**Intersection Improvements**

**Traffic Signal Infrastructure**
Install flashing yellow arrow signals, high visibility signal backplates, pre-emption, controller and cabinet upgrades, communication improvements, and mast arm upgrades.

**Traffic Signal Operations**
Modify signal phasing during a detour event, adjust left-turn signal phasing, implement right-turn overlaps, adjust signal displays and/or phasing, optimize signal timing, and install communications to provide remote signal control capabilities.

**Automated Traffic Signal Performance Measures (ATSPM)**
Install ATSPM technology along arterial routes to collect and analyze data and provide performance-based operations as well as implement traffic responsive operations along detour routes during a detour event.

**Signing and Marking**
Install signing and marking enhancements such as “No Turn on Red”, pedestrian warning signs, advisory signs, and static lane control signs.

**Geometric Improvements – see 1 in example figure**
Restripe approach to provide additional turning lanes, install turn lanes, extend/restripe turn lanes, and construct limited sections of widening.

**LED Blank Out Signs – see 2 in example figure**
Install LED Blank Out signs to temporarily adjust lane assignments or restrict turning movements. This may require modifications to signal phasing and operations during a change in lane assignments. Install LED Blank out signs to temporarily adjust lane assignments or restrict turning movements when volumes or demand changes due to detouring of traffic or other special event.

**Arterial Improvements**

**Detour Route Guidance**
Install pavement markings (e.g. route shield) and post mounted guide signs to direct traffic to/from I-95, install warning signs (e.g. curve, intersection) where crash patterns exist.

**Access Management – see 3 in example figure**
Consolidate driveways, install raised medians or centerline barrier devices, and implement turn restrictions to reduce.

**Changeable Message Signs (CMS)**
CMS inform drivers of incident conditions ahead, and can be used to help manage detours.

**CCTV Cameras**
Detect incidents and provide visual verification and situational awareness of incidents on arterial routes that helps facilitate improved emergency response.

**EXAMPLE** Arterial Incident Plan for Detour Route

- **Limited widening westbound for auxiliary lane**
- **Northbound Incident**
- **Incident**
- **No Incident**

*Example detour route is provided for illustrative purposes only and elements of the route may change.*

**LEGEND**
- Incident Detour Route
- Existing Traffic Signal
- Changeable Message Sign
- Variable Lane Control
- LED Blank Out Signs

**Install centerline barrier (flexible posts or raised median)**

**Restrict left turns at driveway**

**US 1 at Featherstone Road, looking north**