NOTES:

1. RAMP METER SIGNAL DISPLAYS SHALL BE LOCATED AS SHOWN IN THE PLANS. THE FOUNDATION AND MAST ARM SIGNAL SUPPORT SHALL CONFORM TO STANDARD CONSTRUCTION DRAWING SCD TC-76.10 AND TC-81.21. SIGNAL HEADS SHALL BE 12" LED, TWO SECTIONS, RED OVER GREEN, BLACK VIZOR, REFLECTIVE BACKPLATES, AND SHALL CONFORM TO SCD TC-81.01. THE SIDE-MOUNTED SIGNAL HEAD SHALL BE MOUNTED FOLLOWING SCD TC-81.05.

   PAYMENT WILL BE MADE AT THE CONTRACT UNIT PRICE FOR EACH ITEM BID SEPARATELY.

2. RAMP METER SIGNALS AND WARNING BEACONS SHALL BE LOCATED AS SHOWN IN THE PLANS.

   TWO 24" RED LED WARNING BEACONS SHALL BE LOCATED ON THE RAMP METERED AREA IN A CONFIGURATION PREVENTS THIS LOCATION, A SEPARATE POLE AND FOUNDATION ARE TO BE USED TO ACCURATELY DETECT THE LANES.

   PAYMENT WILL BE MADE AT THE CONTRACT UNIT PRICE FOR EACH ITEM BID SEPARATELY. SEE SHEET 3 FOR TYPICAL RAMP METER SIGN PLACEMENT.

   E PERFORMANCE WIRE AND MATERIAL SPECIFICATIONS. EACH RAMP METER CABINET WITH CONTROLLER SHALL CONSIST OF ALUMINUM VISOR, REFLECTIVE BACKPLATES, AND SHALL CONFORM TO SCD TC-21.20 AND TC-81.21. SIGNAL HEADS SHALL BE 12" LED, BLACK HOUSING WITH BLACK ALUMINUM VIZOR, REFLECTIVE BACKPLATES, AND SHALL CONFORM TO SCD TC-81.01. THE SIDE-MOUNTED SIGNAL HEAD SHALL BE MOUNTED FOLLOWING SCD TC-81.05.

   PAYMENT WILL BE MADE AT THE CONTRACT UNIT PRICE FOR EACH ITEM BID SEPARATELY.

   RAMP METER CABINET AND CABINET ITEMS SHALL CONFORM TO THE SPECIFICATIONS ESTABLISHED BY THE OFFICE OF TRAFFIC OPERATIONS HANDBOOK AND THE CONSTRUCTION AND MATERIAL SPECIFICATIONS. EACH RAMP METER CABINET WITH CONTROLLER SHALL CONSIST OF ALL HARDWARE NEEDED TO BE FULLY FUNCTIONAL. FOR FULL SPECIFICATION, SEE RAMP METER SPECIFICATION IN THE PLAN SET.

   PAYMENT WILL BE MADE AT THE CONTRACT UNIT PRICE FOR EACH ITEM BID SEPARATELY. SEE SHEET 3 FOR TYPICAL RAMP METER SIGN PLACEMENT.

3. RAMP METER CONTROL EQUIPMENT SHALL BE LOCATED AS SHOWN IN THE PLANS. CONTROL EQUIPMENT, CABINET AND CABINET ITEMS SHALL CONFORM TO THE SPECIFICATIONS ESTABLISHED BY THE OFFICE OF TRAFFIC OPERATIONS HANDBOOK AND THE CONSTRUCTION AND MATERIAL SPECIFICATIONS. EACH RAMP METER CABINET WITH CONTROLLER SHALL CONSIST OF ALL HARDWARE NEEDED TO BE FULLY FUNCTIONAL. FOR FULL SPECIFICATION, SEE RAMP METER SPECIFICATION IN THE PLAN SET.

   PAYMENT WILL BE MADE AT THE CONTRACT UNIT PRICE FOR EACH ITEM BID SEPARATELY.

4. PREFERRED RADAR DETECTOR LOCATION IS ON MAST ARM. IN THE CASE THAT THE RAMP METERING PREVENTS THIS LOCATION, A SEPARATE POLE AND FOUNDATION ARE TO BE USED TO ACCURATELY DETECT THE LANES.

5. THE CONTROL BOX SHALL BE MOUNTED FOLLOWING SCD TC-76.10.

6. THE BEACONS SHALL BE LOCATED ON THE RAMP METERED AREA IN A CONFIGURATION PREVENTS THIS LOCATION, A SEPARATE POLE AND FOUNDATION ARE TO BE USED TO ACCURATELY DETECT THE LANES.

7. THE SIDE-MOUNTED SIGNAL HEAD SHALL BE MOUNTED FOLLOWING SCD TC-81.05.

8. THE BEACONS SHALL BE LOCATED ON THE RAMP METERED AREA IN A CONFIGURATION PREVENTS THIS LOCATION, A SEPARATE POLE AND FOUNDATION ARE TO BE USED TO ACCURATELY DETECT THE LANES.

9. THE BEACONS SHALL BE LOCATED ON THE RAMP METERED AREA IN A CONFIGURATION PREVENTS THIS LOCATION, A SEPARATE POLE AND FOUNDATION ARE TO BE USED TO ACCURATELY DETECT THE LANES.
2 - LANES

RAMP METER ENFORCEMENT AREA
LOCATION OF ENFORCEMENT AREA SHALL BE APPROVED BY THE ENGINEER.

NOTES:

1. RAMP METER SIGNAL DISPLAYS SHALL BE LOCATED AS SHOWN IN THE PLANS. THE FOUNDATION AND MAST ARM SIGNAL SUPPORT SHALL CONFORM TO STANDARD CONSTRUCTION DRAWINGS (SCD) TC-21.20 AND TC-10.31. SIGNAL HEADS SHALL BE 12" LED. TWO SECTION, RED OVER GREEN, BLACK POLYCARBONATE HOUSING WITH BLACK ALUMINUM VISOR, REFLECTIVE BACKPLATES, AND SHALL CONFORM TO TC-21.20 AND TC-85.10. IT SHALL BE BE USED TO ACCURATELY DETECT THE LANES. EQUIPMENT, CABINET AND CABINET ITEMS SHALL CONFORM TO THE SPECIFICATIONS ESTABLISHED BY THE OFFICE OF TRAFFIC OPERATIONS HANDBOOK AND THE CONSTRUCTION AND MATERIAL SPECIFICATIONS. EACH RAMP METER CABINET WITH CONTROLLER SHALL CONSIST OF ALL HARDWARE NEEDED TO BE FULLY FUNCTIONAL. FOR FULL SPECIFICATION, SEE RAMP METER SPECIFICATION IN THE PLAN SET.

2. RAMP METER SIGNS AND WARNING BEACONS SHALL BE LOCATED AS SHOWN IN THE PLANS. MAST ARM WITH A SEPARATE POLE AND FOUNDATION ARE TO BE USED TO ACCURATELY DETECT THE LANES. THE REACTIONS SHALL BE LOCATED AS SHOWN IN THIS DRAWING. CABINET ITEMS SHALL BE MADE AT THE CONTRACT UNIT PRICE FOR SEPARATE BID ITEMS INCLUDING USE OF RAMP METER CABINET, APP AND ASSOCIATED HARDWARE - RAMP METER.

3. CENTER OF ENFORCEMENT AREA SHALL BE LOCATED AS SHOWN IN THE PLANS. CONCRETE, ANCHOR BOLTS, GROUND ROD, BREAKAWAY BASE, POLE, SIGN, SIGN BRACKETS, FLASHERS, MOUNTING HARDWARE AND ALL OTHER ITEMS NECESSARY FOR A COMPLETE INSTALLATION.

4. PREFERRED RADAR DETECTION LOCATION IS ON MAST ARM. IN THE CASE THAT THE RAMP METER LOCATION PREVENTS THIS LOCATION, A SEPARATE POLE AND FOUNDATION ARE TO BE USED TO ACCURATELY DETECT THE LANES.

WIRING DIAGRAM

LEGEND

- TRAFFIC SIGNAL, 2 UNIT
- RADAR DETECTION UNIT
- SIGNAL SUPPORT POLE
- CONTROLLER CABINET AND WORK PAD
- TRAFFIC FULL BOX
- DETECTOR LOOP
- METER BASE
- POWER CABLE, 2 CONDUCTOR, NO. 6 AWG
- SIGNAL SUPPORT POLE NO. 1

- 2/C NO. XX AWG (LEAD-IN CABLE)
- VEHICLE LOOP DETECTOR
- SERVICE CABLE, 3 CONDUCTOR, NO. 14 AWG
- RADAR DETECTION CABLE
- POWER CABLE, 2 CONDUCTOR, NO. 6 AWG
- SIGNAL CABLE, 5 CONDUCTOR, NO. XX AWG
NOTES:
1. MAST ARM SHOULD EXTEND 1' PAST THE EDGE LINE.

M AST ARM ELEVATION VIEW
1-LANE RAMP

M AST ARM ELEVATION VIEW
2-LANE RAMP

TYPICAL RAMP METER SIGN PLACEMENT
APPLIES TO 1-LANE AND 2-LANE RAMPS