

# THE ILLINOIS STATE TOLL HIGHWAY AUTHORITY

March 24, 2021

## CONSTRUCTION BULLETIN No. 21-01

### SUBJECT: Work Zone Public Information Sign W21-I116

The Illinois Tollway Standard Drawings and Maintenance of Traffic Plates in the Roadway Traffic Control and Communications Manual include Work Zone Public Information Sign W21-I116 in advance of work zones to advise motorists of the penalties that could result from hitting a worker. This sign is included in most contracts currently under construction by the Illinois Tollway system. The sign was previously used by IDOT and Illinois Tollway Standards directed the Contractor to obtain camera-ready artwork required for the sign from IDOT's Central Bureau of Operations. IDOT has discontinued use of this sign, so they will not be providing updated artwork. The Illinois Tollway will also discontinue the use of this sign.

The "Hit a Worker" signs are reflected in the following Illinois Tollway Standard Drawings and Maintenance of Traffic Plates from the Section 15 of the Roadway Traffic Control and Communications Manual:

- Illinois Tollway Standards:
  - E2 – Lane Closure Details
  - E3 – Shoulder Closure Details
- Roadway Traffic Control and Communication Manual – Section 15: Maintenance of Traffic Plates and Notes
  - Plate 2 – Typical Temporary Shoulder Closure
  - Plate 3R – Typical Temporary Right Lane Closure
  - Plate 3L – Typical Temporary Left Lane Closure
  - Plate 4R – Typical Temporary Two Right Lanes Closure
  - Plate 4L – Typical Temporary Two Left Lanes Closure
  - Plate 5 – Typical Temporary Work on Acceleration Lane
  - Plate 6 – Typical Deceleration Lane and/or Ramp Lane Closure
  - Plate 6A – Typical Deceleration Lane Closure
  - Plate 7 – Typical Work in Toll Plaza

The latest versions of the above-referenced drawings have been updated to reflect the elimination of this sign. Contracts that include Standard E2-09 and E3-08 shall use E2-10 and E3-09 respectively for all future closures. Contracts that include earlier versions of Standards E2 and E3 shall continue to use the Standards included in their Contract, but without the use of Work Zone Public Information Sign W21-I116. Requirements in Maintenance of Traffic Plans for this sign and any penalties explicitly associated with this sign shall be eliminated from all Contracts as well.

The Maintenance of Traffic Plates and Notes have been updated in the 2021 Roadway Traffic Communications Manual. These updates Plates shall be used in lieu of the 2020 Plates.

Construction Managers are hereby directed to follow this construction bulletin with all Illinois Tollway contracts and to have the removals performed by the contractor in an efficient and timely manner without undue burden to the contract.

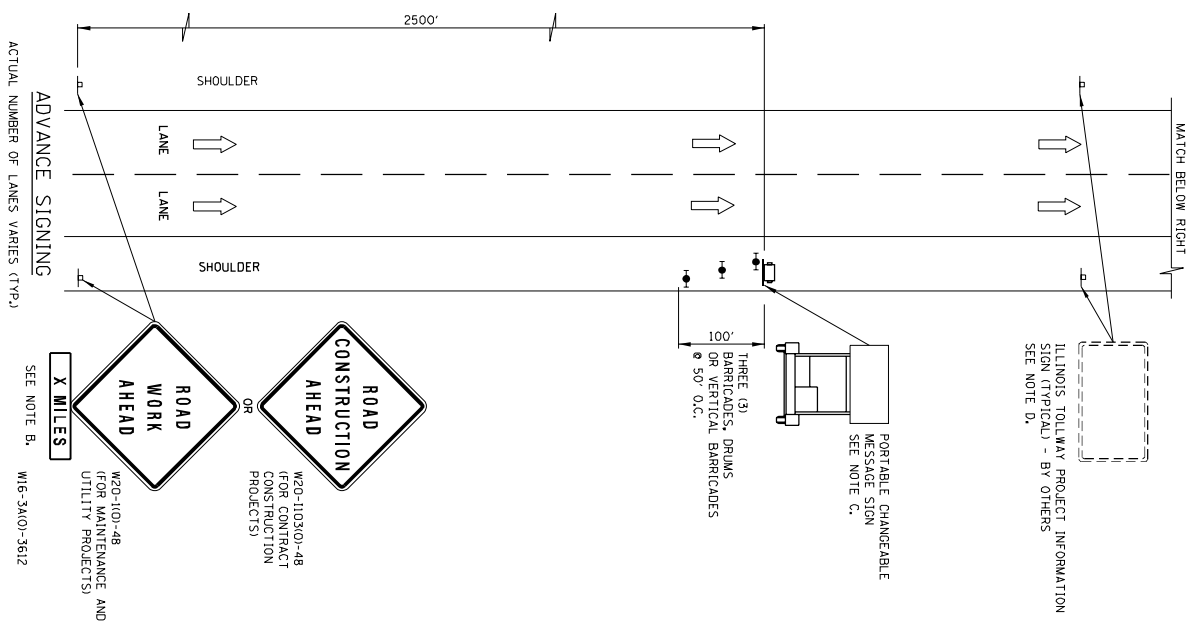


Manar Nashif, P.E.  
Acting Chief Engineering Officer

03/29/2021

Date

Approved by *Paul Kovacs*  
 Chief Engineering Officer DATE 5-1-2009



**ADVANCE SIGNING NOTES:**

- A. THE ADVANCE SIGNING SHOWN ON THIS STANDARD SHALL APPLY ANY TIME THE CONTRACTOR CLOSES ONE OR MORE LANES, OR IS REQUIRED TO SHIFT THE LANE ALIGNMENT. THE "ROAD WORK AHEAD" OR "ROAD CONSTRUCTION AHEAD" SIGNS, WORK ZONE PUBLIC INFORMATION SIGNS AND PORTABLE CHANGEABLE MESSAGE ARE STATUTORY.
- B. THE ROAD CONSTRUCTION AHEAD SIGN (W20-1A, WITH W16-3A SUPPLEMENTAL PLATE) OR ROAD WORK AHEAD SIGN (W20-1, WITH W16-3A SUPPLEMENTAL PLATE) SHALL BE LOCATED UP TO 5 MILES IN ADVANCE OF THE PROJECT LIMITS, WITH THE LOCATION BEING DETERMINED BY THE ENGINEER.
- C. THE PORTABLE CHANGEABLE MESSAGE SIGN SHALL BE USED TO DISPLAY THE STATUS OF LANE WITHIN THE CONTRACT LIMITS. THE PRIMARY MESSAGES SHALL BE "RIGHT LANES CLOSED", "X MILES AHEAD", "ROAD WORK AHEAD", "ROAD CONSTRUCTION AHEAD", "LANE CLOSED", "LANE SHIFTING", AND "LANE SHIFTING AHEAD". THE PORTABLE CHANGEABLE MESSAGE SIGN MAY BE KNOWN TO THE MEDIUM SHOULDER WHEN THE LANE CLOSURES ARE ON THE LEFT, PROVIDED THE EXISTING SHOULDER WIDTH IS ADEQUATE.
- D. THE ILLINOIS TOLLWAY WILL FURNISH AND INSTALL STATIC PROJECT INFORMATION SIGNS IN ADVANCE, THROUGH AND AT THE END OF THE WORK ZONE. THESE SIGNS WILL BE INSTALLED ALONG THE OUTSIDE SHOULDER AND THE ADVANCE SIGNS LOCATED BEYOND THE PORTABLE CHANGEABLE MESSAGE SIGN. THE ENGINEER AND CONTRACTOR SHALL COORDINATE WITH THE ILLINOIS TOLLWAY REGARDING THE LOCATION OF THESE SIGNS AND NOTIFY THE ILLINOIS TOLLWAY OF ANY DAMAGE TO THE SIGNS OR SUPPORTS.

**LEGEND**

- ARROW BOARD
- WORK AREA
- SIGN
- DIRECTION INDICATOR BARRICADE WITH SEQUENTIAL FLASHING WARNING LIGHT
- TYPE II BARRICADE, DRUM, OR VERTICAL BARRICADE WITH LIGHT IF REQUIRED. (SEE ARTICLE 701.05(G)(5))
- FLAGGER WITH TRAFFIC CONTROL SIGN
- WORKER
- LANE CLOSED
- CHECK BARRICADE
- TRUCK MOUNTED ATTENUATOR

DATE	REVISIONS
3-31-2017	ADDED TAPER RATE TABLE
3-01-2019	REARRANGED DETAILS, REVISED NOTE 17, ADDED NOTES 18 & 19, ADDED TMA
5-01-2024	CLEARING TMA REQUIREMENTS UPDATED
3-01-2022	DELETED WORK ZONE PUBLIC INFORMATION SIGN

SHEET 1 OF 3

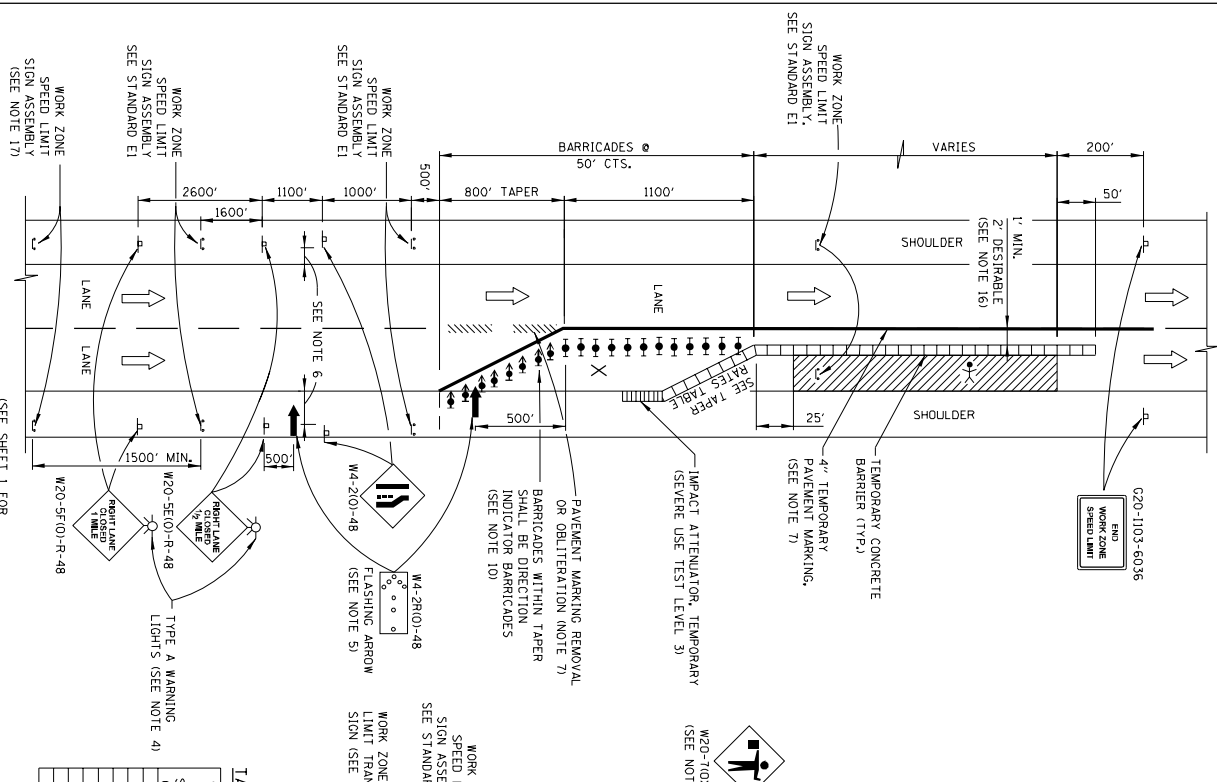
LANE CLOSURE DETAILS

STANDARD E2-10

Approved: *Paul Kravacka*  
 Chief Engineering Services  
 DATE: 5-1-2009

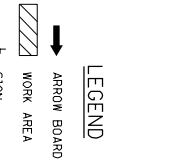
ONE-LANE CLOSURE WITH BARRIER

(SEE SHEET 1 FOR  
 ADVANCE SIGNING)



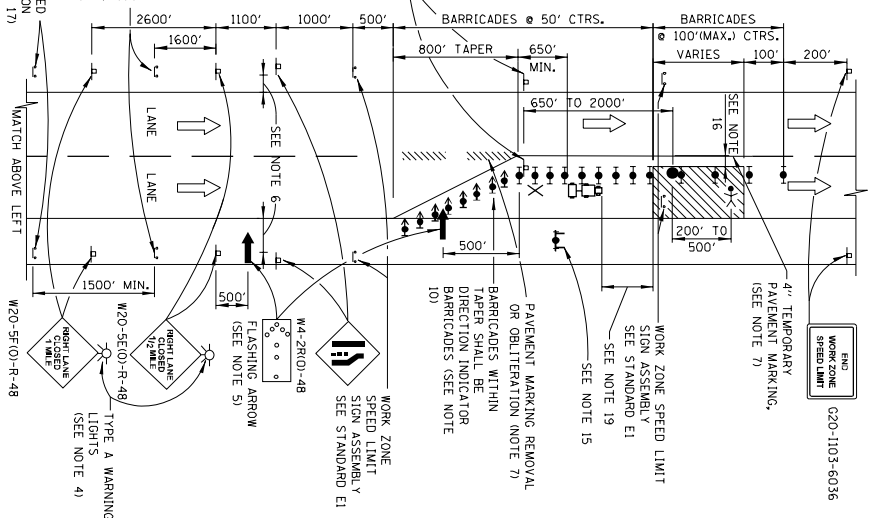
**TAPER RATES**

WORK ZONE SPEED (mph)	SHY LINE INSIDE	SHY LINE BEYOND
65	8.5	284
55	7	241
50	6.5	211
45	6	181
40	5.5	151
35	5	121
30	4.5	91
25	4	61



TYPE II BARRICADE, DRUM, OR VERTICAL BARRICADE WITH LIGHT IF REQUIRED.  
 SEE ARTICLE 101.05(9)(5)

ONE-LANE CLOSURE WITH BARRICADE



1. IF CLOSURES ARE EXPECTED TO PRODUCE TRAFFIC BACKUPS EXTENDING BEYOND THE FIRST WARNING SIGN SHOWN ON THE DETAILS, ADDITIONAL UPSTREAM SIGNS SHALL BE PLACED SO THAT THE TRAFFIC CONTROL ZONE ENCOMPASSES THE ANTICIPATED BACKUP ZONE.
2. LONGITUDINAL DIMENSIONS MAY BE ADJUSTED SLIGHTLY TO FIT FIELD CONDITIONS.
3. THESE DETAILS ALSO APPLY TO OPPOSITE HAND LANE CLOSURES BY CHANGING SIGN LEGENDS AND ARROW DIRECTIONS TO INDICATE THE APPROPRIATE CLOSURE.
4. FOR NIGHT TIME CLOSURES, ONE TYPE A WARNING LIGHT SHALL BE INSTALLED ABOVE EACH OF THE 1 MILE AND 1/2 MILE ADVANCE WARNING SIGNS. FOR DAYLIGHT-ONLY CLOSURES, THE LIGHTS MAY BE OMITTED.
5. FOR ANY LANE CLOSURE, FLASHING ARROW BOARDS SHALL BE REQUIRED AND IN OPERATION AT ALL TIMES. THE FLASHING ARROW BOARD AT 50' O.C. OF THE TAPER SHALL BE PROTECTED WITH THREE TYPE II BARRICADES AT 50' O.C.
6. CONSTRUCTION SIGNS SHALL GENERALLY BE POST-MOUNTED OR ATTACHED TO PORTABLE BARRICADES AND SHALL BE PLACED FROM ADJACENT TRAVEL LANE. WHENEVER POSSIBLE, THE SIGNS SHALL BE LOCATED TO PROVIDE LESS THAN 2' CLEARANCE BETWEEN EDGE OF SIGN AND ADJACENT TRAVEL LANE.
7. PAYMENT MARKING TAPE AND REMOVAL OR OBLITERATION OF EXISTING MARKINGS SHALL BE REQUIRED WHEN THE CLOSURE TIME EXCEEDS FOUR DAYS. THIS WORK SHALL BE MEASURED AND PAID FOR SEPARATELY.
8. WHEN A FLAGGER IS NOT ON STATION, THE FLAGGER SIGN SHALL BE PROMPTLY REMOVED, COVERED OR TURNED TO FACE AWAY FROM TRAFFIC. FLAGGER SIGNS SHALL BE MOVED AS NECESSARY TO MAINTAIN THE REQUIRED SPACING BETWEEN THE SIGNS AND THE WORKERS IN EACH SEPARATE WORK ACTIVITY, PER THE ILLINOIS TOLLWAY SUPPLEMENTAL SPECIFICATIONS.
9. WORK ZONE SPEED LIMIT SIGN ASSEMBLIES SHALL BE PLACED ADJACENT TO THE OPEN TRAVEL LANE. WORK ZONE SPEED SIGNS SHALL BE MOVED AS NECESSARY TO MAINTAIN THE REQUIRED SPACING BETWEEN SIGNS AND THE WORKERS IN EACH SEPARATE WORK ACTIVITY PER THE ILLINOIS TOLLWAY SUPPLEMENTAL SPECIFICATIONS.
10. DIRECTION INDICATOR BARRICADES SHALL BE USED IN LANE TAPERS.
11. FOR CLOSURES OTHER THAN SHORT TERM (SUNRISE TO ONE HOUR BEFORE SUNSET), THE MINIMUM HEIGHT OF THE SIGN FROM SHOULDER ELEVATION SHALL BE 7'-0".
12. CONES MAY BE USED IN LIEU OF BARRICADES IN THE BUFFER AND WORK AREAS, WHEN THE CLOSURE IS FOR MAINTENANCE OPERATIONS.
13. BARRICADES ARE TO BE LOCATED AT JOINT LINE WHEN WORK AREA EXTENDS UP TO JOINT UNLESS OTHERWISE SHOWN ON THE PLANS.
14. SEE MAINTENANCE OF TRAFFIC DRAWINGS FOR ADDITIONAL SIGNING IN THIS AREA.
15. CHECK BARRICADES SHALL BE PLACED IN EACH CLOSED LANE AND SHOULDER AT 1000 FOOT CENTERS.
16. A 1'-0" MINIMUM 2'-0" DESIRABLE SHY DISTANCE SHALL BE PROVIDED, MEASURED BETWEEN EDGE OF PAVEMENT LANE MARKING TO THE EDGE OF THE TRAFFIC CONTROL DEVICE.
17. SEE STANDARD E1 FOR ADDITIONAL SIGNAGE REQUIRED WHEN WORK ZONE SPEED LIMIT IS REDUCED BY MORE THAN 10 MPH. THE SPEED LIMIT SHALL BE TRANSTIONED TO THE SPECIFIED WORK ZONE SPEED LIMIT 2600 FEET BEFORE THE FIRST W4-2 SIGN.
18. WHEN NO POSITIVE PROTECTION IS PROVIDED AND WORKERS OR EQUIPMENT ENCLOSED WITHIN 2'-0" OR LESS FROM THE EDGE OF TRAVELLED WAY, THE LANE OPEN TO TRAFFIC SHALL BE TEMPORARILY CLOSED OR SHIFTED DURING WORK ACTIVITIES.
19. IN WORK ZONES WITH NO POSITIVE PROTECTION, A TRUCK MOUNTED ATTENUATOR (TMA) SHALL BE PROVIDED WITH A BUFFER AREA BETWEEN THE FRONT OF THE TMA AND WORKERS OR EQUIPMENT. THE BUFFER AREA SHALL BE 200' UNLESS OTHERWISE DETERMINED. WHERE WORKERS OR EQUIPMENT ARE PRESENT BEYOND THE WORK AREA, AN ADDITIONAL TMA SHALL BE PROVIDED TO EACH WORK AREA. A WORK AREA IS DEFINED AS STARTING AT THE END OF THE BUFFER AREA, EXTENDING 1000 FEET BEYOND THIS POINT.

LANE CLOSURE DETAILS  
 STANDARD E2-10



LANE CLOSURE NOTES:

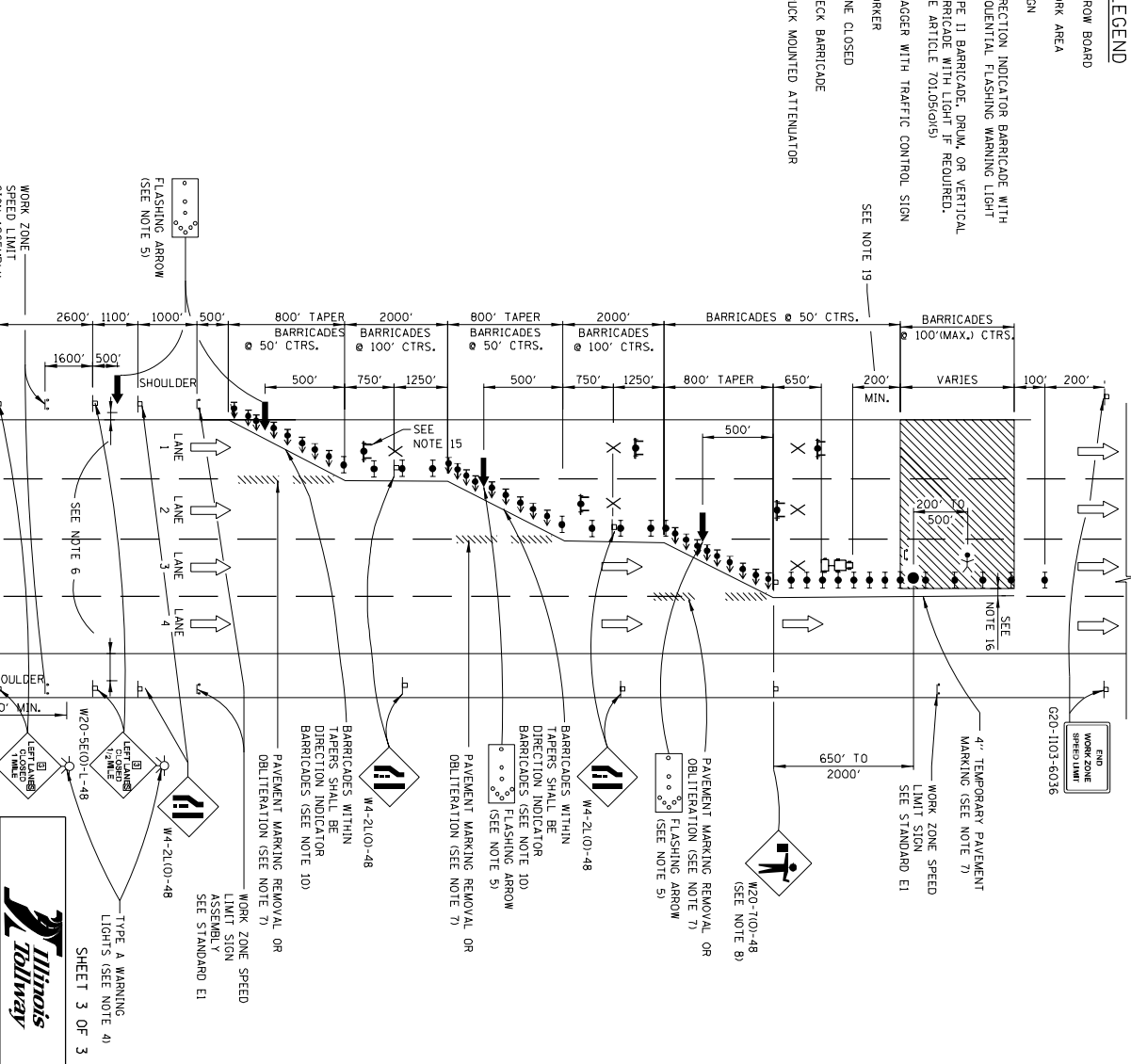
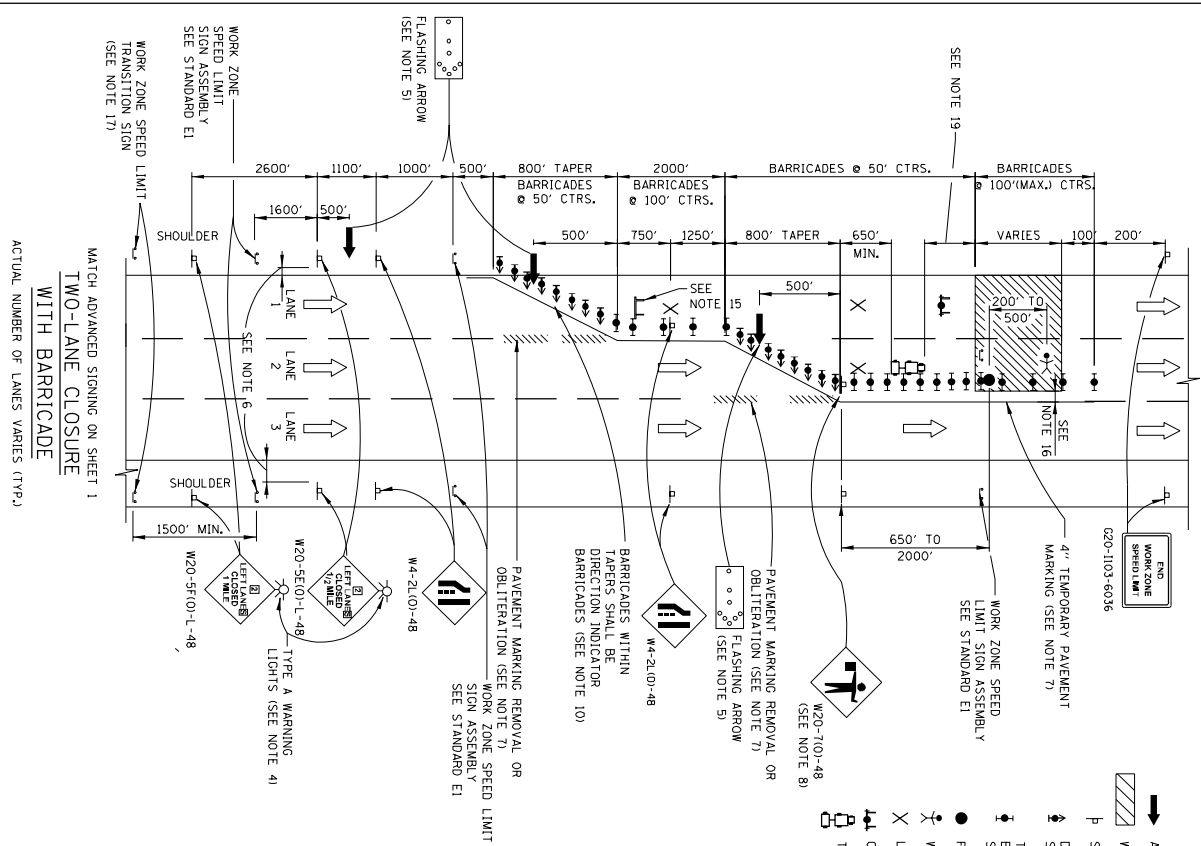
Approved: *Paul K. Kovacs*  
 Chief Engineering Service  
 DATE: 5-1-2009.

SEE SHEET 1 IN THIS SERIES FOR NOTES

SEE SHEET 1 IN THIS SERIES FOR NOTES

SEE SHEET 1 IN THIS SERIES FOR NOTES

LANE CLOSURE DETAILS  
 SHEET 3 OF 3  
 ILLINOIS Tollway  
 STANDARD E2-10



**LEGEND**

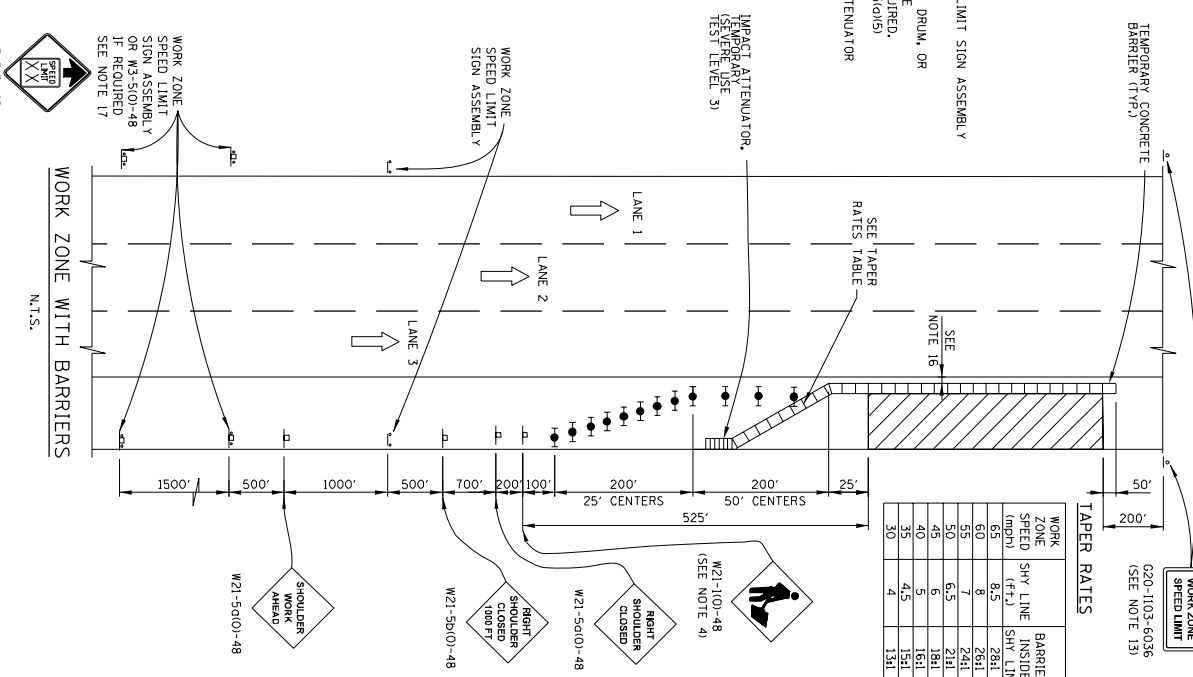
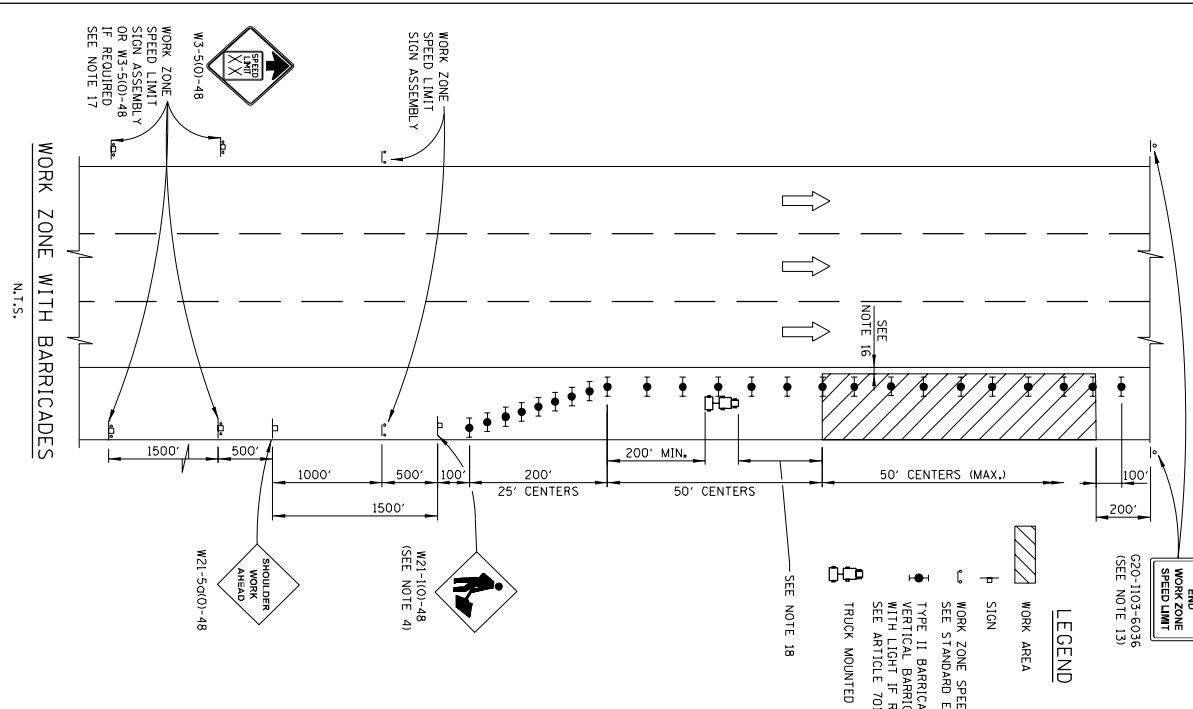
- ➔ ARROW BOARD
- ▨ WORK AREA
- Ⓟ SIGN
- ⚡ DIRECTION INDICATOR BARRICADE WITH SEQUENTIAL FLASHING WARNING LIGHT
- ⚡ TYPE 11 BARRICADE, PLANK OR VERTICAL BARRICADE WITH LIGHT 'F' REQUIRED. SEE ARTICLE 701.05(d)(6)
- ⚡ FLAGGER WITH TRAFFIC CONTROL SIGN
- ⚡ WORKER
- ⚡ LANE CLOSED
- ⚡ CHECK BARRICADE
- ⚡ TRUCK MOUNTED ATTENUATOR

MATCH ADVANCED SIGNING ON SHEET 1  
 TWO-LANE CLOSURE  
 WITH BARRICADE  
 ACTUAL NUMBER OF LANES VARIES (TYP.)

MATCH ADVANCED SIGNING ON SHEET 1  
 THREE-LANE CLOSURE WITH BARRICADE

MATCH ADVANCED SIGNING ON SHEET 1  
 SHEET 3 OF 3

Approved: *Paul Kovacs*  
 Chief Engineering Services  
 DATE: 5-1-2009



WORK ZONE SPEED (mph)	SHY LINE (ft+)	BARRIER INSIDE SHY LINE	BARRIER AT OR BEYOND SHY LINE
65	8.5	2841	1941
60	8	2641	1841
55	7	2441	1641
50	6.5	2141	1441
45	6	1841	1241
40	5	1641	1041
35	4.5	1541	941
30	4	1341	841

**GENERAL NOTES:**

1. THE SHOULDER SHALL BE CLOSED WHEN A WORK ACTIVITY REQUIRING 15 OR MORE MINUTES IS PERFORMED AT A DISTANCE WHICH IS LESS THAN 15 FEET BUT NO CLOSER THAN 2 FEET FROM THE EDGE OF PAVEMENT.
2. THE ADJACENT EXTERIOR LANE SHALL BE CLOSED WHEN WORK IS PERFORMED WITHIN 2 FEET FROM THE EDGE OF PAVEMENT.
3. THE CHANNELIZING DEVICES WHICH SEPARATE THE WORK SPACE FROM THE ADJACENT TRAVEL LANE SHALL BE SPACED AT 25' FOR 200 FEET AND AT A MAXIMUM OF 50' FOR ALL ADDITIONAL DEVICES.
4. WHEN THE WORKSITE IS UNATTENDED, SUBSTITUTE - "SHOULDER WORK AHEAD" SIGN.
5. WORKER SIGNS OR SHOULDER WORK SIGNS AND CHANNELIZATION DEVICES ARE PLACED ONLY ON THE SIDE OF THE ROADWAY ON WHICH THE ACTIVITY IS PERFORMED.
6. FOR SHOULDER CLOSURE EXTENDING OVERNIGHT, BARRICADE TYPE II SHALL BE USED. SEE ARTICLE T01.05(G)(5) FOR BARRICADE LIGHT REQUIREMENTS.
7. FOR SHORT TERM CLOSURE (SUNRISE TO ONE HOUR BEFORE SUNSET) NOT EXTENDING INTO DARKNESS, CONES MAY BE USED.
8. ONE WORK ZONE SPEED LIMIT SIGN ASSEMBLY SHALL BE PLACED AT A DISTANCE OF 500' TO 2500' MAXIMUM IN ADVANCE OF WORKERS THROUGHOUT THE SHOULDER CLOSURE. MOVING OPERATIONS MAY REQUIRE CONTINUOUS ADJUSTMENT OF THE SIGN ASSEMBLY LOCATION TO MAINTAIN THE ABOVE INTERVAL.
9. AN ADDITIONAL SIGN ASSEMBLY SHALL BE PLACED 500' BEYOND THE LAST TAPER RAMP FOR EACH INTERCHANGE THAT FALLS WITHIN THE 2500'.
10. THE SIGN ASSEMBLY SHALL BE PLACED NO CLOSER THAN 500' TO ANY OTHER SIGN.
11. THE WORK ZONE SPEED LIMIT SIGNS AND SIGN ASSEMBLY SHALL BE PROMPTLY REMOVED OR COVERED WHEN SHOULDER CLOSURE IS REMOVED.
12. ALL CONFLICTING SPEED LIMIT SIGNS SHALL BE COVERED OR REMOVED.
13. "END WORK ZONE SPEED LIMIT" SIGNS SHALL BE IN PLACE ONLY WHEN THE EXISTING POSTED SPEED > 55MPH.
14. FOR SHOULDER REPAIRS OR REPLACEMENT THE CHANNELIZING DEVICES SHALL BE PLACED AT THE EDGE OF PAVEMENT WHENEVER THE WORK ACTIVITIES RESULT IN A DROPOFF AT THE EDGE OF PAVEMENT.
15. ANY UNATTENDED OBSTACLE OR EXCAVATION LEFT ON THE SHOULDER DIVERSION SHALL BE IN COMPLIANCE WITH THE ROADWAY TRAFFIC CONTROL AND COMMUNICATIONS MANUAL.
16. A 1'-0" MINIMUM/2'-0" DESIRABLE SHY DISTANCE SHALL BE PROVIDED, MEASURED BETWEEN EDGE OF PAVEMENT LANE MARKING TO THE EDGE OF THE TRAFFIC CONTROL DEVICE.
17. SEE STANDARD E1 FOR ADDITIONAL STORAGE REQUIRED WHEN WORK ZONE SPEED LIMIT IS REDUCED BY MORE THAN 10 MPH.
18. IN WORK ZONES WITH NO PROSPECTIVE PROTECTION, A TRUCK MOUNTED ATTENUATOR SHALL BE PROVIDED WITH A BUFFER AREA BETWEEN THE FRONT OF THE TMA AND WORKERS OR EQUIPMENT. THE BUFFER AREA SHALL BE 200' UNLESS OTHERWISE DETERMINED. WHERE WORKERS OR EQUIPMENT ARE PRESENT BEYOND THE WORK AREA, AN ADDITIONAL TMA SHALL BE PROVIDED FOR EACH WORK AREA AS DEFINED AS STARTING AT THE END OF THE BUFFER AREA, EXTENDING 1000 FEET BEYOND THIS POINT.

DATE	REVISED WORKER SIGN NUMBERS PER "MATCH" AND REVISED NOTES.
3-31-14	REVISED WORKER SIGN NUMBERS PER "MATCH" AND REVISED NOTES.
3-31-2015	REVISED WORKER SIGN NUMBERS PER "MATCH" AND REVISED NOTES.
3-31-2016	REVISED WORKER SIGN NUMBERS PER "MATCH" AND REVISED NOTES.
3-01-2019	REVISED WORKER SIGN NUMBERS PER "MATCH" AND REVISED NOTES.
3-01-2020	REVISED WORKER SIGN NUMBERS PER "MATCH" AND REVISED NOTES.
3-01-2021	REVISED WORKER SIGN NUMBERS PER "MATCH" AND REVISED NOTES.

**SHOULDER CLOSURE DETAILS**

**STANDARD E3-09**