

Project Purpose and Need

Project Purpose:

- Address deteriorating needs in the pavement structure and median areas
- Address operational issues during weekday peak periods and unexpected congestion



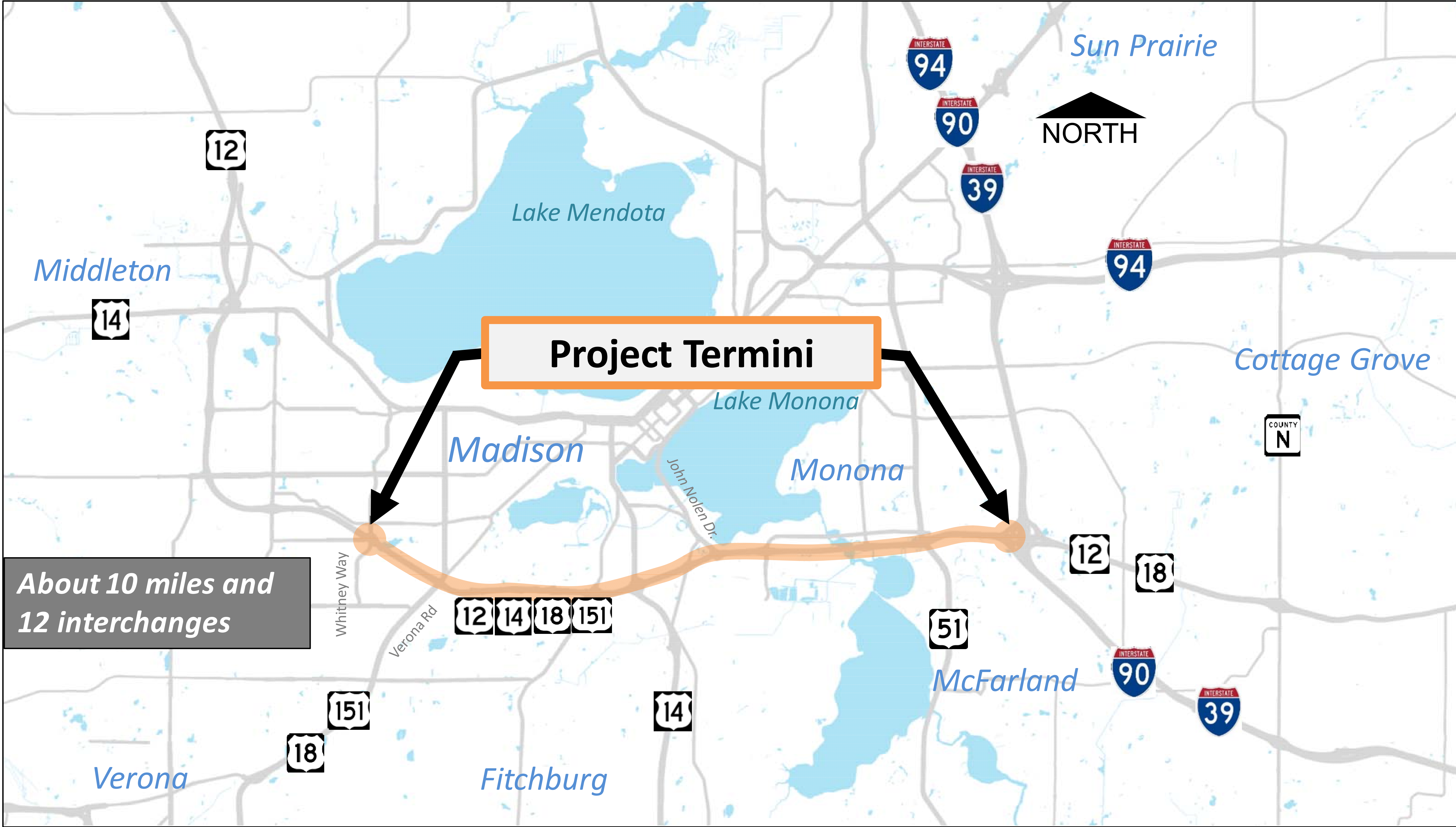
Project Purpose and Need

Project Needs:

- Existing Pavement Condition
- Median Barrier Condition
- Roadway Drainage System
- Operational Issues
 - Crashes
 - Travel Time and Level of Service
 - Travel Time Reliability

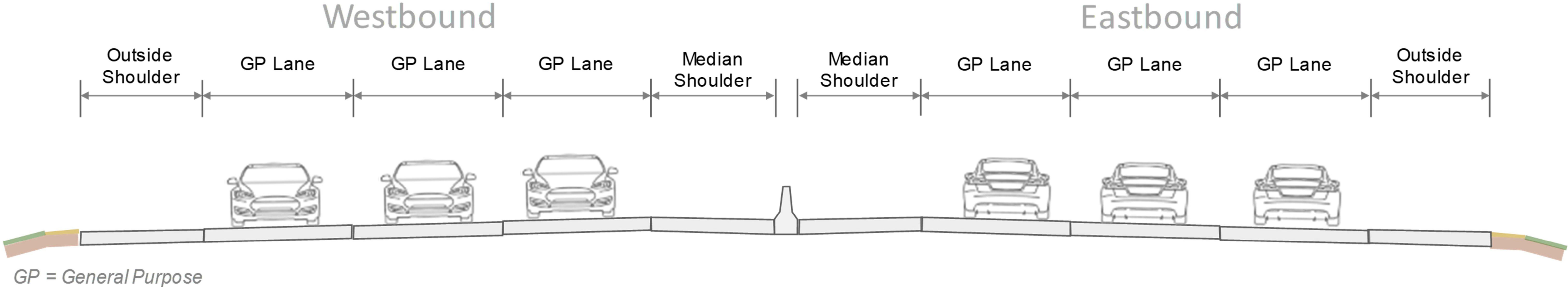


Project Location

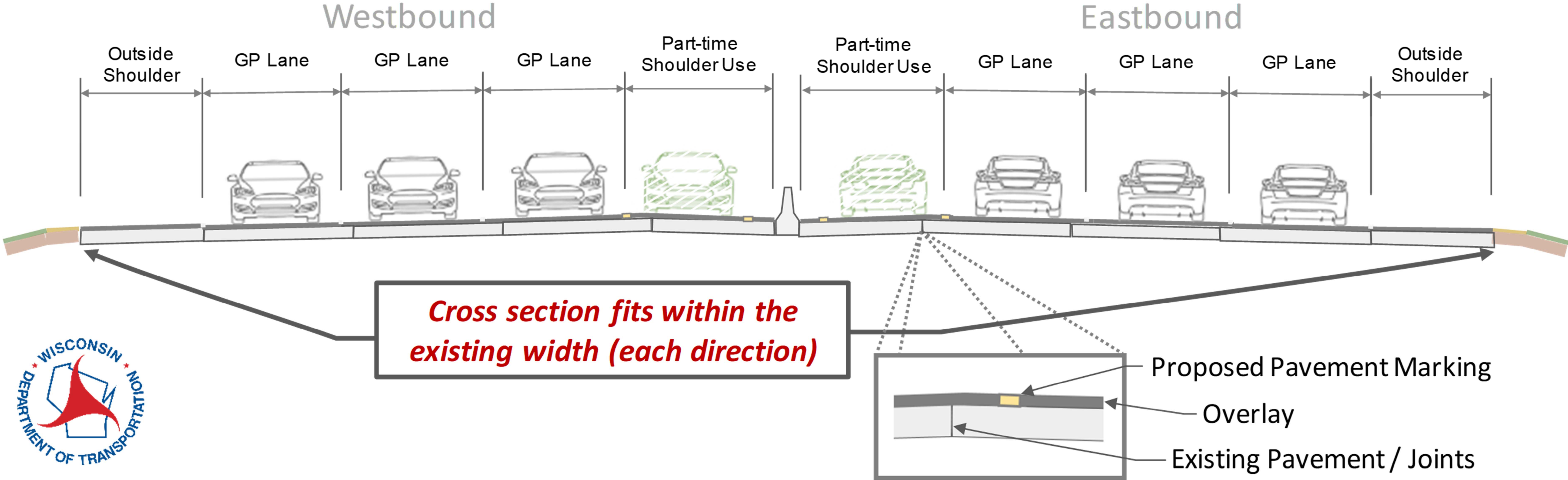


Cross Section

Typical Existing (No-Build) and Resurfacing (Alt 1) Beltline Cross Section



Typical Resurfacing with Dynamic Part-time Shoulder Use (Alt 2) Beltline Cross Section



What is DPTSU?

DPTSU stands for “Dynamic Part-time Shoulder Use”

- Also known as “Hard Shoulder Running”
- Use of shoulders part-time for travel during busiest hours
- Cost-effective interim solution to address recurring congestion
- Can be classified as:
 - A Transportation System Management and Operations Strategy
 - A Performance-Based Practical Design approach, used by FHWA & WisDOT

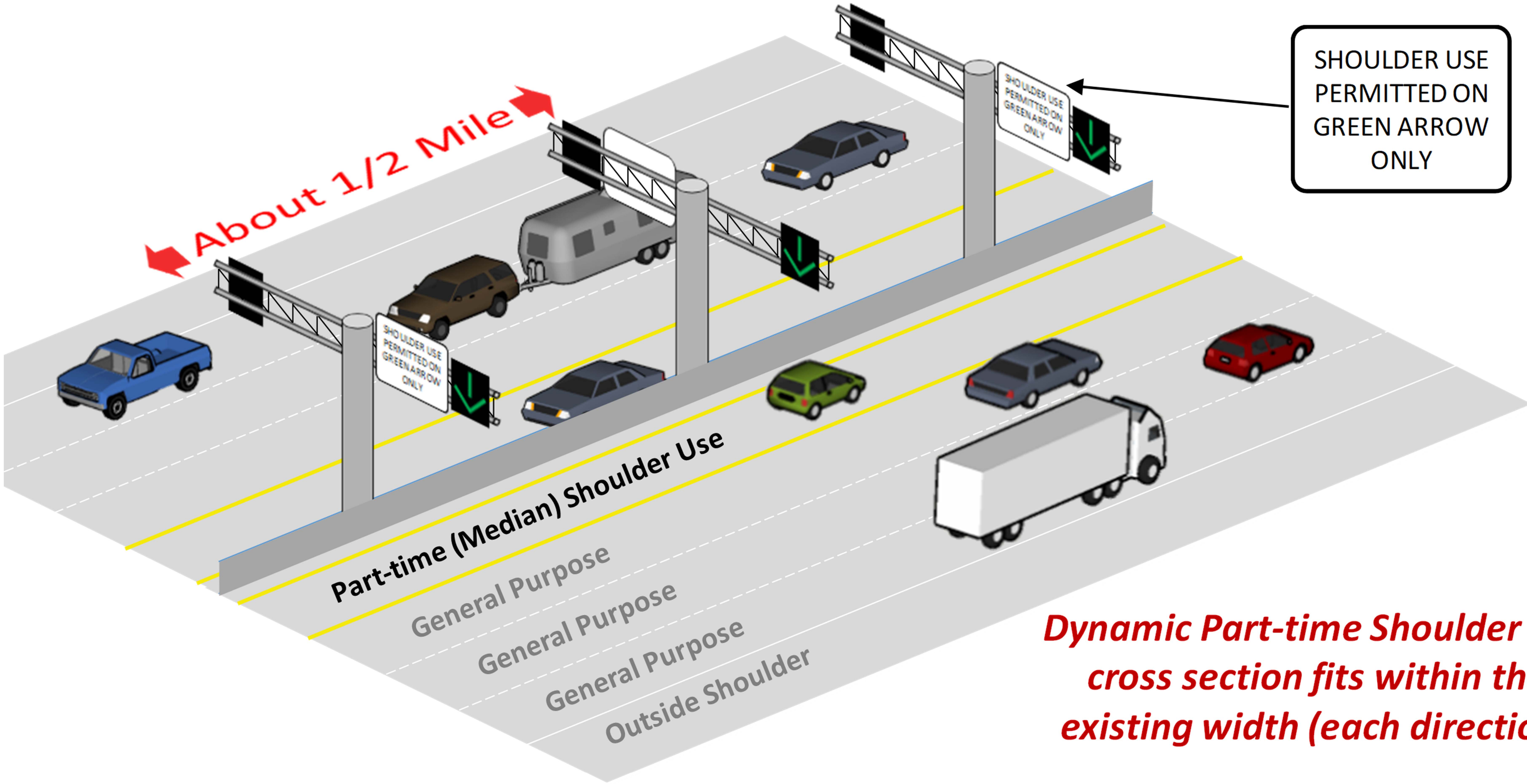


Reference:

<https://ops.fhwa.dot.gov/publications/fhwahop15023/ch1.htm>



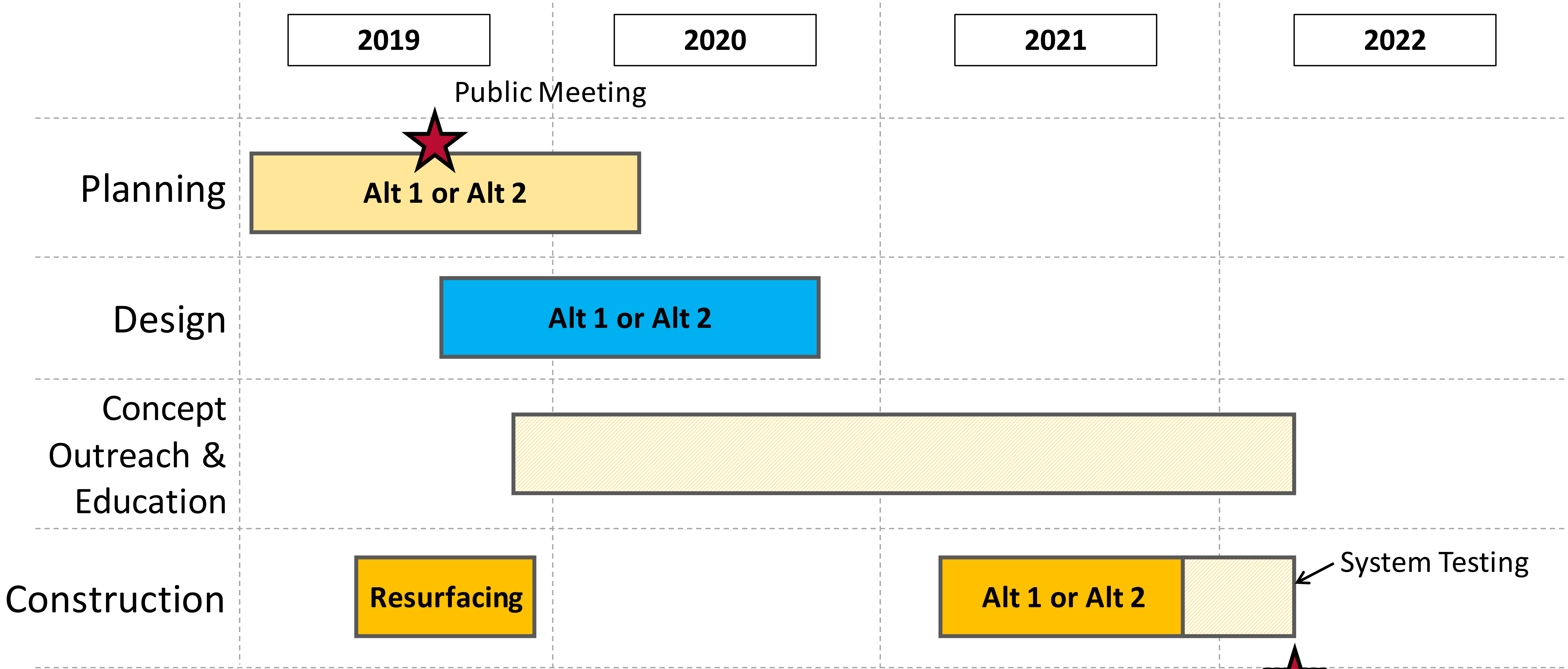
System Overview



Dynamic Part-time Shoulder Use cross section fits within the existing width (each direction)




Project Schedule



Alt 1: Resurfacing
Alt 2: Resurfacing with DPTSU
Note: Alts each include barrier and drainage improvements

 - **Alt 2 Only**

System Testing

 System Operational



Project Alternatives

Alt 1: Resurfacing

Seminole Highway to I-39/90:

- Resurfacing
- Median Barrier Improvements
- Drainage Improvements

Alt 2: Resurfacing with DPTSU

DPTSU = Dynamic Part-Time Shoulder Use

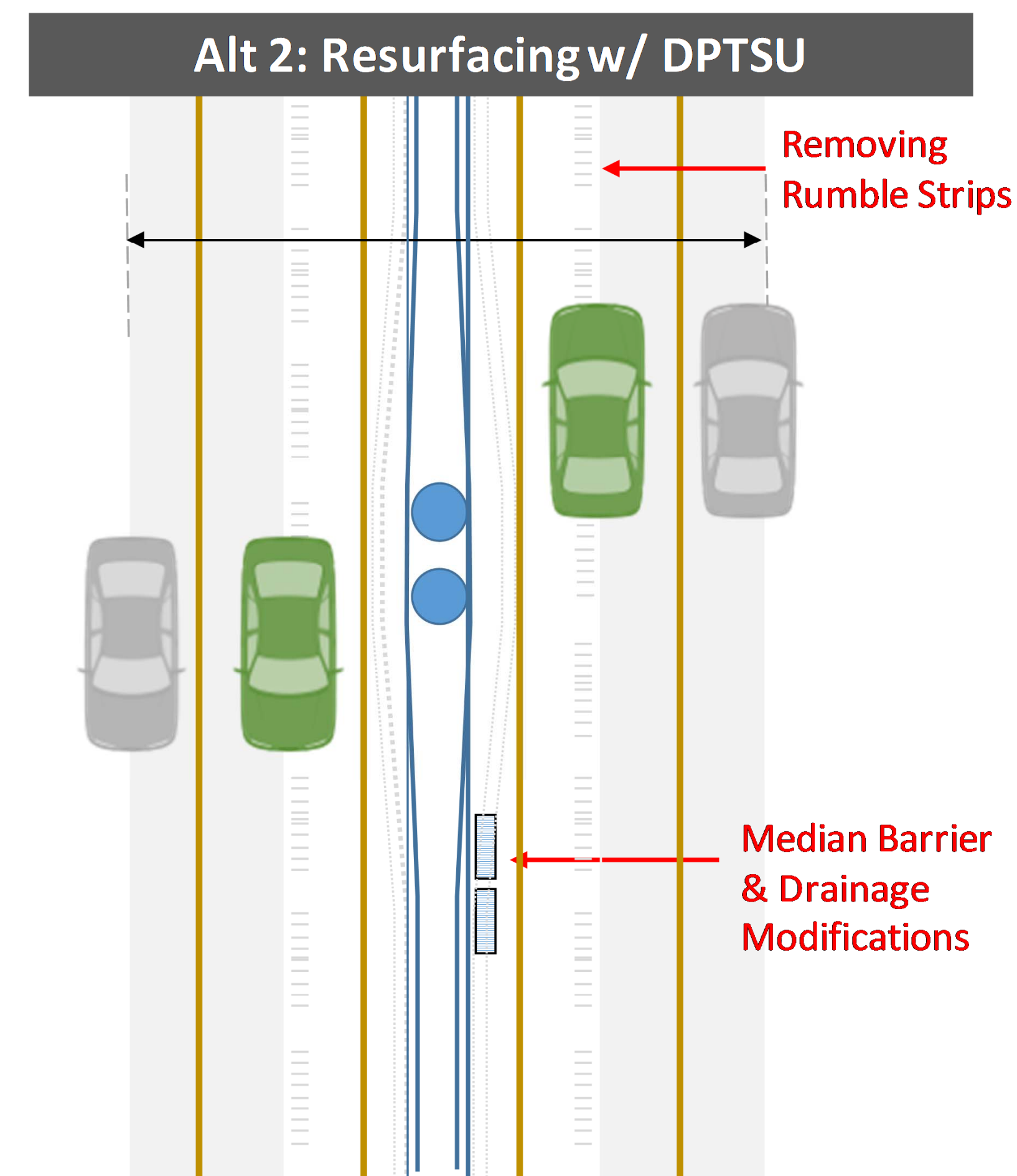
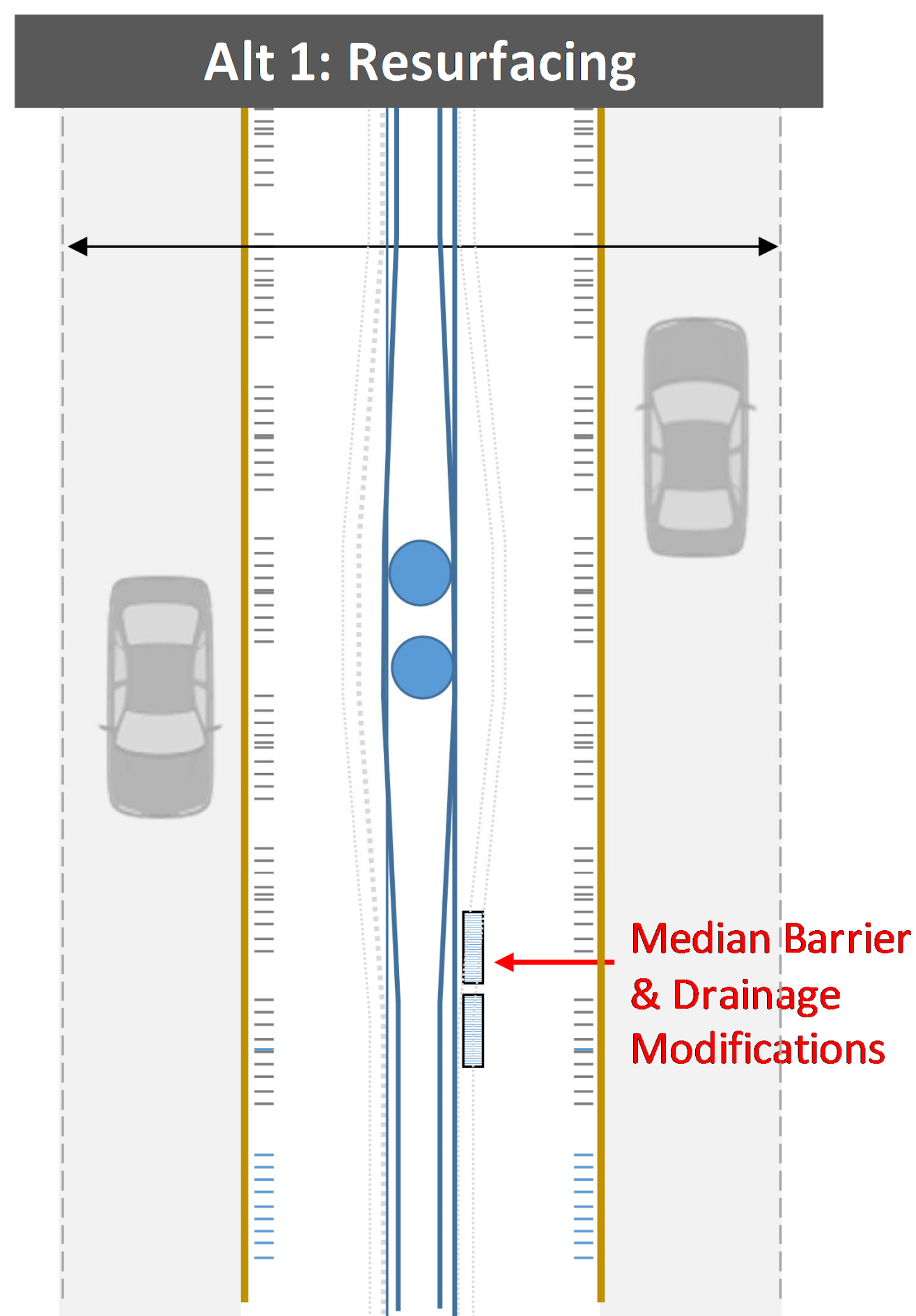
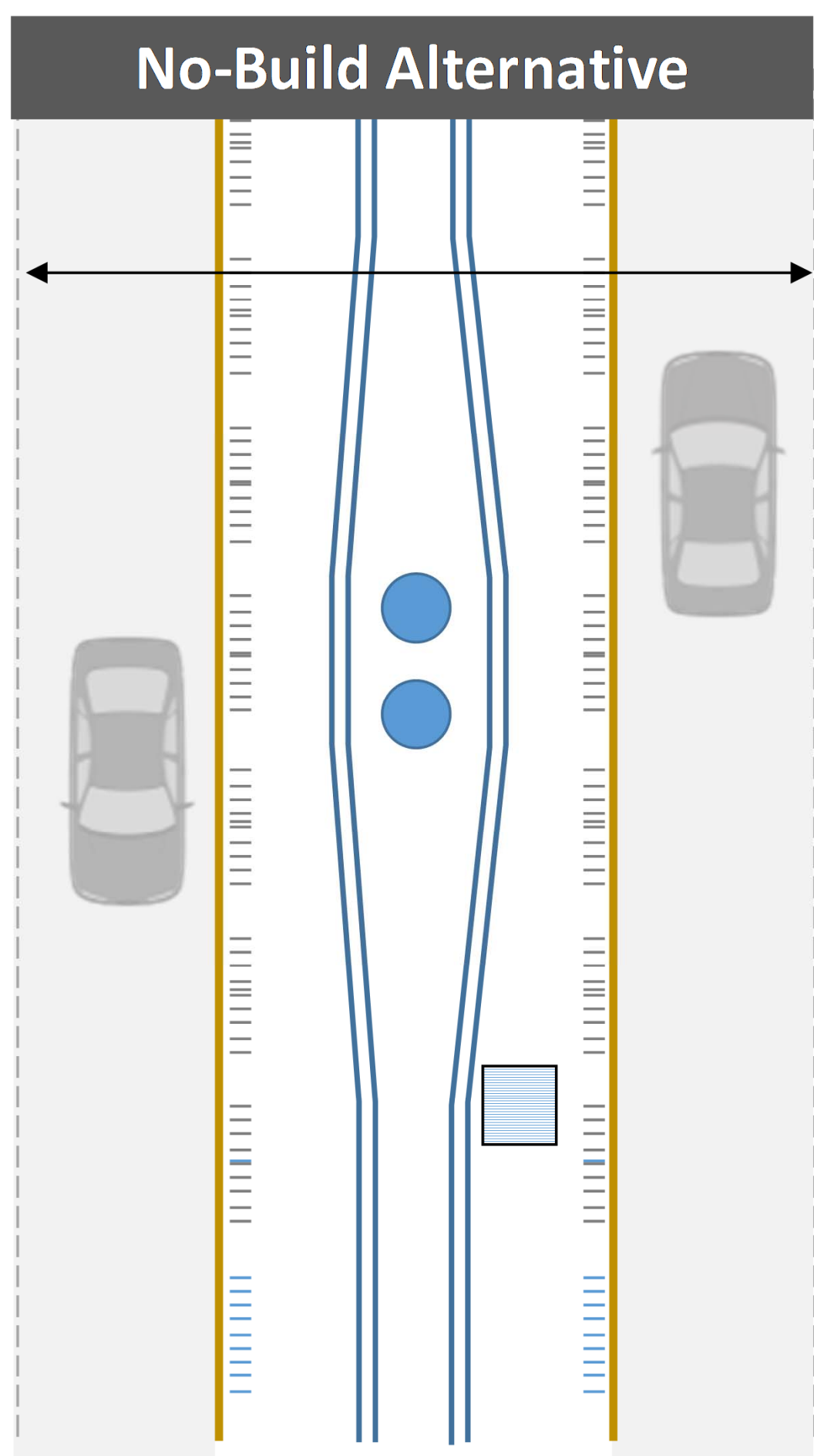
Seminole Highway to I-39/90:

- Resurfacing
- Median Barrier Improvements
- Drainage Improvements

Whitney Way to I-39/90:

- DPTSU Infrastructure and Pavement Restriping

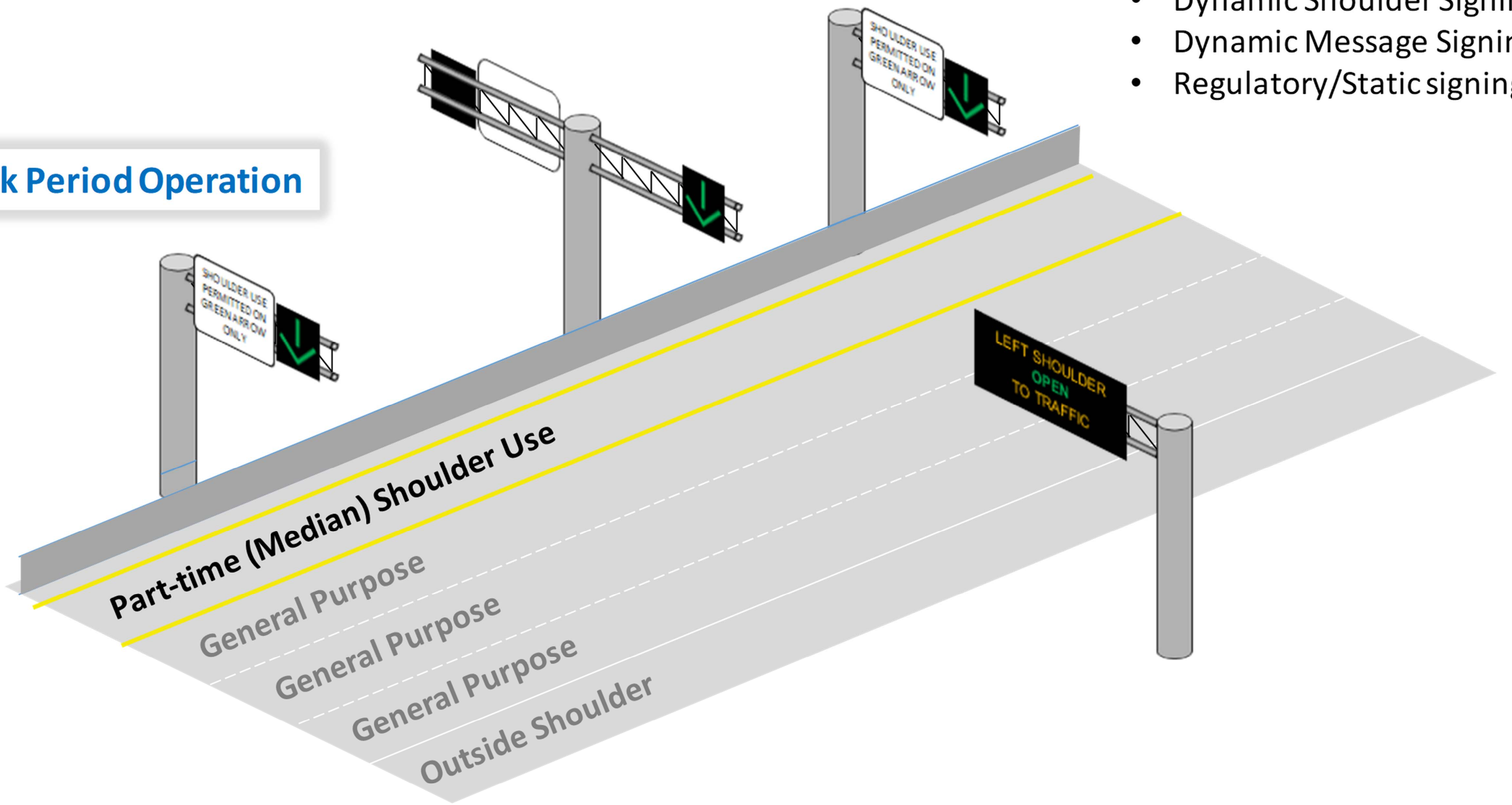
Lane-Usage and Drainage



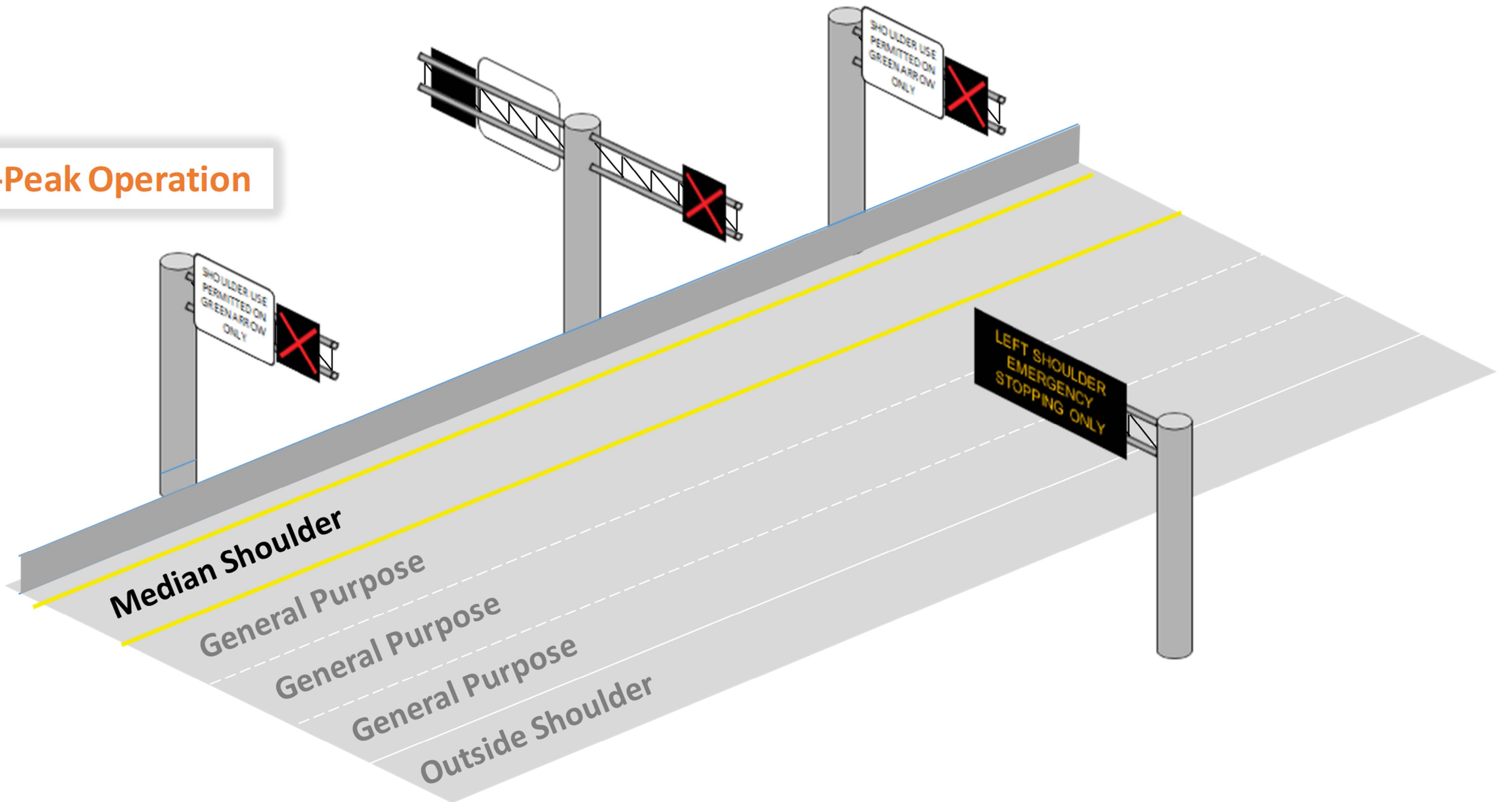
Dynamic Signing

- Dynamic Shoulder Signing
- Dynamic Message Signing
- Regulatory/Static signing

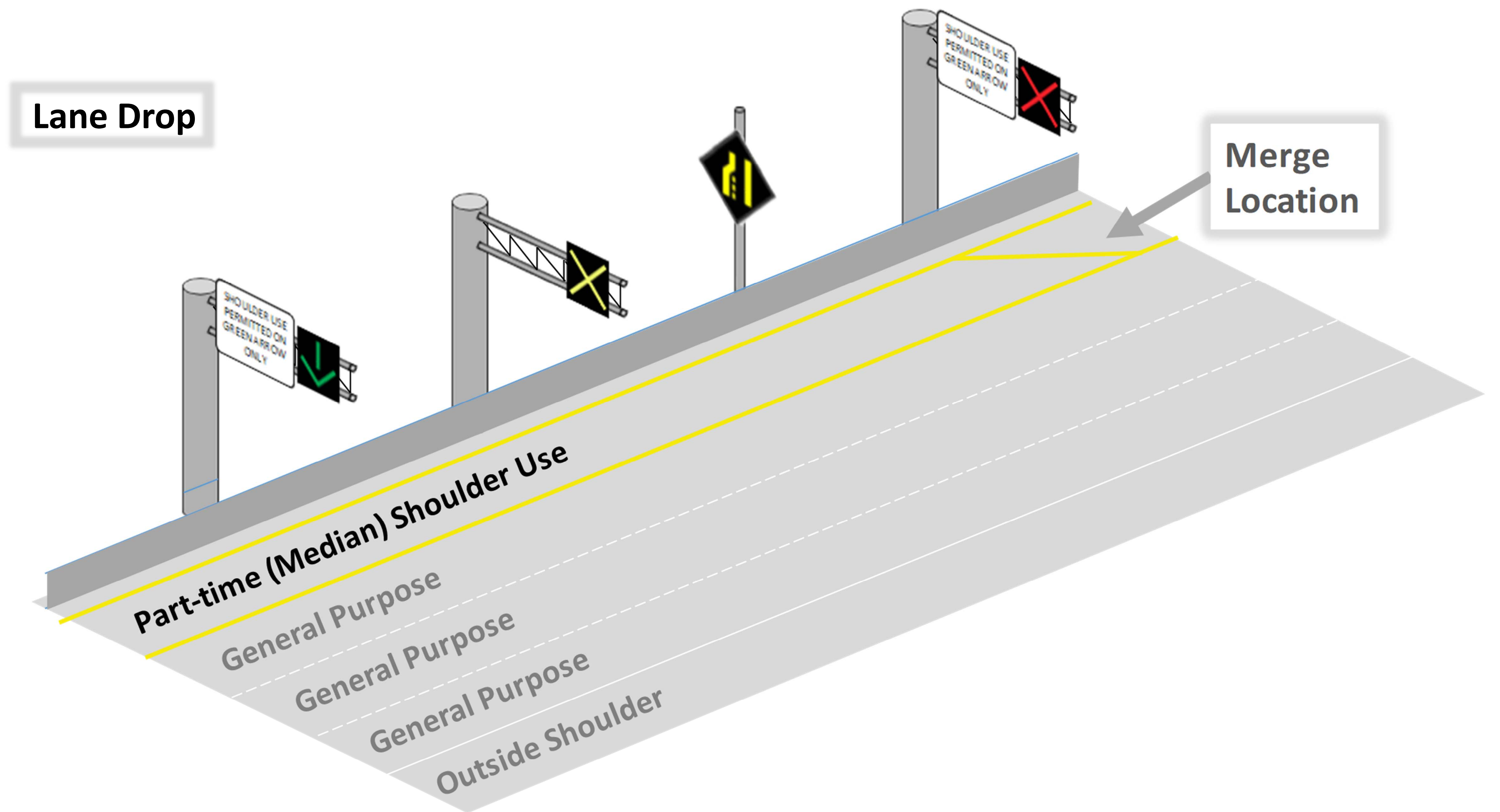
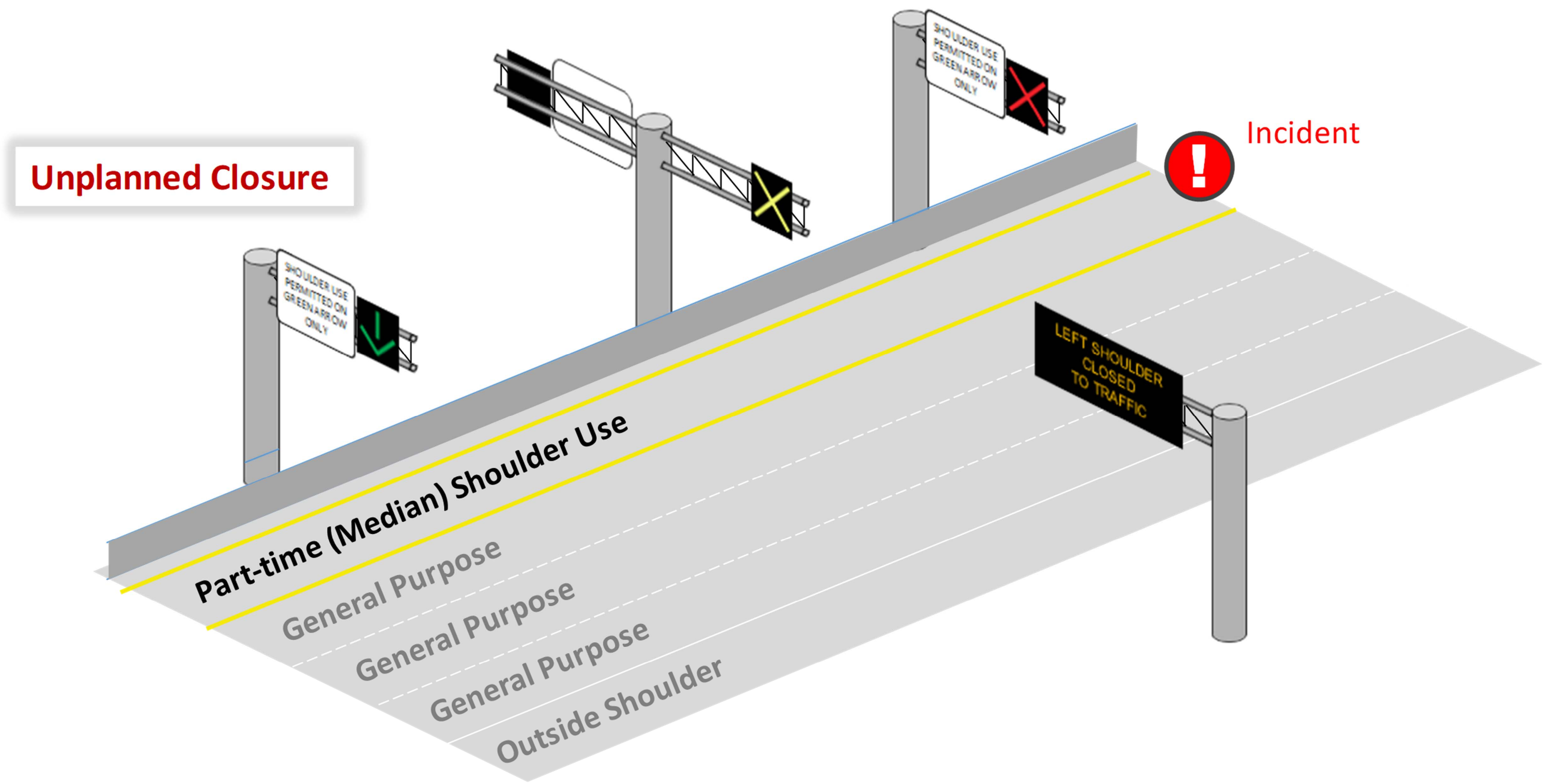
Peak Period Operation



Off-Peak Operation



Dynamic Signing



Note: The sequence of dynamic messages shown is conceptual. These diagrams are for illustrative-purposes only