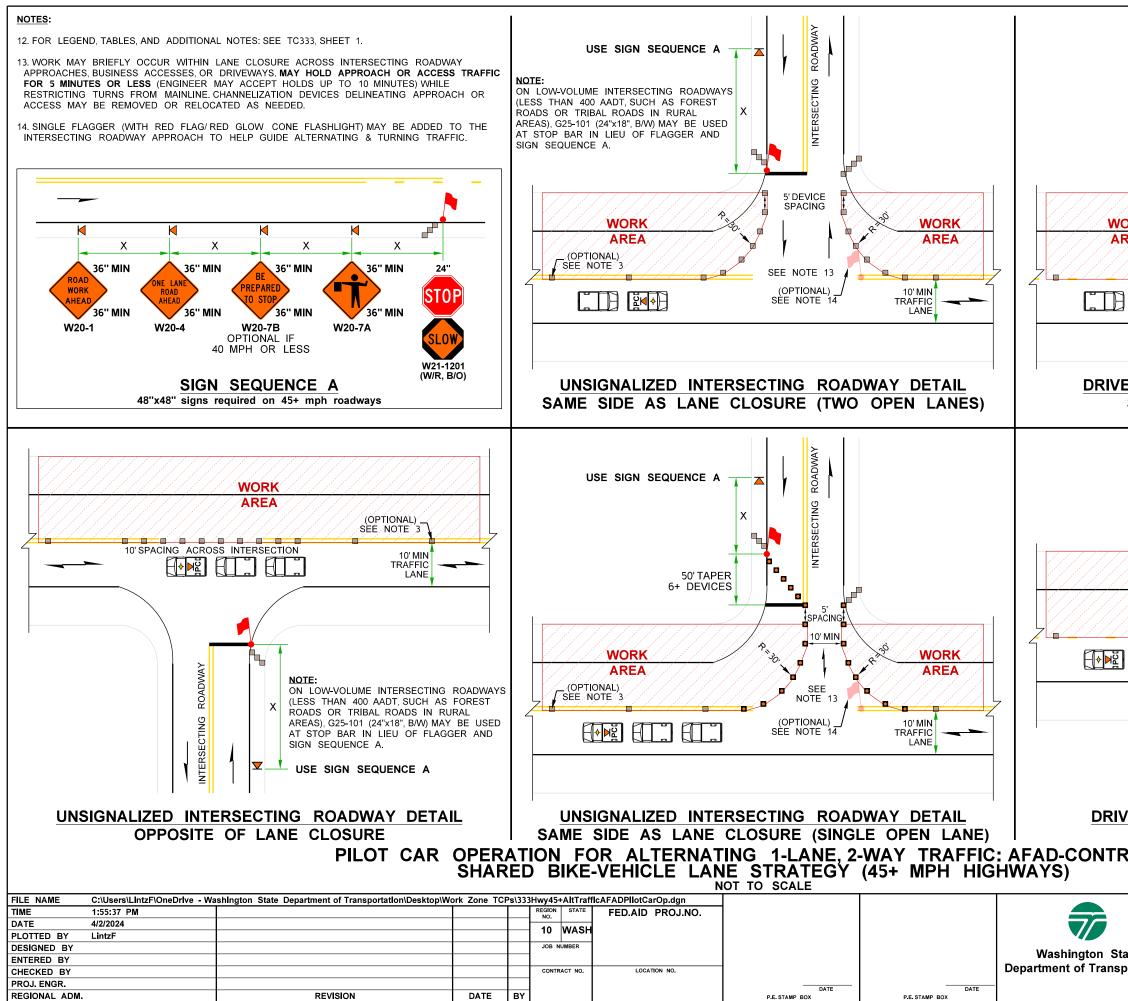
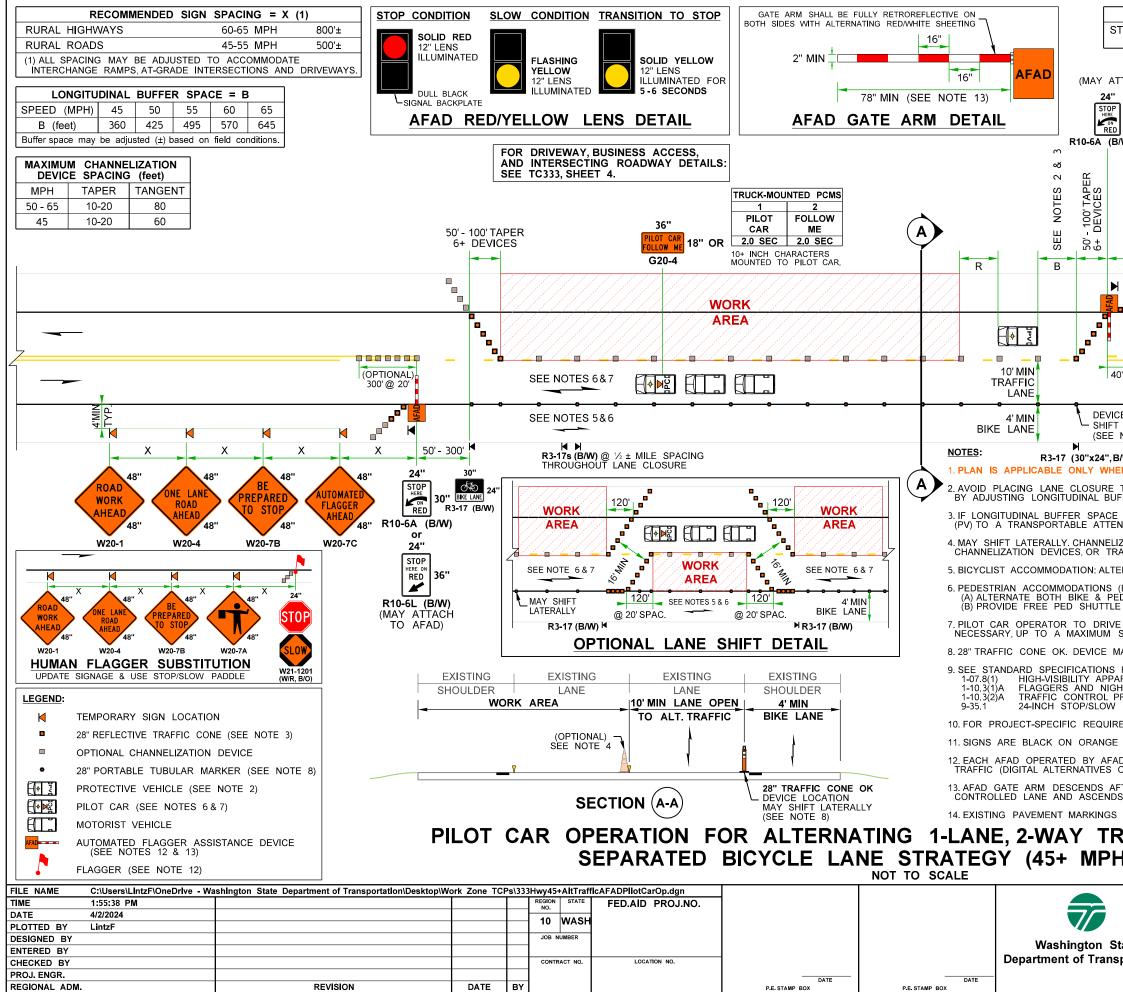


| PROTECTIVE VEHICLE ROLL AHEAD DISTANCE = R                                                                                  |                                                                                                                                        |                |                  |                                    |             |  |  |
|-----------------------------------------------------------------------------------------------------------------------------|----------------------------------------------------------------------------------------------------------------------------------------|----------------|------------------|------------------------------------|-------------|--|--|
| TRATEGICALLY POSITION WORK VEHICLE TO PROTECT WORK CREW.<br>40' - 80' RECOMMENDED.                                          |                                                                                                                                        |                |                  |                                    |             |  |  |
| TTA 011 TO A                                                                                                                |                                                                                                                                        |                |                  | ORTABLE ATTEN                      | UATOR       |  |  |
| ·                                                                                                                           | 4"                                                                                                                                     | HOST VEHIC     | LE WEIGHT        | 1                                  |             |  |  |
| 30" R                                                                                                                       | TOP<br>ED 36"                                                                                                                          | 45-55 MPH      | 60+ MPH          | · · · · ·                          | )+ MPH      |  |  |
| □                                                                                                                           | <b>/</b> (B/W)                                                                                                                         | 123'           | 172'             | 100'                               | 150'        |  |  |
|                                                                                                                             | - ()                                                                                                                                   |                |                  |                                    |             |  |  |
|                                                                                                                             | 48"                                                                                                                                    | BE 48"         | 48'              | ROAD 48"                           |             |  |  |
|                                                                                                                             |                                                                                                                                        | PREPARED       | ONE LANE<br>ROAD | WORK                               |             |  |  |
| AI                                                                                                                          | HEAD<br>48''                                                                                                                           | 10 STOP<br>48" | AHEAD 48'        | AHEAD<br>48"                       |             |  |  |
| w                                                                                                                           | 20-7C                                                                                                                                  | W20-7B         | W20-4            | W20-1                              |             |  |  |
| Х                                                                                                                           | X                                                                                                                                      | X              |                  | X                                  |             |  |  |
|                                                                                                                             |                                                                                                                                        |                |                  |                                    |             |  |  |
|                                                                                                                             |                                                                                                                                        |                |                  | 4'MIN<br>TYP.                      |             |  |  |
|                                                                                                                             |                                                                                                                                        |                |                  | A                                  |             |  |  |
|                                                                                                                             |                                                                                                                                        |                |                  |                                    | L           |  |  |
| 40' 260' @ 20'                                                                                                              |                                                                                                                                        |                |                  |                                    |             |  |  |
| (OPTIONAL)                                                                                                                  |                                                                                                                                        |                |                  |                                    |             |  |  |
|                                                                                                                             |                                                                                                                                        |                |                  |                                    |             |  |  |
|                                                                                                                             |                                                                                                                                        |                |                  |                                    |             |  |  |
| TAPERS WITI<br>FFER.                                                                                                        | HIN OR IMM                                                                                                                             | EDIATELY FOL   | LOWING HOR       | IZONTAL & VERTIC                   | AL CURVES   |  |  |
|                                                                                                                             |                                                                                                                                        |                |                  | GRADE PROTECTIV<br>T SEPARATE WORK |             |  |  |
| CTIVE TRAFF<br>S, OR TRAFFI                                                                                                 |                                                                                                                                        |                | E ARE OPTIO      | NAL. 36" TRAFFIC C                 | ONES,       |  |  |
|                                                                                                                             |                                                                                                                                        |                |                  | TIVE STRATEGIES):                  |             |  |  |
| ULAR TRAFFI                                                                                                                 | C. BIKES ESC                                                                                                                           | CORTED DIREC   | TLY BEHIND       | POSITE THE WORK<br>PILOT CAR @ 10± |             |  |  |
| UTTLE (PILOT CAR, WORK VEHICLE, VAN, OR BUS MAY BE USED)<br>3 A SEPARATED 2-WAY BIKE LANE (SEE SHEET 3)                     |                                                                                                                                        |                |                  |                                    |             |  |  |
|                                                                                                                             | E SPEED PRUDENT FOR WORK ZONE CONDITIONS, STOPPING TRAFFIC IF<br>SPEED OF 35 MPH (25 MPH AT LANE SHIFT), 10± MPH WHEN ESCORTING BIKES. |                |                  |                                    |             |  |  |
| FOR ADDITIC                                                                                                                 | ONAL REQUI                                                                                                                             | REMENTS:       |                  |                                    |             |  |  |
| PAREL                                                                                                                       |                                                                                                                                        |                |                  |                                    |             |  |  |
| - PROCEDURE<br>W PADDLE S                                                                                                   |                                                                                                                                        |                |                  |                                    |             |  |  |
| EMENTS, SEE                                                                                                                 | SPECIAL PR                                                                                                                             | OVISIONS.      |                  |                                    |             |  |  |
| UNLESS OTH                                                                                                                  | ERWISE IND                                                                                                                             | ICATED.        |                  |                                    |             |  |  |
| D-TRAINED FLAGGER WHO VISUALLY SEES BOTH AFAD AND APPROACHING OK). LEAVING AFAD UNATTENDED WHEN IN OPERATION IS PROHIBITED. |                                                                                                                                        |                |                  |                                    |             |  |  |
| FTER RED LENS DISPLAYED & SHALL REACH HALFWAY ACROSS THE<br>S TO UPRIGHT POSITION ON FLASHING YELLOW LENS DISPLAY.          |                                                                                                                                        |                |                  |                                    |             |  |  |
| S MAY VARY.                                                                                                                 |                                                                                                                                        |                |                  |                                    |             |  |  |
| RAFFIC                                                                                                                      | C: AFA                                                                                                                                 | D-CON          | ITROL            | LED                                |             |  |  |
| PH HIGHWAYS)                                                                                                                |                                                                                                                                        |                |                  |                                    |             |  |  |
|                                                                                                                             |                                                                                                                                        | . 🗸            |                  |                                    |             |  |  |
|                                                                                                                             |                                                                                                                                        |                |                  |                                    | Plot 1      |  |  |
|                                                                                                                             |                                                                                                                                        |                |                  |                                    | TC333       |  |  |
| Stata                                                                                                                       |                                                                                                                                        |                |                  |                                    | SHEET       |  |  |
| State<br>sportation                                                                                                         |                                                                                                                                        |                |                  |                                    | 1<br>0F     |  |  |
| -                                                                                                                           | TYPIC                                                                                                                                  | AL TRAFF       | IC CONTI         | ROL PLANS                          | 4<br>SHEETS |  |  |

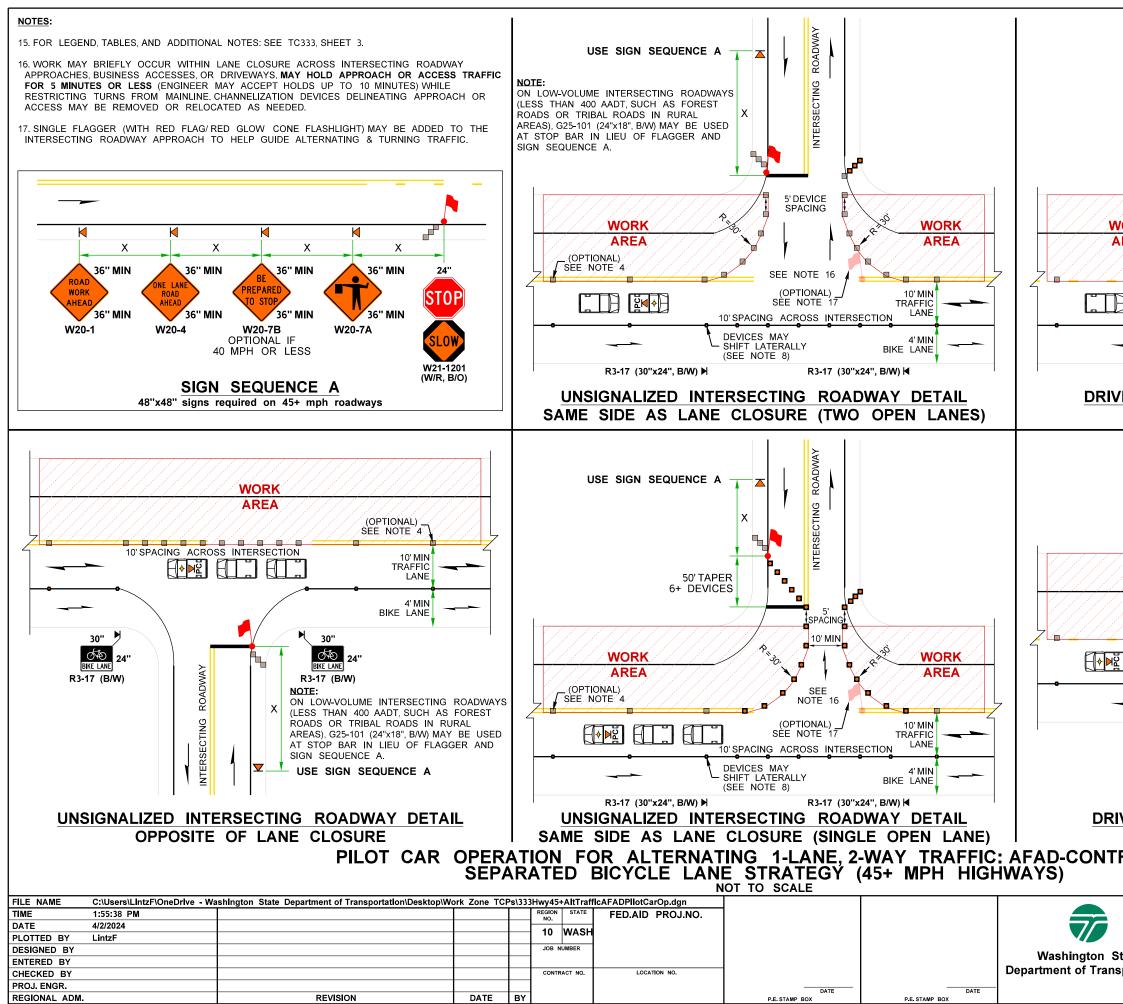
SHEETS



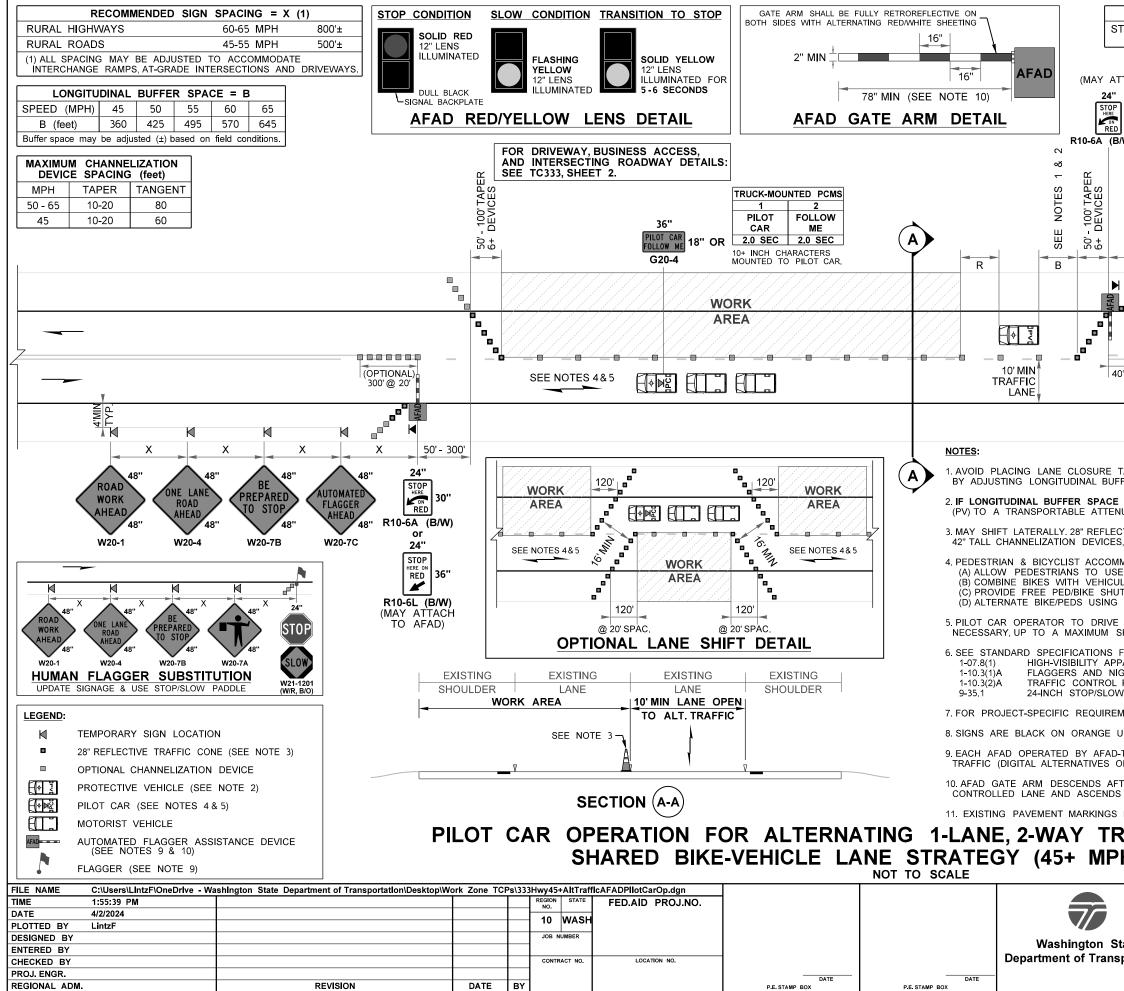
| WA<br>Pil   | 101 (B/W)                                                                 | 1                      |
|-------------|---------------------------------------------------------------------------|------------------------|
|             | NOTE 13                                                                   |                        |
|             | 10' MIN<br>TRAFFIC<br>LANE                                                | <b>_</b>               |
|             |                                                                           |                        |
|             | OR BUSINESS ACCESS DETAIL<br>SIDE AS LANE CLOSURE                         |                        |
|             |                                                                           |                        |
|             |                                                                           |                        |
|             |                                                                           |                        |
|             | WORK                                                                      |                        |
|             |                                                                           |                        |
|             | 10' SPACING ACROSS 10' MIN<br>D/W OR B. ACCESS TRAFFIC<br>LANE            | <u> </u>               |
|             |                                                                           |                        |
|             | 24"<br>X STOP<br>X SO<br>X STOP<br>WAIT FOR<br>PILOT CAR<br>G25-101 (B/W) | I                      |
|             | OR BUSINESS ACCESS DETAIL                                                 |                        |
| ROLLE       | DSITE OF LANE CLOSURE<br>D                                                |                        |
|             |                                                                           | Plot 2<br>Plan ref no  |
| State       |                                                                           | TC333                  |
| isportation | TYPICAL TRAFFIC CONTROL PLANS                                             | 2<br>OF<br>4<br>SHEETS |
|             |                                                                           | · I                    |



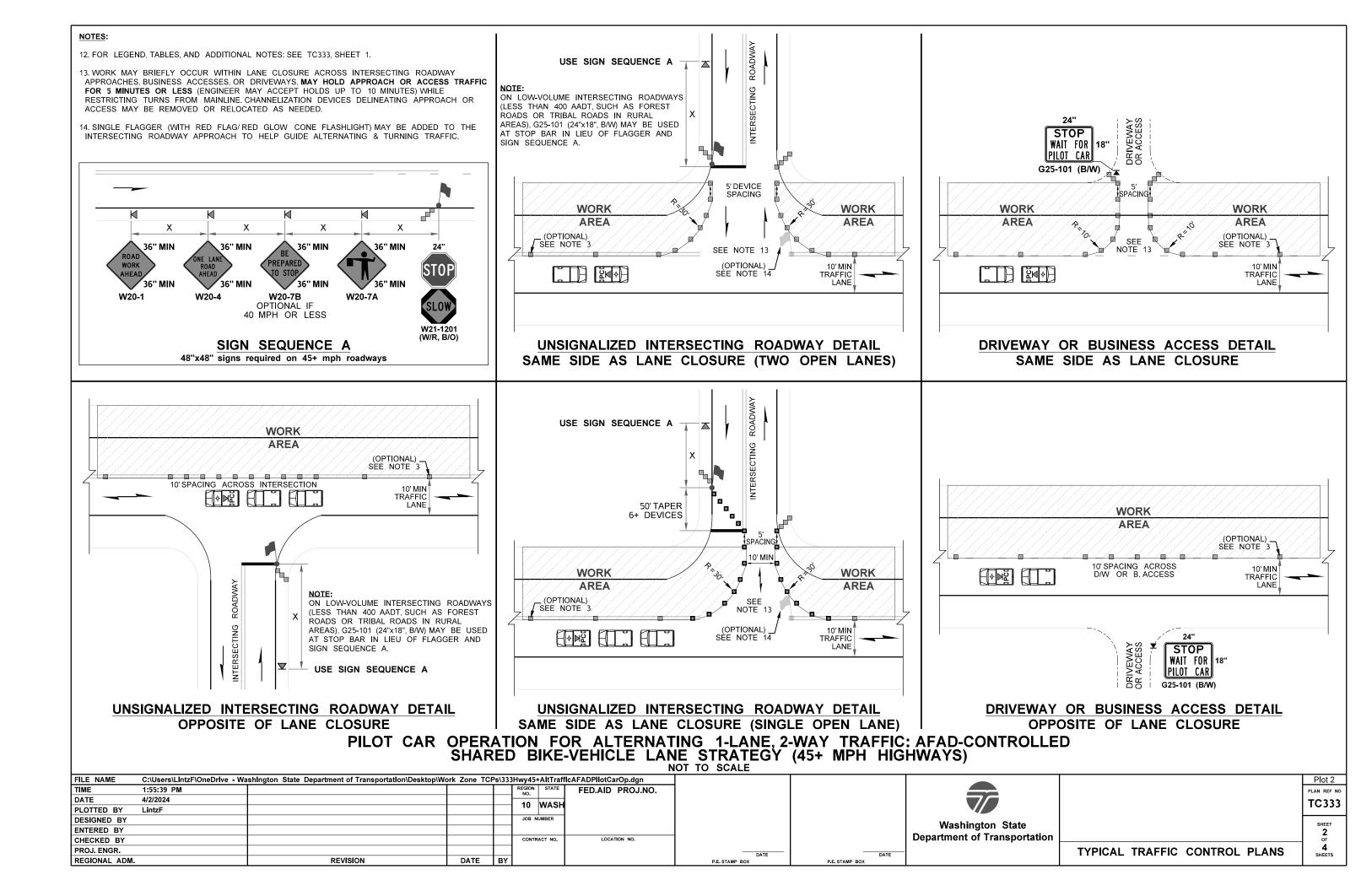
| PROTECTIVE VEHICLE ROLL AHEAD DISTANCE = R<br>STRATEGICALLY POSITION WORK VEHICLE TO PROTECT WORK CREW.                                                                              |              |                         |                            |                      |                       |
|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|--------------|-------------------------|----------------------------|----------------------|-----------------------|
| 40' - 80' RECOMMENDED.                                                                                                                                                               |              |                         |                            |                      |                       |
| TTACH TO AFAD) 24" STATIONARY TRANSPORTABLE ATTENUATOR ROLL AHEAD DISTANCE = R HOST VEHICLE WEIGHT HOST VEHICLE WEIGHT                                                               |              |                         |                            |                      |                       |
| ্র জি                                                                                                                                                                                | OP           | HOST VEHIC<br>LESS THAN | 22,000 lbs.                | HOST VEHIC<br>22,000 |                       |
| 30" R                                                                                                                                                                                | ED 36"       | 45-55 MPH<br>123'       | 60+ MPH<br>172'            | 45-55 MPH<br>100'    | 60+ MPH<br>150'       |
| 3/W) or R10-6L                                                                                                                                                                       | _ (B/W)      | 125                     | 112                        | 100                  |                       |
|                                                                                                                                                                                      | 48"          | 48"                     | 48"                        | 48                   |                       |
| AUTO                                                                                                                                                                                 |              | BE<br>PREPARED          | ONE LANE                   | ROAD                 | <b>`</b>              |
|                                                                                                                                                                                      | IGGER        | TO STOP                 | ROAD                       | WORK<br>AHEAD        | 2                     |
|                                                                                                                                                                                      | 48"<br>20-7C | 48"<br>W20-7B           | 48"<br>W20-4               | 48'<br>W20-1         |                       |
| >                                                                                                                                                                                    |              |                         | vv20-4                     |                      |                       |
| ×                                                                                                                                                                                    | ×            | X                       |                            | X X                  |                       |
|                                                                                                                                                                                      |              |                         |                            | 4'MIN                |                       |
| 0                                                                                                                                                                                    |              |                         |                            |                      |                       |
|                                                                                                                                                                                      |              |                         |                            | -                    | <b>—</b> [            |
| 10' 260' @ 20'                                                                                                                                                                       |              |                         |                            |                      |                       |
| (OPTIONAL)                                                                                                                                                                           |              |                         |                            | -                    |                       |
| CES MAY                                                                                                                                                                              |              |                         |                            |                      |                       |
| T LATERALLY<br>NOTE 8)                                                                                                                                                               |              |                         |                            |                      |                       |
| B/W)                                                                                                                                                                                 |              |                         |                            |                      |                       |
| EN LANE &                                                                                                                                                                            |              | ULDER IS AT             |                            |                      |                       |
| TAPERS WIT                                                                                                                                                                           | HIN OR IMM   | IEDIATELY FO            | LLOWING HOR                | IZONTAL & VEF        | RTICAL CURVES         |
| E REDUCED FROM DISTANCES LISTED IN TABLE, UPGRADE PROTECTIVE VEHICLE                                                                                                                 |              |                         |                            |                      |                       |
| ENUATOR (TA). ADDITIONAL PV/TAS MAY BE ADDED AT SEPARATE WORK CREWS.                                                                                                                 |              |                         |                            |                      |                       |
| RAFFIC SAFETY DRUMS OK.<br>ERNATE BIKES IN THE SEPARATED 2-WAY, 4'MIN BIKE LANE                                                                                                      |              |                         |                            |                      |                       |
| (ENGINEER TO ACCEPT ANY ALTERNATIVE STRATEGIES):<br>EDS IN THE SEPARATE 2-WAY, BIKE LANE (4'MIN, 8'WIDTH PREFERRED)<br>E (PILOT CAR, WORK VEHICLE, VAN, OR BUS MAY BE USED)          |              |                         |                            |                      |                       |
| E (FILOT CAR, WORK VEHICLE, VAN, OR BUS MAY BE USED)<br>E SPEED PRUDENT FOR WORK ZONE CONDITIONS, STOPPING TRAFFIC IF<br>SPEED OF 35 MPH (25 MPH AT LANE SHIFT).                     |              |                         |                            |                      |                       |
|                                                                                                                                                                                      | •            |                         | ,                          | NE & 10'MIN T        | RAFFIC LANE.          |
| FOR ADDITI                                                                                                                                                                           | ONAL REQUI   | REMENTS:                |                            |                      |                       |
| HTTIME ILLUM                                                                                                                                                                         |              |                         |                            |                      |                       |
| PADDLE SIZE<br>REMENTS, SEE SPECIAL PROVISIONS.                                                                                                                                      |              |                         |                            |                      |                       |
| E UNLESS OTHERWISE INDICATED.                                                                                                                                                        |              |                         |                            |                      |                       |
| AD-TRAINED F<br>OK). LEAVING                                                                                                                                                         | LAGGER WH    | HO VISUALLY             | SEES BOTH A<br>EN IN OPERA | FAD AND APPI         | ROACHING<br>BITED.    |
| OK). LEAVING AFAD UNATTENDED WHEN IN OPERATION IS PROHIBITED.<br>FTER RED LENS DISPLAYED & SHALL REACH HALFWAY ACROSS THE<br>DS TO UPRIGHT POSITION ON FLASHING YELLOW LENS DISPLAY. |              |                         |                            |                      |                       |
| S MAY VARY.                                                                                                                                                                          |              |                         |                            |                      |                       |
| RAFFIC                                                                                                                                                                               | C: AFA       | D-CON                   | ITROL                      | LED                  |                       |
| RAFFIC: AFAD-CONTROLLED<br>H HIGHWAYS)                                                                                                                                               |              |                         |                            |                      |                       |
|                                                                                                                                                                                      |              | •,                      |                            |                      |                       |
|                                                                                                                                                                                      |              |                         |                            |                      | Plot 3<br>plan ref no |
|                                                                                                                                                                                      |              |                         |                            |                      | TC333                 |
| State                                                                                                                                                                                |              |                         |                            |                      | SHEET                 |
| sportation                                                                                                                                                                           |              |                         |                            |                      | 3<br>                 |
|                                                                                                                                                                                      | TYPIC        | AL TRAFF                | IC CONTR                   | OL PLANS             | A SHEETS              |

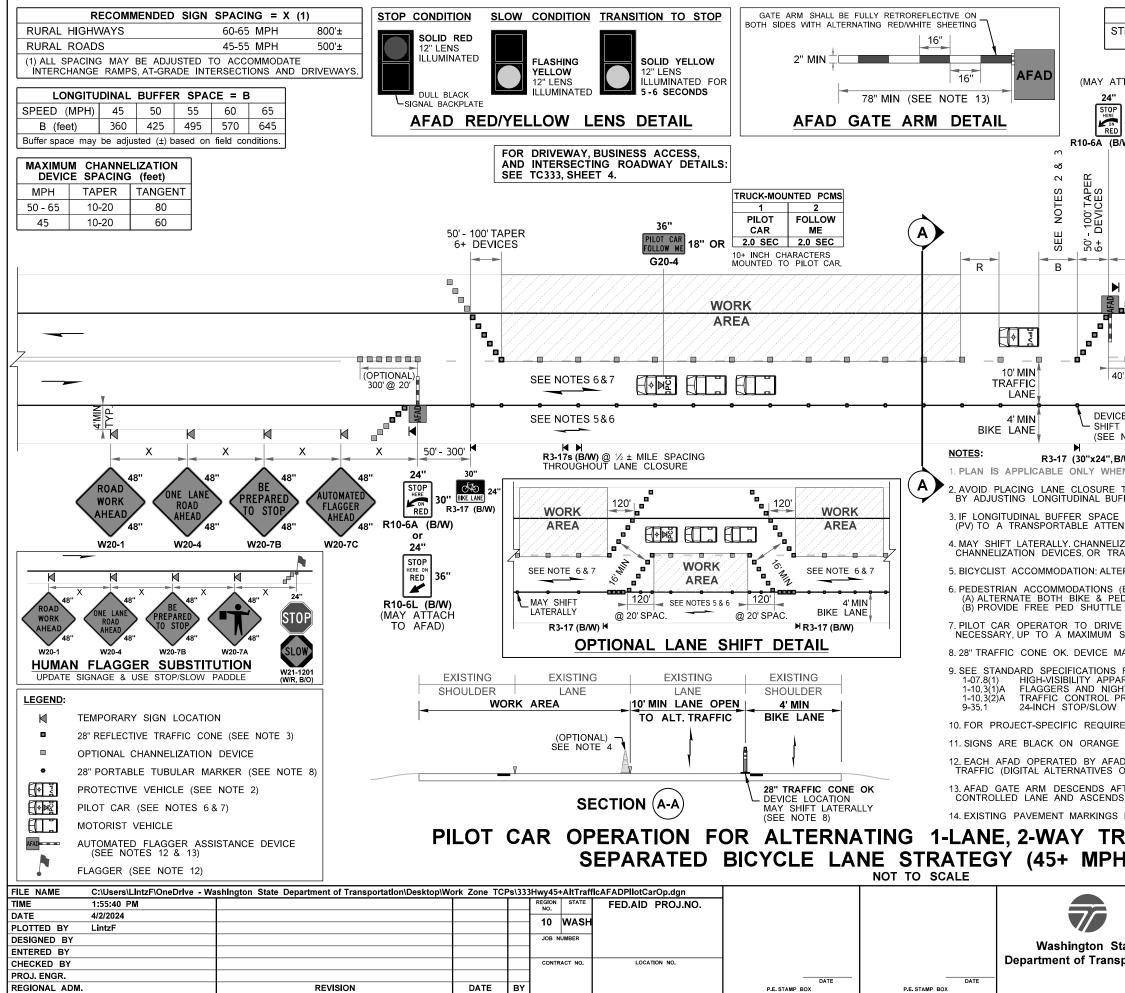


| WA    | 24"<br>TOP<br>IT FOR<br>01 CAR<br>18"<br>18"<br>18"<br>18"<br>18"<br>18"<br>18"<br>18" |                       |
|-------|----------------------------------------------------------------------------------------|-----------------------|
| NORK  | spacing WORK                                                                           |                       |
| AREA  | AREA<br>AREA<br>(OPTIONAL)<br>SEE NOTE 4<br>NOTE 16                                    |                       |
|       | 10' SPACING ACROSS TRAFFIC<br>D/W OR B. ACCESS LANE                                    |                       |
|       | DEVICES MAY<br>SHIFT LATERALLY<br>(SEE NOTE 8)<br>BIKE LANE                            | <u> </u>              |
|       | OR BUSINESS ACCESS DETAIL<br>SIDE AS LANE CLOSURE                                      | I                     |
|       |                                                                                        |                       |
|       |                                                                                        |                       |
|       |                                                                                        |                       |
|       | WORK                                                                                   |                       |
|       | AREA<br>(OPTIONAL)SEE NOTE 4                                                           |                       |
|       | 10' SPACING ACROSS<br>D/W OR B. ACCESS<br>LANE                                         |                       |
|       | DEVICES MAY<br>SHIFT LATERALLY<br>(SEE NOTE 8)<br>BIKE LANE                            | <u> </u>              |
|       | 24"<br>X STOP<br>WAII FOR<br>PILOT CAR<br>G25-101 (B/W)                                | '                     |
|       | OR BUSINESS ACCESS DETAIL<br>DSITE OF LANE CLOSURE<br>D                                |                       |
|       |                                                                                        | Plot 4<br>Plan ref no |
| State |                                                                                        | ТС333<br>SHEET        |
| state | TYPICAL TRAFFIC CONTROL PLANS                                                          | OF<br>4<br>SHEETS     |

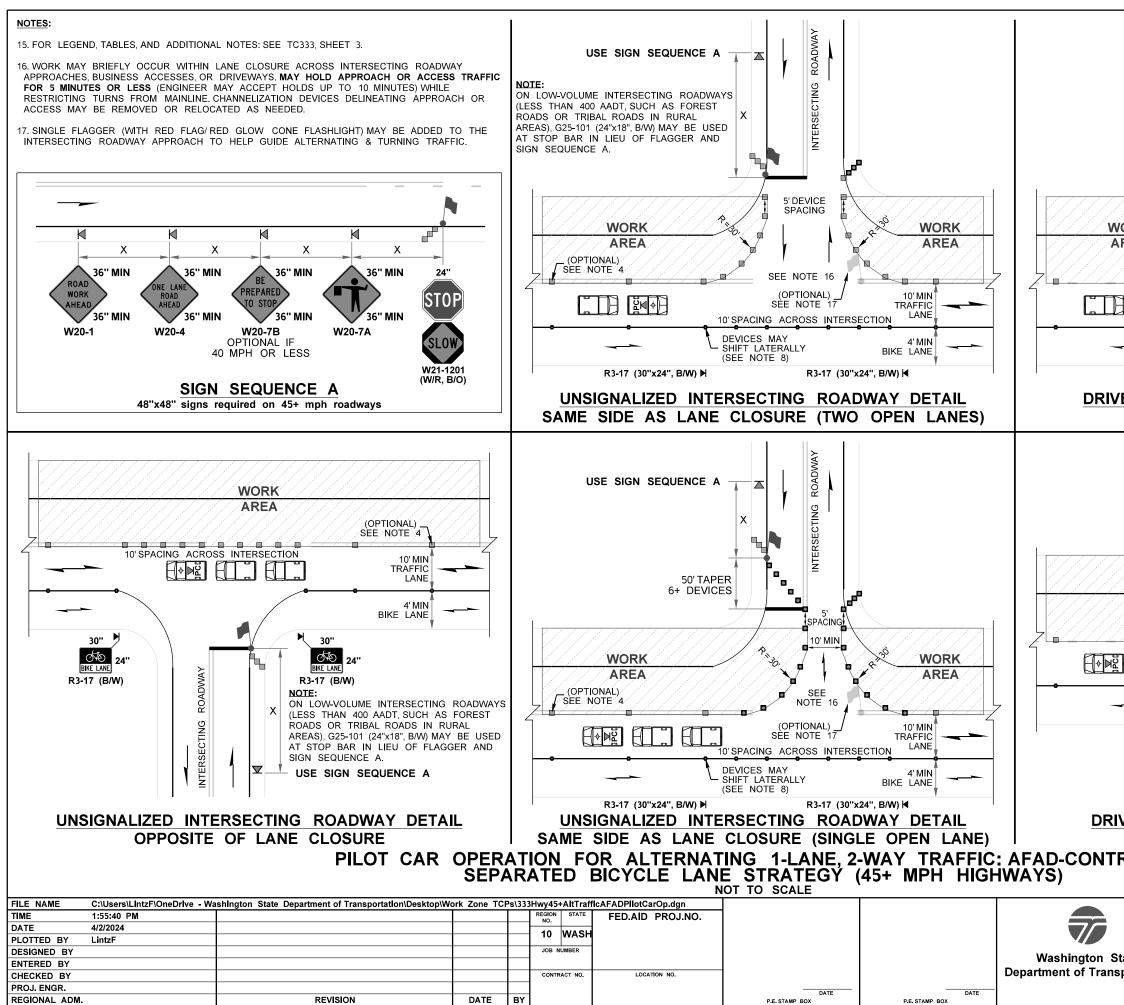


| PR                                                                                                                                                                                  | OTECTIVE                                                      | VEHICLE RO   | LL AHEAD    | DISTANCE =   | R                     |  |
|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|---------------------------------------------------------------|--------------|-------------|--------------|-----------------------|--|
| STRATEGICALLY POSITION WORK VEHICLE TO PROTECT WORK CREW.<br>40' - 80' RECOMMENDED.                                                                                                 |                                                               |              |             |              |                       |  |
| STATIONARY TRANSPORTABLE ATTENUATOR<br>ROLL AHEAD DISTANCE = R                                                                                                                      |                                                               |              |             |              |                       |  |
| , 2<br>_ [1]                                                                                                                                                                        | 4"                                                            | HOST VEHIC   | LE WEIGHT   | HOST VEHIC   |                       |  |
| 30" R                                                                                                                                                                               | ED 36"                                                        | 45-55 MPH    | 60+ MPH     | 45-55 MPH    | 60+ MPH               |  |
| 」<br>∃/W) or R10-6I                                                                                                                                                                 |                                                               | 123'         | 172'        | 100'         | 150'                  |  |
|                                                                                                                                                                                     | _ (_/_/)                                                      |              |             |              |                       |  |
|                                                                                                                                                                                     | <b>48</b> "                                                   | 48"          | 48"         | 48           | 3''                   |  |
|                                                                                                                                                                                     | OMATED                                                        | PREPARED     | ONE LANE    | ROAD<br>WORK |                       |  |
|                                                                                                                                                                                     | HEAD                                                          | TO STOP      | ROAD        | AHEAD        |                       |  |
|                                                                                                                                                                                     | 48"                                                           | 48"          | 48"         | $\checkmark$ | 3"                    |  |
| «                                                                                                                                                                                   | 20-7C                                                         | W20-7B       | W20-4       | W20-1        |                       |  |
| X                                                                                                                                                                                   |                                                               | X            |             | X            |                       |  |
|                                                                                                                                                                                     |                                                               | H            | H           | 4'MIN        |                       |  |
|                                                                                                                                                                                     |                                                               |              |             |              |                       |  |
|                                                                                                                                                                                     |                                                               |              |             |              | <b>_</b>              |  |
|                                                                                                                                                                                     |                                                               |              |             |              |                       |  |
| 40' 260'@ 20'                                                                                                                                                                       |                                                               |              |             |              |                       |  |
| (OPTIÕNAL)                                                                                                                                                                          |                                                               |              |             |              |                       |  |
|                                                                                                                                                                                     |                                                               |              |             |              |                       |  |
|                                                                                                                                                                                     |                                                               |              |             |              |                       |  |
|                                                                                                                                                                                     |                                                               |              |             |              |                       |  |
| TAPERS WIT                                                                                                                                                                          | HIN OR IMM                                                    | EDIATELY FOL | LOWING HORI | ZONTAL & VEF | RTICAL CURVES         |  |
| FFER.                                                                                                                                                                               |                                                               |              |             |              |                       |  |
| E REDUCED FROM DISTANCES LISTED IN TABLE, UPGRADE PROTECTIVE VEHICLE NUATOR (TA). ADDITIONAL PV/TAS MAY BE ADDED AT SEPARATE WORK CREWS.                                            |                                                               |              |             |              |                       |  |
| CTIVE TRAFFIC CONES AT CENTERLINE ARE OPTIONAL. 36" TRAFFIC CONES,<br>S, OR TRAFFIC SAFETY DRUMS OK.                                                                                |                                                               |              |             |              |                       |  |
| MODATIONS (ENGINEER TO ACCEPT ANY ALTERNATIVE STRATEGIES):                                                                                                                          |                                                               |              |             |              |                       |  |
| E THE PAVED SHOULDER OR ADJACENT PATH OPPOSITE THE WORK AREA<br>JLAR TRAFFIC BIKES ESCORTED DIRECTLY BEHIND PILOT CAR @ 10± MPH                                                     |                                                               |              |             |              |                       |  |
| JTTLE (PILOT CAR, WORK VEHICLE, VAN, OR BUS MAY BE USED)<br>3 A SEPARATED 2-WAY BIKE LANE (SEE SHEET 3)                                                                             |                                                               |              |             |              |                       |  |
| E SPEED PRUDENT FOR WORK ZONE CONDITIONS, STOPPING TRAFFIC IF SPEED OF 35 MPH (25 MPH AT LANE SHIFT), $10\pm$ MPH WHEN ESCORTING BIKES.                                             |                                                               |              |             |              |                       |  |
| FOR ADDITIC                                                                                                                                                                         | ONAL REQUIR                                                   | REMENTS:     |             |              |                       |  |
| PAREL<br>IGHTTIME ILL                                                                                                                                                               | UMINATION                                                     |              |             |              |                       |  |
| V PADLE SIZE                                                                                                                                                                        |                                                               |              |             |              |                       |  |
| EMENTS SEE SPECIAL PROVISIONS.                                                                                                                                                      |                                                               |              |             |              |                       |  |
| UNLESS OTHERWISE INDICATED.                                                                                                                                                         |                                                               |              |             |              |                       |  |
| D-TRAINED FL                                                                                                                                                                        | D-TRAINED FLAGGER WHO VISUALLY SEES BOTH AFAD AND APPROACHING |              |             |              |                       |  |
| OK). LEAVING AFAD UNATTENDED WHEN IN OPERATION IS PROHIBITED.<br>FTER RED LENS DISPLAYED & SHALL REACH HALFWAY ACROSS THE<br>S TO UPRIGHT POSITION ON FLASHING YELLOW LENS DISPLAY. |                                                               |              |             |              |                       |  |
|                                                                                                                                                                                     | T POSITION                                                    | ON FLASHIN   | J YELLOW LE | INS DISPLAY. |                       |  |
| S MAY VARY.                                                                                                                                                                         | <b>.</b>                                                      |              |             |              |                       |  |
| RAFFIC: AFAD-CONTROLLED                                                                                                                                                             |                                                               |              |             |              |                       |  |
| PH HIGHWAYS)                                                                                                                                                                        |                                                               |              |             |              |                       |  |
|                                                                                                                                                                                     |                                                               |              |             |              | Diat 1                |  |
|                                                                                                                                                                                     |                                                               |              |             |              | Plot 1<br>plan ref no |  |
|                                                                                                                                                                                     |                                                               |              |             |              | TC333                 |  |
| State                                                                                                                                                                               |                                                               |              |             |              | SHEET                 |  |
| sportation                                                                                                                                                                          |                                                               |              |             |              | 1<br>0F               |  |
|                                                                                                                                                                                     | TYPIC                                                         | AL TRAFF     | IC CONTR    | ROL PLANS    | S 4<br>SHEETS         |  |





| PROTECTIVE VEHICLE ROLL AHEAD DISTANCE = R<br>STRATEGICALLY POSITION WORK VEHICLE TO PROTECT WORK CREW.                                                                     |              |                         |              |                        |                   |
|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------|--------------|-------------------------|--------------|------------------------|-------------------|
| 40'- 80' RECOMMENDED.                                                                                                                                                       |              |                         |              |                        |                   |
| TTACH TO AFAD)                                                                                                                                                              |              |                         |              |                        |                   |
| ज जि                                                                                                                                                                        | 4"<br>0P     | HOST VEHIC<br>LESS THAN | 22,000 lbs.  | HOST VEHICI<br>22,000- |                   |
| <b>30</b> " R                                                                                                                                                               | o∾<br>D 36"  | 45-55 MPH               | 60+ MPH      | 45-55 MPH              | 60+ MPH           |
| ے<br>B/W) or R10-6L                                                                                                                                                         |              | 123'                    | 172'         | 100'                   | 150'              |
|                                                                                                                                                                             | <b>^</b>     |                         |              |                        | _                 |
| AUTO                                                                                                                                                                        | 48"<br>MATED | BE 48"                  | ONE LANE     | ROAD 48'               |                   |
| 🦯 FLA                                                                                                                                                                       | GGER         | TO STOP                 | ROAD         |                        | >                 |
|                                                                                                                                                                             | 48"          | 48''                    | 48"          | 48'                    | •                 |
| W2                                                                                                                                                                          | 20-7C        | W20-7B                  | W20-4        | W20-1                  |                   |
| ×<br>I IIIIIIIIIIIIIIIIIIIIIIIIIIIIIIIIIII                                                                                                                                  | X<br>≯       | X N                     | $\bowtie$    | X                      |                   |
| ┝┥╺。╸╷<br>┃╺┓                                                                                                                                                               | 1            |                         |              | 4'MIN                  |                   |
|                                                                                                                                                                             |              |                         |              | 4                      |                   |
|                                                                                                                                                                             |              |                         |              | -                      |                   |
|                                                                                                                                                                             |              |                         |              |                        |                   |
| 40'  260' @ 20' <br>(OPTIONAL)                                                                                                                                              |              |                         |              | -                      | _                 |
| CES MAY<br>T LATERALLY<br>NOTE 8)                                                                                                                                           |              |                         |              |                        |                   |
| B/W)                                                                                                                                                                        | DAVED SHO    |                         | LEAST 14 EEL |                        |                   |
| IEN LANE & PAVED SHOULDER IS AT LEAST 14 FEET WIDE.<br>TAPERS WITHIN OR IMMEDIATELY FOLLOWING HORIZONTAL & VERTICAL CURVES<br>JFFER.                                        |              |                         |              |                        |                   |
| E REDUCED FROM DISTANCES LISTED IN TABLE, UPGRADE PROTECTIVE VEHICLE<br>INUATOR (TA), ADDITIONAL PV/TAS MAY BE ADDED AT SEPARATE WORK CREWS.                                |              |                         |              |                        |                   |
| IZATION DEVICE AT CENTERLINE OPTIONAL. 36" TRAFFIC CONES, 42" TALL<br>RAFFIC SAFETY DRUMS OK.                                                                               |              |                         |              |                        |                   |
| ERNATE BIKES IN THE SEPARATED 2-WAY, 4' MIN BIKE LANE                                                                                                                       |              |                         |              |                        |                   |
| (ENGINEER TO ACCEPT ANY ALTERNATIVE STRATEGIES):<br>EDS IN THE SEPARATE 2-WAY, BIKE LANE (4'MIN, 8'WIDTH PREFERRED)<br>E (PILOT CAR, WORK VEHICLE, VAN, OR BUS MAY BE USED) |              |                         |              |                        |                   |
| E SPEED PRUDENT FOR WORK ZONE CONDITIONS, STOPPING TRAFFIC IF<br>SPEED OF 35 MPH (25 MPH AT LANE SHIFT).                                                                    |              |                         |              |                        |                   |
| MAY SHIFT LATERALLY BUT PROVIDE 4'MIN BIKE LANE & 10'MIN TRAFFIC LANE.                                                                                                      |              |                         |              |                        |                   |
| FOR ADDITI                                                                                                                                                                  |              | REMENTS:                |              |                        |                   |
| OHTTIME ILLUMINATION PROCEDURES                                                                                                                                             |              |                         |              |                        |                   |
| / PADDLE SIZE<br>REMENTS, SEE SPECIAL PROVISIONS.                                                                                                                           |              |                         |              |                        |                   |
| E UNLESS OTHERWISE INDICATED.                                                                                                                                               |              |                         |              |                        |                   |
| AD-TRAINED FLAGGER WHO VISUALLY SEES BOTH AFAD AND APPROACHING<br>OK). LEAVING AFAD UNATTENDED WHEN IN OPERATION IS PROHIBITED.                                             |              |                         |              |                        |                   |
| AFTER RED LENS DISPLAYED & SHALL REACH HALFWAY ACROSS THE<br>DS TO UPRIGHT POSITION ON FLASHING YELLOW LENS DISPLAY.                                                        |              |                         |              |                        |                   |
| S MAY VARY.                                                                                                                                                                 |              |                         |              |                        |                   |
| RAFFIC: AFAD-CONTROLLED                                                                                                                                                     |              |                         |              |                        |                   |
| H HIGHWAYS)                                                                                                                                                                 |              |                         |              |                        |                   |
|                                                                                                                                                                             |              |                         |              |                        | Plot 3            |
|                                                                                                                                                                             |              |                         |              |                        | PLAN REF NO       |
|                                                                                                                                                                             |              |                         |              |                        | TC333             |
| State<br>sportation                                                                                                                                                         |              |                         |              |                        | SHEET<br>3<br>OF  |
|                                                                                                                                                                             | TYPIC        | AL TRAFF                |              | OL PLANS               | OF<br>4<br>SHEETS |



| WA<br>Pil            | 101 (B/W)                                             | DRK<br>REA                     |
|----------------------|-------------------------------------------------------|--------------------------------|
|                      | NOTE 16                                               |                                |
|                      |                                                       |                                |
|                      | OR BUSINESS ACCESS DE<br>SIDE AS LANE CLOSURE         | TAIL                           |
|                      | WORK<br>AREA<br>10'SPACING ACROSS<br>D/W OR B. ACCESS | DNAL)<br>OTE 4                 |
|                      | DEVICES MAY<br>SHIFT LATERALLY<br>(SEE NOTE 8)        | 4' MIN                         |
|                      | OR BUSINESS ACCESS D<br>DSITE OF LANE CLOSURE         | ETAIL                          |
|                      |                                                       | Plot 4<br>Plan ref no<br>TC333 |
| State<br>isportation | TYPICAL TRAFFIC CONTROL                               | SHEET<br>4<br>OF               |

### WORK ZONE MICROSTATION CELLS: Updated work zone cells incorporated (April 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 e-mail HOCAEHelpDesk@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: Pilot Car Operation for AFAD-controlled 1-lane, 2-way alternating traffic on the mainline for 45+ mph 2-lane highways with a shared bicycle-vehicle lane.
- **Plot 2:** Details for intersecting roadways and driveway/business access for Plot 1.
- Plot 3: Pilot Car Operation for AFAD-controlled 1-lane, 2-way alternating traffic on the mainline for 45+ mph 2-lane highways with a separated bicycle lane. Separated bike lanes maximize vehicle capacity (minimizing queue & delays) especially when high bicycle volumes are expected and mainline flaggers are 1500'+ apart.

Plot 4: Details for intersecting roadways and driveway/business access for Plot 3.

Note: For temporary rumble strip versions of these plans, see Typical TC334.

### Other Alternating Traffic TCPs (45+ mph): See Typical Traffic Control Plan Library

(https://wsdot.wa.gov/engineering-standards/all-manuals-and-standards/plan-sheet-library/work-zone-typical-traffic-control-plans-tcp)

- \* TC320s for flagger-controlled alternating traffic plans
- \* TC330s for other variations of AFAD-controlled alternating traffic plans
- \* TC340s for temporary signal-controlled alternating traffic plans
- \* TC350s for traffic holds
- If not published yet, they will be added in the future.

## Other Alternating Traffic TCPs (40 mph or less): See Typical Traffic Control Plan Library

- (https://wsdot.wa.gov/engineering-standards/all-manuals-and-standards/plan-sheet-library/work-zone-typical-traffic-control-plans-tcp)
- \* TC420s for flagger-controlled alternating traffic
- \* TC430s for AFAD-controlled alternating traffic
- \* TC440s for temporary signal-controlled alternating traffic plans
- \* TC450s for traffic holds
- If not published yet, they will be added in the future.

# **DESIGNER NOTES:**

- Typical TCPs are not "Standard Plans".
- D. See MUTCD Table 6F-1 for additional temporary sign size information. Work zone signs are usually smaller than those used permanently.
- should include actual sign spacing values (with À) that have been verified in the field, on SR view, or via Google Maps.
- F. When positioned behind channelizing devices, temporary signs should be mounted at 5' minimum.
- limit for sign spacing, channelizing device spacing, buffer, and roll ahead distances.
- lane width per MUTCD 6C.08, Paragraph 15. Never use "L" for these tapers.
- I. Channelization devices types may be modified (vertical panel channelizing devices prohibited). 28" reflective traffic cones are recommended on Transportation Operations for information regarding their standard practices.
- J. Maximum channelizing device spacing table for tangents is based on WAC 468-95-301 and may ALWAYS be reduced.
- K. Sequential arrow boards are prohibited at flagger tapers per WSDOT standard practice and per MUTCD Guidance TA-10.
- TCPs due to the low speeds of alternating traffic. Actual work area limits may be modified.
- Contact Region Transportation Operations for their standard practice.
- lane(s) but is not shown in the Typical TCP.
- P. The downstream taper of 50'-100' is required on 1-lane, 2-way traffic configurations.
- this Typical Traffic Control Plan, but may be adjusted. Contact Region Transportation Operations for additional guidance.
- R. When utilizing AFADs in Contracts, include the three Section 1-10 General Special Provisions for Specification. Measurement, and Payment. https://wsdot.wa.gov/publications/fulltext/projectdev/gspspdf/egsp1.pdf \* 1-10.1(1) OPT1 GR1 (AFAD Materials GSP)
  - \* 1-10.3(3).OPT1.GR1 (AFAD Specifications GSP)
  - \* 1-10.4(2) OPT2 GR1 (AFAD Measurement GSP)
  - \* 1-10.5(2).OPT1.GR1 (AFAD Payment GSP)

PILOT CAR OPERATION FOR ALTERNATING 1-LANE, 2-WAY TRAFFIC: AFAD-CONTROLLED (45+ MPH HIGHWAYS)

A. Contact Region Transportation Operations to determine which Typical TCP(s) to utilize, as their are several variations available (or soon will be).

B. These typical traffic control plans may be modified for site specific situations and/or WSDOT Region Transportation Operations standard practices.

C. Do not use intermittent (old: "variable") regulatory work zone speed limit reductions for flagging or AFAD operations. Instead, maintain the existing speed limit (or continuous regulatory work zone speed limit reduction, if applicable). See WSDOT Traffic Manual Section 5-18 and Executive Order E1060 regulatory speed limit reductions & advisory speed approval policy for work zones thru Region Transportation Operations.

E, WAC 468-95-300 modifies MUTCD Table 6-1 "Recommended Advance Warning Sign Minimum Spacing". Sign spacing may be adjusted for field conditions based on engineering judgement. The Sign Spacing table is acceptable to use in Typical TCPs; however, site-specific traffic control plans

G. The work zone design speed is typically the posted speed limit (or the work zone speed limit when in effect). For split speed limits (SPEED LIMIT 65 TRUCKS 60), use the higher 65 mph for work zone design. For this Typical TCP, the work zone design speed is based on the existing posted speed

H. "Flagger tapers" are always 50'-100' per closed lane with 6 devices minimum (10'-20' spacing on the taper), regardless of the posted speed limit or

AFAD-controlled alternating traffic (especially for access delineation to maintain visibility for turning motorists). 36" reflective traffic cones, 42" tall channelizing devices, or traffic safety drums may be used. Warning lights on channelizing devices is being phased out in Washington. Contact Region

L. Per MUTCD Section 6C.06, longitudinal buffer spaces are optional. Using longitudinal buffer spaces listed in MUTCD Table 6C-2 is recommended as best practice when feasible, but may be adjusted based on engineering judgement. The Longitudinal Buffer Space table is acceptable in Typical TCPs; however, site-specific traffic control plans should include actual buffer distances that have been verified in the field, on SR view, or via Google Maps.

M. The lateral buffer (transverse distance between open travel lanes and work area) is optional. No lateral buffer has been provided in these Typical

N. WSDOT best practice is to place a protective vehicle (PV) in the closed lane in advance of the work area for AFAD-controlled alternating traffic, but provide a full longitudinal buffer space to provide errant vehicles an opportunity to stop at the posted speed limit on 45+ mph roadways before impacting the PV. If the longitudinal buffer distance must be reduced or eliminated on 45+ mph roadways with AFAD-controlled alternating traffic, then upgrade the PV to a transportable attenuator (TA). Additional PVs (or TAs) may be added prior to multiple work crews within a work area.

O. Placing channelizing devices transversely (at 45° and 5-foot spacing) is an optional strategy to stop move errant drivers traveling within the closed

Q. Duration of traffic holds for driveways, business accesses, and/or roadway approaches is listed as 5 minutes (1 minute on high volume highways) in

|                                                     | Plot 5 |
|-----------------------------------------------------|--------|
| DO NOT INCLUDE THIS SHEET IN                        | TC333  |
| CONTRACT PS&Es or TCP SUBMITTALs. DESIGNER GUIDANCE |        |