Main Street Operations:

Scenario 1:
Protected left-turns {normally Ø1 & Ø5}
- No trap possible, no special sequence omit necessary
- Preempt settings:
  - Emergency = Ø1+ Ø6 or Ø2+ Ø5
  - Transit = Ø2+Ø6

Scenario 2:
Permissive left-turns using flashing red arrow, current operation
- No trap possible, no special sequence omit necessary
- Preempt settings:
  - Emergency = Ø1+ Ø6 or Ø2+ Ø5
  - Transit = Ø2+Ø6

Scenario 3:
Permissive left-turns (5-section display) both directions {normally Ø1 & Ø5}
- Special sequence omit needed to prevent yellow trap for Ø1 & Ø5
  - Special sequence omit for Ø1 to be set to Ø2
  - Special sequence omit for Ø5 to be set to Ø6
  - OCAL function is available for special circumstances
- Preempt settings:
  - Emergency = Ø2+Ø6
  - Transit = Ø2+Ø6

Scenario 4:
One protected left-turn & one permissive left-turn (5-section display) {Ø1 protected and Ø5 permissive}
- Special sequence omit needed to prevent yellow trap for phase 5
  - Special sequence omit for Ø1 to be set to Ø2
  - OCAL for Ø1 to be set to phase 4 (or the last phase used in Ring 1)
- Preempt settings:
  - Emergency = Ø2+Ø6 (for protected direction); Ø2+Ø5 for permissive direction
  - Transit = Ø2+Ø6

Scenario 5:
One protected left-turn & one permissive left-turn (5-section display) {Ø5 protected and Ø1 permissive}
- Special sequence omit needed to prevent yellow trap for phase 1
  - Special sequence omit for Ø5 to be set to Ø6
  - OCAL for Ø5 to be set to phase 4 (or the last phase used in Ring 1)
- Preempt settings:
  - Emergency = Ø2+Ø6 (for protected direction); Ø1+Ø6 for permissive direction
  - Transit = Ø2+Ø6

Scenario 6:
One permissive left-turn & one un-signalized permissive left-turn (left-turn from through movement) {Ø1 signalized permissive left-turn (5-section)}
- Special sequence omit needed to prevent yellow trap for un-signalized movement
  - Special sequence omit Ø1 to be set to Ø2
  - If no side street, OCAL to dummy phase may be necessary
- Preempt settings:
  - Emergency = Ø2+Ø6
  - Transit = Ø2+Ø6
Main Street Operations (continued):

Scenario 7:
One permissive left-turn & one un-signalized permissive left-turn (left-turn from through movement)
{Ø5 signalized permissive left-turn (5-section)}
- Special sequence omit needed to prevent yellow trap for un-signalized movement
  - Special sequence omit Ø5 to be set to Ø6
  - If no side street, OCAL to dummy phase may be necessary
- Preempt settings:
  - Emergency = Ø2+Ø6
  - Transit = Ø2+Ø6

Scenario 8:
One protected left-turn & one un-signalized permissive left-turn (left-turn from through movement)
{Ø1 signalized protected left-turn}
- Trap possible for un-signalized movement
  - Special Sequence omit Ø1 to be set to Ø2
  - OCAL for Ø1 to be set to phase 4 (or last phase in Ring 1)
- Preempt settings:
  - Emergency = Ø2+Ø6
  - Transit = Ø2+Ø6

Scenario 9:
One protected left-turn & one un-signalized permissive left-turn (left-turn from through movement)
{Ø5 signalized protected left-turn}
- Trap possible for un-signalized movement
  - Special Sequence omit Ø5 to be set to Ø6
  - OCAL for Ø5 to be set to phase 4 (or last phase in Ring 1)
- Preempt settings:
  - Emergency = Ø2+Ø6
  - Transit = Ø2+Ø6
**LEAD/LAG Operations:**

**Scenario 10:** (LEAD/LAG operations)  
Protected left-turns in both directions {phases unknown}  
- No trap possible, no special sequence omit necessary  
- Preempt settings:  
  - Emergency = main street through phase and associated left-turn phase for each direction  
  - Transit = main street through phases only  

**Scenario 11:** (LEAD/LAG operations)  
Permissive left-turns (5-section display) both directions {phases unknown}  
- Must hang sign for LEAD left-turn “ON COMING TRAFFIC MAY HAVE EXTENDED GREEN”  
- Special Sequence omit LEAD left-turn phase to be omitted by opposite through movement phase  
- Preempt settings:  
  - Emergency = main street through phases only  
  - Transit = main street through phases only  
- OCAL function is available for special circumstances  

**Scenario 12:** (LEAD/LAG operations)  
Protected left-turn LEAD / permissive left-turn LAG (5-section) {phases unknown}  
- Special Sequence omit LEAD left-turn phase to be omitted by opposite through movement phase  
  - OCAL for LEAD left-turn phase to be set to last phase in Ring 1  
- Preempt settings:  
  - Emergency = main street through phase for approach with protected left-turn phase; main street through plus left for approach with permissive left-turn phase  
  - Transit = main street through phase  

**Scenario 13:** (LEAD/LAG operations)  
Permissive left-turn LEAD (5-section) / protected left-turn LAG {phases unknown}  
- Must hang sign for LEAD left-turn “ON COMING TRAFFIC MAY HAVE EXTENDED GREEN”  
- Preempt settings:  
  - Emergency = main street through phase and associated left-turn phase for each direction  
  - Transit = main street through phase  

**Scenario 14:** (LAG Operation)  
One LAG permissive left-turn & one un-signalized permissive left-turn (left-turn from through movement)  
- Must hang sign for un-signalized left-turn “ON COMING TRAFFIC MAY HAVE EXTENDED GREEN”  
- Preempt setting:  
  - Emergency = main street through phase  
  - Transit = main street through phase
Side Street Operations:

Scenario 1:
Protected left-turns {normally Ø3 & Ø7}
- No trap possible, no special sequence omit necessary
- Preempt settings:
  - Emergency = Ø3+Ø8 or Ø4+Ø7
  - Transit = Ø4+Ø8

Scenario 2:
Permissive left-turns (5-section display) {normally Ø3 & Ø7}
- Trap possible in preemption only due to main street recalls
- Preempt settings:
  - Emergency = Ø4+Ø8
  - Transit = Ø4+Ø8

Scenario 3:
One protected left-turn & one permissive left-turn (5-section display) {Ø3 protected and Ø7 permissive}
- Trap possible in preemption only due to main street recalls
- Preempt settings:
  - Emergency = Ø4+Ø8 (for protected direction); Ø4+Ø7 for permissive direction
  - Transit = Ø4+Ø8

Scenario 4:
One protected left-turn & one permissive left-turn (5-section display) {Ø7 protected and Ø3 permissive}
- Trap possible in preemption only due to main street recalls
- Preempt settings:
  - Emergency = Ø4+Ø8 (for protected direction); Ø3+Ø8 for permissive direction
  - Transit = Ø4+Ø8

Scenario 5:
One permissive left-turn & one un-signalized permissive left-turn (left-turn from through movement) {Ø3 signalized permissive left-turn}
- Trap possible in preemption only due to main street recalls
- Preempt settings:
  - Emergency = Ø4+Ø8
  - Transit = Ø4+Ø8

Scenario 6:
One permissive left-turn & one un-signalized permissive left-turn (left-turn from through movement) {Ø7 signalized permissive left-turn}
- Trap possible in preemption only due to main street recalls
- Preempt settings:
  - Emergency = Ø4+Ø8
  - Transit = Ø4+Ø8

Scenario 7:
One protected left-turn & one un-signalized permissive left-turn (left-turn from through movement) {Ø3 signalized protected left-turn}
- Trap possible in preemption only due to main street recalls
- Preempt settings:
  - Emergency = Ø4+Ø8
  - Transit = Ø4+Ø8
Side Street Operations (continued):

Scenario 8:
One protected left-turn & one un-signalized permissive left-turn (left-turn from through movement)
{Ø7 signalized protected left-turn}
- Trap possible in preemption only due to main street recalls
- Preempt settings:
  - Emergency = Ø4+Ø8
  - Transit = Ø4+Ø8