

Traffic Control Plan (L.C.-T- Section 700)

Effective 06/01/2012

Traffic Control shall be performed according to the applicable sections of the "Standard Specifications", the "Supplemental Specifications", the "Illinois Manual on Uniform Traffic Control Devices for Streets and Highways", the "Quality Standard for Work Zone Traffic Control Devices", any special details and Highway Standards as shown on the plans and the special provisions contained herein.

Special attention is called to Articles 105.03(b), 105.05, and 107.09, and to Sections 701, 704, and 782 of the "Standard Specifications", and to the following Highway Standards, Details, Recurring Special Provisions and Special Provisions contained herein, relating to traffic control.

The Contractor shall contact the Engineer at least 72 hours in advance of beginning work.

STANDARDS

DETAILS

RECURRING SPECIAL PROVISIONS

LRS3 Special Provision for Work Zone Traffic Control Surveillance

DETOURS

Detours and road closures on county maintained roads within Lake County, Illinois shall be according to the applicable Articles and Sections of the "Standard Specifications", the "Supplemental Specifications", the "Illinois Manual on Uniform Traffic Control Devices for Streets and Highways", the Lake County Division of Transportation's Detour Procedures and Guidelines, any special details and Highway Standards as shown on the Detour Plan and the Special Provisions contained herein. The LCDOT Detour Procedures and Guidelines are available from the LCDOT, Traffic Engineering Section upon request.

X7010216 TRAFFIC CONTROL AND PROTECTION, (SPECIAL)

(L.C.-T- Section 700)

Effective 06/01/2012

Revised 10/10/2022

Traffic Control and Protection, (Special) shall meet the requirements of Division 700. Work Zone Traffic Control and Protection, Signing, and Pavement Marking of the “Standard Specifications” and the following:

Description: This item of work shall consist of furnishing, installing, maintaining, replacing, relocating and removing all traffic control devices used for the purpose of regulating, warning or directing traffic during the construction or maintenance of this improvement.

Materials: The materials shall be according to Article 701.02 of the “Standard Specifications” and the following:

Traffic control devices shall include signs and their supports, signals, pavement markings, barricades and their approved weights, channeling devices, warning lights, arrow boards, flaggers, or any other device used for the purpose of regulating, detouring, warning or guiding traffic through or around the construction zone.

General: The work shall according to Section 701 of the “Standard Specifications” except as follows:

Replace the first paragraph of Article 701.04 with the following paragraph:

General. Traffic Control and Protection, (Special) shall be provided as shown on the plans and applicable Highway Standards; as required in these special provisions and the applicable sections of the “Standard Specifications”; and/or as directed by the Engineer.

Add the following lines to the end of the fourth paragraph under Article 701.04:

The Contractor shall dispatch men, materials, and equipment to correct any such deficiencies. The Contractor shall respond to any call from LCDOT concerning any request for improving or correcting traffic control devices and begin making the requested repairs within two hours from the time of notification.

Replace Article 701.10 with the following:

Surveillance. The Contractor shall conduct routine inspections of the work site at a frequency that will allow for the timely replacement of any traffic control device that has become displaced, worn or damaged to the extent that it no longer conforms to the shape, dimensions, color and/or operational requirements of the MUTCD, the Traffic Control Standards, the IDOT Quality Standard For Work Zone Traffic Control Devices, or will no longer present a neat appearance to motorists. A sufficient quantity of replacement devices, based on vulnerability to damage, shall be readily available to meet this requirement.

The Contractor shall ensure that all the traffic control devices he/she installs are operational, functional and effective 24 hours a day, seven days a week, including holidays.

LCDOT uses Road Work Ahead signs in lieu of IDOT's Road Construction Ahead signs. Replace the words "ROAD CONSTRUCTION AHEAD" with "ROAD WORK AHEAD" in Articles 401.14(a) and 701.18(h)(1) in the "Standard Specifications".

Replace Article 701.14(b) with the following:

- (b) **Work Zone Speed Limit Signs.** The Lake County Division of Transportation will specify whether a project meets the criteria for a Work Zone Speed Limit. When specified, the work zone speed limit signs shall be installed as shown on the LCDOT detail LC7203, Work Zone Speed Limit Signing Diagram, at a maximum of 20 feet lateral distance of the locations shown on the plans. Failure to install and maintain the required number of signs at the proper sign spacing shall result in an immediate traffic control deficiency.

All permanent "SPEED LIMIT" signs located within the work zone shall be removed or covered. If the speed limit sign is to be covered, it shall be done in a manner that no part of the legend shall be visible in any lighting condition. This work shall be completed by the Contractor after the method of covering the speed limit signs has been approved by the Engineer.

The work zone speed limit signs and the end work zone speed limit signs in advance of and at the end of the lane closure(s) shall be used for the duration of the closure(s).

The work zone speed limit signs will be removed when roadway conditions return to normal or when the construction project is inactive for more than 30 days.

The Contractor shall install work zone speed limit signs in accordance with the actual sequence of onsite operations. For LCDOT projects with noncontiguous roadway sections, the 30 day inactivity provision shall apply independently to each roadway section. In the event the Contractor elects to complete a contiguous section of roadway in separate sections, the 30 day inactivity provision shall apply to each separate section. The removal and reinstallation of work zone speed limit signs due to project site and/or roadway section inactivity will not be paid for separately but shall be included in the lump sum pay item TRAFFIC CONTROL AND PROTECTION, (SPECIAL).

Add the following to Article 701.14:

- (c) Temporary Construction Information Signs. When indicated in the traffic control plan or as directed by the Engineer the Contractor shall furnish, install, maintain, relocate, and remove for various stages of construction Temporary Construction Information Signs.

Temporary Construction Information Signs may include:

Driveway	White Legend on Green Background
Caution – New Lanes Open	Black Legend on Orange Background

The temporary construction information signs shall be installed , as shown on LCDOT LC7201, Temporary Constructions Information Signs, at locations shown on the traffic control plan and/or as directed by the Engineer.

Replace Article 701.15(b) with the following:

Type I, II, and III Barricades. Type II barricades shall be used at all locations that call for Type I, or Type II barricades.

Type II barricades are used to channelize traffic; delineate unattended obstacles, patches, excavations, drop-offs, and other hazards; and as check barricades

Any drop off greater than 3 inches, but less than 6 inches, located within 8 feet of the pavement edge shall be protected by Type II barricades equipped with mono-directional steady burn lights. The barricades shall be placed at a spacing of 100 feet center to center. For any drop off within 8 feet of the pavement edge that exceeds 6 inches, the Type II barricades equipped with mono-directional steady burn lights shall be placed at a spacing of 50 feet center to center. Barricades that must be placed in excavated areas shall have leg extensions installed so that the top of the barricade meets the height requirements of IDOT Standard 701901.

Check barricades shall be placed in work areas perpendicular to traffic every 1,000 feet, at one per lane and one per shoulder, to prevent motorists from using work areas as a traveled way. Two additional check barricades shall be placed in advance of each patch excavation or any other hazard in the work area. The first will be placed at the edge of the open traffic lane and the second centered on the closed lane. Check barricades shall be Type II and equipped with flashing amber light.

Type III barricades are used to close traffic lanes and to close roads.

Add the following paragraph to Article 701.15(e):

The direction indicator barricades shall meet the requirements for Type II barricades as stated in this special provision. The top panel, which faces traffic, shall be as shown on IDOT Highway Standard 701901. The top panel, facing away from traffic shall have a 12 inch x 24 inch orange and white diagonal panel. The bottom panels shall be 8 inches x 24 inches with orange and white diagonal sheeting, as shown on the LCDOT Detail LC7200, Direction Indicator Barricades.

Add the following paragraphs to Article 701.15(j):

The Changeable Message Sign (PCMS) shall be compatible and fully functional with LCDOT's Transportation Management Center (TMC) PASSAGE PCMS Control Software. A list of approved PCMS's manufacturers and traffic control vendors is available upon request from the LCDOT. The PCMS shall be tested to show that it can be sufficiently controlled by LCDOT's NTCIP compliant software. If the PCMS has not been previously tested or approved by either the Illinois State Toll Highway Authority (ISTHA) or LCDOT then the PCMS will need to be tested and certified by the Delcan Corporation at the Contractor's expense.

Lake County Division of Transportation (PASSAGE)
Software Developer:
Delcan
650 East Algonquin Road, Suite 101
Schaumburg, IL 60173

Should a Traffic Incident Management (TIM) event or other County/State declared Emergency Management event occur, the PCMS may be temporarily diverted from use on the work site by the Lake County TMC for the duration of the incident. If the PCMS needs to be moved from the limits of the work site to an offsite location to better facilitate the use of the PCMS during the incident, the Contractor will be compensated for the labor and equipment required to move the PCMS to the designated location and back, according to Article 109.04 (b) of the "Standard Specifications". In order to facilitate the movement of the PCMS in a timely manner, the LCDOT may use County Forces to move the PCMS to the designated location and/or back, at no additional cost to the Contractor.

When the sign(s) are displaying messages, they shall be considered a traffic control device. At all other times when no message is displayed, they shall be considered nonoperating equipment and parked according to Article 701.11 of the "Standard Specifications".

Changeable message signs will be paid at the contract unit price per day for each sign according to Article 701.20 of the "Standard Specifications".

Replace Article 701.17(c)(1) with the following:

- (1) Prime or Tack Coat. "FRESH OIL" signs (W21-2) shall be used when the prime or tack coat is applied to pavement that is open to traffic. The signs shall remain in place until tracking of the prime or tack ceases. These signs shall be erected a minimum of 500 feet preceding the start of the prime and on all side roads within the posted area. The signs on the side roads shall be posted a minimum of 200 feet from the mainline pavement. These signs are excluded from the time requirements of Article 701.04 of the "Standard Specifications" as modified by this special provision (above). Non-compliance with the provisions of this section, by the Contractor, shall result in an immediate traffic control deficiency deduction. All signs shall have an amber flashing light attached.

Replace Article 701.17(c)(2) with the following:

- (2) Cold Milling. "ROUGH GROOVED SURFACE" signs (W8-1107) shall be used when the road has been cold milled and is open to traffic. The signs shall remain in place until the milled surface condition no longer exists. These signs shall be erected a minimum of 500 feet preceding the start of the milled pavement and on all side roads within the posted area. The signs on the side roads shall be posted a minimum of 200 feet from the mainline pavement. Non-compliance with the provisions of this section, by the Contractor, shall result in an immediate traffic control deficiency deduction. All signs shall have an amber flashing light attached.

Add the following Article 701.17(c):

- (6) Area Reflective Crack Control Treatment Fabric. "SLIPPERY WHEN WET" signs (W8-5) shall be used when crack control fabric is applied to pavement that is open to traffic. These signs shall remain in place until the binder course is laid. The signs shall be erected a minimum of 500 feet preceding the start of the crack control treatment and on all side roads within the posted area. The signs on the side roads shall be posted a minimum of 200 feet from the mainline pavement. These signs are excluded from the time requirements of Article 701.04 of the "Standard Specifications" as modified by this special provision (above). Non-compliance with the provisions of this section, by the Contractor, shall result in an immediate traffic control deficiency deduction. All signs shall have an amber flashing light attached.
- (7) Longitudinal Joint Sealant. "SLIPPERY WHEN WET" signs (W8-5) shall be used when longitudinal joint sealant is applied to pavement that is open to traffic. These signs shall remain in place until the binder course is laid. The signs shall be erected a minimum of 500 feet preceding the start of the joint sealant treatment and on all side roads within the posted area. The signs on the side roads shall be posted a minimum of 200 feet from the mainline pavement. These signs are excluded from the time requirements of Article 701.04 of the "Standard Specifications" as modified by this special provision (above). Non-compliance with the provisions of this section, by the Contractor, shall result in an immediate traffic control deficiency deduction. All signs shall have an amber flashing light attached.

Replace Article 701.18(b)(2)g, with the following:

- g. Detection. Microwave Vehicle Sensors shall be installed as directed by the Engineer. The LCDOT shall approve the proposed microwave vehicle sensor before the Contractor may furnish or install it. The Contractor shall install, wire and adjust the alignment of the sensor according to the manufacturer's recommendations and requirements. The Engineer shall approve the installation. An alternate method of detection may be used if it has been demonstrated and approved by the Department.

The microwave vehicle sensor shall meet the following requirements:

- Detection Range: Adjustable to 60 feet
- Detection Angle: Adjustable, horizontal and vertical
- Detection Pattern: 16 degree beam width minimum [at 50 feet the pattern shall be approximately 15.5 feet wide]
- Mounting: Heavy-duty bracket, predrilled and slotted for pole mounting
- LED Indicator Light: For detection verification

Add the following paragraphs to Article 701.18(h)(1):

Whenever a lane is closed to traffic using IDOT standard 701601, 701606, or 701701, the pavement width transition sign (W4-2R or W4-2L) shall be used in lieu of the "WORKERS" sign (W21-1 or W21-1a)

Whenever any vehicle, equipment, workers or their activities infringe on the shoulder or within 15 feet of the traveled way, and the traveled way remains unobstructed, then the applicable Traffic Control Standard shall be 701006, 701011, 701101, or 701701. The "SHOULDER WORK AHEAD" sign (W21-5(0)-48) shall be used in lieu of the "WORKERS" sign (W21-1 or W-21-1a).

Add the following to Article 701.18:

- (k) IDOT standard 701331. When IDOT standard 701331 is specified on two-lane, two-way roadways, a "LANE SHIFT AHEAD" sign shall be added 500 feet in advance of W1-3 or W1-4 sign. The Road Work sign (W20-1) shall be extended to a total of 1500' from the start of the lane shift.

Method of Measurement: The requirements of Article 701.19 of the "Standard Specifications" will not apply to this work. These items of work will be measured on a lump sum basis for furnishing, installing, maintaining, replacing, relocating and removing traffic control devices required as shown on the plans, detailed in the special provisions and/or as directed by the Engineer and the following:

Temporary traffic signals required for Standards 701316 and 701321 will be measured for payment as each, where each is defined as the entire traffic signal system at a bridge regardless of the number of signal heads.

Temporary rumble strips will be measured as each, where each is defined as a 25 foot length installation.

Basis of Payment: The requirements of Article 701.20 of the "Standard Specifications" will not apply to this work. This work will be paid for at the contract unit price per lump sum for TRAFFIC CONTROL AND PROTECTION, (SPECIAL). The unit price shall include all labor, materials, transportation, and incidentals necessary to furnish, install, maintain, replace, relocate and remove all traffic control devices indicated shown on the plans, detailed in the specifications and/or as directed by the Engineer.

Changeable message signs shown on an IDOT Standard or LCDOT Detail will not be paid for separately but shall be considered as included in the lump sum unit price for TRAFFIC CONTROL AND PROTECTION, (SPECIAL).

Changeable message signs listed separately, i.e. included in the Summary of Quantities, will be paid for at the contract unit price per calendar day for each sign as CHANGEABLE MESSAGE SIGN.

Temporary signals required for IDOT Standards 701316 and 701321 will be paid for separately at the contract unit price per each for TEMPORARY BRIDGE TRAFFIC SIGNALS.

Temporary concrete barrier will be measured and paid for according to Section 704 of the "Standard Specifications".

Temporary impact attenuators and temporary bridge rail will be paid for separately.

Temporary rumble strips will be paid for at the contract unit price per each for TEMPORARY RUMBLE STRIPS.

Temporary Raised Reflective Pavement Markers shall be paid for at the contract unit price per each for TEMPORARY RAISED REFLECTIVE PAVEMENT MARKERS.

Temporary Pavement Marking Letters and Symbols of the material specified will be paid for at the contract unit price per square foot. Temporary Pavement Marking – Line of the width and material specified will be paid for at the contract unit price per foot.

The salvage value of materials removed shall be reflected in the bid price for this item.

Any delays or inconveniences incurred by the Contractor while complying with these requirements shall be considered as part of TRAFFIC CONTROL AND PROTECTION (SPECIAL) and no additional compensation will be allowed.

Any traffic control devices required by the Engineer to implement the Traffic Control Plan as shown in the plans and specifications of the contract shall be considered included in the pay item TRAFFIC CONTROL AND PROTECTION (SPECIAL).

If the Engineer requires additional work involving a substantial change of location, and/or work which differs in design, and/or work requiring a change in the type of construction, as stated in Article 104.02(d) of the "Standard Specifications", the changes including standards and/or the designs, , will be made available to the Contractor at least one week in advance of the change in traffic control. Payment for any additional traffic control required for the reasons listed above will be in accordance with Article 109.04 of the "Standard Specifications".

Revisions in the phasing of construction or maintenance operations, requested by the Contractor, may require traffic control to be installed according to standards and/or designs other than those included in the plans. The Contractor shall submit revisions or modifications to the traffic control plan shown in the contract to the Engineer for approval. No additional payment will be made for a Contractor requested modification.

In the event the sum total of all work items for which traffic control and protection is required is increased or decreased by more than ten percent, the contract bid price for TRAFFIC CONTROL AND PROTECTION will be adjusted as follows:

$$\text{Adjusted Contract Price} = 0.25P + 0.75P [1 \pm (X - 0.1)]$$

P = the contract price for TRAFFIC CONTROL AND PROTECTION (SPECIAL)

$$X = \frac{\text{Difference between original and final value of work for which traffic control and protection is required.}}{\text{Original value of work for which traffic control and protection is required.}}$$

The value of the work items used in calculating the increase and decrease will include only items that have been added to or deducted from the contract under Article 104.02 of the "Standard Specifications" and only items that require the use of TRAFFIC CONTROL AND PROTECTION (SPECIAL).

In the event LCDOT cancels or alters any portion of the contract that result in the elimination or incompleteness of any portion of the work, payment for partially completed work will be made according to Article 104.02 of the "Standard Specifications".