NOTES:
1. DRAW HEAD PLACEMENT BOX - SPLIT THRU LANEAGE
2. USE NEAR RIGHT - FAR LEFT ON TRUNKLINE
NOTES:

1. DRAW HEAD PLACEMENT BOX - SPLIT THRU LANEAGE
2. USE NEAR RIGHT - FAR LEFT ON TRUNKLINE
3. USE 2-WAY CASE SIGN
4. CONSIDER LOW LEVEL SIGNALS ON X-RO F OR HEAVY LEFT TURN MOVEMENT
SIGNAL PHASING DIAGRAM

NOTES:

1. DRAW HEAD PLACEMENT BOX - SPLIT THRU LANEAGE
2. USE NEAR RIGHT - FAR LEFT ON TRUNKLINE
3. USE 4TH LEVEL LEFT TURN GREEN ARROW (L.T.G.A.)
4. USE 2 - WAY CASE SIGN
5. OPPOSING LEFT-TURN MOVEMENT MUST BE PROHIBITED
6. PEDESTRIAN SIGNALS OPTIONAL
NOTES:
1. DRAW HEAD PLACEMENT BOX - SPLIT LANE S FOR EACH APPROACH
2. USE EXCLUSIVE LEFT-TURN SIGNAL HEAD S WITH CASE SIGNS
3. PLACE TWO THRU SIGNALS TO RIGHT OF THE LEFT-TURN SIGNAL
4. WITH TWO THRU LANES - SPLIT EACH LANE
5. WITH TWO THRU LANES & RIGHT LANE = ADJUST LEFT SIGNAL TOWARD RIGHT LANE LINE AND RIGHT SIGNAL TOWARD RIGHT TURN LANE. THIS IS TO PROVIDE FOR A WIDER HEAD SEPARATION & IMPROVE VISIBILITY FOR ALL LANES
6. PEDESTRIAN SIGNALS REQUIRED UNLESS OTHERWISE DIRECTED
7. LEAD LEFT-TURN PHASE SHALL NOT BE PERMISSIVE (I.E. FLASHING RED LEFT-TURN SIGNAL)

HEAD PLACEMENT DIAGRAM

3 PHASE OPERATION WITH DUAL LEAD OR LAG LEFT TURN PHASE ON TRUNKLINE
NOTES:

1. DRAW HEAD PLACEMENT BOX - SPLIT THRU LANEAGE
2. USE NEAR RIGHT - FAR LEFT ON TRUNKLINE
3. USE 4-WAY CASE SIGN
4. CONSIDER LOW LEVEL SIGNALS ON X-ROAD OR HEAVY LEFT TURN MOVEMENTS
NOTES:

1. Draw head placement box - split thru laneage - both approaches
2. Use near right - far left on trunkline
3. Use 4th level left turn green arrow (L.T.G.A.)
4. Use 4-way case sign
5. Opposing left turn movement must be prohibited
6. Pedestrian signals optional
7. Consider low level signals on x-rd for heavy left turns movements
SIGNAL PHASING DIAGRAM

NOTES:

1. Draw head placement box-split lanes for each trunkline approach.
2. Use exclusive left-turn signal heads with case signs.
3. Place two thru signals to the right of the left turn signal.
4. With three lanes: split curb lane for right signal and adjust left signal between center of left thru lane and lane line.
5. With three lanes & right lanes: same placement but right signal can be adjusted toward right turn lane if desirable.
6. Pedestrian signals required unless otherwise directed.
7. Consider low level signals on X-Ro F or heavy left turn movements.

3 PHASE OPERATION WITH DUAL LEADING LEFT TURN PHASING ON TRUNKLINE.
NOTES:

1. DRAW HEAD PLACEMENT BOX: SPLIT THRU LANEAGE ON EACH APPROACH
2. USE EXCLUSIVE 4-WAY LEFT TURN SIGNALS WITH CASE SIGNS
3. PLACE TWO THRU SIGNALS TO THE RIGHT OF THE LEFT TURN SIGNAL
4. WITH THREE LANES: SPLIT THRU LANEAGE
5. WITH THREE LANES: SPLIT CURB LANE FOR RIGHT SIGNAL AND ADJUST LEFT SIGNAL BETWEEN CENTER OF LEFT THRU LANE AND LANE LINE
6. PEDESTRIAN SIGNALS REQUIRED
7. LOW LEVELS NOT REQUIRED FOR SUPPLEMENTAL HEADS FOR LEFT TURNS

HEAD PLACEMENT DIAGRAM

4 PHASE OPERATION WITH LEADING LEFT TURNS FOR BOTH ROADS
(SAME OPERATION AS 8 PHASE)
NOTES:

1. MEDIAN WIDTH LESS THAN 30'
2. DRAW HEAD PLACEMENT BOX-SPLIT THRUSLANEAGE
3. USE NEAR RIGHT - FAR LEFT ON TRUNKLINE
SIGNAL PHASING DIAGRAM

NOTES:
1. MEDIAN WIDTH LESS THAN 30'
2. DRAW HEAD PLACEMENT BOX-SPLIT THROUGH LANeway
3. USE NEAR RIGHT FAR LEFT FOR PHASE DIRECTI ON
4. USE 4th LEVEL LEFT TURN GREEN ARROWS (L.T.G.A.'S)
5. PEDESTRIAN SIGNALS REQUIRED
NOTES:

1. MEDIAN WIDTH LESS THAN 30'
2. DRAW HEAD PLACEMENT BOX-SPLIT THRU LANEAGE
3. USE NEAR RIGHT - FAR LEFT ON TRUNKLINE
4. USE 2-WAY CASE ON X-RD WHEN LEFT TURNS ARE ALLOWED OR PROHIBITED
NOTES:
1. MEDIAN WIDTH LESS THAN 30'
2. DRAW HEAD PLACEMENT BOX-SPLIT THR U LANEAGE
3. USE NEAR RIGHT - FAR LEFT FOR PHASE DIRECTION
4. USE 4th LEVEL LEFT TURN GREEN ARROWS (L.T.G.A'S)
5. USE 2-WAY CASE SIGN FOR X-RD
6. PEDESTRIAN SIGNALS OPTIONAL
NOTES:
1. MEDIAN WIDTH LESS THAN 30'
2. DRAW HEAD PLACEMENT BOX-SPLIT THRU LANEAGE ON TRUNKLINE AND SPLIT LANES FOR X-RD APPRAOCHES
3. USE EXCLUSIVE LEFT TURN SIGNAL ON X-RD WITH CASE SIGNS
4. PLACE TWO THRU SIGNALS TO THE RIGHT OF THE LEFT TURN SIGNAL ON X-RD
5. PEDESTRIAN SIGNALS REQUIRED UNLESS OTHERWISE DIRECTED
NOTES:

1. MEDIAN WIDTH 30' OR MORE
2. DESIGN AS TWO SEPARATE INTERSECTIONS
3. DRAW HEAD PLACEMENT BOX-SPLIT THRU APPROACH LANES ON TRUNKLINE; SPLIT LANEAGE ON X-ROD
4. USE NEAR RIGHT - FAR LEFT ON TRUNKLINE AT BOTH INTERSECTIONS
5. USE 4-WAY CASE SIGN AT BOTH INTERSECTIONS
6. WHILE PHASING IS POSSIBLE FOR EITHER ROADWAY - USUALLY LEFT TURNS ARE PROHIBITED AT THE INTERSECTION OR OPER AND REDIRECTED THROUGH MEDIAN CROSSTREAMS, THE MAIN PROBLEM IS THE INTERLOCKING OF LEFT-TURN MOVEMENTS.
7. SOLID LINE SPAN ARRANGEMENT SHOWS TWO THRU SPANS
8. DASHED LINE SPAN ARRANGEMENTS SHOWS TWO 3-WAY TIE-OFF COMBINATIONS
9. PEDESTRIAN SIGNALS OR A BACKSIDE HEAD SHOULD BE CONSIDERED WHERE PEDESTRIAN ACTIVITY IS EVIDENT AND THE OVERHEAD SIGNAL INDICATIONS ARE NOT READILY VISIBLE.

HEAD PLACEMENT DIAGRAM

2. PHASE OPERATION
NOTES:

1. EXCLUSIVE LEFT - TURN SLOTS
2. DESIGN AS TWO SEPARATE INTERSECTIONS
3. DRAW HEAD PLACEMENT BOX: SPLIT THRU APPROACH
   LANEAGE ON TRUNKLINE - SPLIT LANEAGE ON X-RD
4. USE NEAR RIGHT - FAR LEFT ON TRUNKLINE AND BOTH INTERSECTIONS
5. USE 2-WAY CASE SIGN FACING X-RD
6. LOW LEVEL OR FARSIDE OVERHEAD SIGNALS ARE OPTIONAL
7. SOLID LINE SPAN ARRANGEMENT SHOWS TWO 3-WAY TIE-OFF SPAN COMBINATIONS
8. DASHED LINE SPAN ARRANGEMENT SHOWS 4-WAY TIE-OFF (SADDLE SPAN)
9. PEDESTRIAN SIGNALS OR A BACKSIDE HEAD SHOULD BE CONSIDERED WHERE
   PEDESTRIAN ACTIVITY IS EVIDENT AND THE OVERHEAD SIGNAL INDICATIONS ARE
   NOT READILY VISIBLE.
SIGNAL PHASING DIAGRAM

NOTES:
1. EXCLUSIVE LEFT - TURN SLOTS
2. DESIGN AS TWO SEPARATE INTERSECTIONS
3. DRAW HEAD PLACEMENT BOX: SPLIT THRU APPROACH
   LANEAGE ON TRUNKLINE - SPLIT LANEAGE ON X-RD
4. USE NEAR RIGHT - FAR LEFT ON TRUNKLINE AT BOTH INTERSECTIONS
5. USE TWO 1-WAY EXCLUSIVE LEFT TURN SIGNALS WITH CASE SIGNS ON THE
   3-WAY TIE-OFF SPAN COMBINATION - SOLID LINE SPAN ARRANGEMENT
6. USE ONE 2-WAY EXCLUSIVE LEFT TURN SIGNAL ON THE 4-WAY TIE OFF
   (SADDLE SPAN) WITH CASE SIGNS - DASHED LINE SPAN ARRANGEMENT
7. USE TWO 4-WAY CASE SIGNS OVER THRU ROADWAY
8. PEDESTRIAN SIGNALS REQUIRED

HEAD PLACEMENT DIAGRAM

3 PHASE OPERATION WITH
DUAL LEADING LEFT-TURN PHASE
(SAME FOR LAGGING LEFT-TURN)
NOTES:

1. DESIGN AS FOUR SEPARATE INTERSECTIONS
2. DRAW HEAD PLACEMENT BOX: SPLIT THRU APPROACH LANEAGE ON BOTH ROADWAYS
3. USE NEAR RIGHT - FAR LEFT FOR FIRST INTERSECTION ON APPROACH LEG FOR BOTH ROADWAYS
4. USE 4-WAY CASE SIGNS AT ALL INTERSECTIONS
5. WHILE PHASING IS POSSIBLE FOR EITHER ROADWAY, USUALLY LEFT-TURNS ARE PROHIBITED AT THE INTERSECTION PROPER AND REDIRECTED THROUGH MEDIAN CROSSTREES. THE MAIN PROBLEM IS THE INTERLOCKING OF LEFT-TURN MOVEMENTS.
6. PEDESTRIAN SIGNALS OR A BACKSIDE HEAD SHOULD BE CONSIDERED WHERE PEDESTRIAN ACTIVITY IS EVIDENT AND THE OVERHEAD SIGNAL INDICATIONS ARE NOT READILY VISIBLE.
NOTES:
1. TREAT EACH CROSSOVER AS SEPARATE INTERSECTION
2. DRAW HEAD PLACEMENT BOX - SPILT THRU LANEAGE ON TRUNKLINE
3. USE NEAR RIGHT - FAR LEFT FOR CROSSOVER
4. SIGNAL SEPARATION FOR Crossover HEAD SHOULD BE 10' AND 10'
5. AIM RIGHT SIGNAL INDICATION FOR CROSSOVER TO MIDDLE OF LEFT-TURN LANE AT
   A SPOT 100' FEET FROM CROSSOVER RADIUS POINT
6. ADD FAR SIDE LOW LEVEL SIGNAL TO INSURE TWO INDICATIONS ARE FACING CROSSOVER
7. USE ONE 4-WAY CASE SIGN

HEAD PLACEMENT DIAGRAM
2. PHASE OPERATION
NOTES:
1. DRAW HEAD PLACEMENT BOX - SPLIT LANE AGE ON TRUNKLINE AND ON X-RD
2. USE NEAR RIGHT - FAR LEFT FOR CROSSED VER
3. SIGNAL SEPARATION FOR CROSSOVER HEAD S SHOULD BE 10' AND 10'
4. AIM RIGHT SIGNAL INDICATION FOR CROSSED OVER TO MIDDLE OF LEFT-TURN LANE AT
   A SPOT 100' FROM CROSSED OVER RADII POI NT
5. ADD FARSIDE LOW LEVEL SIGNAL TO INSURE TWO INDICATIONS ARE FACING CROSSED VER
6. FARSIDE LOW LEVEL INDICATION ON RIGHT SIDE IS OPTIONAL FOR THRU MOVEMENT FROM CROSSED
7. USE ONE 4-WAY CASE SIGN

HEAD PLACEMENT DIAGRAM
2. PHASE OPERATION
NOTES:
1. DRAW HEAD PLACEMENT BOX - SPLIT THRU LANEAGE FOR EACH ROADWAY
2. USE NEAR RIGHT - FAR LEFT ON TRUNKLINE
3. ADDITIONAL ADVANCE LOW LEVEL INDICATION ON CROSSROAD IS OPTIONAL DEPENDENT ON GEOMETRICS
NOTES:

1. TREAT CLOSELY SPACED OFFSET AS ONE INTERSECTION
2. DRAW HEAD PLACEMENT BOX:
   - SPLIT THRU LANEAGE TRUNKLINE
   - SPLIT LANEAGE ON EACH SIDE STREET (OFFSET) APPROACH
3. USE NEAR RIGHT - FAR LEFT ON TRUNKLINE
NOTES:
1. DESIGN AS TWO SEPARATE INTERSECTIONS (IF SEPARATION IS 30' OR MORE)
2. DESIGN AS ONE INTERSECTION (IF SEPARATION IS LESS THAN 30')
3. DRAW HEAD PLACEMENT BOX - SPLIT THRU ON TRUNKLINE AND ON EACH SIDE STREET
4. USE NEAR RIGHT - FAR LEFT ON TRUNKLINE
5. NOTE: NEAR RIGHT - FAR LEFT CAN BE USED ON SIDE STREET TO ACCOMMODATE HEAVY TURNING MOVEMENTS.
6. USE INSIDE SIGNAL INDICATIONS FOR WI DELY SPACED OFFSET
NOTES:

1. DRAW HEAD PLACEMENT BOX - SPLIT THRU LANEAGE ON BOTH TRUNKLINE AND CROSSROAD
2. USE NEAR RIGHT - FAR LEFT ON TRUNKLINE
3. USE 4th LEVEL LEFT TURN GREEN ARROW (L.T.G.A.'S)
4. PEDESTRIAN SIGNALS REQUIRED UNLESS OTHERWISE DIRECTED

HEAD PLACEMENT DIAGRAM

3 PHASE OPERATION WITH SINGLE LAGGING LEFT-TURN PHASE ON TRUNKLINE