PHASING AND DETECTOR LAYOUTS

OLK = £5+£6+£13
OLL = £5+£13
OLA = £1+£2+£9
OLI = £1+£9
OLN = £8+£16
OLM = £3+£5+£10
OLN = £8+£16
OLI = £1+£9
OLK = £4+£12

D = Approximate distance between interchange intersections. Detector numbers are controller input channels.

CONTROLLER INFORMATION

Phase No. | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 | 10 | 11 | 12 | 13 | 14 | 15 | 16
---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
P | P | NA | 8-16 | P | P | NA | 8-16 | 76 | 0 | NA | 72 | 72 | 0 | NA | 76

Controller Notes:
- 0: Don't phases 10 and 14
- NA: Phases 5, 7, 9, and 15 are not typically used, set min. and max. green times equal to 0
- P: Use phase time from Passer III output
- D: Passer III travel time for phase 6, min. and max. greens are equal
- 0: Passer III travel time for phase 2, min. and max. greens are equal
- 8-16: Phase 4 phase time from Passer III minus the phase 6 travel time
- 8-16: Phase 8 phase from Passer III minus the phase 2 travel time

PHASING DIAGRAM

NOTES:
1. The 4-phase operation is best suited for intersections that are less than 400' apart and have heavy turning movements that are usually associated with suburban/urban type interchanges. Use the phase controller is used to operate both intersections.

2. Information on this drawing is based on the controller operation (phasing logic and detector switching of 4-phase Texas diamond interchange), as developed by the Texas Department of Transportation. The manufacturer of the controller unit shall be listed on the TxDOT Material Producer List for Traffic Signal Controller Assembly. The phase logic and detector switching for the 4-phase diamond operation shall be automatically implemented by selection of the 4-phase diamond mode option in the controller menu system.

3. The advance detectors on the exit ramps need to be placed approximately the same distance back as the distance between the intersections of the interchange. This will allow the activated phase 14 or 8 of the ramp to terminate and allow the ramp vehicles to clear the stop line during the fixed travel time phase 12 or 16.

4. The advance detectors for phases 2 and 16 are placed for dilemma zone protection.