# PERFORMANCE ACTIVITY 603 SIGNS

WORK DESCRIPTION 3 WORK DESCRIPTION 4 WORK DESCRIPTION 6 New Install Maintenance / Replace Temporary

## 603 SIGNS

#### **ACTIVITY DESCRIPTION**

Install new signs and maintain and replace existing signs.

WORK DESCRIPTION 3 New Install

WORK DESCRIPTION 4 Maintenance / Replace

**WORK DESCRIPTION 6 Temporary** 

## TRAFFIC CONTROL

#### TWO-LANE TWO-WAY ROADWAYS

Utilize intermittent mobile operations for these work activities 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.

Flagging operations are required for work activities that cannot be conducted under the conditions required for intermittent mobile operations.

#### TYPICAL DRAWING APPLICATIONS

## **FLAGGING OPERATIONS**

DRAWING 405-01-A - FLAGGING OPERATIONS

MULTIPLE FLAGGERS

TWO-LANE TWO-WAY ROADWAYS PRIMARY & SECONDARY ROUTES

DRAWING 405-01-B(1) - FLAGGING OPERATIONS

MULTIPLE FLAGGERS

TWO-LANE TWO-WAY ROADWAYS
PRIMARY & SECONDARY ROUTES
STOP SIGN CONTROLLED SIDE ROADS

DRAWING 405-01-B(2) - FLAGGING OPERATIONS

MULTIPLE FLAGGERS

TWO-LANE TWO-WAY ROADWAYS PRIMARY & SECONDARY ROUTES

4-WAY STOP CONTROLLED INTERSECTION

DRAWING 405-01-C(1) - FLAGGING OPERATIONS

MULTIPLE FLAGGERS

TWO-LANE TWO-WAY ROADWAYS PRIMARY & SECONDARY ROUTES

TRAFFIC SIGNAL CONTROLLED INTERSECTION

LAW ENFORCEMENT OFFICER(S)

DRAWING 405-01-C(2) - FLAGGING OPERATIONS

MULTIPLE FLAGGERS

TWO-LANE TWO-WAY ROADWAYS PRIMARY & SECONDARY ROUTES

TRAFFIC SIGNAL CONTROLLED INTERSECTION

**FLAGGERS** 

DRAWING 405-01-D(1) - FLAGGING OPERATIONS

MULTIPLE FLAGGERS

TWO-LANE TWO-WAY ROADWAYS PRIMARY & SECONDARY ROUTES

WORK ACTIVITY AREA BEGINNING at an

INTERSECTION with a TWO-LANE TWO-WAY ROADWAY

DEPARTURE LANE

DRAWING 405-01-D(2) - FLAGGING OPERATIONS

MULTIPLE FLAGGERS

TWO-LANE TWO-WAY ROADWAYS PRIMARY & SECONDARY ROUTES

WORK ACTIVITY AREA TERMINATING at an INTERSECTION with a

TWO-LANE TWO-WAY ROADWAY

APPROACH LANE

DRAWING 405-01-E(1)

DRAWING 405-01-E(2) - FLAGGING OPERATIONS

MULTIPLE FLAGGERS

TWO-LANE TWO-WAY ROADWAYS PRIMARY & SECONDARY ROUTES

WORK ACTIVITY AREA INTERSECTIONS with

LOW SPEED </ = 35 MPH

MULTILANE ROADWAYS

**DRAWING 405-01-F(1)** 

**DRAWING 405-01-F(2)** - FLAGGING OPERATIONS

MULTIPLE FLAGGERS

TWO-LANE TWO-WAY ROADWAYS PRIMARY & SECONDARY ROUTES

WORK ACTIVITY AREA INTERSECTIONS with

INTERMEDIATE SPEED to HIGH SPEED

40 MPH - 60 MPH MULTILANE ROADWAYS

**DRAWING 405-02** - FLAGGING OPERATIONS

SINGLE FLAGGER OPERATION

LOW VOLUME

LOW SPEED TO INTERMEDIATE SPEED TWO-LANE TWO-WAY ROADWAYS PRIMARY & SECONDARY ROUTES

# 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

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

## **MULTILANE SECONDARY AND PRIMARY ROADWAYS**

Utilize intermittent mobile operations for these work activities 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.

Lane closures are required for work activities that cannot be conducted under the conditions required for intermittent mobile operations as stated above.

## TYPICAL DRAWING APPLICATIONS

## **LANE CLOSURES**

DRAWING 505-01 - LANE CLOSURE

LOW SPEED MULTILANE

</=35 MPH

PRIMARY & SECONDARY ROUTES

DRAWING 505-03-A - LANE CLOSURE

INTERMEDIATE SPEED TO HIGH SPEED

40 MPH - 60 MPH

**MULTILANE** 

PRIMARY & SECONDARY ROUTES

#### **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

## **INTERSTATE ROADWAYS**

Utilize intermittent mobile operations for these work activities under the following conditions:

**Condition 1** - The maximum time duration of a stop is 5 minutes if the work vehicle and/or the shadow vehicle encroach upon an adjacent travel lane due to a shoulder area inadequate to accommodate a vehicle in its entirety due to the presence of a concrete median barrier wall or a bridge parapet wall.

**Condition 2** - The maximum time duration of a stop is 30 minutes if the vehicles remain in the shoulder areas in their entirety with no encroachment upon an adjacent travel lane.

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.

Standard shoulder closures may be used for work activities that cannot be conducted under the conditions required for intermittent mobile operations when the work may be performed without the necessity for equipment, personnel, materials, or vehicles to encroach within 10 feet of the adjacent travel or without creating a hazard to passing motorists.

Lane closures are required for work activities that cannot be conducted under the conditions required for intermittent mobile operations or standard shoulder closures. Lane closures are required for work activities that require equipment, personnel, materials, or any vehicles to encroach upon a travel lane or within 10 feet of a travel lane.

( Brief periodic encroachments upon the adjacent travel lane for the equipment to relocate or bypass structures such as guardrail locations or bridge structures are acceptable.)

## TYPICAL DRAWING APPLICATIONS

# **LANE CLOSURES**

DRAWING 510-01-A - LANE CLOSURE

INTERSTATE ROUTES

DRAWING 510-01-B - LANE CLOSURE

EXIT / ENTRANCE RAMPS INTERSTATE ROUTES

SHOULDER CLOSURES

DRAWING 520-01 - RIGHT SHOULDER CLOSURE

CASE I / CASE II INTERSTATE ROUTES

DRAWING 520-02 - LEFT SHOULDER CLOSURE

CASE I / CASE I NARROW MEDIAN INTERSTATE ROUTES

DRAWING 520-03 - LEFT SHOULDER CLOSURE

CASE I / CASE I WIDE MEDIAN

INTERSTATE ROUTES

DRAWING 520-04 - LEFT SHOULDER CLOSURE

CASE I / CASE II WIDE MEDIAN

INTERSTATE ROUTES

**DRAWING 520-05** - LEFT SHOULDER CLOSURE

CASE II / CASE II WIDE MEDIAN

INTERSTATE ROUTES

DRAWING 520-06 - SHOULDER CLOSURE

GORE AREA

INTERSTATE ROUTES

# 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 535-04-D(1)** - MOBILE OPERATIONS – INTERMITTENT

HIGH VOLUME HIGH SPEED

INTERSTATE ROUTES

**DRAWING 535-04-E** - MOBILE OPERATIONS – INTERMITTENT

HIGH VOLUME HIGH SPEED

INTERIOR TRAVEL LANE OPERATIONS

INTERSTATE ROUTES