Contact Information:
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Standard Plans:
Index Number: 102-600
Sheet Number(s): 5, 6, and 7 of 11
Index Title: General Information for Traffic Control Through Work Zones

Summary of the changes:
Sheet 5: Changed the Height reference note to "See Index 700-102 for Special Sign Details" and deleted the 60" Width in the 3 POST SUPPOR MOUNTING DETAILS; Moved TEMPORARY SIGN SUPPORT NOTE 9 to TABLE 7, as Note 5; Deleted the 60x64 and the 120x60* Rectangle signs and associated note from TABLE 7; Deleted "(See Note 7)" reference from the Diamond sign in TABLE 7.

Sheet 6: Rearranged all signs: Added signs: R4-11, W11-1, and W16-1p: Deleted all of the "MOT" signs.

Sheet 7: Added the SIDE ROAD INTERSECTING THE WORK ZONE details form Index 102-606.

Commentary / Background:
The duration provisions of the index are intended to apply to the length time needed to perform the specific temporary traffic control work “operation” shown, which is independent of the duration of an overall construction project. The term “Work Zone” is being replaced with “Work Operation” to clarify the intent.

Other Affected Offices / Documents: (Provide name of person contacted)

<table>
<thead>
<tr>
<th>Yes</th>
<th>No</th>
<th>Other Standard Plans –</th>
</tr>
</thead>
<tbody>
<tr>
<td>☑</td>
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<td>FDOT Design Manual –</td>
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<td>☑</td>
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<td>Basis of Estimates Manual –</td>
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<td>Standard Specifications –</td>
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Origination Package Includes:
(Email or hand deliver package to Rick Jenkins)

<table>
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<tr>
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<th>Redline Mark-ups</th>
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<td>☑</td>
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<td>Proposed Standard Plan Instruction (SPI)</td>
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<td></td>
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<td>Revised SPI</td>
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<tr>
<td></td>
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<td>Other Support Documents</td>
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</table>

Implementation:
| ☑   | Design Bulletin (Interim) |
|     | DCE Memo |
| ☑   | Program Mgmt. Bulletin |
| ☑   | FY-Standard Plans (Next Release) |

Contact the Roadway Design Office for assistance in completing this form
TEMPORARY SIGN SUPPORT NOTES:
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 the Type I1 Barricade shown on the APL.
   b. Pedestrian and bicycle advanced warning or pedestrian regulatory signs mounted on sign supports in accordance with the vendor drawing shown on the APL.
   c. Median barrier mounted signs per Index 700-013.
   d. Bridge mounted signs per Index 700-012.
2. Unless shielded with barrier or outside of the Clear Zone, signs mounted on temporary supports or barricades, and barricade/sign combination must be crashworthy in accordance with NCHRP 350 requirements and included on the Approved Products List (APL).
3. Use only approved systems listed on the Department's Approved Products List (APL).
4. Manufacturer's seeking approval of U-Channel and steel square tube sign support assemblies for inclusion on the Approved Products List (APL) must submit a APL application, design calculations (for square tube only), and detailed drawings showing the product meets all of the requirements of this Index.
5. Provide 3 lb/ft Steel U-Channel Posts with a minimum section modulus of 0.43 in³ for 60 ksi steel, a minimum section modulus of 0.31 in³ for 70 ksi steel, or a minimum section modulus of 0.34 in³ for 60 ksi steel.
6. Provide 4 lb/ft Steel U-Channel Posts with a minimum section modulus of 0.56 in³ for 60 ksi steel, or a minimum section modulus of 0.47 in³ for 70 ksi steel or 80 ksi steel.
7. U-channel posts shall conform with ASTM A 490, Grade 60, or ASTM A 576, Grade 1080 (with a minimum yield strength of 60 ksi). Square tube posts shall conform with ASTM A 653, Grade 50, or ASTM A 1011, Grade 50.
8. Sign attachment bolts, washers, nuts, and spacers shall be crashworthy to the extent necessary with a minimum section modulus of 0.37 in³ for 60 ksi steel, a minimum section modulus of 0.47 in³ for 70 ksi steel, or a minimum section modulus of 0.34 in³ for 60 ksi steel (up to 5 ft warning sign).
9. Steel U-Channel Posts shall conform with ASTM A327 or A36.
10. The contractor may install 3 lb/ft Steel U-Channel Posts with approved breakaway splice in accordance with the manufacturer's detail shown on the APL.
11. Install all posts plumb.
12. The contractor may set posts in preformed holes to the specified depth with suitable backfill tamped securely on all sides, or drive 3 lb/ft sign posts and any size base post in accordance with the manufacturer's detail shown on the APL.
13. Provide 3 lb/ft Steel U-Channel Posts with a minimum section modulus of 0.43 in³ for 60 ksi steel, a minimum section modulus of 0.31 in³ for 70 ksi steel, or a minimum section modulus of 0.34 in³ for 60 ksi steel.

TABLE 7
POST AND FOUNDATION TABLE FOR WORK ZONE SIGNS

<table>
<thead>
<tr>
<th>SIGN SHAPE</th>
<th>SIGN SIZE (inches)</th>
<th>NUMBER OF STEEL U CHANNEL POSTS</th>
</tr>
</thead>
<tbody>
<tr>
<td>Triangle</td>
<td>48x48x48 1</td>
<td>1</td>
</tr>
<tr>
<td>Rectangle</td>
<td>24x18</td>
<td>1</td>
</tr>
<tr>
<td>Circle</td>
<td>36x36x36</td>
<td>2</td>
</tr>
<tr>
<td>Square</td>
<td>36x36x36</td>
<td>2</td>
</tr>
<tr>
<td>Diamond</td>
<td>48x48x48 2</td>
<td></td>
</tr>
</tbody>
</table>

Notes For Table:
1. Use 3 lb/ft posts for Clear Height up to 10 and 4 lb/ft posts for Clear Height up to 12.
2. Use 4 lb/ft U-channel sign post with mounting height of 48" and 8' max. Attach sign panel using 2-bracket detail on Sheet 6.
3. Minimum foundation depth is 4.0 for 3 lb/ft posts and 4.5 for 4 lb/ft posts.
4. The soil place as shown on the APL vendor drawing is not required for base posts or sign posts installed in existing rock (as defined in Note 3), asphalt roadway, shoulder pavement or soil under sidewalk.

SHEET 6
GENERAL INFORMATION FOR TRAFFIC CONTROL THROUGH WORK ZONES

INDEX 102-600
5 of 11
MANHOLES/CROSSWALKS/JOINTS
Manholes extending 1" or more above the travel lane and crosswalks having an uneven surface greater than 1/8" shall have a temporary asphalt apron constructed as shown in the diagram below.

All transverse joints that have a difference in elevation of 1" or more shall have a temporary asphalt apron constructed as shown in the diagram below.

The apron is to be removed prior to constructing the next lift of asphalt. The cost of the temporary asphalt shall be included in the contract unit price for Maintenance of Traffic, LS.

Existing traffic signal operations that require modification in order to carry out work zone traffic control shall be included in the Plans and be approved by the District Traffic Operations Engineer.

Refer to Specification 102-9 for additional information.

ADVANCE WARNING ARROW BOARDS
An arrow board in the arrow or chevron mode shall be used only for stationary or moving lane closures on multilane roadways.

For shoulder work, blocking the shoulder, for roadside work near the shoulder, or for temporarily closing one lane on a two-lane, two-way roadway, an arrow board shall be used only in the caution mode.

A single arrow board shall not be used to merge traffic laterally more than one lane. When arrow boards are used to close multiple lanes, a single board shall be used at the merging taper for each closed lane.

When Advance Warning Arrow Boards are used at night, the intensity of the flashers shall be reduced during darkness when lower intensities are desirable.

TRUCK/TRAILER-MOUNTED ATTENUATORS
Truck/trailer-mounted attenuators (TMA) can be used for moving operations and short-term stationary operations. For moving operations, see Index 102-607. For short-term, stationary operations, see Part VI of the MUTCD.

CHANNELIZING DEVICES
Channelizing 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 the 102 Series of Indexes. Lighting Devices must not be used to supplement channelization.

CHANNELIZING DEVICE CONSISTENCY
Barricades, vertical panels, cones, tubular markers and drums shall not be intermixed within either the lateral transition or within the tangent alignment.

ADDED:
SIDE ROAD INTERSECTING THE WORK ZONE
detail from Index 102-606
**NOTES:**
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 the Type III Barricade shown on the APL.
   b. Pedestrian and bicycle advanced warning or pedestrian regulatory signs mounted on sign supports in accordance with the vendor drawing shown on the APL.
   c. Median barrier mounted signs per Index 700-013.
   d. Bridge mounted signs per Index 700-012.
2. Unless shielded with barrier or outside of the Clear Zone, signs mounted on temporary supports or barricades, and barricade/sign combination must be crashworthy in accordance with NCHRP 350 requirements and included on the Approved Products List (APL).
3. Use only approved systems listed on the Department's Approved Products List (APL).
4. Manufacturers seeking approval of U-Channel and steel square tube sign support assemblies for inclusion on the Approved Products List (APL) must submit an APL application, design calculations (for square tube only), and detailed drawings showing the product meets all requirements of this index.
5. Provide 3 lb/ft Steel U-Channel Posts with a minimum section modulus of 0.43 in³ for 60 ksi steel, a minimum section modulus of 0.35 in³ for 70 ksi steel, or a minimum section modulus of 0.34 in³ for 80 ksi steel.
6. Provide 4 lb/ft Steel U-Channel Posts with a minimum section modulus of 0.56 in³ for 60 ksi steel, or a minimum section modulus of 0.47 in³ for 70 ksi steel, or a minimum section modulus of 0.43 in³ for 80 ksi steel.
7. U-channel posts shall conform with ASTM A 499, Grade 60, or ASTM A 576, Grade 100 (with a minimum yield strength of 60 ksi). Square tube posts shall conform with ASTM A 653, Grade 50, or ASTM A 1011, Grade 50.
8. Sign attachment bolts, washers, nuts, and spacers shall conform with ASTM A 309 or A 36.
9. Install 4 lb/ft Steel U-Channel Posts with approved breakaway splice in accordance with the manufacturer's detail shown on the APL.
10. The contractor may install 3 lb/ft Steel U-Channel Posts with approved breakaway splice in accordance with the manufacturer's detail shown on the APL.
11. Install all posts plumb.
12. The contractor may set posts in preformed holes to the specified depth with suitable backfill tamped securely on all sides, or drive 3 lb/ft sign posts and any size base post in accordance with the manufacturer's detail shown on the APL.

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**TABLE 7**

**POST AND FOUNDATION TABLE FOR WORK ZONE SIGNS**

<table>
<thead>
<tr>
<th>SIGN SHAPE</th>
<th>SIGN SIZE (INCHES)</th>
<th>NUMBER OF STEEL U-CHANNEL POSTS</th>
</tr>
</thead>
<tbody>
<tr>
<td>Octagon</td>
<td>30x30</td>
<td>1</td>
</tr>
<tr>
<td>Triangle</td>
<td>24x24</td>
<td>1</td>
</tr>
<tr>
<td>Rectangle</td>
<td>(W x H)</td>
<td>2</td>
</tr>
<tr>
<td>Square</td>
<td>24x24</td>
<td>2</td>
</tr>
<tr>
<td>Circle</td>
<td>18x18</td>
<td>2</td>
</tr>
</tbody>
</table>

**NOTES FOR TABLE:**
1. Use 3 lb/ft posts for Clear Height up to 10' and 4 lb/ft posts for Clear Height up to 12'.
2. Minimum foundation depth is 4.0' for 3 lb/ft and 4 lb/ft posts.
3. For both 3 lb/ft and 4 lb/ft base or sign posts installed in rock, a minimum cumulative depth of 2' of rock layer is required.
4. The soil plate as shown on the APL vendor drawing is not required for base posts or sign posts installed in existing rock (as defined in note 3), asphalt roadway, shoulder pavement or soil under sidewalk.
5. For diamond warning signs with supplement plaque (up to 5' H in area), use 4 lb/ft posts for up to 10' Clear Height (measure to the bottom of diamond warning sign).
COMMONLY USED WARNING AND REGULATORY SIGNS IN WORK ZONES

NOTES:

1. The size of diamond shaped Temporary Traffic Control (TTC) warning signs shall be a minimum of 48" x 48".

2. Fluorescent orange shall be used for all orange colored work zone signs.

3. Symbol Background

   Legend and/or symbol background shall be a minimum of 48" x 48".

COLOR CODES:

Legend and/or Symbol Background

- R-Red (Reflectorized)
- Y-Yellow (Reflectorized)
- G-Green (Reflectorized)
- O-Orange (Reflectorized)
- B-Black (Non-Reflectorized)
- W-White (Reflectorized)
### Advance Warning Arrow Boards

**NOTES:**

- An arrow board in the arrow or chevron mode shall be used only for stationary or moving lane closures on multiline roadways.
- For shoulder work, blocking the shoulder, for roadside work near the shoulder, or for temporarily closing one lane on a two-lane, two-way roadway, an arrow board shall be used only in the caution mode.
- A single arrow board shall not be used to merge traffic laterally more than one lane. When arrow boards are used to close multiple lanes, a single board shall be used at the merging taper for each closed lane.
- When Advance Warning Arrow Boards are used at night, the intensity of the flashers shall be reduced during darkness when lower intensities are desirable.

### Side Road Intersecting the Work Zone

**NOTES:**

- Manholes extending 1" or more above the travel lane and crosswalks having an uneven surface greater than 1/8" shall have a temporary asphalt apron constructed as shown in the diagram below.
- All transverse joints that have a difference in elevation of 1" or more shall have a temporary asphalt apron constructed as shown in the diagram below.
- The apron is to be removed prior to constructing the next lift of asphalt. The cost of the temporary asphalt shall be included in the contract unit price for Maintenance of Traffic, LS.

**MANHOLES/CROSSWALKS/JOINTS**

<table>
<thead>
<tr>
<th>MODES</th>
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<tbody>
<tr>
<td>MOVE/MERGE LEFT</td>
</tr>
<tr>
<td>MOVE/MERGE RIGHT</td>
</tr>
</tbody>
</table>

**Minimum Required Lamps**

- ●

**Additional Lamps Allowed**

- ○

**ADVANCE WARNING ARROW BOARDS**

- **Manhole or other above ground obstruction**
- **Asphalt Apron**
- **Temporary Surface**

**signals:**

Existing traffic signal operations that require modification in order to carry out work zone traffic control shall be included in the Plans and be approved by the District Traffic Operations Engineer.

Refer to Specification 102-9 for additional information.

**Channelizing Devices:**

Channelizing 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 the 102 Series of Indexes. Lighting Devices must not be used to supplement channelization.

**Channelizing Device Consistency:**

Barricades, vertical panels, cones, tubular markers and drums shall not be intermixed within either the lateral transition or within the tangent alignment.

**Truck/Trailer-Mounted Attenuators:**

Truck/Trailer-mounted attenuators (TMA) can be used for moving operations and short-term stationary operations. For moving operations, see Index 102-601. For short-term stationary operations, see Part VI of the MUTCD.