

2010 Edition Design Standards Summary of Changes Report

Index Sheet of ID *Drafting* *Drafting*
Complete *Checked*

Reason for Change/ History

Short Desc. of Change

Resolution

600	0	0	957	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<i>Reason</i>	Index 600 identifies the use of limitations or channelizing devices and lights. Multiple Indexes: 603, 604 605 606 608 613 614 615 616 617 618 620 621 622 628 630 631 635 640 641 642 650 660 670
REPETATIVE CHANGE - Update cone, tubular marker, barricades (with and without lights) symbols in drawings and under "symbols" to reflect the generic "Channelizing Device (See Index No. 600)" symbol.						<i>Resolution</i>	

600	0	0	992	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<i>Reason</i>	Please add the following to the 2010 Design Standards Booklet Table of Content SHEET
New Indexes						<i>Resolution</i>	Index 625 TEMPORARY ROAD CLOSURE – 5 MINUTES OR LESS Index 655 TRAFFIC PACING – LIMITED ACCESS Index 667 TOLL PLAZAS

600	1	12	968	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<i>Reason</i>	New details added to the Design Standards on Project Information signs.
Update Contents list to Include Project Information Sign in 2 Places. On sheet 5 with all other signs uses and on new sheet 7 with details. Update page numbers for Content to match updated sheet numbers						<i>Resolution</i>	Project Information Sign add in 2 locations on this index.

600	1	1	960	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<i>Reason</i>	The old standards we based on day, night, 1 day of less factors. When we combined these factors in the 2006 indexes, we no longer need the different symbols each channelizing device and the lights attached. The only remaining channelization symbols remaining are the generic symbols for "channelizing devices" and Type III barricades. All the criteria and limitations of these devices is shown on Index 600 sheet 11of 12 in the 2008 edition.
REPETATIVE CHANGE - Delete all symbols and associated text for cone, tubular marker, barricades (with and without lights) under "symbols" for channelization devices. Keep only "Channelizing Device" and "Type III" symbols.						<i>Resolution</i>	

Short Desc. of Change

Resolution

<p>600 10 12 970 <input checked="" type="checkbox"/> <input checked="" type="checkbox"/></p> <p>Updated details on Temporary Asphalt Separator and renamed it to "Temproary Lane Separator" to be consistent with the new Section 6F.70 in MUTCD</p>	<p>Reason Add 2-1/4" diameter to tubular marker, Add 12 " max to width, Add 28 Min to height. Update noted number 1 to include Vertical Panels and Opposing Traffic Lane Dividers.Change "Asphalt Separator" to "Lane Separator" in drawing on right side, and modify "Tubular Marker" to "Tubular Marker, Vertical Panel or Opposing Traffic Lane Divider. Change "Traffic Separator" to "Lane Separator" in all notes.</p> <p>Resolution Temporary lane separators shall be supplemented with any of the following approved channelizing devices: tubular markers, vertical panels, or opposing traffic lane dividers. Opposing traffic lane dividers shall only be used as center lane dividers to separate opposing vehicular traffic on a two-lane, two-way operation.</p>
<p>600 11 12 975 <input checked="" type="checkbox"/> <input checked="" type="checkbox"/></p> <p>Update Index 600 note 4 to state something to the effect "any sign mounted on any barricade, must be crashworthy and attached to the barricade in accordance with the vendor drawing on the QPL."</p>	<p>Reason The Index 600 allows the installation of a sign on or above a type III barricade. I take this to mean it bypasses the QPL vendor drawing for attaching signs.Since the Index says you can it must be ok??.</p> <p>Resolution Note 4 - Delete the last 2 sentences "signs used in conjunction..three rails" This is covered by MUTCD and vendor drawings for barricade/sign combinatin. Add new note 5 and renumber remaining notes. "No signs panel should be mounted on any barricade type unless the barricade/sign combination was found to be crashworthy and the sign panel is mounted in accordance with the vendor drawing for the barricade shown on the QPL."</p>
<p>600 11 12 995 <input checked="" type="checkbox"/> <input checked="" type="checkbox"/></p> <p>Add 5' min height deminsion to the Type III barricade detail</p>	<p>Reason Missing information on barricade</p> <p>Resolution</p>
<p>600 12 12 978 <input checked="" type="checkbox"/> <input checked="" type="checkbox"/></p> <p>Update the notes on the use of Class A RPM's</p>	<p>Reason Class A RPM's are no longer allowed for permanent applications and this is not the appropriate place to address permanant applications of RPM's</p> <p>Resolution Under the APPLICATION FOR REFLECTIVE PAVEMENT MARKERS - CLASS A delete the existing note and replace with the following text " Work Zone Application Only, For Traffic and Nontraffic Areas"</p>
<p>600 13 13 961 <input checked="" type="checkbox"/> <input checked="" type="checkbox"/></p> <p>NEW SHEET - Project Information Sign Detail - Place after sheet sheet 6 of 12 and renumber all sheets XX of 13.</p>	<p>Reason</p> <p>Resolution New Sheet added to Index No. 600 (Sheet 13 of 13), "GENERAL INFORMATION FOR TRAFFIC CONTROL THROUGH WORK ZONES", Dated 01-01-08 is added.</p>
<p>600 13 13 976 <input checked="" type="checkbox"/> <input checked="" type="checkbox"/></p> <p>Project Information Sign Sheet (Interim Index)</p>	<p>Reason Depth show 5 foot min, some vendor drawings show 4.5 foot depth.</p> <p>Resolution TYPICAL FOUNDATION DETAIL EXPAND 5' min by adding: "unless otherwise specified in the vendor drawing on the QPL."</p>

Short Desc. of Change

Resolution

<p>600 2 12 989 <input type="checkbox"/> <input type="checkbox"/></p> <p>Work overhead is allowed for denergized power without lane closure. Do we want to require flagger/officer be present in the event of an emergency</p>	<p><i>Reason</i> B) On non-limited access facilities overhead work above an open traffic lane(s) is allowed for cable and/or conductor pulling operations with no encroachment by any part of the work activities and equipment within the minimal vertical clearance above the roadway.</p> <p><i>Resolution</i></p>
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<p>600 2 12 993 <input checked="" type="checkbox"/> <input checked="" type="checkbox"/></p> <p>Overhead work for pulling line over traffic</p>	<p><i>Reason</i> Add a new option for this work: OPTION 5 (CONDUCTOR/CABLE PULLING ABOVE AN OPEN TRAFFIC LANE)</p> <p><i>Resolution</i> OPTION 5 (CONDUCTOR/CABLE PULLING ABOVE AN OPENTRAFFIC LANE) Overhead cable and/or de-energized conductor installations initial pull to proper tension shall be done in accordance with the appropriate Standard Index or temporary traffic control plan.</p> <p>Continuous pulling operations of secured cable and/or conductors are allowed over open lane(s) of traffic with no encroachment by any part of the work activities, materials or equipment within the minimal vertical clearance above the travel way. The utility shall take precautions to ensure that pull ropes and conductors/cables at no time fall below the minimum vertical clearance.</p> <p>On Limited Access facilities, a site specific temporary traffic control plan is required. The temporary traffic control plan shall include:</p> <ul style="list-style-type: none"> a. The temporary traffic control set up for the initial pulling of the pull rope across the roadway. B. During pulling operations, advance warning consisting of no less than a Changeable Message Sign upstream of the work area with alternating messages, "Overhead Work Ahead" and "Be Prepared to Stop" followed by a traffic control officer and police vehicle with blue lights flashing during the pulling operation.
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Short Desc. of Change

Resolution

600 2 12 990
 Add criteria for clear zone for aux lanes. Define travel lanes and aux lanes

Reason Please track the history of changes made on clear zone in Index 600 to see what was originally intended. I note in the 1988 Indexes, there are no clear zone widths shown in Index 600, so I assume Index 700 was used which included different clear zone widths for Aux Lanes. In the 1996 Index 600, a table of clear zone values was included but the measurement was from the "Travelled Way", not "Travel Lane". I do not know when the change was made to use the term "Travel Lane" – maybe it was done by mistake as I note there is no definition for "Travel Lane" in Index 600 nor in the MUTCD.

Resolution This is one that we need to fix asap. I suggest we consider adding a reduced width for aux lanes, and include definitions for both travel lane and aux lane.

- Resolution**
1. Add the following 2 definitions after the definition of Travel Way under the heading of DEFINITIONS:
 - a. Travel Lane: The designated widths of roadway pavement marked to carry through traffic and to separate it from opposing traffic or traffic occupying other traffic lanes.
 - b. Auxiliary Lane: The designated widths of roadway pavement marked to separate speed change, turning, passing and climbing maneuvers from through traffic.
 2. Under the heading of CLEAR ZONE WIDTHS FOR WORK ZONES make the following changes:
 - a. Delete the text "travel" in the first sentence and replace with text "traffic".
 - b. Delete the existing chart and replace with the following chart.

600 2 12 952
 Expand Overhead work to address common overhead construction activities.

Reason Need to address bridge work

Resolution Index No. 600 (Sheet 2 of 12) - "OVERHEAD WORK" delete OPTION 4 and substitute the following:
 OPTION 4 (OVERHEAD WORK MAINTAINING TRAFFIC WITH NO ENCROACHMENT BELOW THE OVERHEAD WORK AREA)
 Traffic shall be detoured, shifted, diverted or paced as to not encroach in the area directly below the overhead work operations in accordance with the appropriate standard index drawing or detailed in the plans. This option applies to, but not limited to, the following construction activities:
 (a) Beam, girder and segment placement.
 (b) Deck form placement and removal.
 © Concrete deck placement.
 (d) Railing construction located at edge of deck.
 (e) Structure demolition.

600 3 12 980
 Change "expected" to "excepted"

Reason Correct spelling under Lane Widths.

Resolution Index No. 600 (Sheet3 of 12), "LANE WIDTHS", in the second sentence, change the word "expected" to "excepted"

600 4 12 971
 Update the sign number from MOT-01-04 under (A) Stay in your lane to MOT-1-06

Reason Updated Standard Index 17355

Resolution

Short Desc. of Change

Resolution

<p>600 4 12 966 <input checked="" type="checkbox"/> <input checked="" type="checkbox"/></p> <p>Under Flagging Operations/Hand Signaling Devices add height requirement to STOP/SLOW paddle when staff is used.</p>	<p><i>Reason</i> MUTCD added: If the STOP/SLOW paddle is placed on a rigid staff, the minimum length of the staff, measured from the bottom of the paddle to the end of the staff that rests on the ground, should be 2.1 m (7 ft).</p> <p><i>Resolution</i> STOP/SLOW paddles are the primary hand-signaling device. The STOP/SLOW paddle shall have an octagonal shape on a rigid handle. If the STOP/SLOW paddle is placed on a rigid staff, the minimum length of the staff, measured from the bottom of the paddle to the end of the staff that rests on the ground, should be 7 ft. STOP/SLOW paddles shall be at least 24 inches wide with letters at least 6 inches high and should be fabricated from light semirigid material. The background of the STOP face shall be red with white letters and border. The background of the SLOW face shall be orange with black letters and border. When used at night-time, the STOP/SLOW</p>
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<p>600 5 12 967 <input checked="" type="checkbox"/> <input checked="" type="checkbox"/></p> <p>Index No. 600 (Sheet 5 of 12), add new heading and text: "PROJECT INFORMATION SIGN – The project information sign shall be installed when called for in the plans."</p>	<p><i>Reason</i> Need to give guidance to designers on when to use sign.</p> <p><i>Resolution</i> Index No. 600 (Sheet 5 of 12), add new heading and text: "PROJECT INFORMATION SIGN – The project information sign shall be installed when called for in the plans."</p>
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<p>600 5 12 951 <input checked="" type="checkbox"/> <input checked="" type="checkbox"/></p> <p>Clarify allowable sign coverings</p>	<p><i>Reason</i></p> <p><i>Resolution</i> Under the Heading "SIGN COVERING AND INTERMITTENT WORK STOPPAGE SIGNING" Delete all text and replace with the following: Existing signs that conflict with temporary work zone signing shall be removed or fully covered. Traffic control signs that require covers when no work is being performed in a work area shall be fully covered. Sign blanks or other available coverings must completely cover the existing sign. Rigid sign coverings shall be the same size as the sign it is covering, and attached in a manner to prevent movement. Sign covers are incidental to work operations and are not to be paid for separately.</p>
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<p>600 6 12 991 <input checked="" type="checkbox"/> <input checked="" type="checkbox"/></p> <p>Soil plate is not required if sign supports are placed in asphalt pavement</p>	<p><i>Reason</i> Industry requested we investigate if we really need soil plates when driving the post in asphalt. It is very difficult to pull sign supports out of pavement with out damaging the pavement.</p> <p><i>Resolution</i> Under the Heading POST MOUNTED SIGN NOTES add a new note as follows: The soil plate as shown on the QPL vendor drawing is not required for base posts or sign posts driven through the existing asphalt roadway or shoulder pavement.</p>
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Short Desc. of Change

Resolution

600	6	12	948	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<p>Reason We need to allow for a tolerance in sign post spacing so construction has a little room to play with in setting posts.</p> <p>Resolution Under the Heading 2 POST SIGN SUPPORT MOUNTING DETAILS update text to include a tolerance between sign supports - Insert text "+/- 3" after text 1'-6"; Insert text +/- 6" after text 2'-6". Under the Heading 3 POST SIGN SUPPORT MOUNTING DETAILS update text to include a tolerance between sign supports - Insert text "+/- 1" after text 1'-4.5"; Insert text +/- 1" after text 2'-1".</p>
<p>We need to allow for a tolerance in sign post spacing so construction has a little room to play with in setting posts for both the 2 post and 3 post configurations.</p>						
600	6	12	950	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<p>Reason Under the heading GENERAL NOTES, delete note 1 and replace with the following 1. All signs shall be post mounted when work operations exceed one day except for: a) Road closure signs mounted in accordance with the vendor drawing for approved Type III Barricade shown on the QPL. b) Pedestrian advanced warning or regulatory signs mounted on sign supports in accordance with the vendor drawing shown on the QPL.</p> <p>Resolution</p>
<p>Identify exceptions to post mounting of signs for work operations exceeding 1 day.</p>						
600	6	12	963	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<p>Reason Nuco Marion has a detail with a soil plate that allows a foundation depth less than what is shown in the Design Standards.</p> <p>Resolution 2. Minimum foundation depth is 4 feet for 3 lb/ft posts and 4.5 feet for 4 lb/ft posts unless otherwise specified in the vendor drawing on the QPL.</p>
<p>Post and Foundation Chart - Update to allow different foundations depths when specified in the Vendor Drawing on the QPL.</p>						
600	6	12	1011	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<p>Reason U-Channel is no longer allowed in permanent applications.</p> <p>Resolution</p>
<p>Material for Post mounted sign supports was removed from Specification 700 and reference to Standard Index 11860 have been deleted and all information of temporary sign supports shall be in spec 102 and Index 600. Several CHANGES to this sheet</p>						
600	6	12	984	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<p>Reason Information is not currently in the Design Standards</p> <p>Resolution See updated drawings for 2 & 3 post sign support details to show lateral offsets to signs.</p>
<p>Need to show lateral offsets for the placement of work zone signs from the edge of the travelway/ shoulder/ curb and gutter.</p>						

Short Desc. of Change

Resolution

<p>600 7 12 972 <input checked="" type="checkbox"/> <input checked="" type="checkbox"/></p> <p>Bottom row of signs need to be updated from MOT-XX-04 to MOT-XX-06</p>	<p><i>Reason</i> Changed number in Index 17355</p> <p><i>Resolution</i> Sign numbers updated</p>
<p>600 8 12 969 <input checked="" type="checkbox"/> <input checked="" type="checkbox"/></p> <p>2 Changes - 1) Add "and Index 600 requirements" to the end of the first sentence. 2) Delete the first sentence in the second paragrapy under the Heading CHANNELIZING AND LIGHTING DEVICES.</p>	<p><i>Reason</i> Need to include Index 600 requirements for all channelizing devices. Since the page numbers keep changing, and the 1st sentence in this paragraph, does not add any value, it should just be deleted. This corrects the reference to Sheet 8, which is incorrect.</p> <p><i>Resolution</i> Channelizing and lighting devices for work zone traffic control shall be as prescribed in Part VI of the MUTCD, subject to supplemental revisions provided in the contract documents and Index 600 requirements.</p> <p>Approved devices are listed on the Department's Qualified Product List.</p>
<p>600 8 12 994 <input checked="" type="checkbox"/> <input checked="" type="checkbox"/></p> <p>Under the section Warning Lights - Delete reference to Section 6F-78 of the MUTCD</p>	<p><i>Reason</i> This reference is no longer valid, just use MUTCD only, there is no reason to identify the Section in the Standards</p> <p><i>Resolution</i></p>
<p>605 1 1 954 <input checked="" type="checkbox"/> <input checked="" type="checkbox"/></p> <p>Index 605, note #8 question (9/6/07) that it should read the same as note #5 of sheet 616</p>	<p><i>Reason</i></p> <p><i>Resolution</i> The two channelizing devices directly in front and directly at the end of the work area may be omitted provided vehicles in the work area have high-intensity rotating, flashing, oscillating, or strobe lights operating.</p>
<p>605 1 1 988 <input checked="" type="checkbox"/> <input checked="" type="checkbox"/></p> <p>Add Duration notes to this Index</p>	<p><i>Reason</i> left off in printed edition</p> <p><i>Resolution</i> 1. ROAD WORK AHEAD sign may be omitted if all of the following conditions are met: a) Work operations are 60 minutes or less. b) Speed is 45 mph or less. c) No sight obstructions to vehicles approaching the work area for a distance of 600 feet.. d) Vehicles in the work area have high-intensity, rotating, flashing, oscillating, or strobe lights operating. e) Volume and complexity of the roadway has been considered.</p>

Short Desc. of Change

Resolution

607	1	1	959	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	Reason	Symbols used for Truck Mounted Attenuator, Work Vehicle, Advance Warning and Shadow Vehicles vary on Index 607, 619 with and Index 628.
Under Symbols update Symbols shown for Truck Mounted Attenuator, Work Vehicle, Advance Warning and Shadow Vehiclesto be the same as the symbols shown on Index 619.						Resolution	
625	1	1	956	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	Reason	We need to develop a standard index for minor aerial crossings over non-limited access only.
New Index 625 - 5 Minute or Less Temporary Road Closure -						Resolution	
628	1	1	985	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	Reason	Symbols used for Truck Mounted Attenuator, Work Vehicle, Advance Warning and Shadow Vehicles vary on Index 607, 619 with and Index 628.
Under Symbols update Symbols shown for Truck Mounted Attenuator, Work Vehicle, Advance Warning and Shadow Vehiclesto be the same as the symbols shown on Index 619.						Resolution	
642	1	1	974	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	Reason	Missing in past
Add symbol for channelizing device under Symbol						Resolution	
655	1-3	3	946	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	Reason	Traffic Pacing is being used more frequently and we needed some standard details
Add New Standard for Traffic Pacing						Resolution	3 New Sheet Added
667	1	6	996	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	Reason	New Indexes requested by Turnpike
New Index on Toll Plaza Work Zones						Resolution	6 New Sheets Added