FEBRUARY 2017
UPDATES

The following is a listing of revisions to the previous edition dated May 1, 2016.

TYPICAL WORK ZONE TRAFFIC CONTROL STANDARD DRAWINGS FOR MAINTENANCE ACTIVITIES

MOBILE OPERATIONS
CONTINUOUS
STANDARD DRAWING NO. 540-01 through STANDARD DRAWING NO. 540-04-B

DRAWING NO. 540-02-A

Page MOC-4 (Typical Drawing)

Left Lane Closure notes, the Second Shadow Vehicle is revised to eliminate the option to supplement the Second Shadow Vehicle with a truck mounted changeable message sign. Supplement the Second Shadow Vehicle with a truck mounted advance warning arrow panel.

DRAWING NO. 540-02-B

Page MOC-5 (Typical Drawing)

Left Lane Closure notes, the Second Shadow Vehicle is revised to eliminate the option to supplement the Second Shadow Vehicle with a truck mounted changeable message sign. Supplement the Second Shadow Vehicle with a truck mounted advance warning arrow panel.

DRAWING NO. 540-03-A
DRAWING NO. 540-03-B

Page MOC-6 (Notes)

Note 6. This note regarding the Third Shadow vehicle is revised to eliminate the option to supplement the Third Shadow Vehicle with a truck mounted advance warning arrow panel. Supplement the Third Shadow Vehicle with a truck mounted changeable message sign.

DRAWING NO. 540-03-A

Page MOC-7 (Typical Drawing)

The note regarding the Third Shadow Vehicle is revised to eliminate the option to supplement the Third Shadow Vehicle with a truck mounted advance warning arrow panel. Supplement the Third Shadow Vehicle with a truck mounted changeable message sign.

DRAWING NO. 540-03-B

Page MOC-8 (Typical Drawing)

The note regarding the Third Shadow Vehicle is revised to eliminate the option to supplement the Third Shadow Vehicle with a truck mounted advance warning arrow panel. Supplement the Third Shadow Vehicle with a truck mounted changeable message sign.

TRAFFIC SIGNAL WORK OPERATIONS
SIGNAL HEADS
STANDARD DRAWING NO. 605-01-A through STANDARD DRAWING NO. 605-05-B(2)

DRAWING NO. 605-01-A

Page TSSH-1 (Notes)

A truck mounted advance warning arrow panel operating the “Four Corner” Caution Mode and a truck mounted attenuator is no longer required on the Shadow Vehicle; these devices are now OPTIONAL.

The notes have been revised for clarification.

Page TSSH-2 (Typical Drawing)

The General Notes were revised for clarification.

Vehicle Train notes, the Shadow Vehicle is revised to eliminate the requirement to supplement the Shadow Vehicle with a truck mounted advance warning arrow panel and a truck mounted attenuator. Supplementing the Shadow Vehicle with a truck mounted advance warning arrow panel and a truck mounted attenuator is now OPTIONAL.

DRAWING NO. 605-01-B

Page TSSH-3 (Notes)

When utilizing the “optional” Secondary Work Vehicle, a truck mounted advance warning arrow panel operating the “Four Corner” Caution Mode is no longer required on the Secondary Work Vehicle; this device is now OPTIONAL.

A truck mounted advance warning arrow panel operating the “Four Corner” Caution Mode is no longer required on the Shadow Vehicle; this device is now OPTIONAL.

The notes have been revised for clarification.

Page TSSH-4 (Typical Drawing)

The General Notes were revised for clarification.

The advance signs, “One Lane Road Ahead” (W20-4-48-A) and “Road Work Ahead” (W20-1-48-A), were eliminated on the intersecting side road approaches. The “Flagger” symbol sign (W20-7-48) is the only sign required on the intersecting side road approaches.

The table for spacing intervals between traffic control devices in the work activity area was added.

Vehicle Train notes, when utilizing the “optional” Secondary Work Vehicle, a truck mounted advance warning arrow panel operating the “Four Corner” Caution Mode is no longer required on the Secondary Work Vehicle; this device is now OPTIONAL.

Vehicle Train notes, a truck mounted advance warning arrow panel operating the “Four Corner” Caution Mode is no longer required on the Shadow Vehicle; this device is now OPTIONAL.

DRAWING NO. 605-02-A

Page TSSH-5 (Notes)

The requirement for a Shadow Vehicle is no longer optional, it is now REQUIRED for this traffic control setup.

The requirement for a truck mounted advance warning arrow panel on the Shadow Vehicle is no longer required, it is now OPTIONAL.

The requirement for a truck mounted attenuator on the Shadow Vehicle is no longer required, it is now OPTIONAL.

The notes have been revised for clarification.

Page TSSH-6 (Typical Drawing)

The General Notes were revised for clarification.

Vehicle Train notes, the requirement for a Shadow Vehicle is no longer optional, it is now REQUIRED for this traffic control setup.

Vehicle Train notes, the requirement for a truck mounted advance warning arrow panel on the Shadow Vehicle is no longer required, it is now OPTIONAL.

Vehicle Train notes, the requirement for a truck mounted attenuator on the Shadow Vehicle is no longer required, it is now OPTIONAL.

DRAWING NO. 605-02-B

Page TSSH-7 (Notes)

Operational requirements of the truck mounted advance warning arrow panel have been revised. When a right turn lane is present, operate the truck mounted advance warning arrow panel in the double arrow mode when travel lanes open to traffic are present on each side of the Shadow Vehicle. This requirement also applies to the secondary work vehicle when a Secondary Work Vehicle is present.

The notes have been revised for clarification.

Page TSSH-8 (Typical Drawing)

The General Notes were revised for clarification.

Vehicle Train notes, operational requirements of the truck mounted advance warning arrow panel have been revised. When a right turn lane is present, operate the truck mounted advance warning arrow panel in the double arrow mode when travel lanes open to traffic are present on each side of the Shadow Vehicle. This requirement also applies to the Secondary Work Vehicle when a Secondary Work Vehicle is present.

DRAWING NO. 605-03-A

Page TSSH-9 (Notes)

The requirement for a Shadow Vehicle is no longer optional, it is now REQUIRED for this traffic control setup.

The requirement for a truck mounted advance warning arrow panel on the Shadow Vehicle is no longer required, it is now OPTIONAL.

Operational requirements of the truck mounted advance warning arrow panel have been revised. Operate the truck mounted advance warning arrow panel in the double arrow mode when travel lanes, including turn lanes, open to traffic are present on each side of the Shadow Vehicle.

The requirement for a truck mounted attenuator on the Shadow Vehicle is no longer required, it is now OPTIONAL.

The notes have been revised for clarification.

Page TSSH-10 (Typical Drawing)

The General Notes were revised for clarification.

Vehicle Train notes, the requirement for a Shadow Vehicle is no longer optional, it is now REQUIRED for this traffic control setup.

Vehicle Train notes, the requirement for a truck mounted advance warning arrow panel on the Shadow Vehicle is no longer required, it is now OPTIONAL.

Vehicle Train notes, operational requirements of the truck mounted advance warning arrow panel have been revised. Operate the truck mounted advance warning arrow panel in the double arrow mode when travel lanes, including turn lanes, open to traffic are present on each side of the Shadow Vehicle.

Vehicle Train notes, the requirement for a truck mounted attenuator on the Shadow Vehicle is no longer required, it is now OPTIONAL.

DRAWING NO. 605-03-B

Page TSSH-11 (Notes)

When a left turn lane is present, operate the truck mounted advance warning arrow panel in the double arrow mode when travel lanes open to traffic are present on each side of the Shadow Vehicle. This requirement also applies to the Secondary Work Vehicle when a Secondary Work Vehicle is present.

The notes have been revised for clarification.

Page TSSH-12 (Typical Drawing)

The General Notes were revised for clarification.

DRAWING NO. 605-04-A

Page TSSH-13 (Notes)

The requirement for a Shadow Vehicle is no longer optional, it is now REQUIRED for this traffic control setup.

The requirement for a truck mounted advance warning arrow panel on the Shadow Vehicle is no longer required, it is now OPTIONAL.

The requirement for a truck mounted attenuator on the Shadow Vehicle is no longer required, it is now OPTIONAL.

The notes have been revised for clarification.

Page TSSH-14 (Typical Drawing)

The General Notes were revised for clarification.

Vehicle Train notes, the requirement for a Shadow Vehicle is no longer optional, it is now REQUIRED for this traffic control setup.

Vehicle Train notes, the requirement for a truck mounted advance warning arrow panel on the Shadow Vehicle is no longer required, it is now OPTIONAL.

Vehicle Train notes, the requirement for a truck mounted attenuator on the Shadow Vehicle is no longer required, it is now OPTIONAL.

DRAWING NO. 605-04-B

Page TSSH-15 (Notes)

The notes have been revised for clarification.

Page TSSH-16 (Typical Drawing)

The General Notes were revised for clarification.

DRAWING NO. 605-05-A(1)

Pages TSSH-17 (Notes) & TSSH-18 (Typical Drawing)

This is a new drawing.

This drawing addresses the traffic control setup for the side street with dual left turn lanes at the intersection with the Work Vehicle located in the right travel lane when the work duration is 15 minutes or less.

DRAWING NO. 605-05-A(2)

Pages TSSH-19 (Notes) & TSSH-20 (Typical Drawing)

This is a new drawing.

This drawing addresses the traffic control setup for the side street with dual left turn lanes at the intersection with the Work Vehicle located in the left travel lane when the work duration is 15 minutes or less.

DRAWING NO. 605-05-B(1)

Pages TSSH-21 (Notes) & TSSH-22 (Typical Drawing)

This is a new drawing.

This drawing addresses the typical traffic control setup for the side street with dual left turns at the intersection with the Work Vehicle located in the right travel lane when the work duration exceeds 15 minutes but not more than 60 minutes.

DRAWING NO. 605-05-B(2)

Pages TSSH-23 (Notes) & TSSH-24 (Typical Drawing)

This is a new drawing.

This drawing addresses the typical traffic control setup for the side street with dual left turns at the intersection with the Work Vehicle located in the left travel lane when the work duration exceeds 15 minutes but not more than 60 minutes.

TRAFFIC SIGNAL WORK OPERATIONS
LOOPS
STANDARD DRAWING NO. 606-01 through STANDARD DRAWING NO. 606-07)

DRAWING NO. 606-01

Page TSL-1 (Notes)

The requirement for a truck mounted advance warning arrow panel on the Shadow Vehicle is no longer required, it is now OPTIONAL.

The notes have been revised for clarification.

Page TSL-2 (Typical Drawing)

The General Notes were revised for clarification.

The “One Lane Road Ahead” signs (W20-4-48-A) and the “Road Work Ahead” signs (W20-1-48-A) signs on the side street approaches have been eliminated. Only the “Flagger” symbol sign (W20-7-48) is required on the side street approaches.

Vehicle Train notes, the requirement for a truck mounted advance warning arrow panel on the Shadow Vehicle is no longer required, it is now OPTIONAL.

DRAWING NO. 606-02

Page TSL-3 (Notes)

The requirement for a truck mounted advance warning arrow panel on the Shadow Vehicle is no longer required, it is now OPTIONAL.

The notes have been revised for clarification.

Page TSL-4 (Typical Drawing)

The General Notes were revised for clarification.

Vehicle Train notes, the requirement for a truck mounted advance warning arrow panel on the Shadow Vehicle is no longer required, it is now OPTIONAL.

DRAWING NO. 606-03

Page TSL-5 (Notes)

Operational requirements of the truck mounted advance warning arrow panel have been revised. When a right turn lane is present, operate the truck mounted advance warning arrow panel in the double arrow mode when travel lanes open to traffic are present on each side of the Shadow Vehicle.

The notes have been revised for clarification.

Page TSL-6 (Typical Drawing)

The General Notes were revised for clarification.

The “optional” traffic control devices such as standard traffic cones, 42” oversized traffic cones or portable plastic drums have been added for illustration of proper delineation of the work train and the work activity area.

Vehicle Train notes, operational requirements of the truck mounted advance warning arrow panel have been revised. When a right turn lane is present, operate the truck mounted advance warning arrow panel in the double arrow mode when travel lanes open to traffic are present on each side of the Shadow Vehicle.

DRAWING NO. 606-04-A

Page TSL-7 (Notes)

The former drawing number, “Drawing No. 606-04” has been revised to “Drawing 606-04-A” to reflect the addition of the new drawing, “Drawing No. 606-04-B”.

The notes have been revised for clarification.

Page TSL-8 (Typical Drawing)

The General Notes were revised for clarification.

The “optional” traffic control devices such as standard traffic cones, 42” oversized traffic cones or portable plastic drums have been added for illustration of proper delineation of the work train and the work activity area.

DRAWING NO. 606-04-B

Pages TSL-9 (Notes) & TSL-10 (Typical Drawing)

This is a new drawing.

This drawing addresses the typical traffic control setup for connecting the stop bar loop within an interior travel lane of a multilane primary or secondary roadway to the pull box in the adjacent shoulder.

The requirements regarding a temporary cessation of traffic flow to facilitate the work activities are provided.

DRAWING NO. 606-05-A

Page TSL-11 (Notes)

The former drawing number, “Drawing No. 606-05” has been revised to “Drawing 606-05-A” to reflect the addition of the new drawing, “Drawing No. 606-05-B”.

The notes have been revised for clarification.

Page TSL-12 (Typical Drawing)

The General Notes were revised for clarification.

The “optional” traffic control devices such as standard traffic cones, 42” oversized traffic cones or portable plastic drums have been added for illustration of proper delineation of the work train and the work activity area.

DRAWING NO. 606-05-B

Pages TSL-13 (Notes) & TSL-14 (Typical Drawing)

This is a new drawing.

This drawing addresses the typical traffic control setup for connecting the stop bar loop within an interior travel lane of a multilane primary or secondary roadway to the pull box in the adjacent shoulder.

The requirements regarding a temporary cessation of traffic flow to facilitate the work activities are provided.

DRAWING NO. 606-06

Page TSL-15 (Notes)

The requirement for a truck mounted attenuator on the Shadow Vehicle is no longer optional, it is now REQUIRED.

The notes have been revised for clarification.

Page TSL-16 (Typical Drawing)

The General Notes were revised for clarification.

Vehicle Train notes, the requirement for a truck mounted attenuator on the Shadow Vehicle is no longer optional, it is now REQUIRED.

The requirements regarding a temporary cessation of traffic flow to facilitate the work activities has been added.

Specific placement of advance warning signs is provided.

DRAWING NO. 606-07

Page TSL-17 (Notes)

The requirement for a truck mounted attenuator on the Shadow Vehicle is no longer optional, it is now REQUIRED.

The notes have been revised for clarification.

Page TSL-18 (Typical Drawing)

The General Notes were revised for clarification.

Vehicle Train notes, the requirement for a truck mounted attenuator on the Shadow Vehicle is no longer optional, it is now REQUIRED.

The requirements regarding a temporary cessation of traffic flow to facilitate the work activities has been added.

Specific placement of advance warning signs is provided.

TRAFFIC CONTROL REQUIREMENTS FOR SPECIFIC MAINTENANCE PERFORMANCE ACTIVITIES

Page 305-1

305 DRAINAGE STRUCTURES

In the "TWO-LANE TWO-WAY ROADWAYS" section, option to conduct these operations under intermittent mobile operations when conducting the work with machines has been added

For operations conducted by machine, implementation of intermittent mobile operations to conduct the work are acceptable under the following conditions:

Condition 1 - The maximum time duration of a stop is 15 minutes if the work vehicle and/or the shadow vehicle encroach upon a travel lane more than 2 feet.

Condition 2 - The maximum time duration of a stop is 30 minutes if the work vehicle and/or the shadow vehicle encroach upon a travel lane 2 feet or less.

During intermittent mobile operations, utilize a shadow vehicle when the stopping sight distance interval between the work vehicle or road machinery and an approaching motorist is unavailable based upon the posted regulatory speed limit of the work location.

Page 305-3

Also, under the "Typical Drawing Applications" in the "TWO-LANE TWO-WAY ROADWAYS" section, the following typical drawings have been added:

MOBILE OPERATIONS – INTERMITTENT

DRAWING 535-01-A - MOBILE OPERATIONS – INTERMITTENT
STOPPING SIGHT DISTANCE
VEHICLE TRAIN REQUIREMENTS
VERTICAL CURVE (HILL)

DRAWING 535-01-B - MOBILE OPERATIONS – INTERMITTENT
STOPPING SIGHT DISTANCE
VEHICLE TRAIN REQUIREMENTS
HORIZONTAL CURVE (CURVE)

DRAWING 535-02-A - MOBILE OPERATIONS – INTERMITTENT
LOW VOLUME
LOW SPEED
PRIMARY & SECONDARY ROUTES

DRAWING 535-02-B - MOBILE OPERATIONS – INTERMITTENT
LOW VOLUME
INTERMEDIATE SPEED TO HIGH SPEED
PRIMARY & SECONDARY ROUTES

DRAWING 535-03-A - MOBILE OPERATIONS – INTERMITTENT
INTERMEDIATE VOLUME
LOW SPEED
PRIMARY & SECONDARY ROUTES

DRAWING 535-03-B - MOBILE OPERATIONS – INTERMITTENT
INTERMEDIATE VOLUME
INTERMEDIATE SPEED TO HIGH SPEED
PRIMARY & SECONDARY ROUTES

DRAWING 535-04-A - MOBILE OPERATIONS – INTERMITTENT
HIGH VOLUME
LOW SPEED
PRIMARY & SECONDARY ROUTES

DRAWING 535-04-C - MOBILE OPERATIONS – INTERMITTENT
HIGH VOLUME
INTERMEDIATE SPEED TO HIGH SPEED
PRIMARY & SECONDARY ROUTES

Page 305-4

In the "MULTILANE SECONDARY AND PRIMARY ROADWAYS" section, option to conduct these operations under intermittent mobile operations when conducting the work with machines has been added

For operations conducted by machine, implementation of intermittent mobile operations to conduct the work are acceptable under the following conditions:

Condition 1 - The maximum time duration of a stop is 15 minutes if the work vehicle and/or the shadow vehicle encroach upon a travel lane more than 2 feet.

Condition 2 - The maximum time duration of a stop is 30 minutes if the work vehicle and/or the shadow vehicle encroach upon a travel lane 2 feet or less.

During intermittent mobile operations, utilize a shadow vehicle when the stopping sight distance interval between the work vehicle or road machinery and an approaching motorist is unavailable based upon the posted regulatory speed limit of the work location.

Page 305-5 through 305-6

Also, under the "Typical Drawing Applications" in the "MULTILANE SECONDARY AND PRIMARY ROADWAYS" section, the following typical drawings have been added:

MOBILE OPERATIONS – INTERMITTENT

DRAWING 535-01-A - MOBILE OPERATIONS – INTERMITTENT
STOPPING SIGHT DISTANCE
VEHICLE TRAIN REQUIREMENTS
VERTICAL CURVE (HILL)

DRAWING 535-01-B - MOBILE OPERATIONS – INTERMITTENT
STOPPING SIGHT DISTANCE
VEHICLE TRAIN REQUIREMENTS
HORIZONTAL CURVE (CURVE)

DRAWING 535-03-A - MOBILE OPERATIONS – INTERMITTENT
INTERMEDIATE VOLUME
LOW SPEED
PRIMARY & SECONDARY ROUTES

DRAWING 535-03-B - MOBILE OPERATIONS – INTERMITTENT
INTERMEDIATE VOLUME
INTERMEDIATE SPEED TO HIGH SPEED
PRIMARY & SECONDARY ROUTES

DRAWING 535-04-A - MOBILE OPERATIONS – INTERMITTENT
HIGH VOLUME
LOW SPEED
PRIMARY & SECONDARY ROUTES

DRAWING 535-04-B - MOBILE OPERATIONS – INTERMITTENT
HIGH VOLUME
LOW SPEED
INTERIOR TRAVEL LANE OPERATIONS
PRIMARY & SECONDARY ROUTES

DRAWING 535-04-C - MOBILE OPERATIONS – INTERMITTENT
HIGH VOLUME
INTERMEDIATE SPEED TO HIGH SPEED
PRIMARY & SECONDARY ROUTES

Page 306-1

306 DRAINAGE PIPE

In the “TWO-LANE TWO-WAY ROADWAYS” section, option to conduct these operations under intermittent mobile operations when conducting the work with machines has been added

For operations conducted by machine, implementation of intermittent mobile operations to conduct the work are acceptable under the following conditions:

Condition 1 - The maximum time duration of a stop is 15 minutes if the work vehicle and/or the shadow vehicle encroach upon a travel lane more than 2 feet.

Condition 2 - The maximum time duration of a stop is 30 minutes if the work vehicle and/or the shadow vehicle encroach upon a travel lane 2 feet or less.

During intermittent mobile operations, utilize a shadow vehicle when the stopping sight distance interval between the work vehicle or road machinery and an approaching motorist is unavailable based upon the posted regulatory speed limit of the work location.

Page 306-3

Also, under the “Typical Drawing Applications” in the “TWO-LANE TWO-WAY ROADWAYS” section, the following typical drawings have been added:

MOBILE OPERATIONS – INTERMITTENT

DRAWING 535-01-A - MOBILE OPERATIONS – INTERMITTENT
STOPPING SIGHT DISTANCE
VEHICLE TRAIN REQUIREMENTS
VERTICAL CURVE (HILL)

DRAWING 535-01-B - MOBILE OPERATIONS – INTERMITTENT
STOPPING SIGHT DISTANCE
VEHICLE TRAIN REQUIREMENTS
HORIZONTAL CURVE (CURVE)

DRAWING 535-02-A - MOBILE OPERATIONS – INTERMITTENT
LOW VOLUME
LOW SPEED
PRIMARY & SECONDARY ROUTES

DRAWING 535-02-B - MOBILE OPERATIONS – INTERMITTENT
LOW VOLUME
INTERMEDIATE SPEED TO HIGH SPEED
PRIMARY & SECONDARY ROUTES

DRAWING 535-03-A - MOBILE OPERATIONS – INTERMITTENT
INTERMEDIATE VOLUME
LOW SPEED
PRIMARY & SECONDARY ROUTES

DRAWING 535-03-B - MOBILE OPERATIONS – INTERMITTENT
INTERMEDIATE VOLUME
INTERMEDIATE SPEED TO HIGH SPEED
PRIMARY & SECONDARY ROUTES

DRAWING 535-04-A - MOBILE OPERATIONS – INTERMITTENT
HIGH VOLUME
LOW SPEED
PRIMARY & SECONDARY ROUTES

DRAWING 535-04-C - MOBILE OPERATIONS – INTERMITTENT
HIGH VOLUME
INTERMEDIATE SPEED TO HIGH SPEED
PRIMARY & SECONDARY ROUTES

Page 306-4

In the "MULTILANE SECONDARY AND PRIMARY ROADWAYS" section, option to conduct these operations under intermittent mobile operations when conducting the work with machines has been added

For operations conducted by machine, implementation of intermittent mobile operations to conduct the work are acceptable under the following conditions:

Condition 1 - The maximum time duration of a stop is 15 minutes if the work vehicle and/or the shadow vehicle encroach upon a travel lane more than 2 feet.

Condition 2 - The maximum time duration of a stop is 30 minutes if the work vehicle and/or the shadow vehicle encroach upon a travel lane 2 feet or less.

During intermittent mobile operations, utilize a shadow vehicle when the stopping sight distance interval between the work vehicle or road machinery and an approaching motorist is unavailable based upon the posted regulatory speed limit of the work location.

Page 306-5 through 306-6

Also, under the "Typical Drawing Applications" in the "MULTILANE SECONDARY AND PRIMARY ROADWAYS" section, the following typical drawings have been added:

MOBILE OPERATIONS – INTERMITTENT

DRAWING 535-01-A - MOBILE OPERATIONS – INTERMITTENT
STOPPING SIGHT DISTANCE
VEHICLE TRAIN REQUIREMENTS
VERTICAL CURVE (HILL)

DRAWING 535-01-B - MOBILE OPERATIONS – INTERMITTENT
STOPPING SIGHT DISTANCE
VEHICLE TRAIN REQUIREMENTS
HORIZONTAL CURVE (CURVE)

DRAWING 535-03-A - MOBILE OPERATIONS – INTERMITTENT
INTERMEDIATE VOLUME
LOW SPEED
PRIMARY & SECONDARY ROUTES

DRAWING 535-03-B - MOBILE OPERATIONS – INTERMITTENT
INTERMEDIATE VOLUME
INTERMEDIATE SPEED TO HIGH SPEED
PRIMARY & SECONDARY ROUTES

DRAWING 535-04-A - MOBILE OPERATIONS – INTERMITTENT
HIGH VOLUME
LOW SPEED
PRIMARY & SECONDARY ROUTES

DRAWING 535-04-B - MOBILE OPERATIONS – INTERMITTENT
HIGH VOLUME
LOW SPEED
INTERIOR TRAVEL LANE OPERATIONS
PRIMARY & SECONDARY ROUTES

DRAWING 535-04-C - MOBILE OPERATIONS – INTERMITTENT
HIGH VOLUME
INTERMEDIATE SPEED TO HIGH SPEED
PRIMARY & SECONDARY ROUTES

Page 501-1

501 DRIVEWAYS

In the "TWO-LANE TWO-WAY ROADWAYS" section, the following statement, "Flagging operations are required for these activities", has been replaced with the following:

> Shoulder closures may be installed for work activities that require pedestrian workers to perform work activities beyond 1 foot but within 15 feet of a travel lane.
>
> Flagging operations may be installed for work activities that require pedestrian workers to encroach upon the travel lane or perform work activities within 1 foot of the adjacent travel lane.

Page 501-2

Also, under the "Typical Drawing Applications" in the "TWO-LANE TWO-WAY ROADWAYS" section, the following typical drawings have been added:

SHOULDER CLOSURES

DRAWING 515-01-A - RIGHT SHOULDER CLOSURE
CASE I / CASE II
TWO-LANE TWO-WAY ROADWAYS
PRIMARY & SECONDARY ROUTES

DRAWING 515-01-C - RIGHT SHOULDER CLOSURE
LOW SPEED
< / = 35 MPH
PRIMARY & SECONDARY ROUTES
(MINOR ENCROACHMENT)

Page 501-3

In the "MULTILANE SECONDARY AND PRIMARY ROADWAYS" section, the following statement has been added:

> Shoulder closures may be installed for work activities that require pedestrian workers to perform work activities beyond 1 foot but within 15 feet of a travel lane.

Page 501-3

Also, under the "Typical Drawing Applications" in the "MULTILANE SECONDARY AND PRIMARY ROADWAYS" section, the following typical drawings have been added:

SHOULDER CLOSURES

DRAWING 515-01-B - RIGHT SHOULDER CLOSURE
CASE I / CASE II
MULTILANE
PRIMARY & SECONDARY ROUTES

DRAWING 515-01-C - RIGHT SHOULDER CLOSURE
LOW SPEED
< / = 35 MPH
PRIMARY & SECONDARY ROUTES
(MINOR ENCROACHMENT)

604 TRAFFIC SIGNAL

MULTILANE SECONDARY AND PRIMARY ROADWAYS

Under the "Typical Drawing Applications" in the "MULTILANE SECONDARY AND PRIMARY ROADWAYS" section, the following typical drawings have been added:

TRAFFIC SIGNAL WORK OPERATIONS

DRAWING 605-05-A(1) SIDE STREET TREATMENT
DUAL LEFT TURN LANES
WORK VEHICLE – RIGHT LANE
MULTILANE
PRIMARY & SECONDARY ROUTES
TRAFFIC SIGNAL WORK ACTIVITIES
COMPLETED IN 15 MINUTES OR LESS

DRAWING 605-05-A(2) SIDE STREET TREATMENT
DUAL LEFT TURN LANES
WORK VEHICLE – LEFT LANE
MULTILANE
PRIMARY & SECONDARY ROUTES
TRAFFIC SIGNAL WORK ACTIVITIES
COMPLETED IN 15 MINUTES OR LESS

DRAWING 605-05-B(1) SIDE STREET TREATMENT
DUAL LEFT TURN LANES
WORK VEHICLE – RIGHT LANE
MULTILANE
PRIMARY & SECONDARY ROUTES
TRAFFIC SIGNAL WORK ACTIVITIES
THAT EXCEED A TIME DURATION OF 15 MINUTES
BUT NOT MORE THAN 60 MINUTES

DRAWING 605-05-B(2) SIDE STREET TREATMENT
DUAL LEFT TURN LANES
WORK VEHICLE – LEFT LANE
MULTILANE
PRIMARY & SECONDARY ROUTES
TRAFFIC SIGNAL WORK ACTIVITIES
THAT EXCEED A TIME DURATION OF 15 MINUTES
BUT NOT MORE THAN 60 MINUTES

DRAWING 606-04-B - VEHICLE TRAIN
INTERIOR LANE CLOSURE
MULTILANE
PRIMARY & SECONDARY ROUTES
w/ 2 THROUGH LANES
CONNECTING THE STOP BAR LOOP
TO THE PULL BOX

DRAWING 606-05-B - VEHICLE TRAIN
INTERIOR LANE CLOSURE
MULTILANE
PRIMARY & SECONDARY ROUTES
w/ 3 or MORE THROUGH LANES
CONNECTING THE STOP BAR LOOP
TO THE PULL BOX