

Temporary Traffic Control (MOT)

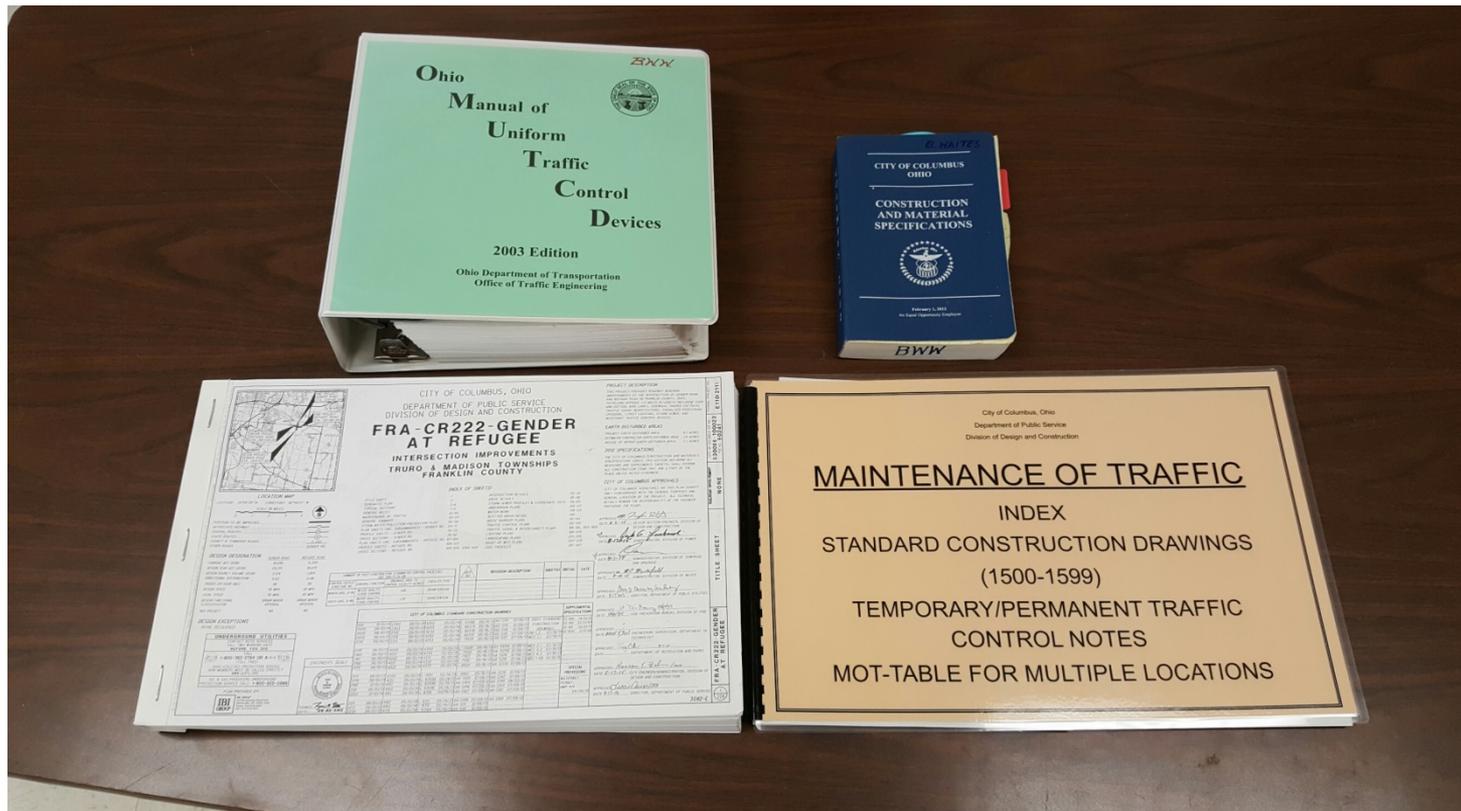
Presented By: Mark DiPiero
Scott Porter
Keith Farrell



THE CITY OF
COLUMBUS
ANDREW J. GINTHER, MAYOR

DEPARTMENT OF
PUBLIC SERVICE

Where does it come from?



- FHWA - Part 6, MUTCD 2009
- ODOT - OMUTCD 2012 Part 6
- DPS - CMSC Item 614
- Plans, Permits

Maintenance of Traffic

Standard Drawings 1500-1550

- MOT - Standard drawings signed 09/15/2015
- Std Dwg 1500 -Notes, Tables, Legend, and Components of a Temporary Traffic Control Zone
- Std Dwg 1510 – Lane Closures
- Std Dwg 1511 – Dynamic Closure
- Std Dwg 1520 – Lane Closures at Intersections
- Std Dwg 1530 – Lane Closures (Downtown)
- Std Dwg 1540 – Street Closures
- Std Dwg 1550 – Flagging Operations
- *Future Drawings* - Pedestrian Detours/Sidewalk Closures and Bike Lane Closures
- City Website- <https://columbus.gov/standarddrawings>

Permit

THE CITY OF
COLUMBUS
ANDREW J. GINTHER, MAYOR

DEPARTMENT OF
PUBLIC SERVICE

903 - Excavation Permit ROW, Sidewalk and Street

50 West Gay Street, Columbus, Ohio 43215 Phone: 614-645-7497

Status: Issued Status Date: 01/11/2018

Permit Number: EP-18-00270

Issued to:

Contact Person / Email : MILLER PIPELINE /

24hr Phone Number :
614-777-8377

For Organization :

LOCATION/ADDRESS OF PROPOSED WORK OR EVENT
983 E MOUND ST

Purpose
OPEN CUT TO INSTALL NEW ; SERVICE

Parking Meter Numbers to be Bagged. For Issues with meter hooding, please contact the Permit Office at 614-645-7497 during Mon.-Fri. between hours of 7:30 a.m. to 5:00 p.m. After hours or weekends, contact 614-679-4353 or 614-580-0044.

No Meters

This permit shall be valid between hours of: **8AM - 5PM**
for a maximum period of 90 consecutive days from 01/11/2018 to 4/10/2018

SPECIAL INSTRUCTIONS:

MUST CALL FOR INSPECTION 645-5550 BACKFILL, PAVEMENT RESTORATION, OR CONCRETE FORMS

PLEASE CALL 645-5550 TO REPORT PLACEMENT OF STEEL
PLATES - LEAVE STREET NAME, PERMIT # AND EXACT LOCATION
OF PLATES ON VOICE MAIL

Administrator - Original signature in RED Ink

Application Fee 80.00
\$80.00

This work has
a significant
traffic impact.
Two notification
calls required
before work starts.

NOTIFICATION
NUMBERS ON
BACK OF PERMIT.
• Construction Coordinator
• Paving the Way

ALL WORK PERFORMED UNDER THIS PERMIT SHALL BE DONE AS DESCRIBED UNDER COLUMBUS CITY CODE TITLE 9, CHAPTERS 903 and 905, AND ALL APPLICABLE SPECIFICATIONS AND STANDARD DRAWINGS (available upon request)

APPLICATION FEE, PROCESSING FEE, REISSUE FEE, AND INSPECTION FEES ARE NON-REFUNDABLE

UTILITY LOCATES REQUIRED - Forty eight (48) hours prior to commencing any excavation, permit holders are required to contact the Ohio Utilities Protection Service (OUPS), and non-OUPS member City Divisions, to request the location of underground utilities within their proposed work limits. OUPS may be reached at (800) 362-2764, or by dialing 811.

REQUIRED INSPECTION - The City reserves the right to require on-site inspections of backfill operations and pavement restorations. Additional fees may apply for work requiring above average inspections levels. Anticipated inspection requirements and associated fees are delineated on your permit, see reverse side.

Excavations, and/or placement of materials, (whether new, replacement, or restoration) associated to this permit must be pre-approved by the City's designated Inspector(s) overseeing this permit's work. Any work performed, or materials installed, without pre-approval by the Inspector(s), shall be subject to removal at no cost to the City. In addition, fines and/or penalties may be imposed, as described under City Code Title 9. Any clarification regarding the inspection process can be obtained by calling our Permit Office at (614) 645-5550.

PROPOSED CHANGES TO SCOPE OF WORK FOR PREVIOUSLY ISSUED PERMITS - Permit holders may not make changes to the scale, scope and/or location of their work without specific pre-approval by the Permit Section.

ROAD CLOSURE NOTIFICATION REQUIREMENTS - Seventy Two (72) hours (3 days) prior to commencing any roadway lane closures; and 120 hours (5 days) prior to any full roadway closures, **PERMIT HOLDERS ARE REQUIRED TO CONTACT THE CITY OF COLUMBUS, TEMPORARY TRAFFIC CONSTRUCTION COORDINATOR AT (614) 645-6269 OR (614) 645-5845. THEY MUST ALSO CONTACT THE CITY'S PAVING THE WAY OFFICE AT (614) 645-PAVE (7283) ON THIS SAME SCHEDULE.** Approved traffic control devices shall be furnished, erected, maintained and removed by the permit holder in accordance with the latest edition of the Ohio Manual of Uniform Traffic Control Devices. **Emergency No Parking Signs are to be posted 72 hours (3 days) prior to commencement of lane or roadway closures.**

A Columbus Law Enforcement Officer(s) (L.E.O.) is required when working at signalized intersection(s), or as directed by the City of Columbus as a part of this permit, or the inspection thereof. To schedule an officer, call (614) 645-4795 at Columbus Police Department's Special Duty Office.

PARKING METERS - Any work proposed that may impact parking meters, must be pre-approved and specifically described and itemized within permit wording. Otherwise any associated parking meter occupancy shall be considered a parking violation in accordance with onsite signing and subject to fine. When permitted to occupy a hooded parking meter location, the permit holder must have a copy of their valid permit on visible display on the front dash of each vehicle.

NOTES

- This permit is not valid within "NO STOPPING" zones, except when within a full closure area that has been approved as a part of this permit.
- When wheelchair ramp construction will be required, contact the City of Columbus ADA Coordinator at (614) 645-0285 for a determination of the type and location of ramp(s) prior to commencing that construction.
- When City-owned trees may be, or are impacted by your construction activities, contact the City of Columbus Forrester at (614) 645-6640 before cutting any part of the tree, or the tree's roots.
- City of Columbus Chapter 905 Sidewalk and Driveway permits are valid for 90 days from the date of issuance. All other permits are as designated thereon.
- Permits are non-transferable

THE ORIGINAL OF THIS FORM MUST BE AT THE JOB SITE
MUST CONTACT DPS PERMIT OFFICE 24 HOURS PRIOR TO EXCAVATION (614-645-7497)
Unless alternate/specific instructions are listed above
See reverse side for additional Instructions



Pavingtheway.org

3000 e-mail update subscribers, 100,000 + visitors

We can contact the media 24 hours a day, 7 days a week

614-645-PAVE

pavingtheway@morpc.org

When to Call



Freeways and Arterials

- Full closure of either direction for even a brief time.
 - Restricting lanes for more than 3 hours.
 - Any restriction occurs or lasts during peak.

Collector Streets

- Restricting traveled lanes during peak.
- Restricting traveled lanes for more than 6 hours.

Residential Streets

- Closing the street for more than half a day.
- Restricting traffic for longer than one week.

Duration of Work

Short Duration:

- 0 – 15 minutes. Rotating beacon or strobe lights.
 - Cones behind truck to warn motorists.
 - 15 – 60 minutes.
 - Rotating beacon/strobe, correct size and amount of cones placed around work zone and a minimum of one correctly placed advanced warning sign.
- *Arrow board strongly recommended if working in the City of Columbus – consider the location, crew/public safety, traffic volume etc....

Duration of Work

Short Term Stationary:

- More than 1 hour less than 12 hours. Daylight only
- Rotating beacon/strobe
- Correct size and amount of cones placed in tapers and around work zone.
- All advance warning signs spaced properly.
- Arrow board for all lane closures.

Duration of Work

Intermediate Term:

- Any nighttime work (over 1 hour) up to 3 days
- Rotating beacon/strobes
- Correct size and amount of channelizing devices
- 42” cones/drums with steady burn lights
- Correctly placed advanced warning signs on all affected streets.
- Arrow board in all lane closures

Duration of Work

Long Term:

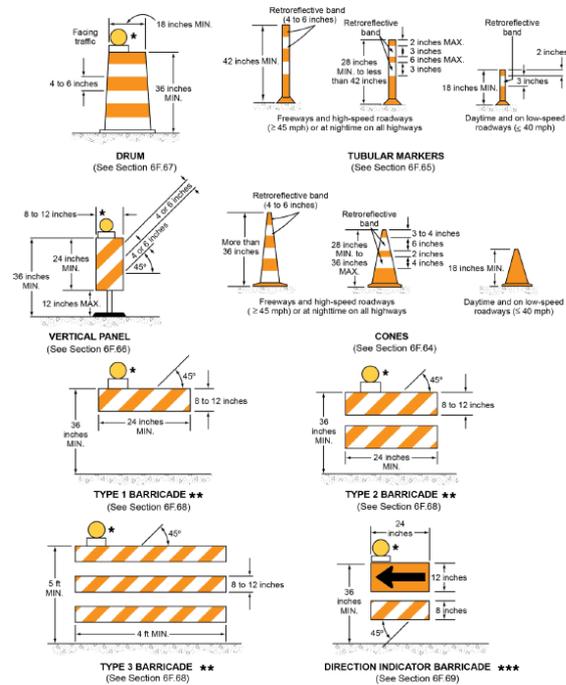
- Beyond 3 days.
- Rotating beacons/strobes, lights
- Drums with lights for all tapers and tangents
- Permanently mounted, correct advanced warning signs, with lights, on all affected streets.
- Arrow board for all lane closures

Devices

Page 692

2012 Edition

Figure 6F-7. Channelizing Devices

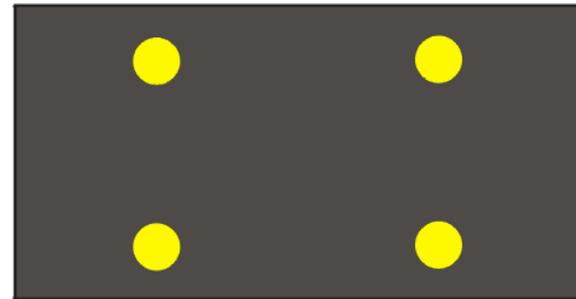
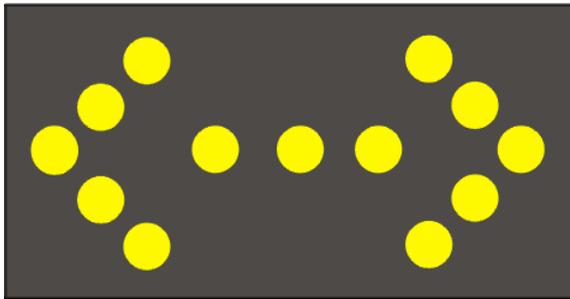
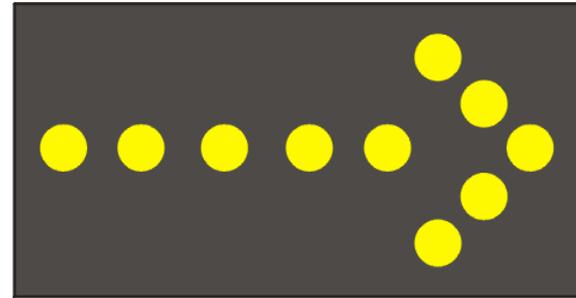
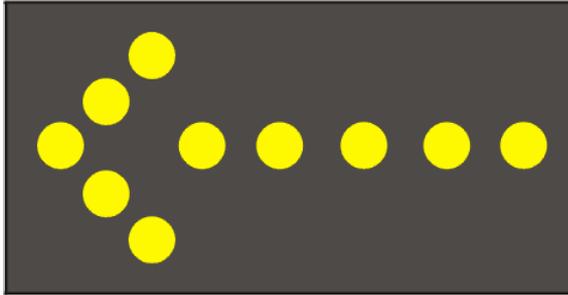


* Warning lights (optional)
 ** Rail stripe widths shall be 6 inches, except that 4-inch wide stripes may be used if rail lengths are less than 36 inches. The sides of barricades facing traffic shall have retroreflective rail faces.
 *** Rail stripe widths shall be 4 inches. The sides of barricades facing traffic shall have retroreflective rail faces.

Devices



Flashing Arrow Panels

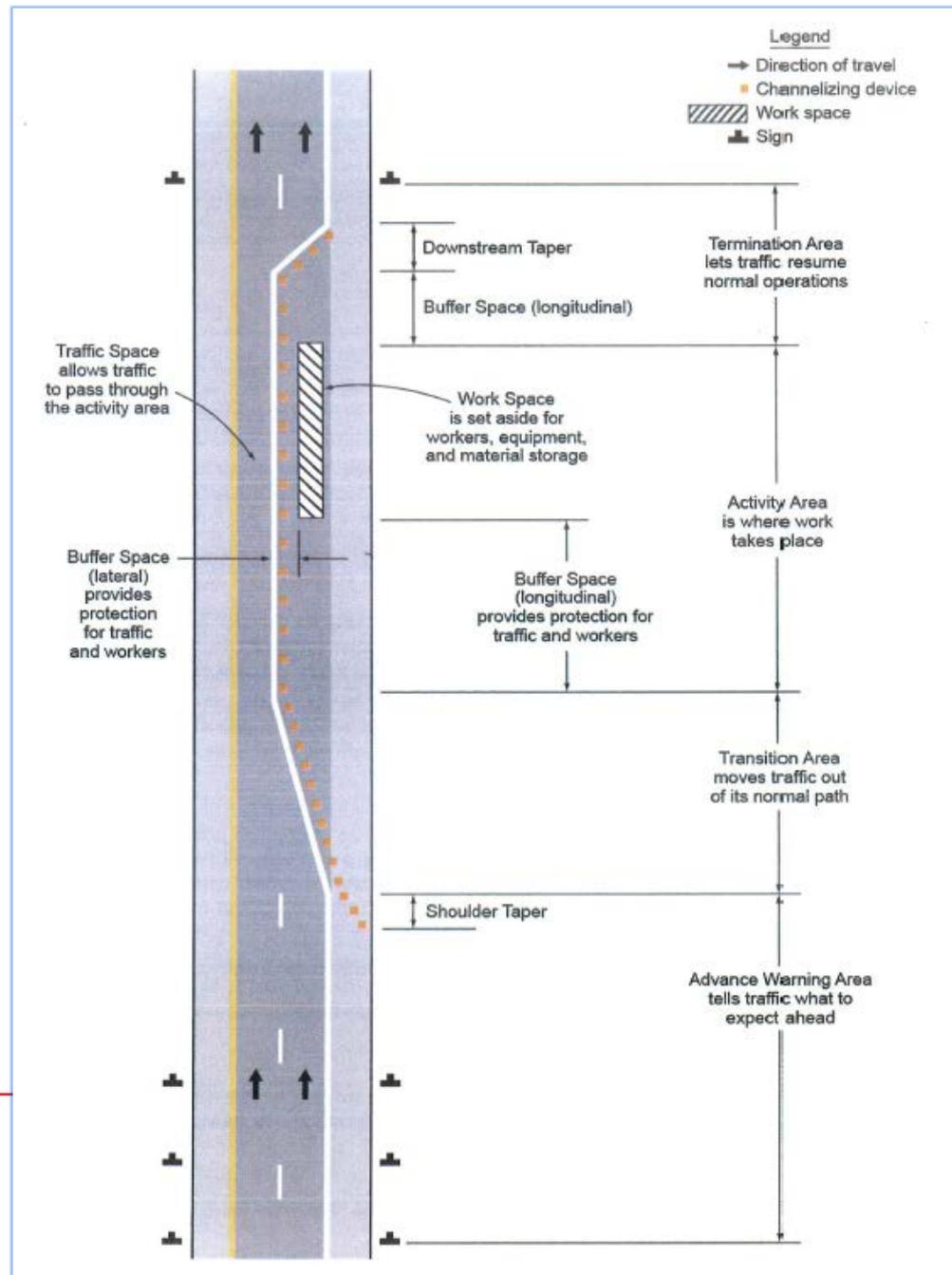


A police
cruiser is
NOT



a traffic
control
device

What are the parts of a Traffic Control Zone?



Advance Warning Area

Advance Warning Signs:

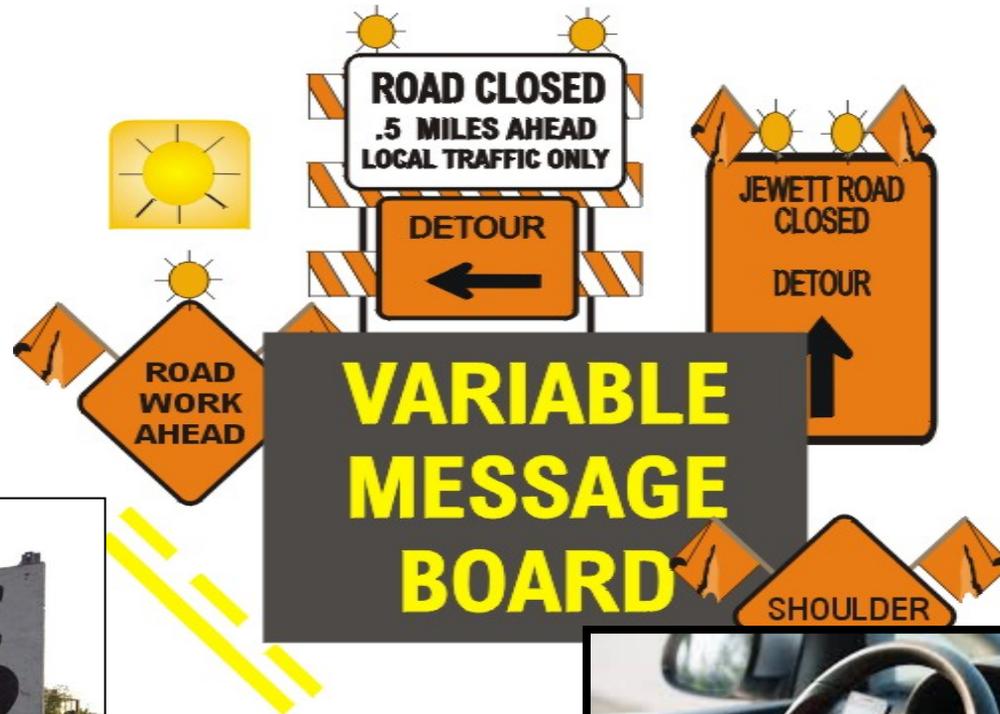
- Warning
- Information
- Regulatory



Advance Warning Area

Competing with:

- Cell Phones
- Texting
- Radio
- Advertisements
- Other signage...



Advance Warning Signs

Suggested Advance Warning Sign Spacing			
Road Type	Sign A	Sign B	Sign C
Urban (Low Speed)	100'	100'	100'
Urban (High Speed)	350'	350'	350'
Rural	500'	500'	500'
Expressway/Freeway	1000'	1500'	2640'

Transition Area

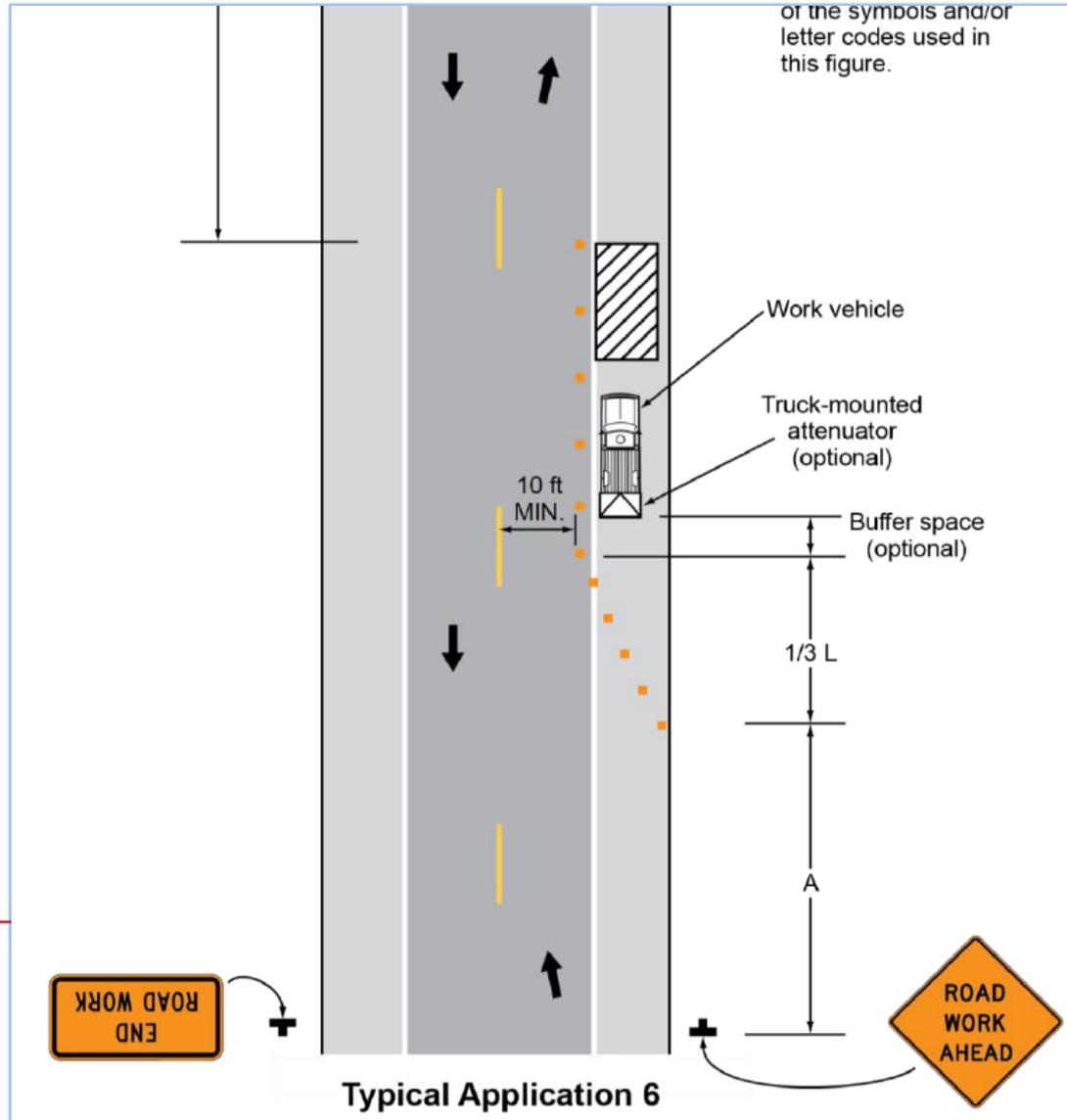
- Drums
- Cones
- Arrow Boards



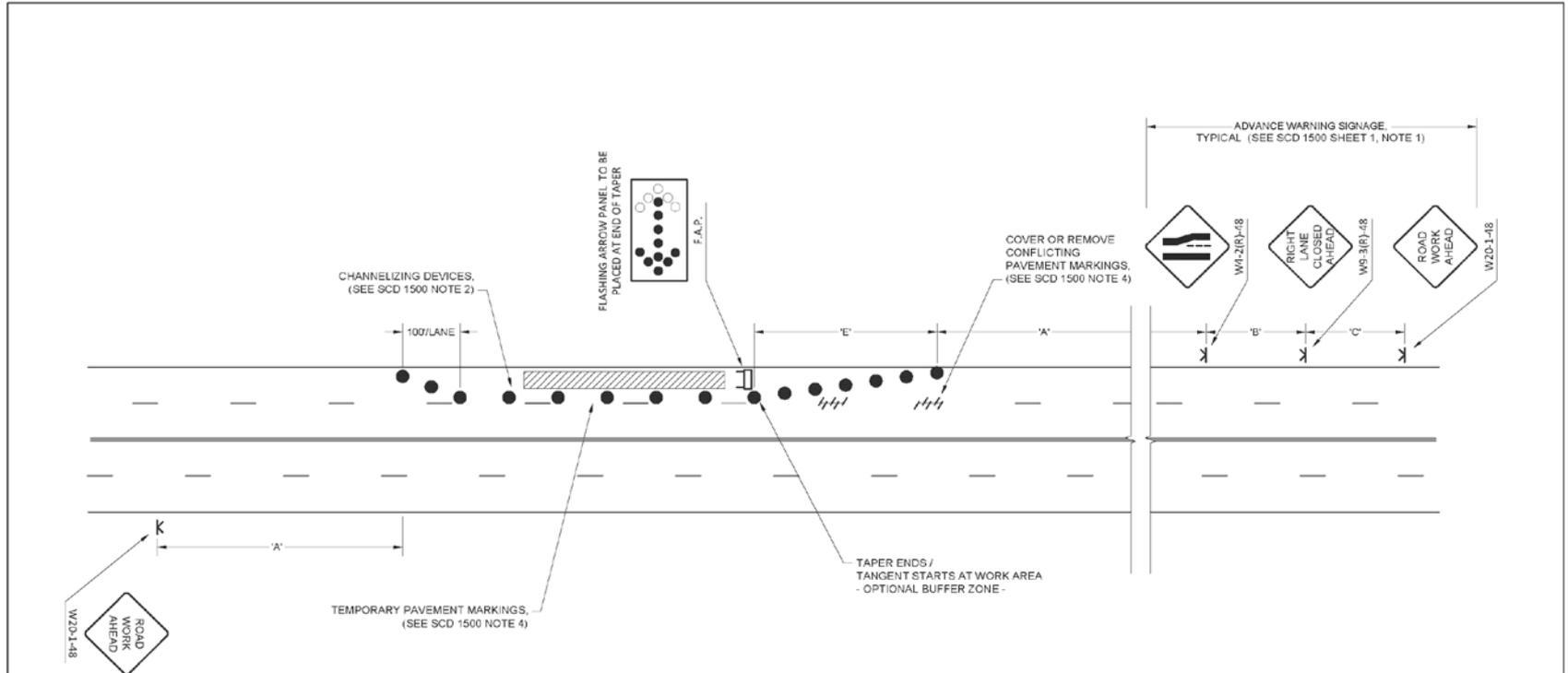
Device Spacing Chart

Speed Limit	Minimum Taper Length (Lane Width in Feet)				Minimum Number of Devices (Lane Width in Feet)				Maximum Device Spacing		Speed Limit
	MPH	9	10	11	12	9	10	11	12	Along Taper	
25 or below	94	105	115	125	5	6	6	7	20	25	25 or below
30	135	150	165	180	7	8	9	9	20	30	30
35	184	205	225	245	10	11	12	13	20	35	35
40	240	270	294	320	12	14	15	16	20	40	40
45	405	450	495	540	11	12	13	14	40	45	45
50	450	500	550	600	12	13	14	15	40	50	50
55	495	550	605	660	13	14	16	17	40	50	55
60	540	600	660	720	14	15	17	18	40	50	60
65	585	650	715	780	15	17	18	20	40	50	65

Shoulder Closure



Lane Closure



SCD 1500 NOTES

1A. SEE SCD 1500 NOTE 3. TAPER LENGTHS ARE TO BE CALCULATED USING FORMULAS FROM THE SCD 1500, TABLE 1: TAPER LENGTHS FOR TEMPORARY TRAFFIC CONTROL ZONES.

NOTES

1. FOR ADDITIONAL NOTES, TABLES, AND SYMBOL LEGEND SEE CITY OF COLUMBUS STANDARD CONSTRUCTION DRAWING 1500.

RIGHT LANE

LANE CLOSURES

CITY OF COLUMBUS, OHIO DEPARTMENT OF PUBLIC SERVICE DIVISION OF DESIGN AND CONSTRUCTION		STD DWG 1510
<i>Masoud Zahra</i> CITY ENGINEER		9/15/2015 SHT 1 OF 5

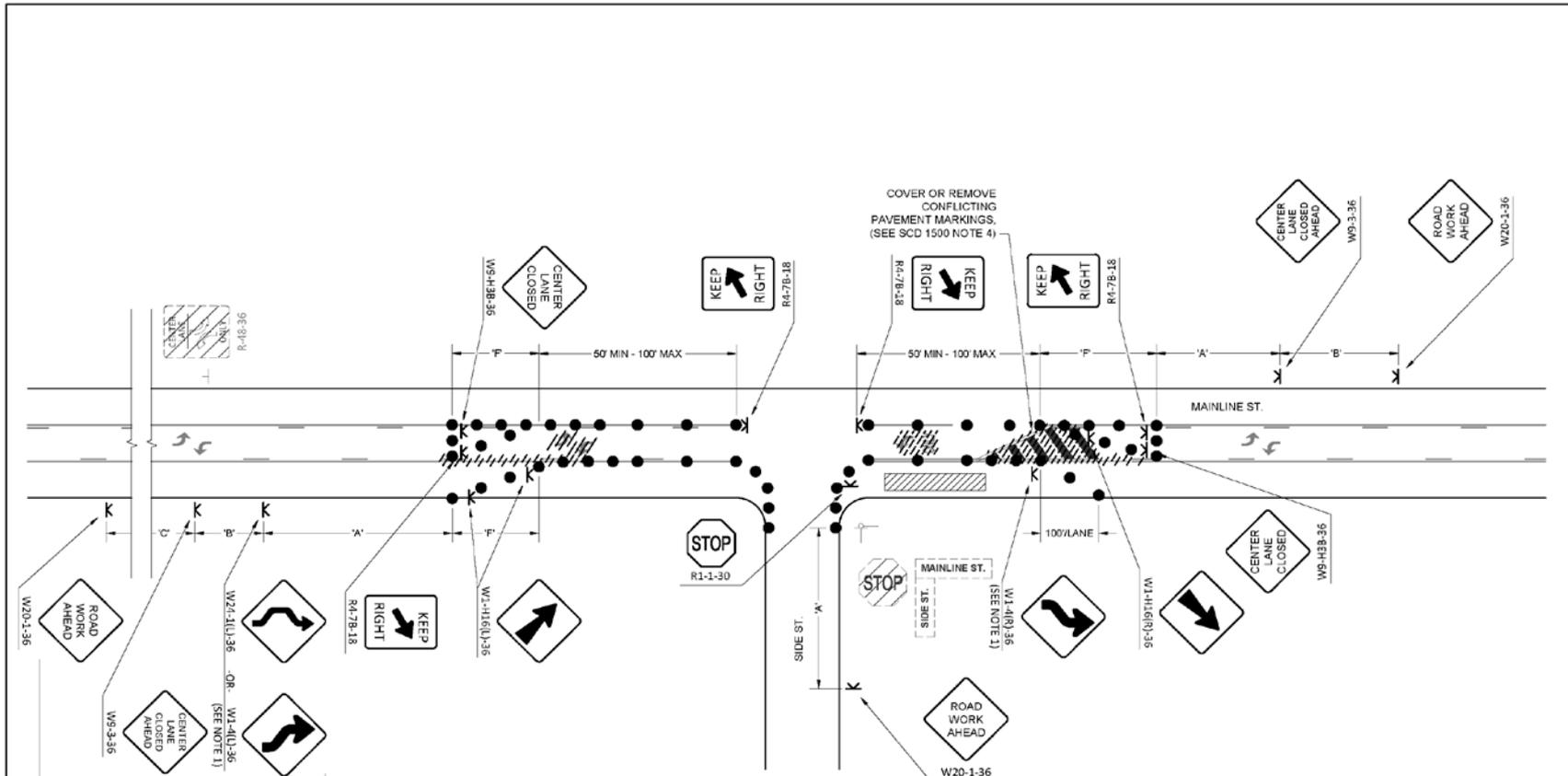
Lane Closure



Lane Closure



Lane Shift



SCD 1500 NOTES

1A SEE SCD 1500 NOTE 3. TAPER LENGTHS ARE TO BE CALCULATED USING FORMULAS FROM THE SCD 1500, TABLE 1: TAPER LENGTHS FOR TEMPORARY TRAFFIC CONTROL ZONES.

NOTES

- IF TANGENT DISTANCE ALONG THE TEMPORARY DIVERSION IS LESS THAN 540', A DOUBLE REVERSE CURVE SIGN (W24-1) SHOULD BE USED IN PLACE OF INITIAL REVERSE CURVE SIGN AND THE SECOND REVERSE CURVE SIGN SHALL BE OMITTED.
- FOR ADVANCE WARNING SIGN ON SIDE STREET APPLICATION PLACE SIGN A MAXIMUM OF 200' FROM STOP LINE OR TRAFFIC CONTROL.

3-LANE SECTION WITH SHIFT

LANE CLOSURES	
CITY OF COLUMBUS, OHIO DEPARTMENT OF PUBLIC SERVICE DIVISION OF DESIGN AND CONSTRUCTION	
 CITY ENGINEER	STD DWG 1510 9/15/2015 SHT 3 OF 5

ADVANCE WARNING SIGNAGE TYPICAL (SEE SCD 1500 SHEET 1, NOTE 1)

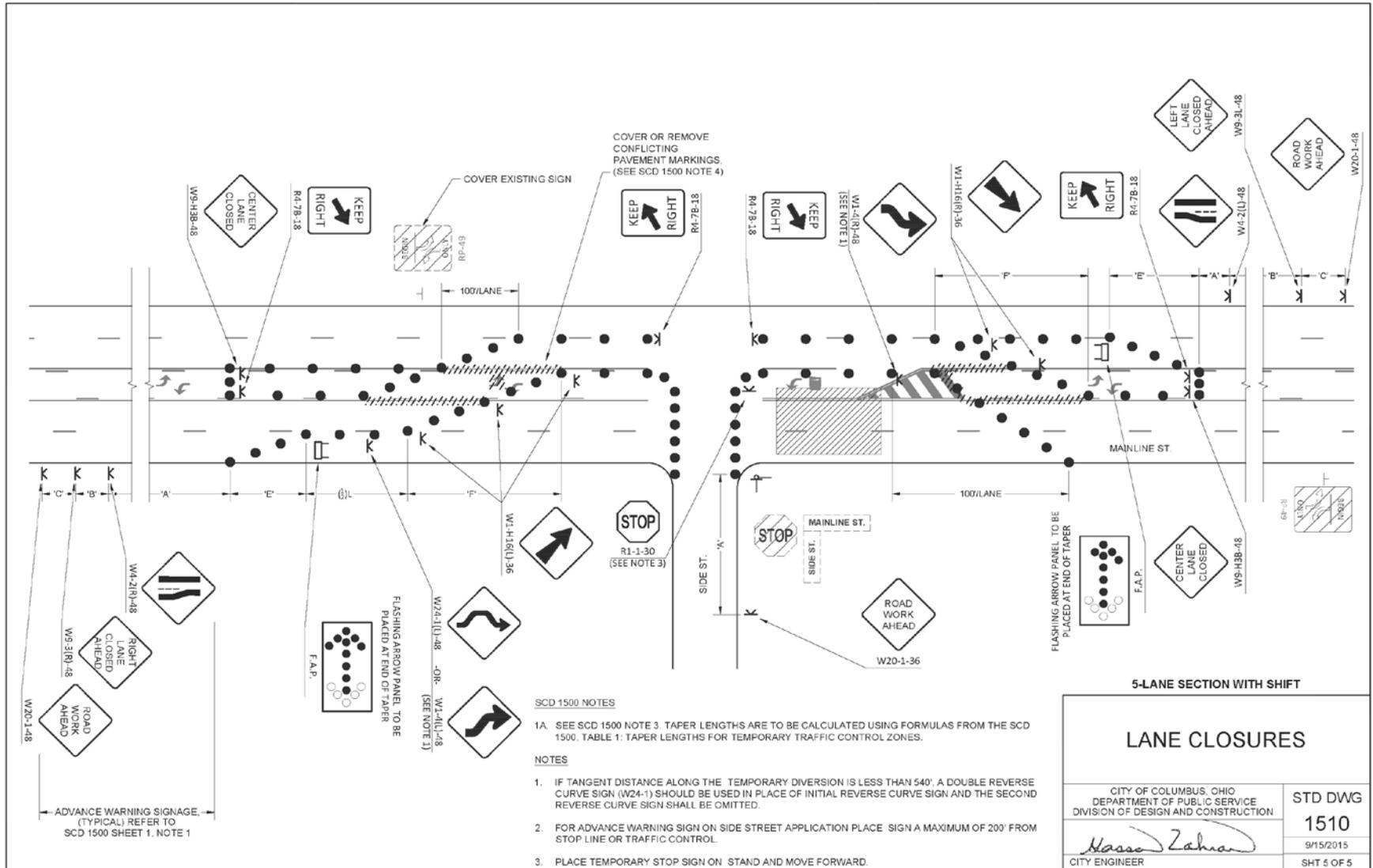
Lane Shift



Lane Shift



Lane Closure With A Shift



COVER OR REMOVE
CONFLICTING
PAVEMENT MARKINGS
(SEE SCD 1500 NOTE 4)

COVER EXISTING SIGN

STOP
R1-1-30
(SEE NOTE 3)

SCD 1500 NOTES

1A. SEE SCD 1500 NOTE 3. TAPER LENGTHS ARE TO BE CALCULATED USING FORMULAS FROM THE SCD 1500, TABLE 1: TAPER LENGTHS FOR TEMPORARY TRAFFIC CONTROL ZONES.

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- FOR ADVANCE WARNING SIGN ON SIDE STREET APPLICATION PLACE SIGN A MAXIMUM OF 200' FROM STOP LINE OR TRAFFIC CONTROL.
- PLACE TEMPORARY STOP SIGN ON STAND AND MOVE FORWARD.

ADVANCE WARNING SIGNAGE,
(TYPICAL) REFER TO
SCD 1500 SHEET 1, NOTE 1

FLASHING ARROW PANEL TO BE
PLACED AT END OF TAPER
F.A.P.

FLASHING ARROW PANEL TO BE
PLACED AT END OF TAPER

5-LANE SECTION WITH SHIFT

LANE CLOSURES

CITY OF COLUMBUS, OHIO DEPARTMENT OF PUBLIC SERVICE DIVISION OF DESIGN AND CONSTRUCTION	STD DWG 1510 9/15/2015
<i>Naseem Zahran</i> CITY ENGINEER	SHT 5 OF 5

Road Closure



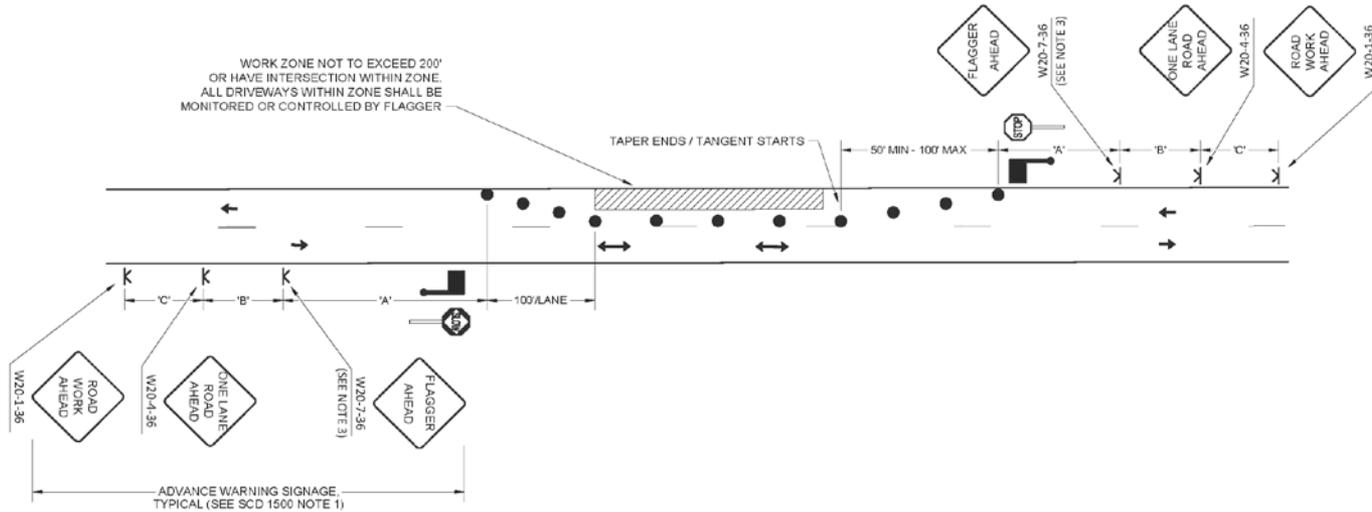
Road Closure



Road Closure



Flagging



NOTES

1. FOR ADDITIONAL NOTES, TABLES, AND SYMBOL LEGEND SEE CITY OF COLUMBUS STANDARD CONSTRUCTION DRAWING 1500.
2. ON STRAIGHT ROADWAYS WITH SHORT WORK ZONES (50') IN LOW VOLUME SITUATIONS, WHERE THE FLAGGER IS VISIBLE TO ROAD USERS FROM BOTH DIRECTIONS, A SINGLE FLAGGER VISIBLY POSITIONED TO ROAD USERS APPROACHING FROM BOTH DIRECTIONS MAY BE USED.
3. NO SYMBOLS, TEXT ONLY.
4. FLAGGER USING STOP/SLOW PADDLE - SEE OUMTCD SECTION 6E 03.

TWO-WAY, ONE-LANE

FLAGGING OPERATIONS

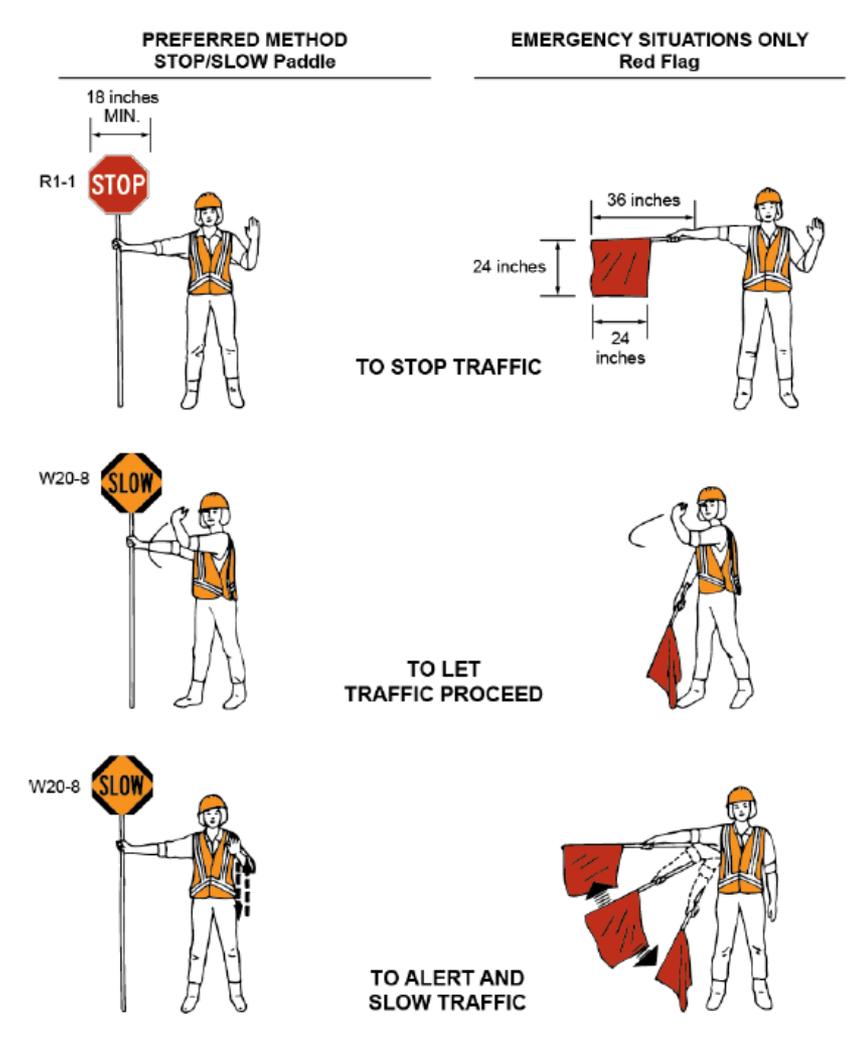
CITY OF COLUMBUS, OHIO DEPARTMENT OF PUBLIC SERVICE DIVISION OF DESIGN AND CONSTRUCTION	STD DWG 1550 9/15/2015
<i>Hassan Zahran</i> CITY ENGINEER	SHT 1 OF 3

Flagging



Flagging Procedure

Figure 6E-3. Use of Hand-Signaling Devices by Flaggers



- Use flags when working in a STOP controlled intersection. Not a Stop/Slow paddle.
- When flagging on a Residential street, a self regulating operation may be used. Yield signs and “One Lane Road Ahead” signs must be used

Private Development

Long Term – 1-2 Years

Separate Permit

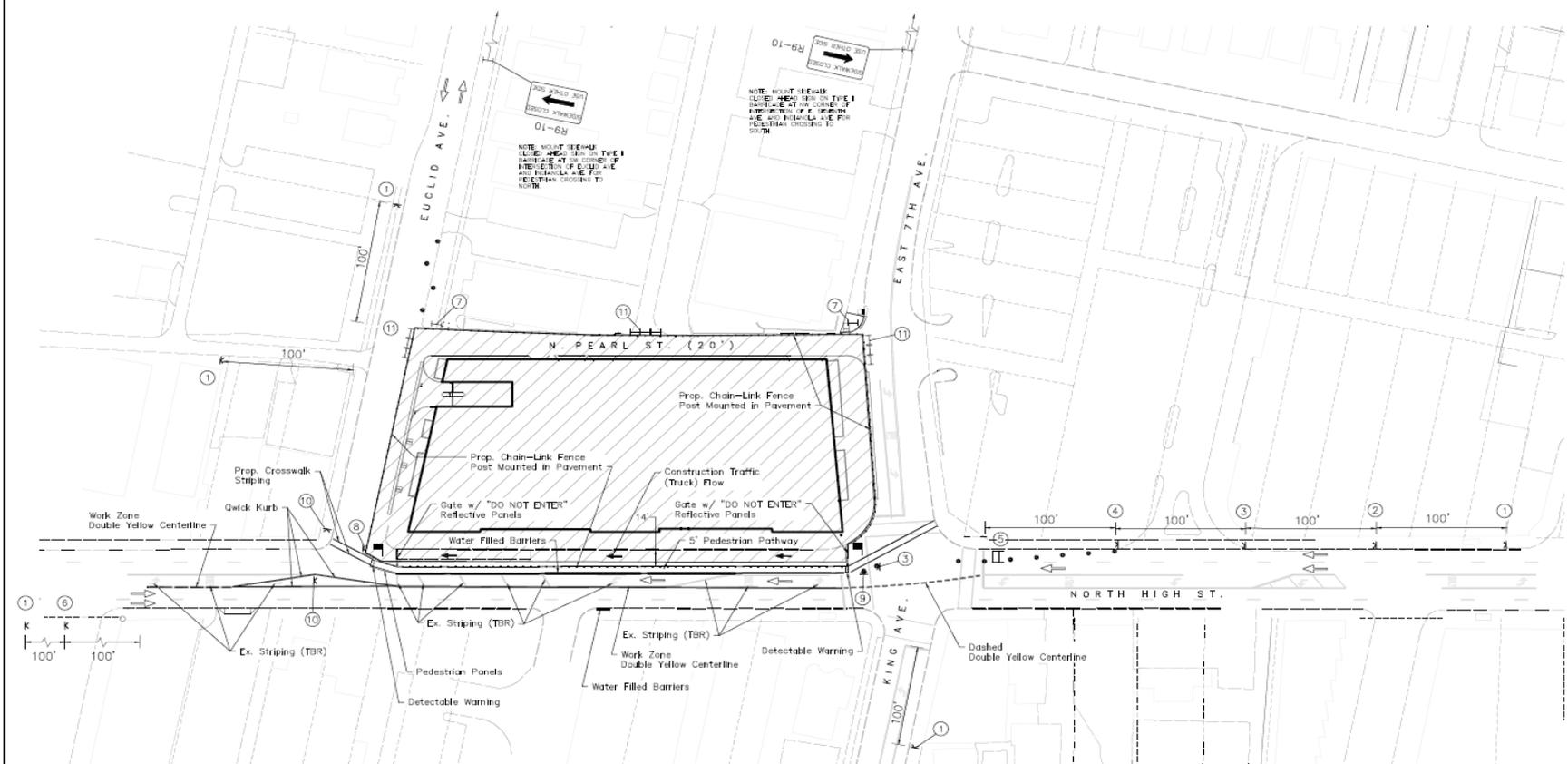
Separate MOT

Things to think about...

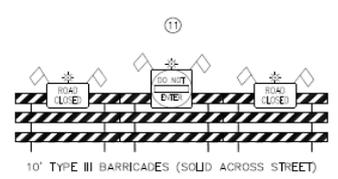
pavement markings, peds, bicyclists, barrier wall, attenuators, fencing, bus stops, signals, fire connection

Law Enforcement Officers

- L.E.O.'s
 - Special Duty
 - Can be used for Flagging
 - Required within any signalized intersection
 - Required within City of Columbus for 2-way, 1-lane flagging on arterial roadways
 - A cruiser is not always needed, and usually not recommended
 - In downtown as directed by permit



- ① ROAD WORK AHEAD
W20-1-48
- ② RIGHT LANE CLOSED AHEAD
W9-3R-48
- ③
- ④
- ⑤ FLASHING ARROW PANEL 48"x96", TYPE C
- ⑥ LEFT LANE CLOSED AHEAD
W9-3-48
- ⑦ SIDEWALK CLOSED
R9-9
- ⑧ PEDESTRIAN WALKWAY
30"x24" BLACK/ORANGE DRUM MOUNTED
- ⑨ PEDESTRIAN WALKWAY
30"x24" BLACK/ORANGE DRUM MOUNTED
- ⑩ R3-2-30



LEGEND

- ⊥ MOT SIGN
- ⊥ DOUBLE POST MOT SIGN
- ⊥ TYPE III BARRICADE
- ▨ PROPOSED WORK AREA
- DIRECTION OF TRAVEL
- ⊙ TEMPORARY POST OR STAND
- ⬛ FLAGGER

CALCULATED
DATE: 11/11/11
CREATED: 11/11/11
PAGE: 1

MAINTENANCE OF TRAFFIC

E. SEVENTH AVENUE (SOUTH SIDE)
 E. SEVENTH AVENUE (NORTH SIDE)
 NORTH HIGH STREET
 N. PEARL STREET
 KING STREET
 E. EIGHTH STREET
 E.P. 4-E

E.P. FERRIS & ASSOCIATES INC



Project Name E. MAIN ST.	Contractor CONTINENTAL BUILDING	Work Description PEDESTRIAN WALKWAY	Traffic Control Contractor Paul Peterson Co	Date 11-02-2016
THESE DRAWINGS NOT TO SCALE		<p>The graphical illustration of traffic control devices in this document is not a design or plan from a professional engineer nor does it supersede the Ohio Manual of Uniform Traffic Control Devices, current edition. The Paul Peterson Co. and employees assume no liability in connection with the traffic control suggestions or information herein made. It cannot be assumed that every acceptable traffic control procedure is contained herein as this document is for reference purposes only. This document may not be reproduced and is intended only for internal use by the Paul Peterson Co.</p>		
APPROVED BY _____	DATE _____			
PRINT: _____	TITLE _____			



Parking Meters

- Have parking meters bagged if area needed for work
- May not tow vehicle that has paid for a meter
- Submit application 48 hours in advance
- Pay fees at 50 W Gay St.



Parking Meters



Un-metered Parking

- Obtained from permit office at 50 W Gay St.
- Must have permit
- Post signs 72 hours in advance
- State dates and hours of parking restriction
- Submit photos of posted signs to permit office
- Recommend posting on drums

**EMERGENCY
NO STOPPING**

(Hours)

/ / (Date)

TO

/ / (Date)

BY ORDER OF DEPARTMENT OF PUBLIC SERVICE
TRAFFIC CODE SECTION 2105.01
APPROVED BY DIRECTOR OF PUBLIC SERVICE
TRAFFIC CODE SECTION 2151.01-0

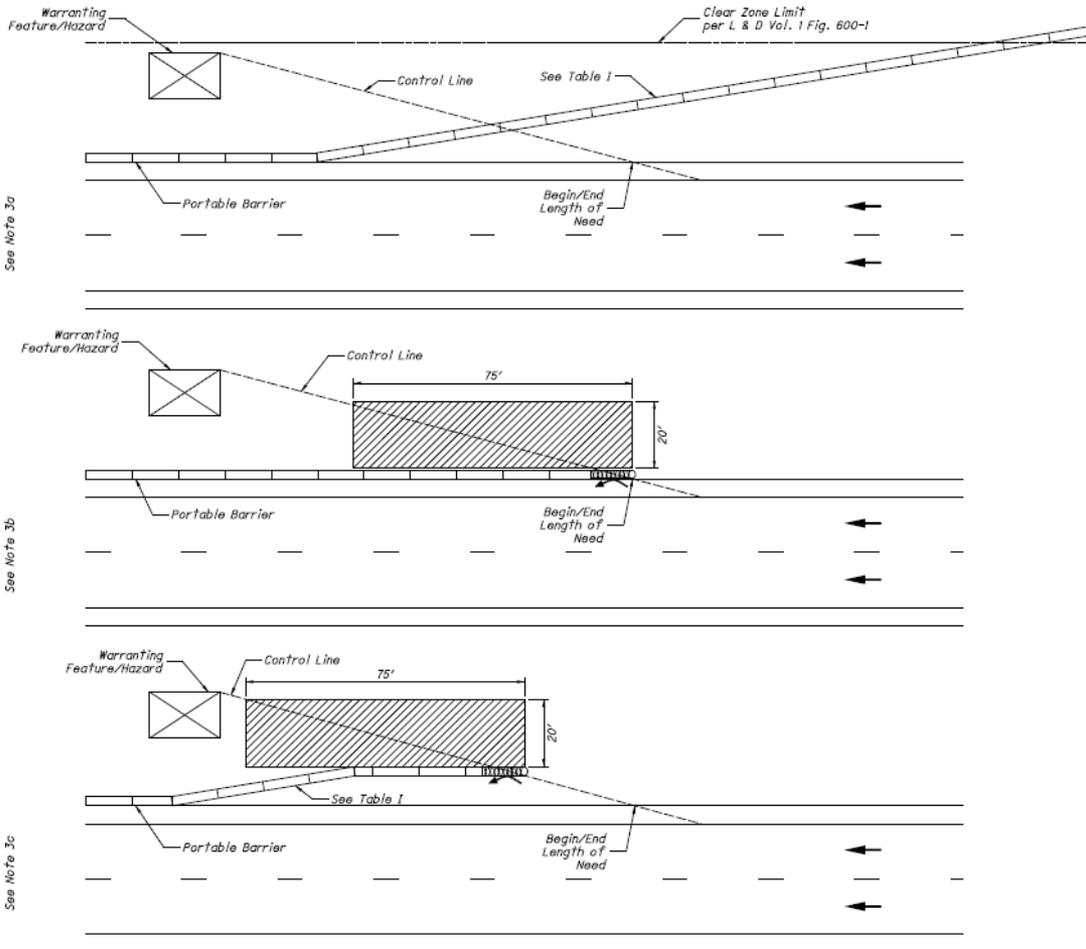
PERMIT NUMBER: - -

**TOWED VEHICLES
CALL (614) 645-1364**

Cover/Align Signal Heads



Concrete Barrier



NOTES:

- Attenuators shall be installed per the manufacturer's specifications.
- Recovery area shall have slopes 3:1 or flatter and be free of workers, hazards, equipment, drop-offs, and material storage.
- The Contractor shall select one of the three acceptable options for Terminating portable barrier:
 - Terminate flared section of portable barrier outside clear zone with tapered and only where cross slopes are 10:1 or flatter.
 - Terminate portable barrier with an impact attenuator. A non-gating attenuator may be included in the length of need measurement.
 - Flare a section of portable barrier to the length of need control line and terminate with an impact attenuator. A non-gating impact attenuator may be included in the flared section of portable barrier.
- The Contractor shall submit documentation to the Engineer, 2 weeks prior to implementation, for acceptance when:
 - Deviating from the three acceptable options for terminating portable barrier.
Documentation shall explain any deviations and verify that the recovery area fulfills the manufacturer's specifications and Note 2.
 - Using a gating impact attenuator in lieu of a non-gating impact attenuator.
The gating impact attenuator length shall not be included as part of the length of need or recovery area requirements. Additional portable barrier will need to be added. The additional cost for the additional barrier required for a gating impact attenuator shall be included in the cost of the gating impact attenuator.
Documentation shall verify that the extended recovery area fulfills the manufacturer's specifications and Note 2.
- Gating impact attenuators shall not be used in gore locations or within the clear zone between bi-directional traffic.

TABLE I

SPEED LIMIT (MPH)	PB FLARE RATIO MINIMUM
25	8:1
30	8:1
35	9:1
40	10:1
45	12:1
50	14:1
55	16:1
60	18:1
65	19:1
70	20:1

LEGEND

RECOVERY AREA

PORTABLE BARRIER

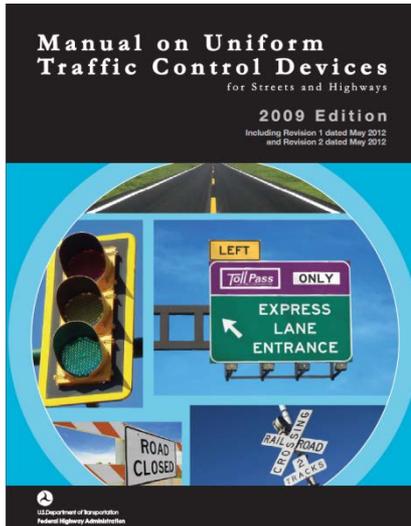
NON-GATING IMPACT ATTENUATOR

DIRECTION OF TRAVEL

Impact Attenuator



Pedestrians



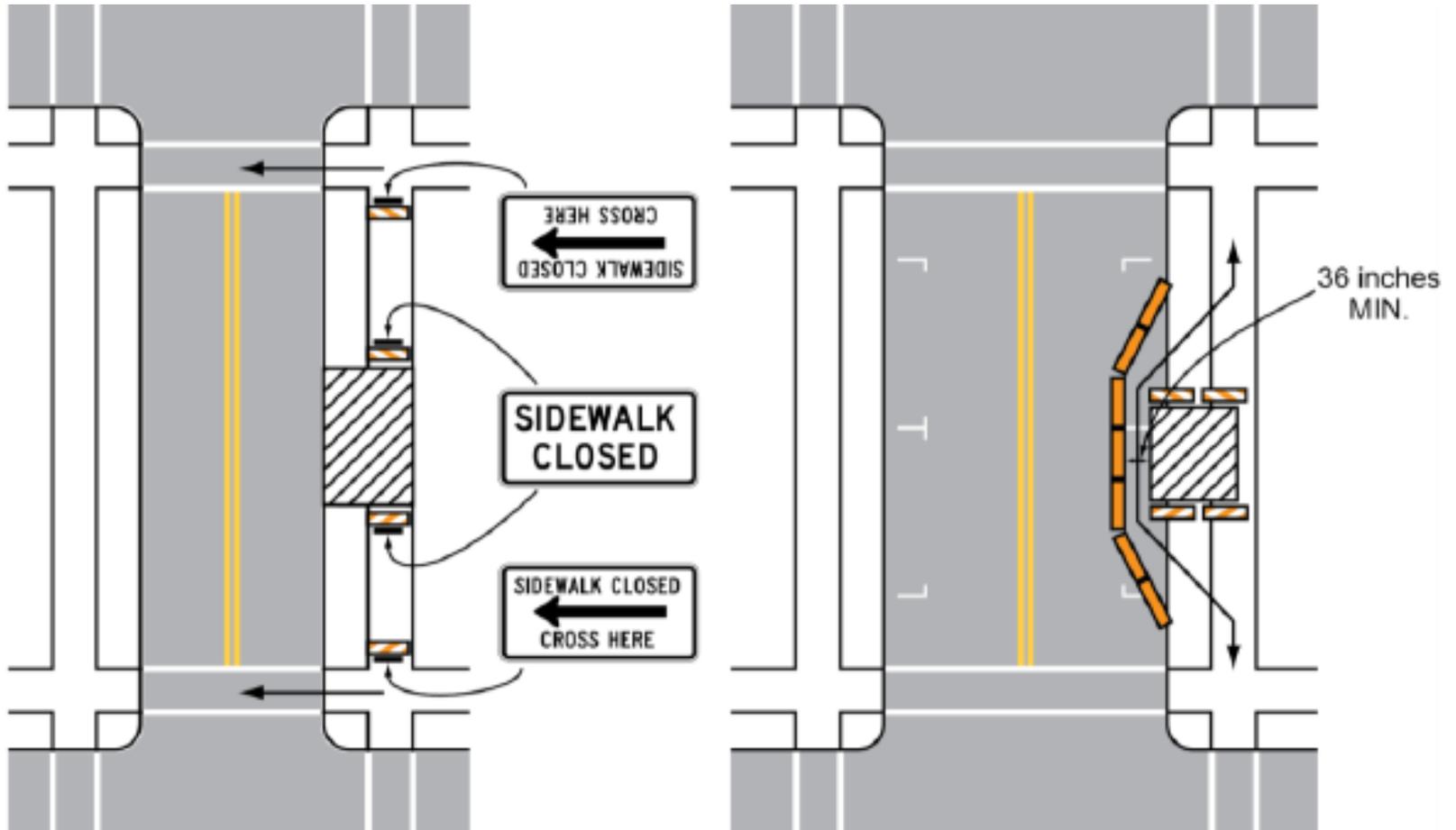
The need and control of all road users, motorists, bicyclist, and pedestrians... through a temporary Traffic Control zone shall be an essential part of the highway construction, utility work, or maintenance operations....

- Must maintain access for pedestrians
- Must be a hard smooth surface (temporary asphalt)
- Must use sidewalk closed signs in accordance with the OMUTCD posted on Type I barricades

Pedestrians

- Must maintain access for pedestrians
- Must be a hard smooth surface (temporary asphalt)
- Existing dirt/grass footpath can be maintained in stone
- Must use sidewalk closed signs in accordance with the OMUTCD
- Signs need to be posted on Type I barricades
- Temporary ramps need to be ADA compliant

Sidewalk Closure



Sidewalk Closure

- SIDEWALK CLOSED USE OTHER SIDE – In advance of actual closure at nearest ADA crossing
- SIDEWALK CLOSED – At actual closure point



Temporary Barrier



Defined Walkway



THE CITY OF
COLUMBUS
ANDREW J. GINTHER, MAYOR

DEPARTMENT OF
PUBLIC SERVICE

Temporary Ramp



Temporary Surface



Temporary Surface

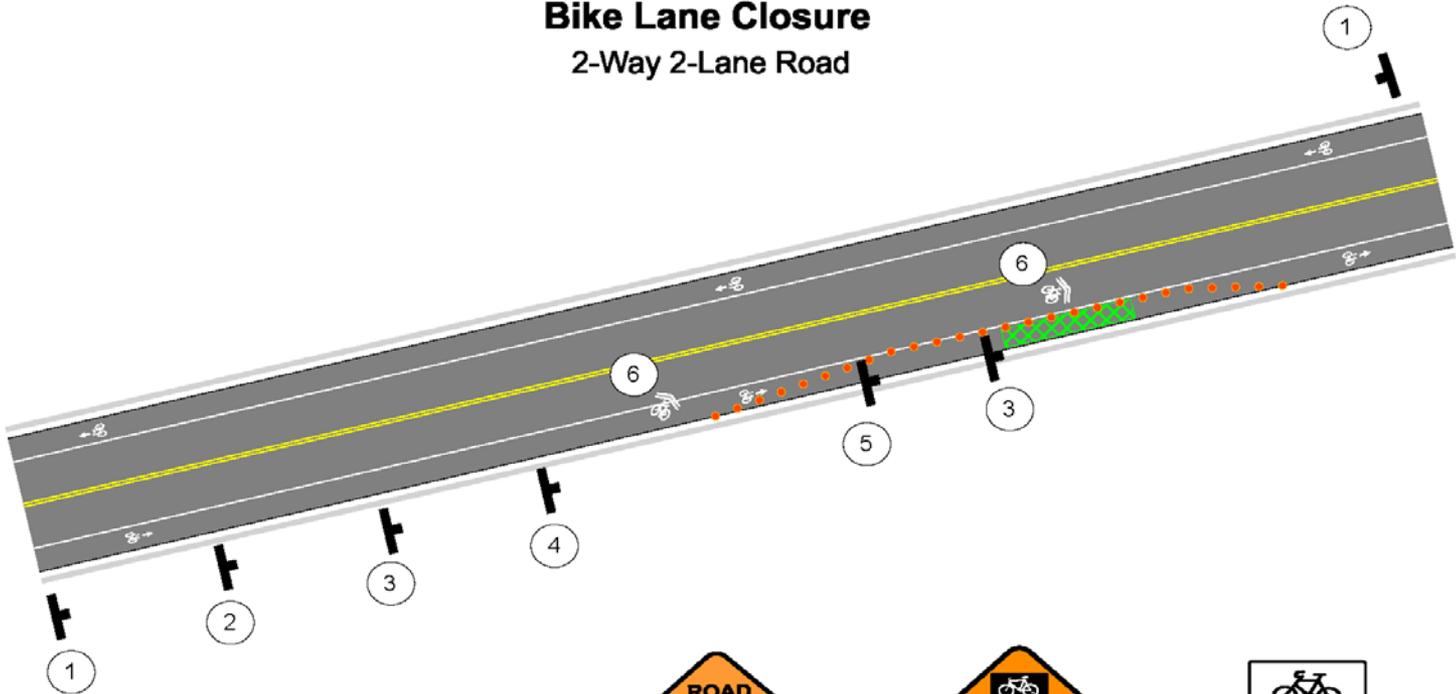


Bicycle Facilities



Bike Lane Closure

2-Way 2-Lane Road



1



2



3



4



On 6' Type III Barricade

5

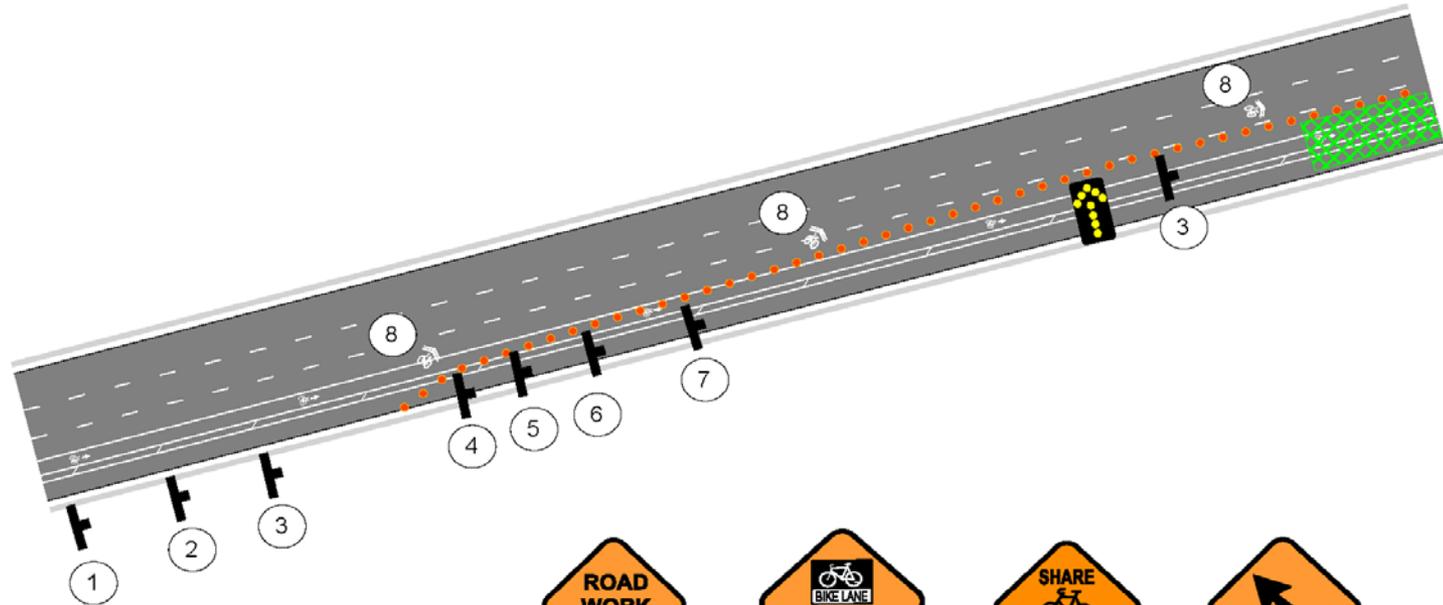


Sharrows required if project is longer than 30 days. They shall not be placed on top of existing markings.

6

Bike Lane Closure With Lane Closure

Multi-lane Roadway



1



2



3



4



On 6' Type III Barricade

5



6



7



Sharrows required if project is longer than 30 days. They shall not be placed on top of existing markings.

8

Have a clear message



Have a clear message



Contact Numbers

City of Columbus Police Department

- 614-645-4545 – CPD Non-emergency
- 614-645-4843 – Traffic Bureau Lt. Paul Weiner
- 614-645-4844 – Traffic Bureau Lt. Paul Weiner
- 614-645-4795 – Special Duty Office

Mark DiPiero

- 614-332-7472 – Cell
- 614-645-5845 – Office

Scott Porter

- 614-554-8138 – Cell
- 614-645-0355 – Office

Keith Farrell

- 614-949-0217 – Cell
- 614-645-6269 – Office

Remember...

Ohio Law **requires** you to move over or slow down when approaching vehicles with flashing warning lights!

