**SPEED M.P.H.**

<table>
<thead>
<tr>
<th>MINIMUM DISTANCE FROM TAPER TO FIRST SIGN</th>
<th>ADDITIONAL SIGNS IN SERIES TO BE SPACED AT A MINIMUM</th>
<th>MINIMUM COMBINED ADVANCED WARNING</th>
</tr>
</thead>
<tbody>
<tr>
<td>A</td>
<td>B</td>
<td>C</td>
</tr>
<tr>
<td>25</td>
<td>200'</td>
<td>200'</td>
</tr>
<tr>
<td>30-35</td>
<td>300'</td>
<td>300'</td>
</tr>
<tr>
<td>40</td>
<td>500'</td>
<td>500'</td>
</tr>
<tr>
<td>45-65</td>
<td>800'</td>
<td>700'</td>
</tr>
</tbody>
</table>

**EXAMPLE: TWO LANES, ONE-WAY ROADWAY, POSTED SPEED LIMIT IS 30 M.P.H.**

**TERMINATION AREA**
- LETS TRAFFIC RESUME NORMAL DRIVING
  - 500' MAX.
  - 100' MAX.

**WORK AREA**
- PROVIDES ADDITIONAL PROTECTION FOR TRAFFIC AND WORKERS
- SEE CHART BELOW FOR BUFFER ZONE LENGTHS
- BUFFER ZONES ARE OPTIONAL EXCEPT FOR FLAGGING OPERATIONS

**BUFFER AREA**
- TELLS TRAFFIC WHAT TO EXPECT AHEAD
  - SEE CHART BELOW FOR TAPER LENGTHS
  - 500' MAX.

**TRANSITION AREA**
- MOVES TRAFFIC OUT OF ITS NORMAL PATH

**ADVANCE WARNING AREA**
- TELLS TRAFFIC WHAT TO EXPECT AHEAD
  - A
  - B
  - C

**NOTE: THE POSTED SPEED PLUS 10 MPH SHOULD BE USED FOR THE DESIGN OF SIGN SPACING, TAPER AND BUFFER LENGTHS**

**GUIDELINES FOR TAPER LENGTHS**

<table>
<thead>
<tr>
<th>SPEED M.P.H.</th>
<th>TAPER LENGTH</th>
<th>LANE WIDTH IN FEET</th>
<th>NUMBER OF SPACING OF DEVICES</th>
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<tr>
<td>20</td>
<td>70</td>
<td>75</td>
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<td>35</td>
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<td>650</td>
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<td>650</td>
<td>715</td>
<td>780</td>
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<tr>
<td>65</td>
<td>750</td>
<td>815</td>
<td>870</td>
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**GUIDELINES FOR BUFFER ZONE LENGTHS**

<table>
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<th>SPEED (MPH)</th>
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<td>20</td>
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<td>60</td>
<td>415</td>
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<td>485</td>
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**DATE**
- 07-01-16

**DES. BY**
- MCDPWT

**TRAFFIC OPERATIONS SECTION**
- MONTGOMERY COUNTY, MARYLAND

**SPACING CHART**

**REVISION BY**
- DRAWN BY
- SCALE
- NTS

**APPROVAL**
- STANDARD TCP-100.01 OF SHEETS
NOTES:
PVMS MESSAGES AND PLACEMENT OF THIS DEVICE SHALL BE APPROVED BY THE TRAFFIC OPERATIONS SECTION

THE EDGE OF THE SIGN BOARD OF THE PVMS SHALL BE PLACED A MINIMUM OF 3' AND NO MORE THAN 8' FROM EDGE LINE.

EDGE LINE

3' MIN TO 8' MAX

1/3 TAPER

S^2=10 FT.

DIRECTION OF TRAFFIC

PORTABLE VARIABLE MESSAGE SIGN (PVMS)

TRAFFIC DRUMS
OR CONES
REFER TO TCP 100.01 FOR SIGN SPACING AND TAPER LENGTHS

W20-1 (MOD)  
48" x 48"

EDGE OF TRAVEL LANE

W21-5b  
48" x 48"

SHORT TAPER  
50° TO 100°

RIGHT SHOULDER CLOSED FT

W21-5
48" x 48"

SHOULDER WORK

DY CL

DIRECTION OF TRAFFIC

SIGN

WORK SITE

TRAFFIC DRUMS OR CONES

S1=30 FT.
S2=10 FT.

DATE
07-01-16

TRAFFIC OPERATIONS SECTION
MONTGOMERY COUNTY, MARYLAND

TRAFFIC CONTROL FOR SHOULDER WORK

REVISION BY

DATE

APPROVED

MDOT

TRAFFIC ENGINEER

TCLE

APPROVED

SCALE

CHIEF, TRAFFIC OPERATIONS SECTION

NTS STANDARD TCP-101.01 _ OF _ SHEETS
Refer to TCP 100.01 for sign spacing and taper lengths.

- ROAD WORK
  - 48' x 48'
  - 100'
  - WORK AREA
  - 1/2 TAPER
  - W5-1
    - 48' x 48'
  - ROADS NARROWS
    - W20-1
      - 48' x 48'

Direction of traffic:

- SIGN
- WORK SITE
- TRAFFIC DRUMS OR CONES
  - S1 = 30 FT.
  - S2 = 10 FT.

Traffic operations section:

- Montgomery County, Maryland
- Traffic control for partial lane closure

Date: 07-01-16

Payment: MCDPWT

By: TCLE

Approved:

Chief, Traffic Operations Section

NTS: Standard TCP-102.01
NOTE: ACCESS POINTS WITHIN LANE CLOSURE SHALL BE CONTROLLED BY FLAGGER(S).

REFER TO TCP 100.01 FOR SIGN SPACING, TAPER LENGTHS AND BUFFER ZONE LENGTHS.
Refer to TCP 100.01 for sign spacing and taper lengths.

Direction of Traffic

Sign

Work Site

Traffic Drums or Cones

S1 = 30 ft.

S2 = 10 ft.

Traffic Operations Section
Montgomery County, Maryland

Date: 07-01-16

Traffic Control for Maintaining Two-Way Traffic by Encroaching Into Opposing Traffic Flow

Revision By

Date

Approved By

Drawn By

Tcle

Scale

Nts

Standard TCP-102.03

Of Sheets
NOTE:
WORK VEHICLES SHALL DISPLAY ROTATING AND/OR FLASHING LIGHT ATOP VEHICLES AND FLASHING WARNING LIGHTS IN FRONT AND REAR.

VEHICLES SHALL NOT PROCEED MORE THAN THREE (3) MILES AHEAD OF THE ADVANCE WARNING SIGNS.

VEHICLES SHOULD NOT OCCUPY OR BE STOPPED IN A LANE BEYOND A HORIZONTAL CURVE OR A VERTICAL CURVE (HILL).

IF STOPPING IS NECESSARY, FLAGGERS SHALL BE POSITIONED PRIOR TO STOPPING WORK VEHICLES.

THE FLAGGER SHALL BE POSITIONED IN ADVANCE OF THE CURVE (HORIZONTAL OR VERTICAL) TO PROVIDE MOTORIST ADEQUATE ADVANCE WARNING OF TEMPORARY WORK ZONE.

NO WORK OPERATION WHICH INTERFERES WITH THE FLOW OF TRAFFIC MAY TAKE PLACE DURING PEAK HOURS MONDAY - FRIDAY 6 AM - 9 AM AND 3:30 PM - 7 PM.

← DIRECTION OF TRAFFIC
□ SIGN
☉ FLASHING OR ROTATING LIGHT

DATE
07-01-16

TRAFFIC OPERATIONS SECTION
MONTGOMERY COUNTY, MARYLAND

TRAFFIC CONTROL FOR MOBILE OPERATION (<15 MIN )

REVISION BY DATE APPROVED

DES. BY MCDPWT

DRAWN BY TCLE

SCALE

NTS STANDARD TCP-102.05 ___ OF ___ SHEETS

APPROVED

CHIEF, TRAFFIC OPERATIONS SECTION
NOTE:
WORK VEHICLES SHALL DISPLAY
ROTATING AND/OR FLASHING LIGHTS
ATOP VEHICLES AND FLASHING
WARNING LIGHTS IN FRONT AND REAR.

VEHICLES SHALL NOT PROCEED
MORE THAN THREE (3) MILES AHEAD
OF THE ADVANCE WARNING
SIGNS.

VEHICLES SHOULD NOT OCCUPY OR BE
STOPPED IN A LANE BEYOND A HORIZONTAL
CURVE OR A VERTICAL CURVE (HILL).

IF STOPPING IS NECESSARY, FLAGGERS SHALL
BE POSITIONED PRIOR TO STOPPING WORK
VEHICLES.

THE FLAGGER SHALL BE POSITIONED IN
ADVANCE OF THE CURVE (HORIZONTAL OR VERTICAL)
TO PROVIDE MOTORIST ADEQUATE ADVANCE
WARNING OF TEMPORARY WORK ZONE.

NO WORK OPERATION WHICH INTERFERES
WITH THE FLOW OF TRAFFIC MAY TAKE PLACE
DURING PEAK HOURS MONDAY – FRIDAY
6 A.M. – 9 A.M. AND 3:30 P.M. – 7 P.M.

FOR PAVEMENT MARKING MATERIALS HAVING
SLOW DRYING TIMES ADDITIONAL BACK-UP
VEHICLES TO FOLLOW TRUCK MAY
BE NECESSARY.

DATE
07-01-16

TRAFFIC OPERATIONS SECTION
MONTGOMERY COUNTY, MARYLAND

TRAFFIC CONTROL FOR
MOVING MARKING OPERATION (1)

REVISION BY DATE APPROVED
MCDPWT __ __
DRAWN BY TCLE __ __
SCALE __ __
NTS STANDARD TCP-102.06 __ OF __ SHEETS
NOTE: ACCESS POINTS WITHIN LANE CLOSURE SHALL BE CONTROLLED BY FLAGGER(S)

REFER TO TCP 100.01 FOR SIGN SPACING AND TAPER LENGTHS

---

**Traffic Operations Section, Montgomery County, Maryland**

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<th>Date</th>
<th>TRAFFIC CONTROL FOR RIGHT LANE CLOSURE (DIVIDED)</th>
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**Drawn by**

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**Notes**

- Direction of Traffic
- Sign
- Work Site
- Arrow Panel
- Traffic Drums or Cones
  - S1=30 FT.
  - S2=10 FT.
NOTE: ACCESS POINTS WITHIN LANE CLOSURE SHALL BE CONTROLLED BY FLAGGER(S).

REFER TO TCP 100.01 FOR SIGN SPACING AND TAPER LENGTHS.

TRAFFIC OPERATIONS SECTION
MONTGOMERY COUNTY, MARYLAND

TRAFFIC CONTROL FOR RIGHT LANE CLOSURE (UNDIVIDED)

DATE: 07-01-16

DES. BY: MCDPW

DRAWN BY: TCLE

APPROVED: CHIEF, TRAFFIC OPERATIONS SECTION

SCALE: STANDARD TCP-103.02

REVISION BY: DATE: APPROVED: SHEETS:

1. DIRECTION OF TRAFFIC
   - SIGN
2. WORK SITE
3. ARROW PANEL
4. TRAFFIC DRUMS OR CONES
   - S1 = 30 FT.
   - S2 = 10 FT.
NOTE: ACCESS POINTS WITHIN LANE CLOSURE SHALL BE CONTROLLED BY FLAGGER(S)

REFER TO TCP 100.01 FOR SIGN SPACING AND TAPER LENGTHS

- DIRECTION OF TRAFFIC
- SIGN
- WORK SITE
- ARROW PANEL
- TRAFFIC DRUMS OR CONES
  \( S_1 = 30 \text{ FT.} \)
  \( S_2 = 10 \text{ FT.} \)

TRAFFIC OPERATIONS SECTION
MONTGOMERY COUNTY, MARYLAND

DATE: 07-01-16
DES. BY: MCDPWT
DRAWN BY: TCLE
APPROVED: SCALE: CHIEF, TRAFFIC OPERATIONS SECTION
NTS: STANDARD TCP-103.03

OF SHEETS
NOTE: ACCESS POINTS WITHIN LANE CLOSURE SHALL BE CONTROLLED BY FLAGGER(S)

REFER TO TCP 100.01 FOR SIGN SPACING AND TAPER LENGTHS

DIRECTION OF TRAFFIC

SIGN

WORK SITE

ARROW PANEL

TRAFFIC DRUMS OR CONES

S1=30 FT.
S2=10 FT.

TRAFFIC OPERATIONS SECTION
MONTGOMERY COUNTY, MARYLAND

TRAFFIC CONTROL FOR LEFT LANE CLOSURE (UNDIVIDED)

DATE
07-01-16

DES. BY
MCDPWT

DRAWN BY
ICLE

APPROVED
CHAIR, TRAFFIC OPERATIONS SECTION

AREA FT.

WORK AREA

TAPE

100' WORK AREA

LEFT LANE CLOSED

W20-5
48" x 48"

ROAD WORK

W20-1
48" x 48"

W4-2
48" x 48"

DY CL
NOTE: ACCESS POINTS WITHIN LANE CLOSURE SHALL BE CONTROLLED BY FLAGGER(S)

REFER TO TCP 100.01 FOR SIGN SPACING AND TAPER LENGTHS

DIRECTION OF TRAFFIC SIGN

WORK SITE

ARROW PANEL

TRAFFIC DRUMS OR CONES

S\(^1\)=30 FT.

S\(^2\)=10 FT.

TRAFFIC OPERATIONS SECTION
MONTGOMERY COUNTY, MARYLAND

TRAFFIC CONTROL FOR LEFT LANE CLOSURE (INTERSECTION FAR SIDE)

REVISION BY DATE APPROVED

DRAWN BY TCLE

SCALE

NTS

STANDARD TCP-103.05 OF ___ SHEETS
NOTE:
WORK VEHICLES SHALL DISPLAY
ROTATING AND/OR FLASHING LIGHT
ATOP VEHICLES AND FLASHING
WARNING LIGHTS IN FRONT AND REAR.

VEHICLES SHALL NOT PROCEED
MORE THAN THREE (3) MILES AHEAD
OF THE ADVANCE WARNING
SIGNS.

VEHICLES SHOULD NOT OCCUPY OR BE
STOPPED IN A LANE BEYOND A HORIZONTAL
CURVE OR A VERTICAL CURVE (HILL).

IF STOPPING IS NECESSARY, FLAGGERS SHALL
BE POSITIONED PRIOR TO STOPPING WORK
VEHICLES.

THE FLAGGER SHALL BE POSITIONED IN
ADVANCE OF THE CURVE (HORIZONTAL OR
VERTICAL) TO PROVIDE MOTORIST ADEQUATE
ADVANCE WARNING OF TEMPORARY WORK ZONE.

NO WORK OPERATIONS WHICH INTERFERES
WITH THE FLOW OF TRAFFIC MAY TAKE PLACE
DURING PEAK HOURS MONDAY - FRIDAY
6 A.M. - 9 A.M. AND 3:30 P.M. - 7 P.M.

FOR PAVEMENT MARKING MATERIALS HAVING
SLOW DRYING TIMES ADDITIONAL BACK-UP
VEHICLES TO FOLLOW TRUCK MAY
BE NECESSARY.

← DIRECTION OF TRAFFIC
↑↑ SIGN
⊙ Flashing or Rotating Light
○○○ Arrow Panel
● Work Vehicle

ROAD STRIPING AHEAD
W20-1 (MOD) 48' x 48'
SLOW TRAFFIC AHEAD W23-1
OPTIONAL SIGN FOR SHORT DURATION

DATE
07-01-16

TRAFFIC OPERATIONS SECTION
MONTGOMERY COUNTY, MARYLAND

TRAFFIC CONTROL FOR
MOVING MARKING OPERATION (2)

REVISION BY  DATE  APPROVED
MDPWT
DRAWN BY  TCLE
SCALE
NTS  STANDARD TCP-103.06 ___ OF ___ SHEETS

NOTE: WHEN SHADOW
VEHICLE IS USED SIGN
MAY BE MOUNTED
ON ITS REAR
NOTE: ACCESS POINTS WITHIN LANE CLOSURE SHALL BE CONTROLLED BY FLAGGER(S).

REFER TO TCP 100.01 FOR SIGN SPACING AND TAPER LENGTHS.

NOTE: ARROW DISPLAY PANEL TO BE SET ON CAUTION MODE.
NOTE: ACCESS POINTS WITHIN LANE CLOSURE SHALL BE CONTROLLED BY FLAGGER(S)

REFER TO TCP 100.01 FOR SIGN SPACING, TAPER LENGTHS AND BUFFER ZONE LENGTHS

DIRECTION OF TRAFFIC

SIGN

WORK SITE

FLAGGER

TRAFFIC DRUMS OR CONES

S1 = 30 FT.
S2 = 10 FT.

DATE
07-01-16

DES. BY
MCJDPWT

DRAWN BY

TCLE

APPROVED

SCALE

CHIEF, TRAFFIC OPERATIONS SECTION

NTS
STANDARD TCP-105.01 ___ OF ___ SHEETS

TRAFFIC OPERATIONS SECTION
MONTGOMERY COUNTY, MARYLAND

FLAGGING CONTROL
AT 4 - LEG INTERSECTION (1)
NOTE: ACCESS POINTS WITHIN LANE CLOSURE SHALL BE CONTROLLED BY FLAGGER(S)

REFER TO TCP 100.01 FOR SIGN SPACING, TAPER LENGTHS AND BUFFER ZONE LENGTHS

DIRECTION OF TRAFFIC

SIGN

WORK SITE

FLAGGER

TRAFFIC DRUMS OR CONES

S' = 30 FT.

S'' = 10 FT.

TRAFFIC OPERATIONS SECTION
MONTGOMERY COUNTY, MARYLAND

FLAGGING CONTROL
AT 4-LEG INTERSECTION (2)

REVISION BY DATE APPROVED

MC DPWT

TCLE

NTS

STANDARD TCP-105.02 OF SHEETS

DATE

07-01-16

APPROVED

CHIEF, TRAFFIC OPERATIONS SECTION
NOTE: ACCESS POINTS WITHIN LANE CLOSURE SHALL BE CONTROLLED BY FLAGGER(S)

REFER TO TCP 100.01 FOR SIGN SPACING, TAPER LENGTHS AND BUFFER ZONE LENGTHS
NOTE: Access points within lane closure shall be controlled by flagger(s).

Refer to TCP 100.01 for sign spacing, taper lengths and buffer zone lengths.

**Road Work**

- W20-1 48" x 48"
- W20-4 48" x 48"
- W20-7a(1) 48" x 48"

**One Lane Road**

- W20-7a(1) 48" x 48"
- W20-4 48" x 48"
- W20-1 48" x 48"

**Signs**

- Direction of Traffic
- Work Site
- Flagger
- Traffic Drums or Cones
  - S1 = 30 ft.
  - S2 = 10 ft.

**Legend**

- DIRECTION OF TRAFFIC
- SIGN
- WORK SITE
- FLAGGER

**Traffic Operations Section**

Montgomery County, Maryland

**Flagging Control at 3 - Leg Intersection (2)**

Date: 07-01-16

DES. BY: MCDPWT

DRAWN BY: TCLE

SCALE: CHIEF, TRAFFIC OPERATIONS SECTION

NTS: STANDARD TCP-105.04 __ OF __ SHEETS
NOTE: ACCESS POINTS WITHIN LANE CLOSURE SHALL BE CONTROLLED BY FLAGGER(S)

REFER TO TCP 100.01 FOR SIGN SPACING, TAPER LENGTHS AND BUFFER ZONE LENGTHS

WORK AREA

BUFFER

50' TO 100'

DIRECTION OF TRAFFIC SIGN

WORK SITE

FLAGGER

TRAFFIC DRUMS OR CONES

S1=30 FT.

S2=10 FT.

DATE
07-01-16

MCDPWT

TRAFFIC OPERATIONS SECTION
MONTGOMERY COUNTY, MARYLAND

REVISION BY

DATE

APPROVED

MCDPWT

DRAWN BY

TCLE

APPROVED

SCALE

CHIEF, TRAFFIC OPERATIONS SECTION

NTS

STANDARD TCP-105.05

OF SHEETS
NOTE: ACCESS POINTS WITHIN LANE CLOSURE SHALL BE CONTROLLED BY FLAGGER(S)

REFER TO TCP 100.01 FOR SIGN SPACING, TAPER LENGTHS AND BUFFER ZONE LENGTHS

W20-7a(1) 48" x 48"
W20-1 48" x 48"
ROAD WORK FT

W20-1 48" x 48"
W20-7a(1) 48" x 48"
ROAD WORK FT

W20-7a(1) 48" x 48"
W20-4 48" x 48"
ONE LANE ROAD FT

W20-1 48" x 48"
ROAD WORK FT

WORK AREA

BUFFER

ONE LANE ROAD FT

DIRECTION OF TRAFFIC

SIGN

WORK SITE

FLAGGER

TRAFFIC DRUMS OR CONES
S^2=30 FT.
S^3=10 FT.

Traffic Operations Section
Montgomery County, Maryland

Flagging Control at 3 - Leg Intersection (4)

Revision By | Date | Approved
--- | --- | ---
MCDPWT
TCLE
Scale
NTS

Chief, Traffic Operations Section

Standard TCP-105.06 __ of __ Sheets
NOTE: ACCESS POINTS WITHIN LANE CLOSURE SHALL BE CONTROLLED BY FLAGGER(S).

REFER TO TCP 100.01 FOR SIGN SPACING, TAPER LENGTHS AND BUFFER LENGTHS.
R9-11 (L)(MOD)
SIDEWALK CLOSED
AHEAD
CROSS HERE
30' X 24'

R9-9 (MOD)
SIDEWALK CLOSED
24' X 18'

R9-9 (MOD)
SIDEWALK CLOSED
24' X 18'

R9-11 (R)(MOD)
SIDEWALK CLOSED
AHEAD
CROSS HERE
30' X 24'

SIGNS ARE TO BE PLACED AT
THE NEAREST LEGAL CROSSING
TO THE WORK AREA

---

SIGN

WORK SITE

TRAFFIC DRUMS
OR CONES

<table>
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<td>TCLE</td>
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| PEDESTRIAN CONTROL FOR |
| TEMPORARY SIDEWALK CLOSURE |

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<td>NTS</td>
<td>STANDARD TCP-107.01</td>
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OF SHEETS
R9-9 (MOD)

- 1 1/2" R

24"

3/8" MARGIN

5/8" BORDER

3" SPACE

5/8" BORDER

3/8" MARGIN

18"

21" LEGEND

SIDEWALK CLOSED

17" LEGEND

BLACK LEGEND AND BORDER ON WHITE BACKGROUND

DATE
07-01-16

TRAFFIC OPERATIONS SECTION
MONTGOMERY COUNTY, MARYLAND

DES. BY
MCDPWT

DRAWN BY
TCLE

SIGN DETAIL FOR TEMPORARY SIDEWALK CLOSURE

APPROVED

SCALE

CHIEF, TRAFFIC OPERATIONS SECTION

NTS

STANDARD TCP-107.01.01 ___ OF ___ SHEETS
SIDEWALK CLOSED AHEAD
CROSS HERE

BLACK LEGEND AND BORDER ON WHITE BACKGROUND

TRAFFIC OPERATIONS SECTION
MONTGOMERY COUNTY, MARYLAND

SIGN DETAIL FOR TEMPORARY SIDEWALK CLOSURE

DATE: 07-01-16
DES. BY: MCDPWT
DRAWN BY: TCLE

SCALE: __CHIEF, TRAFFIC OPERATIONS SECTION__
NTS: STANDARD TCP-107.01.02 OF SHEETS
**SIGN**

**WORK SITE**

**TRAFFIC DRUMS OR CONES**

---

**TO BE USED TO DIRECT PEDESTRIANS SAFELY BY THE WORK ZONE**

**PED-(R) 24" X 18"**

**PED-(L) 24" X 18"**

**SIDEWALK**

**WORK AREA**

**10'**

---

**TRAFFIC OPERATIONS SECTION**

**MONTGOMERY COUNTY, MARYLAND**

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PED-<L>

1 1/2” R

24”

3/8” MARGIN

5/8” BORDER

3” SPACE

3” B

3” SPACE

5” ARROW

2” SPACE

5/8” BORDER

3/8” MARGIN

18” LEGEND

PEDESTRIANS

20” ARROW

BLACK LEGEND AND BORDER ON WHITE BACKGROUND
CONTRACTOR MUST PROVIDE SHOP DRAWING DETAIL OF COVERED WALKWAY FOR REVIEW AND APPROVAL TO THE TRAFFIC OPERATIONS SECTION, IF ALTERNATE MATERIALS FOR WALKWAY ARE PROPOSED.

1/2" MIN. THICK PLYWOOD
2" THICK ROOF DECK

2' X 8' FULL LENGTH ONE ON EACH SIDE

WIRE MESH OR 1/2" PLYWOOD

SLOPE DOWN TOWARDS CURBLINE ROLLED ROOFING 2' X 8' ON 4' O/C

BACK SIDE (WORK AREA)

1/2" PLYWOOD 6' 0" HIGH MIN.

2' X 4' TYP. EACH STUD 40 WATT LIGHT W/ GUARD ON 16 FT O/C

6" LAP 4' X 4' ON 2' O/C

WIRE MESH, CONTINUOUS

5/8" PLYWOOD FLOOR

8' CLEAR

2' X 4" HANDRAIL

5 FT MIN. 4' X 4' ON 2' O/C

3'6"

PROVIDE TEMPORARY ASPHALT WEDGE FROM CURB TO EXISTING PAVING AS NECESSARY

DATE
07-01-16

DES. BY
MCDPW

DRAWN BY
TCLE

APPROVED

COVERED WALKWAY

TRAFFIC OPERATIONS SECTION
MONTGOMERY COUNTY, MARYLAND

REVISION BY DATE APPROVED

SCALE

NTS STANDARD TCP-107.03 1 OF _ SHEETS

CHIEF, TRAFFIC OPERATIONS SECTION
**TYPICAL BUFFER LENGTH (OPTIONAL)**

<table>
<thead>
<tr>
<th>SPEED (MPH)</th>
<th>LENGTH (FT)</th>
</tr>
</thead>
<tbody>
<tr>
<td>50</td>
<td>500 +/-</td>
</tr>
<tr>
<td>40</td>
<td>400 +/-</td>
</tr>
<tr>
<td>30</td>
<td>300 +/-</td>
</tr>
<tr>
<td>25</td>
<td>200 +/-</td>
</tr>
</tbody>
</table>

FORMULAS FOR L

- For 40 MPH OR LESS: \[ L = \frac{WS^2}{60} \]
- For 45 MPH OR MORE: \[ L = W \times S \]

**Note:**
- TAPER LENGTH IN FEET
- WIDTH OF OFFSET IN FEET
- POSTED SPEED, OFF-PEAK 65TH PERCENTILE SPEED PRIOR TO WORK STARTING, OR THE ANTICIPATED OPERATING SPEED IN MPH.

---

**DATE**
07-01-16

**TRAFFIC OPERATIONS SECTION**
MONTGOMERY COUNTY, MARYLAND

**ADVANCE CHANNELIZATION AND PROTECTION**
FOR BARRIER FLARE SECTIONS

**REVISION BY**
MCDPWT

**DRAWN BY**

**APPROVED**

**SCALE**
CHIEF, TRAFFIC OPERATIONS SECTION

**NTS**
STANDARD TCP-109.01
--- OF SHEETS
NOTES:

SIDE REFLECTOR COLOR SHALL
BE WHITE IF BARRIER IS USED
TO DELINEATE RIGHT EDGE OF TRAVEL LANE.

SIDE REFLECTOR COLOR SHALL
BE YELLOW IF BARRIER IS USED
TO DELINEATE LEFT EDGE OF TRAVEL LANE.

TOP REFLECTOR COLOR SHALL
BE FLOURESENT ORANGE REGARDLESS
OF EDGE OF TRAVEL LANE.
W20-1 48" x 48" ROAD WORK FT

W20-3 48" x 48" ROAD CLOSED FT
(WITH ORANGE FLAGS)

W20-3 48" x 48" ROAD CLOSED FT

VIEW 1

NOTE CABLE ATTACHMENT LOCATION
CABLE INSTALLED PER MANUFACTURERS SPECIFICATIONS

6'

R11-2 48" x 30" ROAD CLOSED

R11-2 48" x 30" MOUNTED ON TYPE III BARRICADE

ROAD CLOSED 8' MIN

S^2 |

W20-3 48" x 48" ROAD CLOSED FT
(WITH ORANGE FLAGS)

R11-2 48" x 30" ROAD CLOSED FT

W20-3 48" x 48" ROAD CLOSED FT

8' MIN

WORK AREA

TYPE III BARRICADE
WATER-FILLED BARRIER
EMPTY BARRIER
DIRECTION OF TRAFFIC
SIGN
WORK SITE

TRAFFIC DRUMS OR CONES
S_1^1 = 30 FT.
S_2^2 = 10 FT.

TRAFFIC OPERATIONS SECTION
MONTGOMERY COUNTY, MARYLAND

DATE
07-01-16

DES. BY
MCDPW

TRAFFIC CLOSURE
NON - INTERSECTION

DRAWN BY
TCLE

APPROVED

SCALE
CHIEF, TRAFFIC OPERATIONS SECTION

NTS
STANDARD TCP-110.01

REVISION BY
DATE
APPROVED

OF SHEETS
REFER TO TCP 100.01 FOR SIGN SPACING AND TAPER LENGTHS

*** NOTE: ***
EFFECTIVE, REOPENS, AND STREET NAME SIGNS WILL BE REQUIRED FOR DETOURS LASTING MORE THAN FOURTY-EIGHT (48) HOURS (SEE DETAIL FOR SIGN REQUIREMENTS)

← DIRECTION OF TRAFFIC

SIGN

WORK SITE

TYPE III BARICADE

TRAFFIC DRUMS OR CONES
S$=30$ FT.
S$^2=10$ FT.

TRAFFIC OPERATIONS SECTION
MONTGOMERY COUNTY, MARYLAND

DATE
07-01-16

DES. BY
MCDPWT

TRAFFIC CONTROL FOR TEMPORARY DETOUR

REVISION BY
DATE
APPROVED

DRAWN BY
TGLE

SCALE

NTS
STANDARD TCP-110.02 ___ OF ___ SHEETS
ROAD CLOSED AND EFFECTIVE SIGNS SHALL BE PLACED TWO (2) WEEKS PRIOR TO THE ROAD CLOSURE. THE EFFECTIVE SIGN SHALL BE REMOVED AND REPLACED WITH THE REOPENS SIGN TWO DAYS AFTER THE ACTUAL DATE OF THE ROAD CLOSURE.

FOR EXTENDED CLOSURES A "STREET NAME" SIGN SHALL BE MOUNTED ATOP ALL M4-9 (DETOUR) SIGNS ALONG ROADWAYS USED FOR THE DETOUR.

IF ADDITIONAL LINES OF TEXT ARE NECESSARY, INCREASE HEIGHT IN INCREMENTS OF 12"