

### OVERVIEW OF REGIONAL TRAFFIC SIGNAL PROGRAM

Traffic Signal Equipment + Traffic Signal Performance = Identify Need

- 1. Signal Retiming
- 2. Signal Equipment
- 3. Signal Software
- 4. Roadway Capacity Improvement

# PROPOSED TRAFFIC SIGNAL PROGRAM FUNDING REQUIREMENTS

#### To be eligible, agencies must:

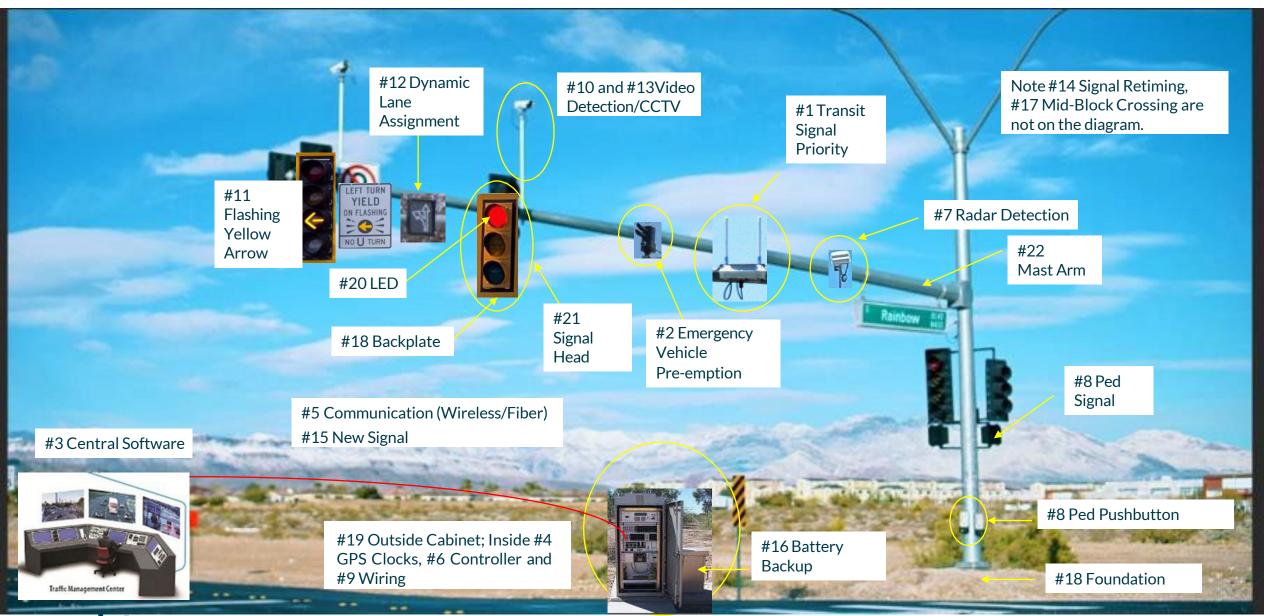
- Develop and maintain a Traffic Signal Maintenance Standard
   Operating Procedures and Replacement Strategy (all 22 elements).
   City Develop or NCTCOG Support
- 2. Monitor traffic signal performance through INRIX platform.
- 3. Participate in regional data sharing efforts consistent with Traffic Management Data Dictionary (TMDD) standards for Center-to-Center communication.
- 4. Participate in NCTCOG Traffic Signal Committee and Peer-to-Peer subject matter experts.

# EVALUATION PROCESS FOR SIGNAL FUNDING REQUESTS

- 1. Review Equipment Inventory Assessment
  - Review age, condition, and availability of key components (e.g., controllers, detection, cabinets).
- 2. Review Signal Performance Measures
  - Use of INRIX Signal Analytics to evaluate delay, arrivals on green, split failures, coordination issues.
- 3. Identify / Prioritize Improvements
  - Identify upgrades aligned with improvement categories and available funding.



### TRAFFIC SIGNAL COMPONENTS





# STEP 1. REVIEW EQUIPMENT INVENTORY ASSESSMENT (BEGAN 2022; UPDATED 2024)

Projects are evaluated based on the type of improvement and corridor characteristics.

**Improvement Category:** Central Software, Coordination Equipment, Operations and Physical Equipment.

Corridor Characteristics: Located on transit, freight, or special event corridors or documented safety concerns or crash history.

# STEP 2. REVIEW SIGNAL PERFORMANCE MEASURES (BEGAN 2024)

### **Evaluate Average Control Delay/Vehicle**

24 hour

AM peak

PM peak

Weekend

A <= 10 seconds

B > 10 - 20 seconds

C > 20 - 35 seconds

D > 35 - 55 seconds

E > 55 - 80 seconds

F > 80 seconds



#### **STEP 3: CATEGORIZING IMPROVEMENTS**

| #  | Types of Improvements                                  | Cost Sharing<br>(Federal / Match) |
|----|--------------------------------------------------------|-----------------------------------|
| 1  | Transit Signal Priority / Transit Signal 2.0           | 80/20                             |
| 2  | Emergency Vehicle Pre-Emption                          | 80/20                             |
| 3  | Central Software                                       | 80/20                             |
| 4  | GPS Clocks                                             | 80/20                             |
| 5  | Communication (Fiber or Wireless)                      | 80/20                             |
| 6  | Controllers                                            | 80/20                             |
| 7  | Vehicle Detection (No Loops)                           | 80/20                             |
| 8  | Bike / Ped Equipment / Low and High-End Volume Warrant | 80/20                             |
| 9  | Wiring                                                 | 80/20                             |
| 10 | Freight Signal Optimization                            | 80/20                             |
| 11 | Flashing Yellow Arrows                                 | 80/20                             |

### STEP 3: CATEGORIZING IMPROVEMENTS (CONT.)

|    | Types of Improvements                               | Cost Sharing<br>(Federal / Match) |
|----|-----------------------------------------------------|-----------------------------------|
| 12 | Dynamic / Reversible Lane Assignments               | 80/20                             |
| 13 | CCTV / Camera for Operations (Non-Scheduled Events) | 80/20                             |
| 14 | Signal Retiming / Safety / High Volumes             | 80/20                             |
| 15 | New Signals (Warrants 4,5,6,7,and 9)                | 80/20                             |
| 16 | Battery Back-Up                                     | 80/20                             |
| 17 | Mid-Block Crossing                                  | 0/100                             |
| 18 | Backplate                                           | 0/100                             |
| 19 | Cabinets / Foundations                              | 0/100                             |
| 20 | LEDs                                                | 0/100                             |
| 21 | Signal Head Replacement                             | 0/100                             |
| 22 | Span Wire to Mast Arm / Poles                       | 0/100                             |



### **SCHEDULE**

| Action                               | Meeting | Date               |
|--------------------------------------|---------|--------------------|
| Information – Traffic Signal Program | STTC    | June 27, 2025      |
| Information – Traffic Signal Program | RTC     | September 11, 2025 |
|                                      |         |                    |
| Action – Traffic Signal Program      | STTC    | October 24, 2025   |
| Action – Traffic Signal Program      | RTC     | November 13, 2025  |
|                                      |         |                    |
|                                      |         |                    |

#### **CONTACT US**



Natalie Bettger
Senior Program Manager
<a href="mailto:nbettger@nctcog.org">nbettger@nctcog.org</a> | 817-695-9280



Gregory Masota
Principal Transportation Planner
<a href="mailto:gmasota@nctcog.org">gmasota@nctcog.org</a> | 817-695-9264