

**NOTES:**

- THIS PLAN IS USED IN CONJUNCTION WITH A LONG-TERM 3-LANE FREEWAY SINGLE LEFT LANE CLOSURE STAGED TRAFFIC PLAN.
- SEE SMART WORK ZONE SYSTEM (SWZS) SPECIAL PROVISION/RFP FOR DETAILS.
- MODIFICATIONS TO PCMS MESSAGES SHALL BE ACCEPTED BY THE ENGINEER. "##" ARE CHANGEABLE VALUES BASED ON REAL-TIME TRAVEL DELAY TIMES IN MINUTES.
- ADJUST SWZS COMPONENTS LOCATION TO AVOID CONFLICTS WITH TRAFFIC CONTROL DEVICES, NARROW SHOULDERS, AND RAMPS. SWZS COMPONENTS MAY BE POLE-MOUNTED WHEN LOCATED BEHIND BARRIER/GUARDRAIL OR WITHIN LANE CLOSURE, TRANSVERSE TRAFFIC DRUMS OPTIONAL.
- LOCATE PCMSs PER STANDARD SPECIFICATION 1-10.3(3)C. PCMS MAY BE PLACED ON OPPOSITE SHOULDER BUT AVOID RAMP GORES. MINIATURE PCMS (~6" WIDE, 12+ INCH CHARACTERS) ALLOWED FOR PCMS1 ONLY UNLESS ACCEPTED BY ENGINEER.
- PCMS1 AND TRAFFIC SENSOR A ARE OPTIONAL DURING SINGLE LEFT LANE CLOSURES, BUT MAY REMAIN IN PLACE FOR THE DOUBLE LEFT LANE CLOSURE.
- ESTIMATED TRAVEL DELAY TIMES SHALL BE ACCURATE WITHIN 5 MINUTES.
- WHEN FEASIBLE, LOCATE SIDE FIRE TRAFFIC SENSOR PRIOR TO ANY OPEN RAMPS.
- IF SYSTEM FAILS SEE "SMART WORK ZONE SYSTEM FAILURE PROTOCOL" PROVISION.
- IF TRAFFIC QUEUES REACH 6 MILES, PLACE ADDITIONAL PCMS AT 8.5± MILES. RELOCATE FARTHER BACK AS NEEDED TO REMAIN IN ADVANCE OF QUEUE. TRUCK-MOUNTED PCMS WITH 10+ INCH CHARACTERS ACCEPTABLE. TRANSVERSE TRAFFIC SAFETY DRUMS OPTIONAL. REMOVE PCMS WHEN DISSIPATING QUEUES ARE LESS THAN 5.5 MILES. ADDED PCMS MESSAGE: TRAFFIC BACKUPS PRESENT / SLOW TRAFFIC AHEAD

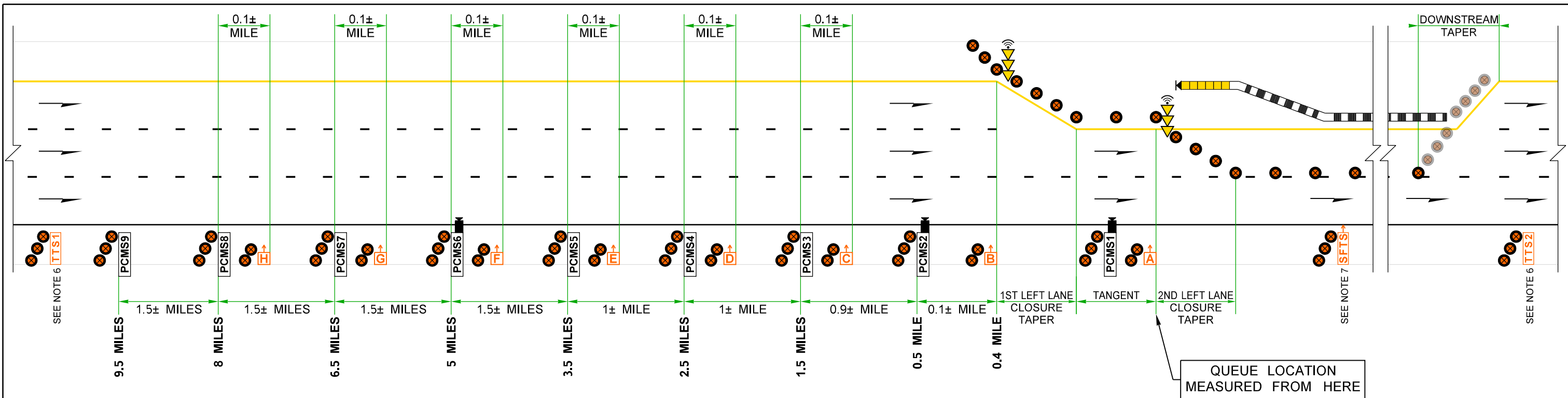
**LEGEND:**

- TRAFFIC SAFETY DRUM
- TRAFFIC SENSOR (SEE NOTE 6)
- PORTABLE TRAVEL TIME SENSOR (SEE NOTE 7)
- SIDE FIRE TRAFFIC SENSOR (SEE NOTE 8)
- SMART SEQUENTIAL ARROW SIGN (CONNECTED)
- PORTABLE CHANGEABLE MESSAGE SIGN (SEE NOTES 5 & 6)
- PAN-TILT-ZOOM (PTZ) CAMERA
- TEMPORARY BARRIER
- TEMPORARY IMPACT ATTENUATOR (TL-3)

| QUEUE LOCATION (miles) | TRAFFIC SENSORS   |    |    |    |    |    |    |    | PCMS 9  |         | PCMS 8  |         | PCMS 7  |         | PCMS 6  |         | PCMS 5  |         | PCMS 4  |         | PCMS 3  |         | PCMS 2  |         | PCMS 1 |         | (OPTIONAL) |         |  |
|------------------------|-------------------|----|----|----|----|----|----|----|---------|---------|---------|---------|---------|---------|---------|---------|---------|---------|---------|---------|---------|---------|---------|---------|--------|---------|------------|---------|--|
|                        | H                 | G  | F  | E  | D  | C  | B  | A  | 1       | 2       | 1       | 2       | 1       | 2       | 1       | 2       | 1       | 2       | 1       | 2       | 1       | 2       | 1       | 2       | 1      | 2       |            |         |  |
|                        | TRAFFIC CONDITION |    |    |    |    |    |    |    | 2.0 SEC | 2.0 SEC | 2.0 SEC | 2.0 SEC | 2.0 SEC | 2.0 SEC | 2.0 SEC | 2.0 SEC | 2.0 SEC | 2.0 SEC | 2.0 SEC | 2.0 SEC | 2.0 SEC | 2.0 SEC | 2.0 SEC | 2.0 SEC |        |         |            |         |  |
| None                   | FF                | FF | FF | FF | FF | FF | FF | FF |         | (Blank) |         | (Blank) |         | (Blank) |         | (Blank) |         | (Blank) |         | (Blank) |         | (Blank) |         | (Blank) |        | (Blank) |            | (Blank) |  |
| < 0.5                  | FF                | FF | FF | FF | FF | FF | FF | SL |         | (Blank) |         | (Blank) |         | (Blank) |         | (Blank) |         | (Blank) |         | (Blank) |         | (Blank) |         | (Blank) |        | (Blank) |            | (Blank) |  |
| 0.5 TO 1.4             | FF                | FF | FF | FF | FF | FF | SL | SL |         | (Blank) |         | (Blank) |         | (Blank) |         | (Blank) |         | (Blank) |         | (Blank) |         | (Blank) |         | (Blank) |        | (Blank) |            | (Blank) |  |
| 1.41 TO 2.4            | FF                | FF | FF | FF | FF | SL | SL | SL |         | (Blank) |         | (Blank) |         | (Blank) |         | (Blank) |         | (Blank) |         | (Blank) |         | (Blank) |         | (Blank) |        | (Blank) |            | (Blank) |  |
| 2.41 TO 3.4            | FF                | FF | FF | FF | SL | SL | SL | SL |         | (Blank) |         | (Blank) |         | (Blank) |         | (Blank) |         | (Blank) |         | (Blank) |         | (Blank) |         | (Blank) |        | (Blank) |            | (Blank) |  |
| 3.41 TO 4.9            | FF                | FF | FF | SL | SL | SL | SL | SL |         | (Blank) |         | (Blank) |         | (Blank) |         | (Blank) |         | (Blank) |         | (Blank) |         | (Blank) |         | (Blank) |        | (Blank) |            | (Blank) |  |
| 4.91 TO 6.4            | FF                | FF | SL | SL | SL | SL | SL | SL |         | (Blank) |         | (Blank) |         | (Blank) |         | (Blank) |         | (Blank) |         | (Blank) |         | (Blank) |         | (Blank) |        | (Blank) |            | (Blank) |  |
| 6.41 TO 7.9            | FF                | SL | SL | SL | SL | SL | SL | SL |         | (Blank) |         | (Blank) |         | (Blank) |         | (Blank) |         | (Blank) |         | (Blank) |         | (Blank) |         | (Blank) |        | (Blank) |            | (Blank) |  |
| 7.91+                  | SL                | SL | SL | SL | SL | SL | SL | SL |         | (Blank) |         | (Blank) |         | (Blank) |         | (Blank) |         | (Blank) |         | (Blank) |         | (Blank) |         | (Blank) |        | (Blank) |            | (Blank) |  |

**9-MILE SMART WORK ZONE SYSTEM  
FREEWAY (3 LANES): SINGLE LEFT LANE CLOSURE  
NOT TO SCALE**

|               |  |    |              |              |      |                |      |                |                               |  |            |       |                  |  |             |
|---------------|--|----|--------------|--------------|------|----------------|------|----------------|-------------------------------|--|------------|-------|------------------|--|-------------|
| FILE NAME     | C:\Users\LintzF\OneDrive - Washington State Department of Transportation\Desktop\Work Zone Tcps\172Fwy9MileSWZS2Lt.dgn |    |              |              |      |                |      |                |                               |  | REGION NO. | STATE | FED.AID PROJ.NO. | Washington State<br>Department of Transportation | Plot 1      |
| TIME          | 1:54:12 PM   |    |              |              |      |                |      |                |                               |  | 10         | WASH  |                  |  | PLAN REF NO |
| DATE          | 1/5/2024   |    |              |              |      |                |      |                |                               |  |            |       |                  | TC172  |             |
| PLOTTED BY    | LintzF   |    |              |              |      |                |      |                |                               |  |            |       |                  | SHEET<br>1<br>OF<br>2<br>SHEETS                  |             |
| DESIGNED BY   |  |    |              |              |      |                |      |                |                               |  |            |       |                  |  |             |
| ENTERED BY    |  |    |              |              |      |                |      |                |                               |  |            |       |                  |  |             |
| CHECKED BY    |  |    |              |              |      |                |      |                |                               |  |            |       |                  |  |             |
| PROJ. ENGR.   |  |    |              |              |      |                |      |                |                               |  |            |       |                  |  |             |
| REGIONAL ADM. |  |    |              |              |      |                |      |                |                               |  |            |       |                  |  |             |
| REVISION      | DATE   | BY | CONTRACT NO. | LOCATION NO. | DATE | P.E. STAMP BOX | DATE | P.E. STAMP BOX | TYPICAL TRAFFIC CONTROL PLANS |  |            |       |                  |  |             |



**NOTES:**

- THIS PLAN IS USED IN CONJUNCTION WITH AN INTERMEDIATE-TERM 3-LANE FREEWAY DOUBLE LEFT LANE CLOSURE TRAFFIC CONTROL PLAN.
- SEE SMART WORK ZONE SYSTEM (SWZS) SPECIAL PROVISION/RFP FOR DETAILS.
- MODIFICATIONS TO PCMS MESSAGES SHALL BE ACCEPTED BY THE ENGINEER. "##" ARE CHANGEABLE VALUES BASED ON REAL-TIME TRAVEL DELAY TIMES IN MINUTES.
- ADJUST SWZS COMPONENTS LOCATION TO AVOID CONFLICTS WITH TRAFFIC CONTROL DEVICES, NARROW SHOULDERS, AND RAMPS. SWZS COMPONENTS MAY BE POLE-MOUNTED WHEN LOCATED BEHIND BARRIER/GUARDRAIL OR WITHIN LANE CLOSURE, TRANSVERSE TRAFFIC DRUMS OPTIONAL.
- LOCATE PCMSs PER STANDARD SPECIFICATION 1-10.3(3)C. PCMS MAY BE PLACED ON OPPOSITE SHOULDER BUT AVOID RAMP GORES. MINIATURE PCMS (~6" WIDE, 12+ INCH CHARACTERS) ALLOWED FOR PCMS1 ONLY UNLESS ACCEPTED BY ENGINEER.
- ESTIMATED TRAVEL DELAY TIMES SHALL BE ACCURATE WITHIN 5 MINUTES.
- WHEN FEASIBLE, LOCATE SIDE FIRE TRAFFIC SENSOR PRIOR TO ANY OPEN RAMPS.
- IF SYSTEM FAILS SEE "SMART WORK ZONE SYSTEM FAILURE PROTOCOL" PROVISION.
- IF TRAFFIC QUEUES REACH 6 MILES, PLACE ADDITIONAL PCMS AT 8.5± MILES. RELOCATE FARTHER BACK AS NEEDED TO REMAIN IN ADVANCE OF QUEUE. TRUCK-MOUNTED PCMS WITH 10+ INCH CHARACTERS ACCEPTABLE. TRANSVERSE TRAFFIC SAFETY DRUMS OPTIONAL. REMOVE PCMS WHEN DISSIPATING QUEUES ARE LESS THAN 5.5 MILES. ADDED PCMS MESSAGE: TRAFFIC BACKUPS PRESENT / SLOW TRAFFIC AHEAD

**LEGEND:**

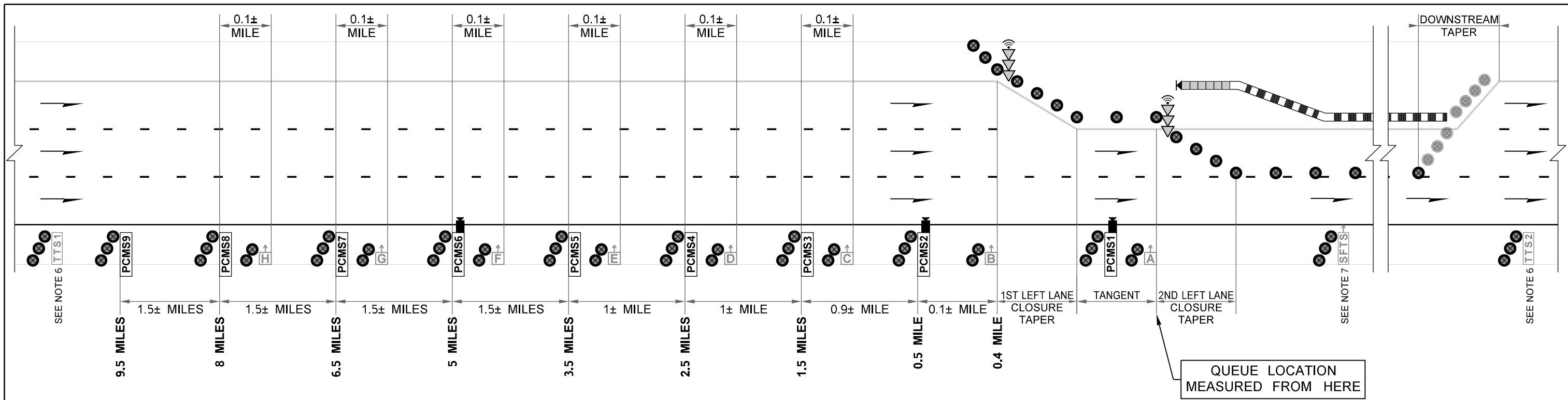
- TRAFFIC SAFETY DRUM
- TRAFFIC SENSOR
- PORTABLE TRAVEL TIME SENSOR (SEE NOTE 6)
- SIDE FIRE TRAFFIC SENSOR (SEE NOTE 7)
- SMART SEQUENTIAL ARROW SIGN (CONNECTED)
- PORTABLE CHANGEABLE MESSAGE SIGN (SEE NOTE 5)
- PAN-TILT-ZOOM (PTZ) CAMERA
- TEMPORARY BARRIER
- TEMPORARY IMPACT ATTENUATOR (TL-3)

| QUEUE LOCATION (miles) | TRAFFIC SENSORS   |    |    |    |    |    |    |    | PCMS 9                  |                | PCMS 8                  |                         | PCMS 7                  |                         | PCMS 6                    |                           | PCMS 5                  |                         | PCMS 4                  |                         | PCMS 3                  |                     | PCMS 2                  |                   | PCMS 1            |                   |            |         |
|------------------------|-------------------|----|----|----|----|----|----|----|-------------------------|----------------|-------------------------|-------------------------|-------------------------|-------------------------|---------------------------|---------------------------|-------------------------|-------------------------|-------------------------|-------------------------|-------------------------|---------------------|-------------------------|-------------------|-------------------|-------------------|------------|---------|
|                        | H                 | G  | F  | E  | D  | C  | B  | A  | 1                       | 2              | 1                       | 2                       | 1                       | 2                       | 1                         | 2                         | 1                       | 2                       | 1                       | 2                       | 1                       | 2                   | 1                       | 2                 | 1                 | 2                 |            |         |
|                        | TRAFFIC CONDITION |    |    |    |    |    |    |    | 2.0 SEC                 | 2.0 SEC        | 2.0 SEC                 | 2.0 SEC                 | 2.0 SEC                 | 2.0 SEC                 | 2.0 SEC                   | 2.0 SEC                   | 2.0 SEC                 | 2.0 SEC                 | 2.0 SEC                 | 2.0 SEC                 | 2.0 SEC                 | 2.0 SEC             | 2.0 SEC                 | 2.0 SEC           | 2.0 SEC           | 2.0 SEC           |            |         |
| None                   | FF                | FF | FF | FF | FF | FF | FF | FF |                         | (Blank)        |                         | (Blank)                 |                         | (Blank)                 |                           | (Blank)                   |                         | (Blank)                 |                         | (Blank)                 |                         | (Blank)             |                         | (Blank)           |                   | (Blank)           |            | (Blank) |
| < 0.5                  | FF                | FF | FF | FF | FF | FF | FF | SL |                         | (Blank)        |                         | (Blank)                 |                         | (Blank)                 |                           | (Blank)                   |                         | (Blank)                 | DOUBLE LANE CLOSURE     | 2 MILES AHEAD           | TRAFFIC BACKUPS PRESENT | ## MINUTE DELAY     | SLOW OR STOPPED TRAFFIC | NEXT 0.5 MILE     |                   |                   |            | (Blank) |
| 0.5 TO 1.4             | FF                | FF | FF | FF | FF | FF | SL | SL |                         | (Blank)        |                         | (Blank)                 |                         | (Blank)                 |                           | (Blank)                   | DOUBLE LANE CLOSURE     | 3 MILES AHEAD           | TRAFFIC BACKUPS PRESENT | ## MINUTE DELAY         | SLOW OR STOPPED TRAFFIC | NEXT 1.5 MILES      | ZIPPER MERGE HERE       | TAKE TURNS        | TAKE TURNS        | TAKE TURNS        | TAKE TURNS |         |
| 1.41 TO 2.4            | FF                | FF | FF | FF | FF | SL | SL | SL |                         | (Blank)        |                         | (Blank)                 |                         | (Blank)                 | DOUBLE LANE CLOSURE       | 4.5 MILES AHEAD           | TRAFFIC BACKUPS PRESENT | ## MINUTE DELAY         | SLOW OR STOPPED TRAFFIC | NEXT 2.5 MILES          | ZIPPER MERGES AHEAD     | USE LEFT LANE TOO   | ZIPPER MERGE HERE       | TAKE TURNS        | ZIPPER MERGE HERE | TAKE TURNS        | TAKE TURNS |         |
| 2.41 TO 3.4            | FF                | FF | FF | FF | SL | SL | SL | SL |                         | (Blank)        |                         | (Blank)                 | DOUBLE LANE CLOSURE     | 6 MILES AHEAD           | TRAFFIC BACKUPS PRESENT   | ## MINUTE DELAY           | SLOW OR STOPPED TRAFFIC | NEXT 3.5 MILES          | 2 MILES TO MERGE POINTS | USE ALL 3 LANES         | ZIPPER MERGES AHEAD     | USE LEFT LANE TOO   | ZIPPER MERGE HERE       | TAKE TURNS        | ZIPPER MERGE HERE | TAKE TURNS        | TAKE TURNS |         |
| 3.41 TO 4.9            | FF                | FF | FF | SL | SL | SL | SL | SL |                         | (Blank)        | DOUBLE LANE CLOSURE     | 7.5 MILES AHEAD         | TRAFFIC BACKUPS PRESENT | ## MINUTE DELAY         | SLOW OR STOPPED TRAFFIC   | NEXT 5 MILES              | 3 MILES TO MERGE POINTS | USE ALL 3 LANES         | 2 MILES TO MERGE POINTS | USE ALL 3 LANES         | ZIPPER MERGES AHEAD     | USE LEFT LANE TOO   | ZIPPER MERGE HERE       | TAKE TURNS        | ZIPPER MERGE HERE | TAKE TURNS        | TAKE TURNS |         |
| 4.91 TO 6.4            | FF                | FF | SL | SL | SL | SL | SL | SL | DOUBLE LANE CLOSURE     | 9 MILES AHEAD  | TRAFFIC BACKUPS PRESENT | ## MINUTE DELAY         | SLOW OR STOPPED TRAFFIC | NEXT 6.5 MILES          | 4.5 MILES TO MERGE POINTS | USE ALL 3 LANES           | 3 MILES TO MERGE POINTS | USE ALL 3 LANES         | 2 MILES TO MERGE POINTS | USE ALL 3 LANES         | ZIPPER MERGES AHEAD     | USE LEFT LANE TOO   | ZIPPER MERGE HERE       | TAKE TURNS        | ZIPPER MERGE HERE | TAKE TURNS        | TAKE TURNS |         |
| 6.41 TO 7.9            | FF                | SL | SL | SL | SL | SL | SL | SL | 2 LANE CLOSURE          | 9 MILES        | ## MINUTE DELAY         | SLOW OR STOPPED TRAFFIC | NEXT 8 MILES            | 6 MILES TO MERGE POINTS | USE ALL 3 LANES           | 4.5 MILES TO MERGE POINTS | USE ALL 3 LANES         | 3 MILES TO MERGE POINTS | USE ALL 3 LANES         | 2 MILES TO MERGE POINTS | USE ALL 3 LANES         | ZIPPER MERGES AHEAD | USE LEFT LANE TOO       | ZIPPER MERGE HERE | TAKE TURNS        | ZIPPER MERGE HERE | TAKE TURNS |         |
| 7.91+                  | SL                | SL | SL | SL | SL | SL | SL | SL | SLOW OR STOPPED TRAFFIC | NEXT 9.5 MILES | 2 LANE CLOSURE          | 7.5 MILES               | ## MINUTE DELAY         | 6 MILES TO MERGE POINTS | USE ALL 3 LANES           | 4.5 MILES TO MERGE POINTS | USE ALL 3 LANES         | 3 MILES TO MERGE POINTS | USE ALL 3 LANES         | 2 MILES TO MERGE POINTS | USE ALL 3 LANES         | ZIPPER MERGES AHEAD | USE LEFT LANE TOO       | ZIPPER MERGE HERE | TAKE TURNS        | ZIPPER MERGE HERE | TAKE TURNS |         |

**9-MILE SMART WORK ZONE SYSTEM  
FREEWAY (3 LANES): DOUBLE LEFT LANE CLOSURE  
NOT TO SCALE**

|               |  |      |    |  |  |  |  |  |  |  |              |       |                  |  |             |
|---------------|--|------|----|--|--|--|--|--|--|--|--------------|-------|------------------|--|-------------|
| FILE NAME     | C:\Users\LintzF\OneDrive - Washington State Department of Transportation\Desktop\Work Zone Tcps\172Fwy9MileSWZS2Lt.dgn |      |    |  |  |  |  |  |  |  | REGION NO.   | STATE | FED.AID PROJ.NO. | Washington State<br>Department of Transportation | Plot 2      |
| TIME          | 1:54:12 PM   |      |    |  |  |  |  |  |  |  | 10           | WASH  |                  |  | PLAN REF NO |
| DATE          | 1/5/2024   |      |    |  |  |  |  |  |  |  | JOB NUMBER   |       |                  | TC172  |             |
| PLOTTED BY    | LintzF   |      |    |  |  |  |  |  |  |  | CONTRACT NO. |       |                  | SHEET  |             |
| DESIGNED BY   |  |      |    |  |  |  |  |  |  |  | LOCATION NO. |       |                  | 2  |             |
| ENTERED BY    |  |      |    |  |  |  |  |  |  |  |              |       |                  | OF   |             |
| CHECKED BY    |  |      |    |  |  |  |  |  |  |  |              |       |                  | 2  |             |
| PROJ. ENGR.   |  |      |    |  |  |  |  |  |  |  |              |       |                  | SHEETS   |             |
| REGIONAL ADM. | REVISION   | DATE | BY |  |  |  |  |  |  |  |              |       |                  | TYPICAL TRAFFIC CONTROL PLANS                    |             |





**NOTES:**

- THIS PLAN IS USED IN CONJUNCTION WITH AN INTERMEDIATE-TERM 3-LANE FREEWAY DOUBLE LEFT LANE CLOSURE TRAFFIC CONTROL PLAN.
- SEE SMART WORK ZONE SYSTEM (SWZS) SPECIAL PROVISION/RFP FOR DETAILS.
- MODIFICATIONS TO PCMS MESSAGES SHALL BE ACCEPTED BY THE ENGINEER. "##" ARE CHANGEABLE VALUES BASED ON REAL-TIME TRAVEL DELAY TIMES IN MINUTES.
- ADJUST SWZS COMPONENTS LOCATION TO AVOID CONFLICTS WITH TRAFFIC CONTROL DEVICES, NARROW SHOULDERS, AND RAMPS. SWZS COMPONENTS MAY BE POLE-MOUNTED WHEN LOCATED BEHIND BARRIER/GUARDRAIL OR WITHIN LANE CLOSURE, TRANSVERSE TRAFFIC DRUMS OPTIONAL.
- LOCATE PCMSs PER STANDARD SPECIFICATION 1-10.3(3)C. PCMS MAY BE PLACED ON OPPOSITE SHOULDER BUT AVOID RAMP GORES. MINIATURE PCMS (~6" WIDE, 12+ INCH CHARACTERS) ALLOWED FOR PCMS1 ONLY UNLESS ACCEPTED BY ENGINEER.
- ESTIMATED TRAVEL DELAY TIMES SHALL BE ACCURATE WITHIN 5 MINUTES.
- WHEN FEASIBLE, LOCATE SIDE FIRE TRAFFIC SENSOR PRIOR TO ANY OPEN RAMPS.
- IF SYSTEM FAILS SEE "SMART WORK ZONE SYSTEM FAILURE PROTOCOL" PROVISION.
- IF TRAFFIC QUEUES REACH 6 MILES, PLACE ADDITIONAL PCMS AT 8.5± MILES. RELOCATE FARTHER BACK AS NEEDED TO REMAIN IN ADVANCE OF QUEUE. TRUCK-MOUNTED PCMS WITH 10+ INCH CHARACTERS ACCEPTABLE. TRANSVERSE TRAFFIC SAFETY DRUMS OPTIONAL. REMOVE PCMS WHEN DISSIPATING QUEUES ARE LESS THAN 5.5 MILES. ADDED PCMS MESSAGE: TRAFFIC BACKUPS PRESENT / SLOW TRAFFIC AHEAD

**LEGEND:**

- TRAFFIC SAFETY DRUM
- TRAFFIC SENSOR
- PORTABLE TRAVEL TIME SENSOR (SEE NOTE 6)
- SIDE FIRE TRAFFIC SENSOR (SEE NOTE 7)
- SMART SEQUENTIAL ARROW SIGN (CONNECTED)
- PORTABLE CHANGEABLE MESSAGE SIGN (SEE NOTE 5)
- PAN-TILT-ZOOM (PTZ) CAMERA
- TEMPORARY BARRIER
- TEMPORARY IMPACT ATTENUATOR (TL-3)

| QUEUE LOCATION (miles) | TRAFFIC SENSORS   |    |    |    |    |    |    |    | PCMS 9                  |                | PCMS 8                  |                         | PCMS 7                  |                         | PCMS 6                    |                 | PCMS 5                  |                 | PCMS 4                  |                 | PCMS 3                  |                   | PCMS 2                  |                | PCMS 1            |            |                   |            |
|------------------------|-------------------|----|----|----|----|----|----|----|-------------------------|----------------|-------------------------|-------------------------|-------------------------|-------------------------|---------------------------|-----------------|-------------------------|-----------------|-------------------------|-----------------|-------------------------|-------------------|-------------------------|----------------|-------------------|------------|-------------------|------------|
|                        | H                 | G  | F  | E  | D  | C  | B  | A  | 1                       | 2              | 1                       | 2                       | 1                       | 2                       | 1                         | 2               | 1                       | 2               | 1                       | 2               | 1                       | 2                 | 1                       | 2              | 1                 | 2          |                   |            |
|                        | TRAFFIC CONDITION |    |    |    |    |    |    |    | 2.0 SEC                 | 2.0 SEC        | 2.0 SEC                 | 2.0 SEC                 | 2.0 SEC                 | 2.0 SEC                 | 2.0 SEC                   | 2.0 SEC         | 2.0 SEC                 | 2.0 SEC         | 2.0 SEC                 | 2.0 SEC         | 2.0 SEC                 | 2.0 SEC           | 2.0 SEC                 | 2.0 SEC        | 2.0 SEC           | 2.0 SEC    |                   |            |
| None                   | FF                | FF | FF | FF | FF | FF | FF | FF |                         | (Blank)        |                         | (Blank)                 |                         | (Blank)                 |                           | (Blank)         |                         | (Blank)         |                         | (Blank)         |                         | (Blank)           |                         | (Blank)        |                   | (Blank)    |                   | (Blank)    |
| < 0.5                  | FF                | FF | FF | FF | FF | FF | FF | SL |                         | (Blank)        |                         | (Blank)                 |                         | (Blank)                 |                           | (Blank)         |                         | (Blank)         | DOUBLE LANE CLOSURE     | 2 MILES AHEAD   | TRAFFIC BACKUPS PRESENT | ## MINUTE DELAY   | SLOW OR STOPPED TRAFFIC | NEXT 1.5 MILES | ZIPPER MERGE HERE | TAKE TURNS | ZIPPER MERGE HERE | TAKE TURNS |
| 0.5 TO 1.4             | FF                | FF | FF | FF | FF | FF | SL | SL |                         | (Blank)        |                         | (Blank)                 |                         | (Blank)                 |                           | (Blank)         | DOUBLE LANE CLOSURE     | 3 MILES AHEAD   | TRAFFIC BACKUPS PRESENT | ## MINUTE DELAY | SLOW OR STOPPED TRAFFIC | NEXT 2.5 MILES    | ZIPPER MERGE HERE       | TAKE TURNS     | ZIPPER MERGE HERE | TAKE TURNS |                   |            |
| 1.41 TO 2.4            | FF                | FF | FF | FF | FF | SL | SL | SL |                         | (Blank)        |                         | (Blank)                 |                         | (Blank)                 | DOUBLE LANE CLOSURE       | 4.5 MILES AHEAD | TRAFFIC BACKUPS PRESENT | ## MINUTE DELAY | SLOW OR STOPPED TRAFFIC | NEXT 3 MILES    | ZIPPER MERGE HERE       | TAKE TURNS        | ZIPPER MERGE HERE       | TAKE TURNS     | ZIPPER MERGE HERE | TAKE TURNS |                   |            |
| 2.41 TO 3.4            | FF                | FF | FF | FF | SL | SL | SL | SL |                         | (Blank)        |                         | (Blank)                 | DOUBLE LANE CLOSURE     | 6 MILES AHEAD           | TRAFFIC BACKUPS PRESENT   | ## MINUTE DELAY | SLOW OR STOPPED TRAFFIC | NEXT 3.5 MILES  | 2 MILES TO MERGE POINTS | USE ALL 3 LANES | ZIPPER MERGES AHEAD     | USE LEFT LANE TOO | ZIPPER MERGE HERE       | TAKE TURNS     | ZIPPER MERGE HERE | TAKE TURNS |                   |            |
| 3.41 TO 4.9            | FF                | FF | FF | SL | SL | SL | SL | SL |                         | (Blank)        | DOUBLE LANE CLOSURE     | 7.5 MILES AHEAD         | TRAFFIC BACKUPS PRESENT | ## MINUTE DELAY         | SLOW OR STOPPED TRAFFIC   | NEXT 5 MILES    | 3 MILES TO MERGE POINTS | USE ALL 3 LANES | 2 MILES TO MERGE POINTS | USE ALL 3 LANES | ZIPPER MERGES AHEAD     | USE LEFT LANE TOO | ZIPPER MERGE HERE       | TAKE TURNS     | ZIPPER MERGE HERE | TAKE TURNS |                   |            |
| 4.91 TO 6.4            | FF                | FF | SL | SL | SL | SL | SL | SL | DOUBLE LANE CLOSURE     | 9 MILES AHEAD  | TRAFFIC BACKUPS PRESENT | ## MINUTE DELAY         | SLOW OR STOPPED TRAFFIC | NEXT 6.5 MILES          | 4.5 MILES TO MERGE POINTS | USE ALL 3 LANES | 3 MILES TO MERGE POINTS | USE ALL 3 LANES | 2 MILES TO MERGE POINTS | USE ALL 3 LANES | ZIPPER MERGES AHEAD     | USE LEFT LANE TOO | ZIPPER MERGE HERE       | TAKE TURNS     | ZIPPER MERGE HERE | TAKE TURNS |                   |            |
| 6.41 TO 7.9            | FF                | SL | SL | SL | SL | SL | SL | SL | 2 LANE CLOSURE          | 9 MILES        | ## MINUTE DELAY         | SLOW OR STOPPED TRAFFIC | NEXT 8 MILES            | 6 MILES TO MERGE POINTS | 4.5 MILES TO MERGE POINTS | USE ALL 3 LANES | 3 MILES TO MERGE POINTS | USE ALL 3 LANES | 2 MILES TO MERGE POINTS | USE ALL 3 LANES | ZIPPER MERGES AHEAD     | USE LEFT LANE TOO | ZIPPER MERGE HERE       | TAKE TURNS     | ZIPPER MERGE HERE | TAKE TURNS |                   |            |
| 7.91+                  | SL                | SL | SL | SL | SL | SL | SL | SL | SLOW OR STOPPED TRAFFIC | NEXT 9.5 MILES | 2 LANE CLOSURE          | 7.5 MILES               | ## MINUTE DELAY         | 6 MILES TO MERGE POINTS | 4.5 MILES TO MERGE POINTS | USE ALL 3 LANES | 3 MILES TO MERGE POINTS | USE ALL 3 LANES | 2 MILES TO MERGE POINTS | USE ALL 3 LANES | ZIPPER MERGES AHEAD     | USE LEFT LANE TOO | ZIPPER MERGE HERE       | TAKE TURNS     | ZIPPER MERGE HERE | TAKE TURNS |                   |            |

**9-MILE SMART WORK ZONE SYSTEM  
FREEWAY (3 LANES): DOUBLE LEFT LANE CLOSURE  
NOT TO SCALE**

|               |  |      |    |  |  |  |  |  |  |  |              |       |                  |  |             |
|---------------|--|------|----|--|--|--|--|--|--|--|--------------|-------|------------------|--|-------------|
| FILE NAME     | C:\Users\LintzF\OneDrive - Washington State Department of Transportation\Desktop\Work Zone TCPs\172Fwy9MileSWZS2Lt.dgn |      |    |  |  |  |  |  |  |  | REGION NO.   | STATE | FED.AID PROJ.NO. | Washington State<br>Department of Transportation | Plot 2      |
| TIME          | 1:54:13 PM   |      |    |  |  |  |  |  |  |  | 10           | WASH  |                  |  | PLAN REF NO |
| DATE          | 1/5/2024   |      |    |  |  |  |  |  |  |  | JOB NUMBER   |       |                  | TC172  |             |
| PLOTTED BY    | LintzF   |      |    |  |  |  |  |  |  |  | CONTRACT NO. |       |                  | SHEET  |             |
| DESIGNED BY   |  |      |    |  |  |  |  |  |  |  | LOCATION NO. |       |                  | 2  |             |
| ENTERED BY    |  |      |    |  |  |  |  |  |  |  |              |       |                  | OF   |             |
| CHECKED BY    |  |      |    |  |  |  |  |  |  |  |              |       |                  | 2  |             |
| PROJ. ENGR.   |  |      |    |  |  |  |  |  |  |  |              |       |                  | SHEETS   |             |
| REGIONAL ADM. | REVISION   | DATE | BY |  |  |  |  |  |  |  |              |       |                  | TYPICAL TRAFFIC CONTROL PLANS                    |             |

**WORK ZONE MICROSTATION CELLS: Updated work zone cells incorporated (January 2024).**

WSDOT CAE automatically updates cell libraries on WSDOT and on-site consultant staff computers (no action needed); however, external users or off-site consultants must manually install them. For additional information email HQCAEHelpDesk@wsdot.wa.gov.

Division 4 in WSDOT Plans Preparation Manual, Section 400.06(29), provides updated work zone cell library policy and information for PS&Es. See <https://wsdot.wa.gov/engineering-standards/all-manuals-and-standards/manuals/plans-preparation-manual>

**TYPICAL TCP USAGE EXPLANATION:**

**Plot 1:** Supplements long-term single left lane closure on 3-lane freeways.

**Plot 2:** Supplements long-term single left lane closure on 3-lane freeways with a intermediate-term double left lane closure in place.

**DESIGNER NOTES:**

- A. **Region Transportation Operations will determine if and what queue mitigation system is needed** using work zone traffic analysis (Traffic Manual 5-9). For additional information, see Traffic Manual 5-17 or *Work Zone Traffic Control Fundamentals* presentation.
- B. These typical traffic control plans may be modified for site-specific situations and/or WSDOT Region Transportation Operations standard practices. **Typical Traffic Control Plans are not "Standard Plans"**.
- C. If the long-term staged traffic control plan does not use temporary barriers, this Typical TCP can be modified to reflect channelization devices instead.
- D. When used, include 3 of the following **Smart Work Zone System General Special Provisions** listed below:
  - 1-10.3(3).OPT3.FR1 Specifications
  - 1-10.4(2).OPT5.GR1 Measurement (Traffic Control as Bid Items)
  - 1-10.5(2).OPT3.GR1 Payment
- E. Except for projects requiring them in the Provisions, Pan-Tilt-Cameras (PTZ Cameras) are optional and may be mounted on different PCMSs as desired or deleted. PTZ Cameras are used remotely by Agency to monitor incidents and queues.
- F. The side-fire traffic sensor is used to obtain traffic volume and speed data per General Special Provision requirements.
- G. These Smart Work Zone Systems are very adaptable for a variety of situations, including being used on multiple roadways concurrently leading into a queued work zone. Contact State Work Zone Engineers for guidance at HQWorkZone@wsdot.wa.gov.

**9-MILE QUEUE WARNING SYSTEM  
FREEWAY (3 LANES): SINGLE & DOUBLE LEFT LANE CLOSURE**

|  |              |
|--|--------------|
| <b>INFORMATIONAL USE ONLY</b><br><br>DO NOT INCLUDE THIS SHEET IN<br>CONTRACT PS&Es or TCP SUBMITTALS. | Plot 3       |
|  | <b>TC172</b> |
| <b>DESIGNER GUIDANCE</b>   |              |