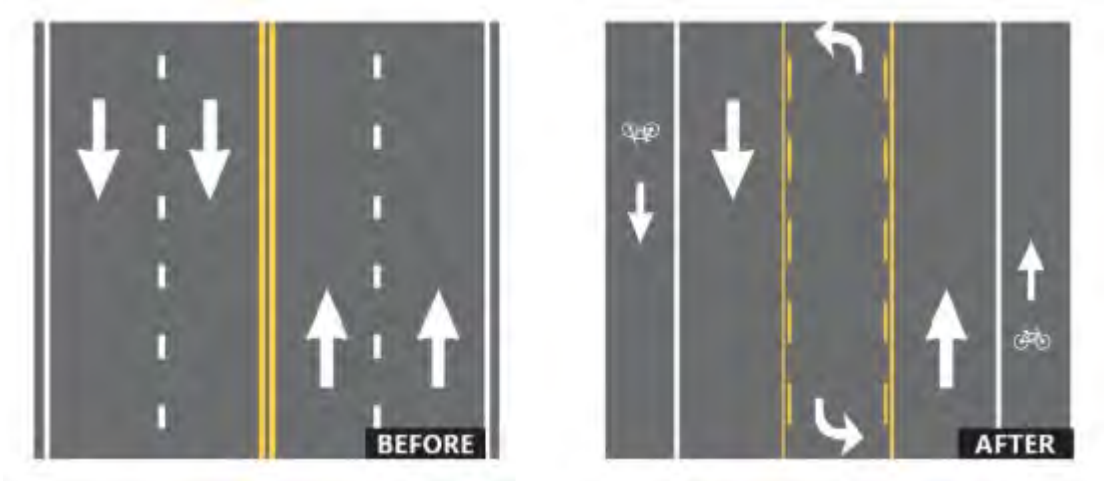
NAPA VALLEY TRANSPORTATION AUTHORITY

ROAD RECONFIGURATION PROJECTS

LESSONS FROM WASHINGTON, DC DDOT

PRESENTED TO NVTA TAC, MAY 1, 2025

Background: Roadway Reconfigurations



Roadway Reconfigurations typically involve converting an existing 4-lane undividied roadway to a three-lane roadway with two through lanes and a center two-way left turn lane.

While the term “Road Diet” has often been used to describe these projects, “Roadway Reconfiguration” is generally preferred to avoid inadvertently biasing public perception by framing as a negative tradeoff.

Source: FHWA, including materials subsequently removed from publication.

Applicability & Example Projects

Volumes:

- Typically implemented on roadways with current/future ATD of ≤25,000

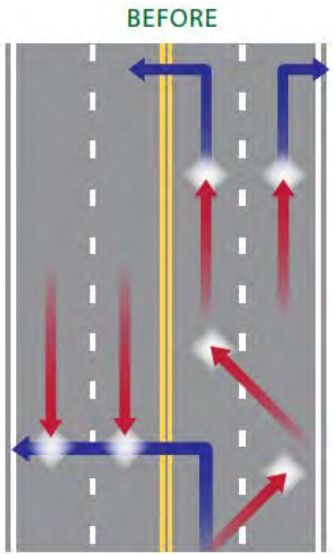
Regional Examples:

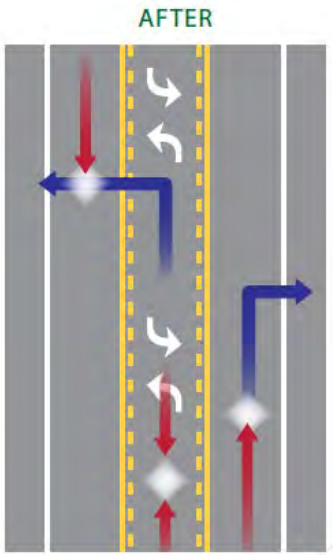
- Broadway, Town of Sonoma
- Cesar Chavez St, San Francisco
- El Camino Real, San Mateo & Millbrae

Pilot Programs:

- Steele Lane Elementary, Santa Rosa

Safety Benefits





Before
A fire truck struggling to find a path.

After
An easily navigable two-way left-turn lane.

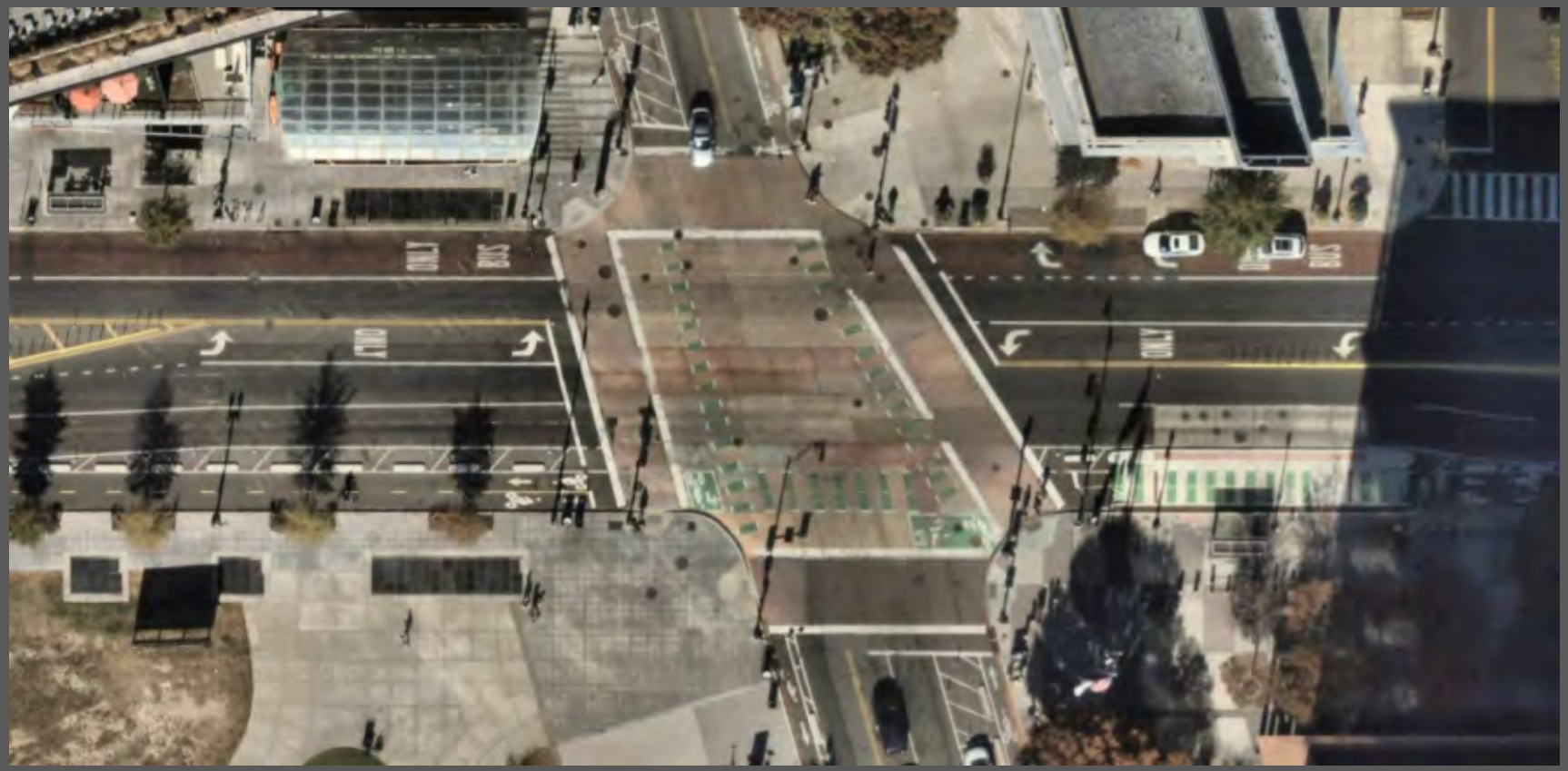
FHWA Proven Safety Countermeasure

- 19-47% reduction in total crashes*
- Reduction of rear-end and left-turn crashes due to dedicated left turn
- Reduced right-angle crashes as side-street motorists cross 3 vs 4 lanes
- Fewer conflict points for pedestrians crossing roadway
- More consistent vehicle speeds

*Based on 4-Lane to 3-Lane Conversion

Source: FHWA, including materials subsequently removed from publication.

DISTRICT DEPARTMENT OF TRANSPORTATION



Saving Lives with Roadway Reconfigurations

Public Perception vs Real Results

PAUSE COLUMBIA ROAD BUS PRIORITY PROJECT

422 people have signed this petition. **Add your name now!**

Peter Crawford 185 Comments

PETITION TO PAUSE AND RECONSIDER COLUMBIA ROAD BUS PRIORITY PROJECT

We, the undersigned residents, businesses, and community organizations of Adams Morgan petition the Mayor, DDOT, City Council, and ANC-01-C to immediately pause and reconsider the "Columbia Road Bus Priority Project" because its design endangers pedestrians, cyclists, bus riders, and drivers.

Specifically:

- **Public safety will be Impaired**: Residents and visitors alike, especially seniors and less able people, will be endangered every time they step off a sidewalk, by speeding cyclists, narrower parking lanes and narrower travel lanes. Pedestrian islands are not needed or safe.

SIGN THIS PETITION

422 people have signed. Add your voice!

43%

Marc Smitz signed recently

Name*

Email*

Comments

Show my name in the online signature list

Keep me informed on this and similar petitions

SIGN PETITION

Petition created by unhappy community members

G Street NW

G Street NW (Virginia Ave to 17th Street)

Before: **March 2018 to February 2020**
After: **March 2021 to February 2024**

DATA SOURCES:
Crash Data: TARAS
Pedestrian and Bicycle Volume Data: DDOT

G Street NW (Virginia Ave to 17th Street)

PROJECT GOALS

In August 2020, DDOT completed the G Street NW Multimodal Safety Project. The goal of this project was to **improve safety for all roadway users along the corridor** by

- Decreasing vehicle speeds,
- Providing separated bicycle facilities, and
- Improving visibility for pedestrians at intersections.

Six months after construction was completed, DDOT began collecting data to evaluate if the project achieved the goals identified.

Before: **March 2018 to February 2020**
After: **March 2021 to February 2024**

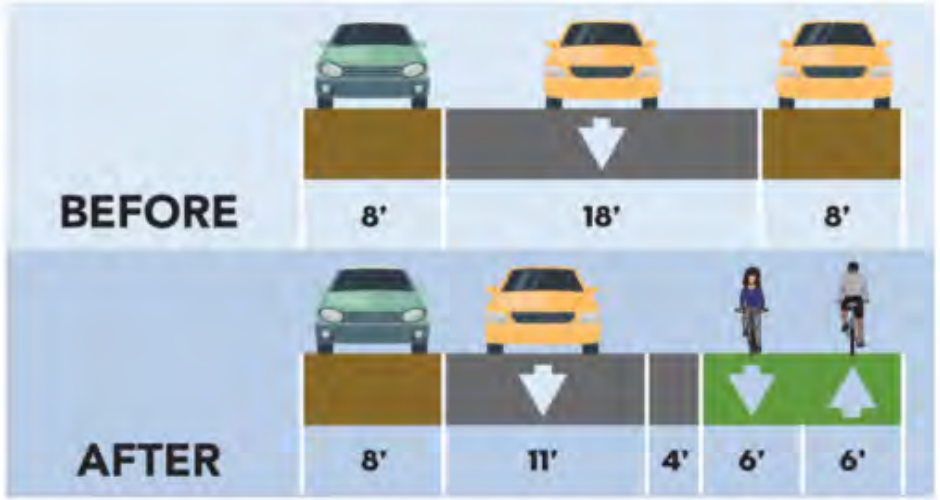
DATA SOURCES:
Crash Data: TARAS
Pedestrian and Bicycle Volume Data: DDOT

G Street NW (Virginia Ave to 17th Street)

PROJECT ATTRIBUTES

The redesign of G Street NW included the following items:

- **Adding 0.7 mile of a two-way protected bicycle** facility connecting existing Rock Creek Trail to GW campus and Downtown DC
- **Improving 8 intersections for pedestrian** including daylighting and adding accessible pedestrian signals (APS) at all 8 intersections
- **Striping existing travel lanes** to better delineate roadway space without reducing travel lanes



PEDESTRIAN & BICYCLE VOLUMES

+16% +183%

CRASH RESULTS PER 100 DAYS

72% reduction in all crashes

60% reduction in injury crashes

92% reduction in pedestrian crashes

After the installation, it takes an average of about **60 fewer seconds** for people to drive the corridor during rush hour.

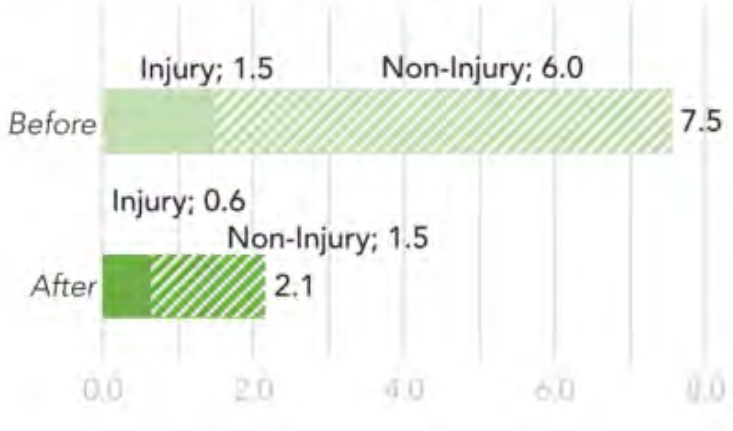
G Street NW (Virginia Ave to 17th Street)

CRASHES

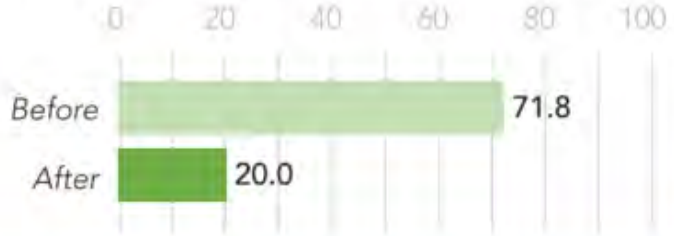
CRASH RESULTS PER 100 DAYS:

- **All crashes** reduced by 50%
- **Injury crashes** reduced by 60%
- **Property Damage Only (PDO) crashes** reduced by 75%
- **Pedestrian injury crash rate** reduced by 86%
- **All pedestrian crash rate** reduced by 92%

CRASH RATE PER 100 DAYS



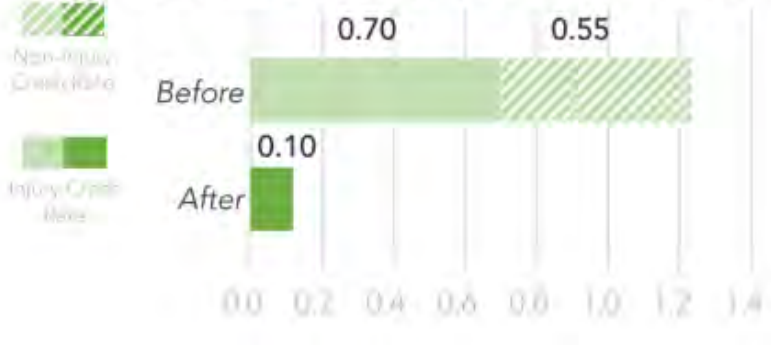
CRASHES PER MILLION ENTERING VEHICLES (MEV) reduced by 72%



COLLISION RESULTS PER 100 DAYS:

- **Side swipe** reduced by 82%
- **Rear end** reduced by 87%
- **Parked vehicle** reduced by 73%
- **Left turn** reduced by 67%
- **Backing vehicle** reduced by 60%

PEDESTRIAN CRASHES PER 100 DAYS



CRASHES BY COLLISION TYPE PER 100 DAYS

G Street NW (Virginia Ave to 17th Street)

VEHICULAR SPEED AND TRAVEL TIME

The before travel time and speed data were collected in 2019 while the after travel time and speed data were collected in 2023. Peak hour was collected on Tuesdays to Thursday.

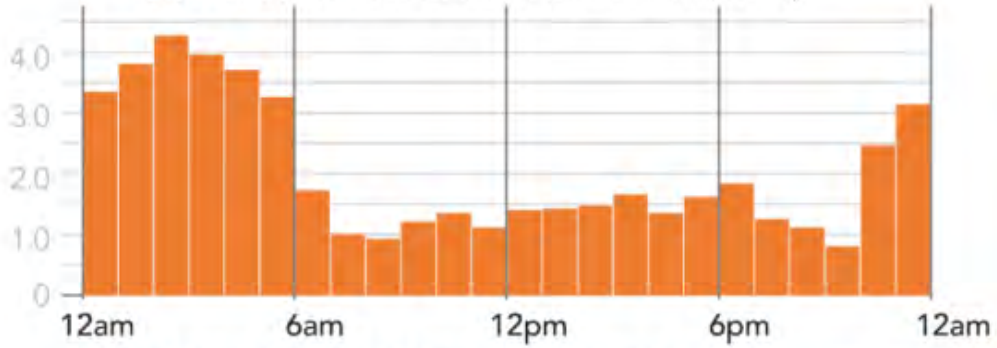
AVERAGE VEHICLE SPEED DURING PEAK PERIOD

	Westbound	Eastbound
AM	▲ 13%	*n/a*
PM	▲ 22%	*n/a*

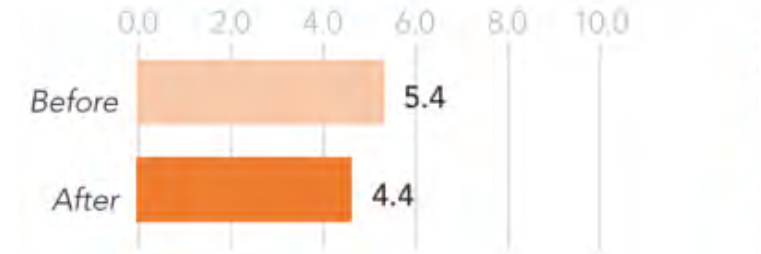
AVERAGE TRAVEL TIME DURING PEAK PERIOD

	Westbound	Eastbound
AM	▼ 11 sec	*n/a*
PM	▼ 12 sec	*n/a*

AVERAGE HOURLY CHANGE IN SPEED
COMPARING BEFORE AND AFTER (MPH)



AVERAGE PEAK HOUR TRAVEL TIME
WESTBOUND (MINUTES)



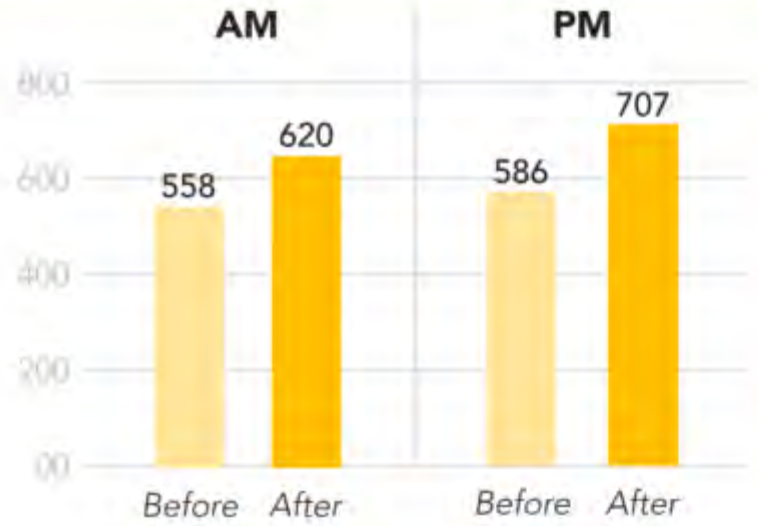
Speeds along the corridor saw an average increase of approximately 2 mph. The increased clarity in lane designation may be a contributing factor to more comfort along the roadway. Separating cyclists from vehicles and marking bays makes the corridor more efficient for vehicles.

G Street NW (Virginia Ave to 17th Street)

PEDESTRIAN & BICYCLE VOLUMES

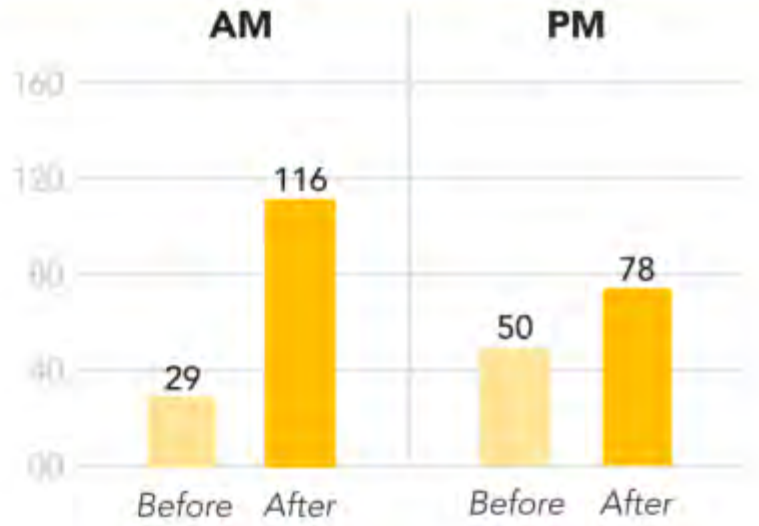
AVERAGE PEAK HOUR PEDESTRIAN VOLUMES

- ▲ 11% increase during AM peak period
- ▲ 21% increase during PM peak period



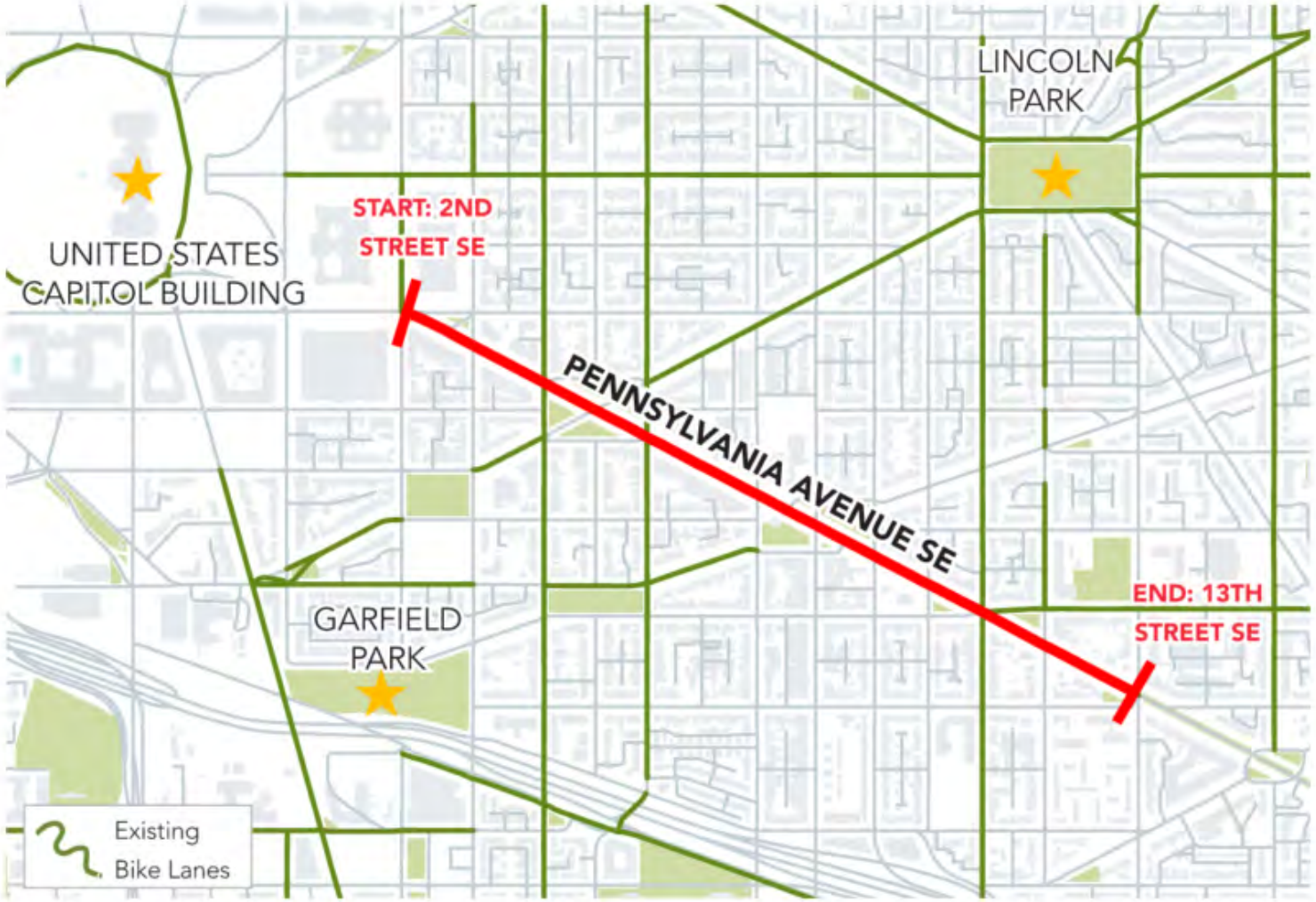
AVERAGE PEAK HOUR BICYCLE VOLUMES

- ▲ 307% increase during AM peak period
- ▲ 58% increase during PM peak period



Pennsylvania Avenue SE

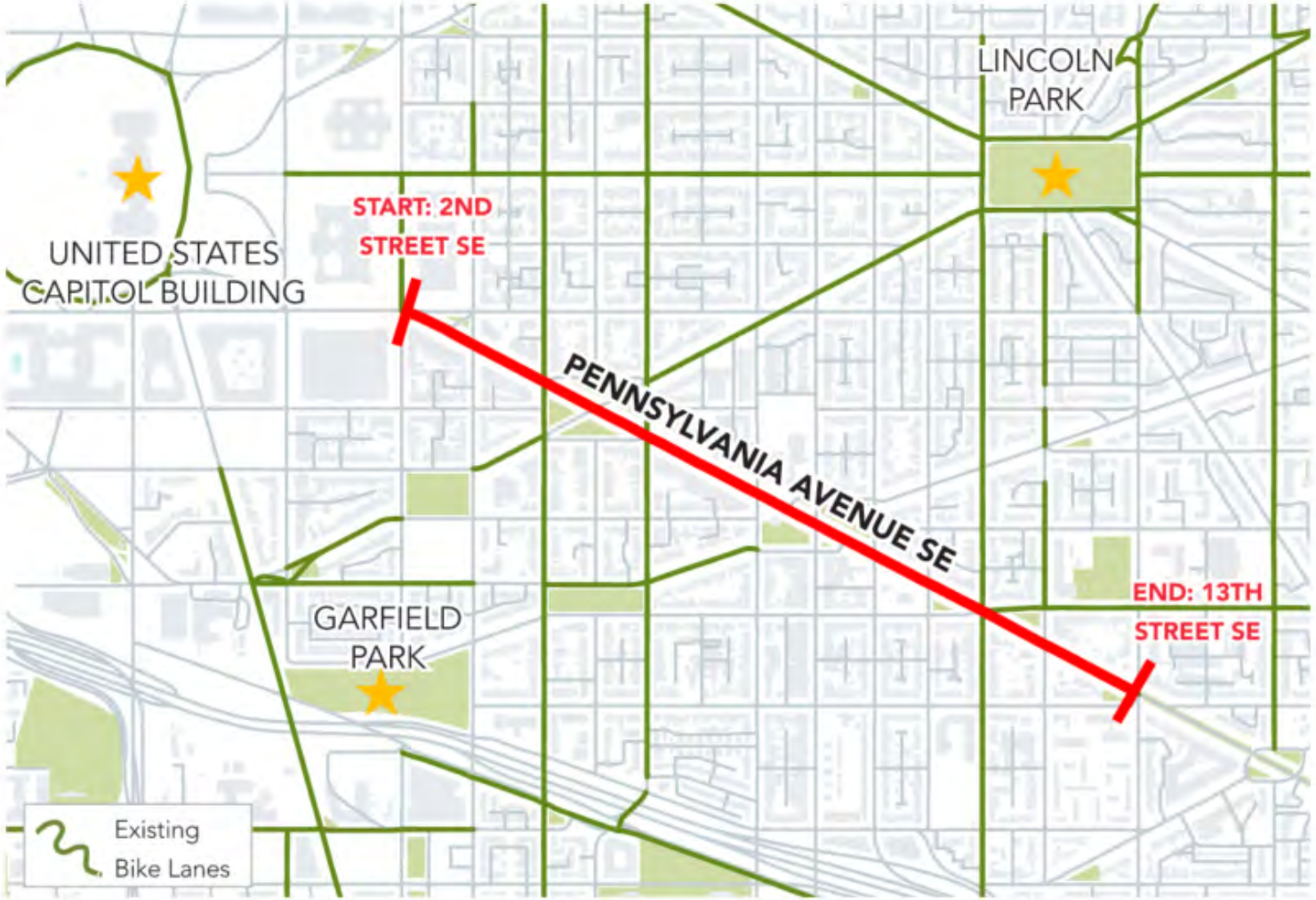
Pennsylvania Ave SE (2nd Street to 13th Street)



Before: **June 2018 to May 2022**
After: **May 2024 to August 2024**

DATA SOURCES:
Crash Data: TARAS
Pedestrian and Bicycle Volume Data: DDOT

Pennsylvania Ave SE (2nd Street to 13th Street)



PROJECT GOALS

In October 2023, DDOT completed the Pennsylvania Avenue SE Multimodal Safety Project. The goal of this project was to **improve safety for all roadway users along the corridor** by

- Increase bus efficiency,
- Providing separated bicycle facilities, and
- Improving visibility for pedestrians at intersections.

Six months after construction was completed, DDOT began collecting data to evaluate if the project achieved the goals identified.

Before: **June 2018 to May 2022**
After: **May 2024 to August 2024**

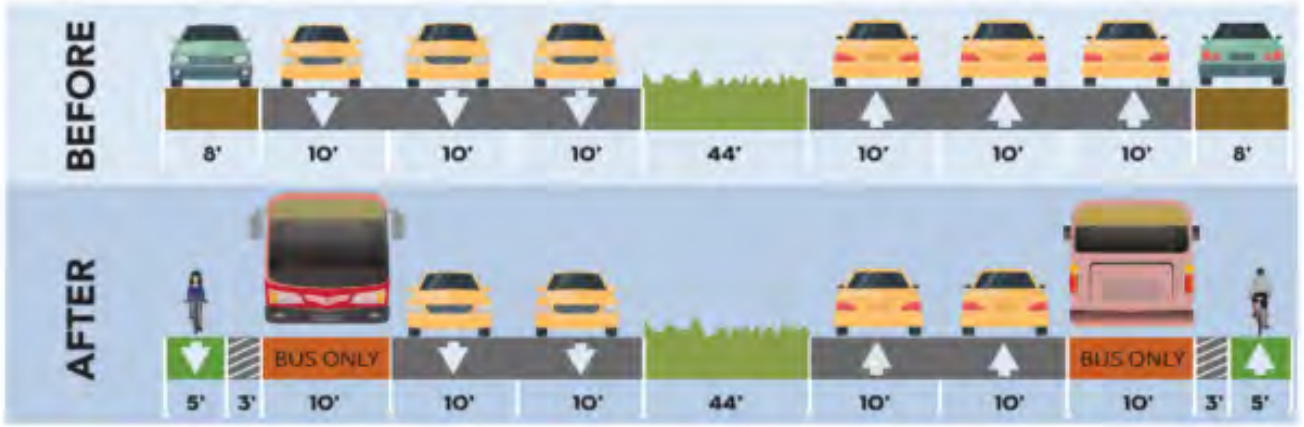
DATA SOURCES:
Crash Data: TARAS
Pedestrian and Bicycle Volume Data: DDOT

Pennsylvania Ave SE (2nd Street to 13th Street)

PROJECT ATTRIBUTES

The redesign of Pennsylvania Avenue SE included the following items:

- **Adding .9 miles of protected bicycle** facilities connecting the Capitol Hill neighbod and commercial corridors.
- **Improving 12 intersections for pedestrian** including daylighting.
- **Installed 2 peak-hour bus lanes** to increase bus efficiency during morning and evening rush hour.
- **Maintained off peak parking lanes** to accommodate commercial needs.



** bus efficiency results are pending data from WMATA

PEDESTRIAN & BICYCLE VOLUMES

+53%

+341%

CRASH RESULTS PER 100 DAYS

32% reduction in all crashes

56% reduction in injury crashes

100% reduction in pedestrian crashes

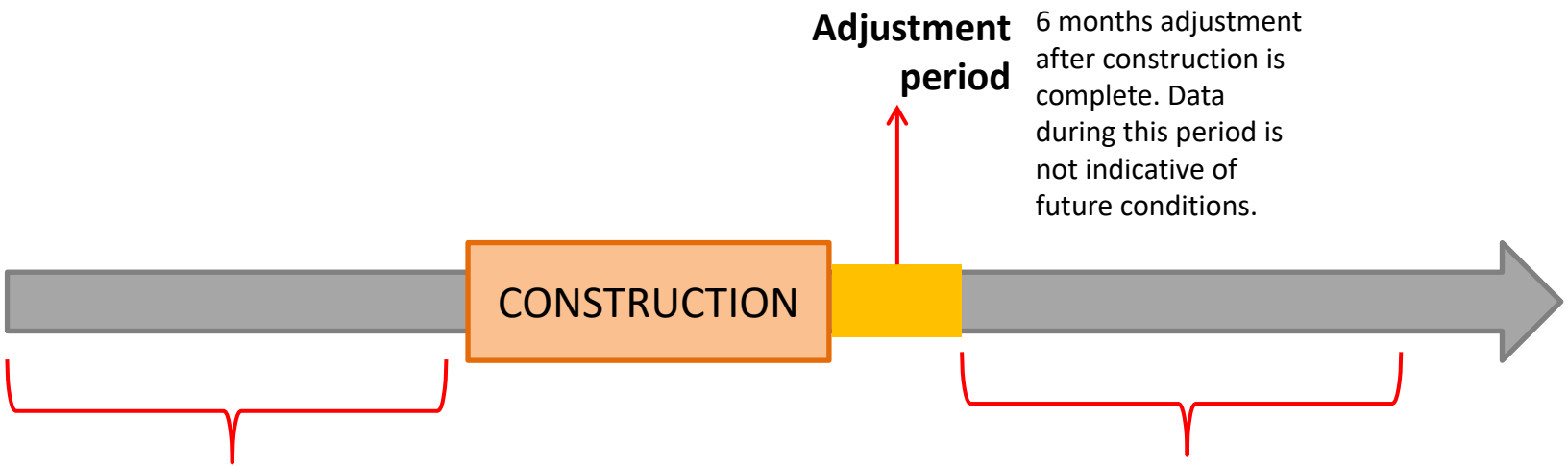
After the installation, it takes an average of about

48 fewer seconds

for people to drive the corridor during rush hour.

Project Evaluation

Methodology & Data Timeline



"before" data collection
Up to 3 full years, accounting for seasonality and data anomalies (COVID, etc)

"after" data collection
A **minimum** of 6 months of after data to be collected before analysis. Recommended at 1 full year to account for seasonality.

Project selection is mainly dictated by this data timeline. Currently projects constructed Fall 2023 or earlier can be analyzed.

Example: Southern Ave SE (Benning Road to Penn Ave SE)

Currently in Design, Construction planned for 2025

Now: Collect before data

Construction finishes September 2025

March 2026 – September 2026: Collect after data

December 2026: *Earliest* Before/After report published

Thank you!

Questions?

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