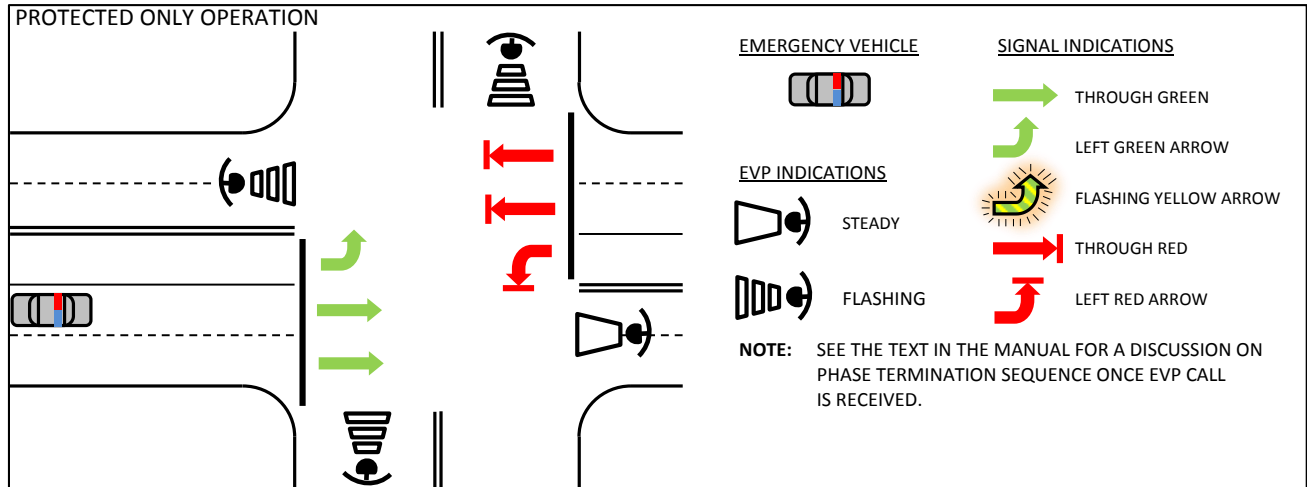


## EVP Preemption Operation under FYA

### A. Protected-only Operation

- When the FYA is not allowed (protected only), the pre-emption will bring up the protected left turn and the adjacent through phase. The opposing FYA will not be allowed during preemption (refer to **Exhibit 1**).

**Exhibit 1 Emergency Vehicle Preemption: Protected-Only Operation**



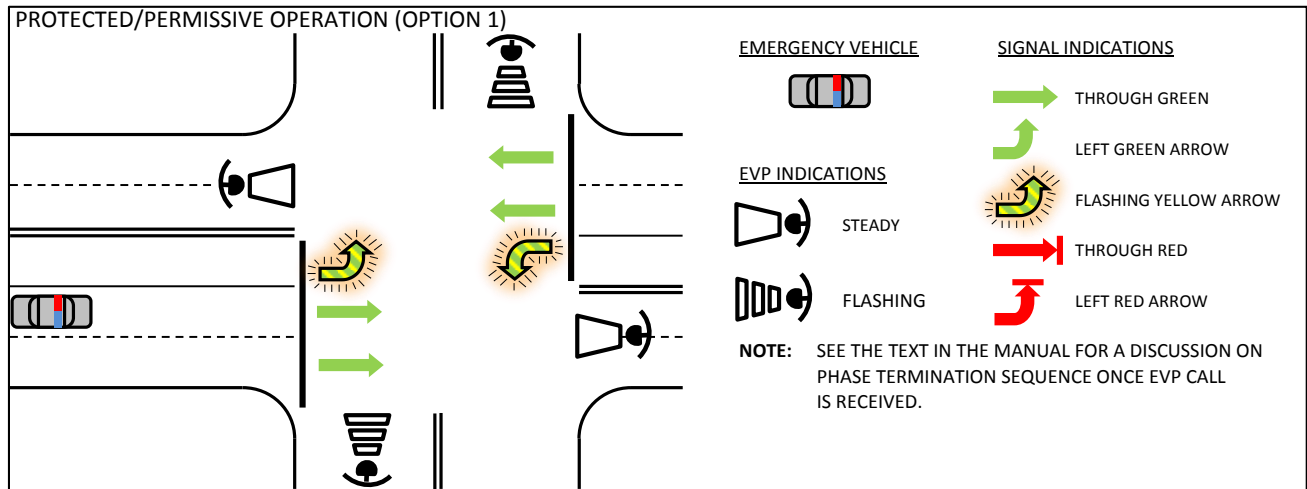
### B. Protected/Permissive Operation (Note: Permissive operation is the same as protected/permissive operation for preemption as permissive operation is just a subset of protected/permissive operation.)

There are currently two options for running pre-emption under protected/permissive operation and the option is left up to emergency-vehicle preference based on their most common response routes.

The current two options for preemption for Protected/Permissive operation:

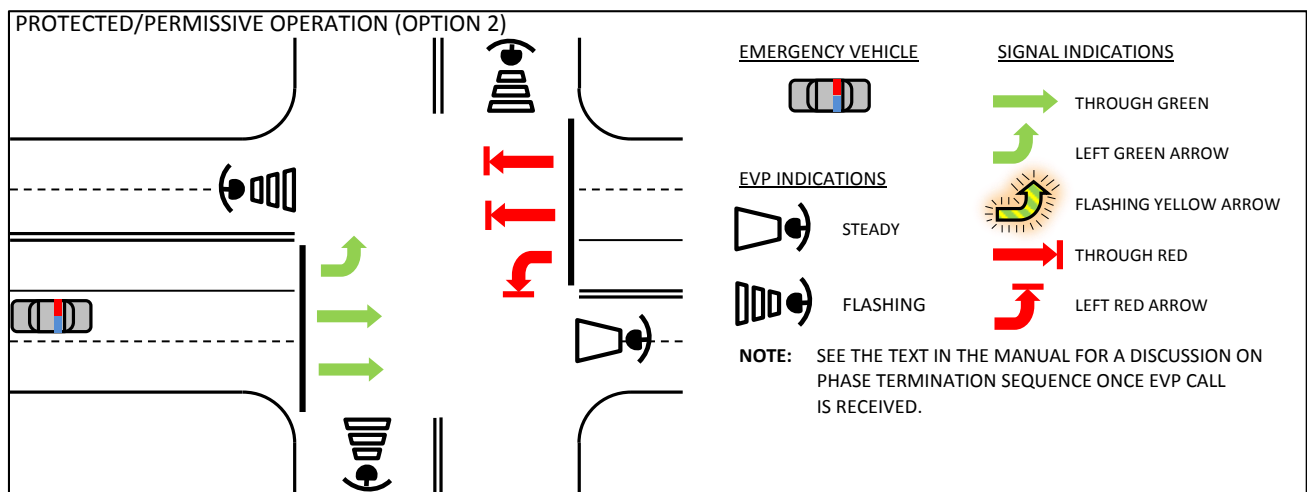
- Don't Terminate Through Phases (preempt on through phases, FYA on, i.e. no protected left turn phases) - Refer to **Exhibit 2**.
  - If the through phases in the direction of the emergency vehicle (EV) are green and lefts are in FYA, pre-empt keeps the throughs and FYAs on.
  - If the through and left in the direction of the EV are green, terminate the left and bring up the opposing through and operate the lefts in FYA.
  - If the side street throughs are green, a preempt on the main street terminates the side street and brings up the main street throughs and FYAs.

**Exhibit 2 Emergency Vehicle Preemption: Protected/Permissive Operation (Option 1)**



2. Terminate Both Through Phases (FYA off) –Refer to [Exhibit 3](#).
  - a) If the through phases in the direction of the EV are green and lefts are in FYA, pre-empt terminates both through phases, and brings the through and left green arrow for the direction of the EV (FYA off for opposing left turn).
  - b) If the left green arrow and through phase in the direction of the EV are green, pre-empt the left green arrow and through phase and then brings up this same green arrow and through phase (FYA off for opposing left turn).
  - c) If the left green arrow and through phase in the opposing direction of the EV are green, pre-empt terminates the left green arrow and through phase and brings up the opposing (EV direction) left green arrow and through phase (FYA off for opposing left turn).
  - d) If the side-street is green, a pre-empt on the main street terminates the side-street phases and bring up the left green arrow and through in the direction of the EV (FYA off for opposing left turn).

**Exhibit 3 Emergency Vehicle Preemption: Protected/Permissive Operation (Option 2)**



An additional Third Option with a FYA head while running lagging lefts during prot/permissive or permissive operation is discussed here – Refer to Exhibit 4.

3. Terminate One Through Phase (preempt for through and adjacent left, opposing FYA on)
  - a) If the through phases in the direction of the EV are green and lefts are in FYA, pre-empt terminates opposing through phase, and brings up green arrow and through for the direction of the EV (FYA on for opposing left turn)
  - b) If the left green arrow and through phase in the direction of the EV are green, pre-empt continues the left green arrow and through phase (FYA on for opposing left turn)
  - c) If the left green arrow and through phase in the opposing direction of the EV are green, pre-empt terminates the left green arrow and through phase and brings up the opposing (EV direction) left green arrow and through phase. (FYA on for opposing left turn)
  - d) If the side-street is green, a pre-empt on the main street terminates the side-street phases and bring up the left green arrow and through in the direction of the EV (FYA on for opposing left turn).

**Exhibit 4 Emergency Vehicle Preemption: Protected/Permissive Operation (Option 3)**

