The Contractor shall contact the City of Lawrence Traffic Division at 785-832-3035 to remove and replace traffic signs which are in conflict with the proposed Temporary Traffic Control (TTC). The City of Lawrence plan review is only for general conformance with City of Lawrence Design Criteria and City Code. The City of Lawrence is not responsible of the performance of the temporary traffic control. The permit shall include an individual who can be contacted 24 hours a day, 7 days a week in case of emergencies. Lane closure hour restrictions listed in the ROW Administrative Regulations, section 8.4 shall be complied with unless an exception is approved and noted on the permit. Where all existing pavement has been removed, a traffic lane shall not be considered as satisfactorily open to traffic, unless graded reasonably smooth and maintained. Deficiencies shall be corrected in a timely manner. The permit shall include an individual who can be contacted 24 hours a day, 7 days a week in case of emergencies. Roadway depressions should not exceed 1" in 10'. All visible pushing/shoving of pavement shall be corrected. All temporary pavement shall be removed or replaced immediately as required by the Inspector. Roadway depressions should not exceed 1" in 10'.

Where all existing pavement has been removed, a traffic lane shall not be considered as satisfactorily open to traffic, unless graded reasonably smooth and maintained. Deficiencies shall be corrected in a timely manner. The permit shall include an individual who can be contacted 24 hours a day, 7 days a week in case of emergencies. Roadway depressions should not exceed 1" in 10'. All visible pushing/shoving of pavement shall be corrected. All temporary pavement shall be removed or replaced immediately as required by the Inspector. Roadway depressions should not exceed 1" in 10'.

Where all existing pavement has been removed, a traffic lane shall not be considered as satisfactorily open to traffic, unless graded reasonably smooth and maintained. Deficiencies shall be corrected in a timely manner. The permit shall include an individual who can be contacted 24 hours a day, 7 days a week in case of emergencies. Roadway depressions should not exceed 1" in 10'. All visible pushing/shoving of pavement shall be corrected. All temporary pavement shall be removed or replaced immediately as required by the Inspector. Roadway depressions should not exceed 1" in 10'.

Where all existing pavement has been removed, a traffic lane shall not be considered as satisfactorily open to traffic, unless graded reasonably smooth and maintained. Deficiencies shall be corrected in a timely manner. The permit shall include an individual who can be contacted 24 hours a day, 7 days a week in case of emergencies. Roadway depressions should not exceed 1" in 10'. All visible pushing/shoving of pavement shall be corrected. All temporary pavement shall be removed or replaced immediately as required by the Inspector. Roadway depressions should not exceed 1" in 10'.

Where all existing pavement has been removed, a traffic lane shall not be considered as satisfactorily open to traffic, unless graded reasonably smooth and maintained. Deficiencies shall be corrected in a timely manner. The permit shall include an individual who can be contacted 24 hours a day, 7 days a week in case of emergencies. Roadway depressions should not exceed 1" in 10'. All visible pushing/shoving of pavement shall be corrected. All temporary pavement shall be removed or replaced immediately as required by the Inspector. Roadway depressions should not exceed 1" in 10'.

Where all existing pavement has been removed, a traffic lane shall not be considered as satisfactorily open to traffic, unless graded reasonably smooth and maintained. Deficiencies shall be corrected in a timely manner. The permit shall include an individual who can be contacted 24 hours a day, 7 days a week in case of emergencies. Roadway depressions should not exceed 1" in 10'. All visible pushing/shoving of pavement shall be corrected. All temporary pavement shall be removed or replaced immediately as required by the Inspector. Roadway depressions should not exceed 1" in 10'.

Where all existing pavement has been removed, a traffic lane shall not be considered as satisfactorily open to traffic, unless graded reasonably smooth and maintained. Deficiencies shall be corrected in a timely manner. The permit shall include an individual who can be contacted 24 hours a day, 7 days a week in case of emergencies. Roadway depressions should not exceed 1" in 10'. All visible pushing/shoving of pavement shall be corrected. All temporary pavement shall be removed or replaced immediately as required by the Inspector. Roadway depressions should not exceed 1" in 10'.

Where all existing pavement has been removed, a traffic lane shall not be considered as satisfactorily open to traffic, unless graded reasonably smooth and maintained. Deficiencies shall be corrected in a timely manner. The permit shall include an individual who can be contacted 24 hours a day, 7 days a week in case of emergencies. Roadway depressions should not exceed 1" in 10'. All visible pushing/shoving of pavement shall be corrected. All temporary pavement shall be removed or replaced immediately as required by the Inspector. Roadway depressions should not exceed 1" in 10'.

Where all existing pavement has been removed, a traffic lane shall not be considered as satisfactorily open to traffic, unless graded reasonably smooth and maintained. Deficiencies shall be corrected in a timely manner. The permit shall include an individual who can be contacted 24 hours a day, 7 days a week in case of emergencies. Roadway depressions should not exceed 1" in 10'. All visible pushing/shoving of pavement shall be corrected. All temporary pavement shall be removed or replaced immediately as required by the Inspector. Roadway depressions should not exceed 1" in 10'.
Coordinate Table

<table>
<thead>
<tr>
<th>Point #</th>
<th>Northing</th>
<th>Easting</th>
<th>Left Elevation</th>
<th>Right Elevation</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>174</td>
<td>244170.04</td>
<td>209410.02</td>
<td>878.83</td>
<td>878.80</td>
<td>TS</td>
</tr>
<tr>
<td>175</td>
<td>244171.04</td>
<td>209410.02</td>
<td>878.83</td>
<td>878.80</td>
<td>TS</td>
</tr>
<tr>
<td>176</td>
<td>244172.04</td>
<td>209410.02</td>
<td>878.83</td>
<td>878.80</td>
<td>TS</td>
</tr>
<tr>
<td>177</td>
<td>244173.04</td>
<td>209410.02</td>
<td>878.83</td>
<td>878.80</td>
<td>TS</td>
</tr>
<tr>
<td>178</td>
<td>244174.04</td>
<td>209410.02</td>
<td>878.83</td>
<td>878.80</td>
<td>TS</td>
</tr>
<tr>
<td>179</td>
<td>244175.04</td>
<td>209410.02</td>
<td>878.83</td>
<td>878.80</td>
<td>TS</td>
</tr>
<tr>
<td>180</td>
<td>244176.04</td>
<td>209410.02</td>
<td>878.83</td>
<td>878.80</td>
<td>TS</td>
</tr>
<tr>
<td>181</td>
<td>244177.04</td>
<td>209410.02</td>
<td>878.83</td>
<td>878.80</td>
<td>TS</td>
</tr>
<tr>
<td>182</td>
<td>244178.04</td>
<td>209410.02</td>
<td>878.83</td>
<td>878.80</td>
<td>TS</td>
</tr>
<tr>
<td>183</td>
<td>244179.04</td>
<td>209410.02</td>
<td>878.83</td>
<td>878.80</td>
<td>TS</td>
</tr>
<tr>
<td>184</td>
<td>244180.04</td>
<td>209410.02</td>
<td>878.83</td>
<td>878.80</td>
<td>TS</td>
</tr>
<tr>
<td>185</td>
<td>244181.04</td>
<td>209410.02</td>
<td>878.83</td>
<td>878.80</td>
<td>TS</td>
</tr>
<tr>
<td>186</td>
<td>244182.04</td>
<td>209410.02</td>
<td>878.83</td>
<td>878.80</td>
<td>TS</td>
</tr>
<tr>
<td>187</td>
<td>244183.04</td>
<td>209410.02</td>
<td>878.83</td>
<td>878.80</td>
<td>TS</td>
</tr>
<tr>
<td>188</td>
<td>244184.04</td>
<td>209410.02</td>
<td>878.83</td>
<td>878.80</td>
<td>TS</td>
</tr>
<tr>
<td>189</td>
<td>244185.04</td>
<td>209410.02</td>
<td>878.83</td>
<td>878.80</td>
<td>TS</td>
</tr>
<tr>
<td>190</td>
<td>244186.04</td>
<td>209410.02</td>
<td>878.83</td>
<td>878.80</td>
<td>TS</td>
</tr>
<tr>
<td>191</td>
<td>244187.04</td>
<td>209410.02</td>
<td>878.83</td>
<td>878.80</td>
<td>TS</td>
</tr>
<tr>
<td>192</td>
<td>244188.04</td>
<td>209410.02</td>
<td>878.83</td>
<td>878.80</td>
<td>TS</td>
</tr>
<tr>
<td>193</td>
<td>244189.04</td>
<td>209410.02</td>
<td>878.83</td>
<td>878.80</td>
<td>TS</td>
</tr>
<tr>
<td>194</td>
<td>244190.04</td>
<td>209410.02</td>
<td>878.83</td>
<td>878.80</td>
<td>TS</td>
</tr>
<tr>
<td>195</td>
<td>244191.04</td>
<td>209410.02</td>
<td>878.83</td>
<td>878.80</td>
<td>TS</td>
</tr>
<tr>
<td>196</td>
<td>244192.04</td>
<td>209410.02</td>
<td>878.83</td>
<td>878.80</td>
<td>TS</td>
</tr>
<tr>
<td>197</td>
<td>244193.04</td>
<td>209410.02</td>
<td>878.83</td>
<td>878.80</td>
<td>TS</td>
</tr>
<tr>
<td>198</td>
<td>244194.04</td>
<td>209410.02</td>
<td>878.83</td>
<td>878.80</td>
<td>TS</td>
</tr>
<tr>
<td>199</td>
<td>244195.04</td>
<td>209410.02</td>
<td>878.83</td>
<td>878.80</td>
<td>TS</td>
</tr>
<tr>
<td>200</td>
<td>244196.04</td>
<td>209410.02</td>
<td>878.83</td>
<td>878.80</td>
<td>TS</td>
</tr>
<tr>
<td>201</td>
<td>244197.04</td>
<td>209410.02</td>
<td>878.83</td>
<td>878.80</td>
<td>TS</td>
</tr>
<tr>
<td>202</td>
<td>244198.04</td>
<td>209410.02</td>
<td>878.83</td>
<td>878.80</td>
<td>TS</td>
</tr>
<tr>
<td>203</td>
<td>244199.04</td>
<td>209410.02</td>
<td>878.83</td>
<td>878.80</td>
<td>TS</td>
</tr>
<tr>
<td>204</td>
<td>244200.04</td>
<td>209410.02</td>
<td>878.83</td>
<td>878.80</td>
<td>TS</td>
</tr>
</tbody>
</table>

ARKANSAS STREET
RAMPS DETAILS

MUNICIPAL SERVICES AND OPERATIONS
CITY OF LAWRENCE, KANSAS

Legend:
- **Ramp**
- **Transition**
- **Turning Space**
- **Level Landing**
- **Special Shaping**
- Concrete Sidewalk (4")
- Concrete Pavement (6", Reinf., 5k)
- 2" Mill & Overlay
INTEGRAL SIDEWALK CURB

CONCRETE CURB DESIGN V

<table>
<thead>
<tr>
<th>Curb Height</th>
<th>Curb Slope</th>
</tr>
</thead>
<tbody>
<tr>
<td>1&quot;</td>
<td>1&quot;</td>
</tr>
<tr>
<td>2&quot; x 2&quot;</td>
<td>2&quot; x 2&quot;</td>
</tr>
</tbody>
</table>

INTEGRAL SIDEWALK AND RETAINING WALL

NOTES:
- ALL CURB AND RETAINING WALLS SHALL BE CONCRETE CURB.
- MILLPLATE PANELS SHALL BE PLACED OUTSIDE THE CURB AND WALL IN THE MANNER SHOWN.
- CURB AND WALL CONSTRUCTION SHALL BE IN ACCORDANCE WITH THE SITE CONDITIONS.
- ALL CURB AND RETAINING WALLS SHALL BE 4" HIGH AND 8" WIDE.
- CURB AND WALL CONSTRUCTION SHALL BE IN ACCORDANCE WITH THE SITE CONDITIONS.
- CURB AND WALL CONSTRUCTION SHALL BE IN ACCORDANCE WITH THE SITE CONDITIONS.
- CURB AND WALL CONSTRUCTION SHALL BE IN ACCORDANCE WITH THE SITE CONDITIONS.
- CURB AND WALL CONSTRUCTION SHALL BE IN ACCORDANCE WITH THE SITE CONDITIONS.
- CURB AND WALL CONSTRUCTION SHALL BE IN ACCORDANCE WITH THE SITE CONDITIONS.
- CURB AND WALL CONSTRUCTION SHALL BE IN ACCORDANCE WITH THE SITE CONDITIONS.
- CURB AND WALL CONSTRUCTION SHALL BE IN ACCORDANCE WITH THE SITE CONDITIONS.
- CURB AND WALL CONSTRUCTION SHALL BE IN ACCORDANCE WITH THE SITE CONDITIONS.
- CURB AND WALL CONSTRUCTION SHALL BE IN ACCORDANCE WITH THE SITE CONDITIONS.
- CURB AND WALL CONSTRUCTION SHALL BE IN ACCORDANCE WITH THE SITE CONDITIONS.
- CURB AND WALL CONSTRUCTION SHALL BE IN ACCORDANCE WITH THE SITE CONDITIONS.
- CURB AND WALL CONSTRUCTION SHALL BE IN ACCORDANCE WITH THE SITE CONDITIONS.
- CURB AND WALL CONSTRUCTION SHALL BE IN ACCORDANCE WITH THE SITE CONDITIONS.
- CURB AND WALL CONSTRUCTION SHALL BE IN ACCORDANCE WITH THE SITE CONDITIONS.
- CURB AND WALL CONSTRUCTION SHALL BE IN ACCORDANCE WITH THE SITE CONDITIONS.
- CURB AND WALL CONSTRUCTION SHALL BE IN ACCORDANCE WITH THE SITE CONDITIONS.
- CURB AND WALL CONSTRUCTION SHALL BE IN ACCORDANCE WITH THE SITE CONDITIONS.
- CURB AND WALL CONSTRUCTION SHALL BE IN ACCORDANCE WITH THE SITE CONDITIONS.
- CURB AND WALL CONSTRUCTION SHALL BE IN ACCORDANCE WITH THE SITE CONDITIONS.
- CURB AND WALL CONSTRUCTION SHALL BE IN ACCORDANCE WITH THE SITE CONDITIONS.
- CURB AND WALL CONSTRUCTION SHALL BE IN ACCORDANCE WITH THE SITE CONDITIONS.
- CURB AND WALL CONSTRUCTION SHALL BE IN ACCORDANCE WITH THE SITE CONDITIONS.
- CURB AND WALL CONSTRUCTION SHALL BE IN ACCORDANCE WITH THE SITE CONDITIONS.
- CURB AND WALL CONSTRUCTION SHALL BE IN ACCORDANCE WITH THE SITE CONDITIONS.
- CURB AND WALL CONSTRUCTION SHALL BE IN ACCORDANCE WITH THE SITE CONDITIONS.
- CURB AND WALL CONSTRUCTION SHALL BE IN ACCORDANCE WITH THE SITE CONDITIONS.
- CURB AND WALL CONSTRUCTION SHALL BE IN ACCORDANCE WITH THE SITE CONDITIONS.
- CURB AND WALL CONSTRUCTION SHALL BE IN ACCORDANCE WITH THE SITE CONDITIONS.
- CURB AND WALL CONSTRUCTION SHALL BE IN ACCORDANCE WITH THE SITE CONDITIONS.
- CURB AND WALL CONSTRUCTION SHALL BE IN ACCORDANCE WITH THE SITE CONDITIONS.
- CURB AND WALL CONSTRUCTION SHALL BE IN ACCORDANCE WITH THE SITE CONDITIONS.
- CURB AND WALL CONSTRUCTION SHALL BE IN ACCORDANCE WITH THE SITE CONDITIONS.
- CURB AND WALL CONSTRUCTION SHALL BE IN ACCORDANCE WITH THE SITE CONDITIONS.
- CURB AND WALL CONSTRUCTION SHALL BE IN ACCORDANCE WITH THE SITE CONDITIONS.
- CURB AND WALL CONSTRUCTION SHALL BE IN ACCORDANCE WITH THE SITE CONDITIONS.
- CURB AND WALL CONSTRUCTION SHALL BE IN ACCORDANCE WITH THE SITE CONDITIONS.
- CURB AND WALL CONSTRUCTION SHALL BE IN ACCORDANCE WITH THE SITE CONDITIONS.
- CURB AND WALL CONSTRUCTION SHALL BE IN ACCORDANCE WITH THE SITE CONDITIONS.
- CURB AND WALL CONSTRUCTION SHALL BE IN ACCORDANCE WITH THE SITE CONDITIONS.
- CURB AND WALL CONSTRUCTION SHALL BE IN ACCORDANCE WITH THE SITE CONDITIONS.
- CURB AND WALL CONSTRUCTION SHALL BE IN ACCORDANCE WITH THE SITE CONDITIONS.
- CURB AND WALL CONSTRUCTION SHALL BE IN ACCORDANCE WITH THE SITE CONDITIONS.
- CURB AND WALL CONSTRUCTION SHALL BE IN ACCORDANCE WITH THE SITE CONDITIONS.
- CURB AND WALL CONSTRUCTION SHALL BE IN ACCORDANCE WITH THE SITE CONDITIONS.
- CURB AND WALL CONSTRUCTION SHALL BE IN ACCORDANCE WITH THE SITE CONDITIONS.
- CURB AND WALL CONSTRUCTION SHALL BE IN ACCORDANCE WITH THE SITE CONDITIONS.
- CURB AND WALL CONSTRUCTION SHALL BE IN ACCORDANCE WITH THE SITE CONDITIONS.
- CURB AND WALL CONSTRUCTION SHALL BE IN ACCORDANCE WITH THE SITE CONDITIONS.
- CURB AND WALL CONSTRUCTION SHALL BE IN ACCORDANCE WITH THE SITE CONDITIONS.
- CURB AND WALL CONSTRUCTION SHALL BE IN ACCORDANCE WITH THE SITE CONDITIONS.
Curb and Gutter General Notes

1. Type C-2 or C-2-D dry roll back curb and gutter may be used only on residential streets. Curb cuts for driveways are not required with roll back curb and gutter.
2. Install joints in accordance with standard specifications.
3. Concrete shall conform to standard specifications, section 2000.
4. Asphaltic concrete surface course shall conform to standard specifications, section 1300.
5. Paving removal and replacement beyond the limits of curb and gutter removal is at the contractor’s option and cost.
6. Refer to the “Concrete Sidewalk Access Ramps” detail for curb and gutter through access ramp detail.

Straight Curb (Type C-1)

Straight Back Curb and Gutter (Type C-2-1)

Roll Back Curb and Gutter (Type C-2)

Roll Back Curb and Gutter (Type C-2-2, Dry)

Curb Replacement Detail

Curb and Gutter Through Driveways (Type C-2-3)
Temporary Traffic Control Notes:

Contractor will need to apply for Class 3 Right-of-Way Permit and Temporary Traffic Control Permit.

Temporary Traffic Control devices shall only be placed where construction is actively working.

- Type II Barricade(s)
- Sidewalk Closure Barricade/Sign
- Channelizer
- Construction Sign

- Type III Barricade(s)
Temporary Traffic Control Notes:
Contractor will need to apply for Class 3 Right-of-Way Permit and Temporary Traffic Control Permit.
Temporary Traffic Control devices shall only be placed where construction is actively working.

WISCONSIN STREET

ROAD CLOSED
W20-3 (36"x36")
ROAD WORK AHEAD
W20-1 (36"x36")
ROAD CLOSED AHEAD THRU TRAFFIC TO R11-4 (On Type III Barricade (Winged))
SIDEWALK CLOSED AHEAD R9-11 (12"x24") on Type II Barricade
SIDEWALK CLOSED AHEAD R9-11 (12"x24") on Type II Barricade
SIDEWALK CLOSED AHEAD R9-11 (12"x24") on Type II Barricade
SIDWALK CLOSED AHEAD R9-11 (12"x24") on Type II Barricade
SIDEWALK CLOSED AHEAD R9-11 (12"x24") on Type II Barricade
SIDEWALK CLOSED AHEAD R9-11 (12"x24") on Type II Barricade
SIDEWALK CLOSED AHEAD R9-11 (12"x24") on Type II Barricade
SIDEWALK CLOSED AHEAD R9-11 (12"x24") on Type II Barricade
SIDEWALK CLOSED AHEAD R9-11 (12"x24") on Type II Barricade
SIDEWALK CLOSED AHEAD R9-11 (12"x24") on Type II Barricade

LEGEND
- Sidewalk Closure Barricade/Sign
- Channelizer
- Construction Sign
- Type II Barricade(s)
- Type III Barricade(s)
Arkansas Street (W. 8th St. to W. 7th St.)

Temporary Traffic Control Notes:
Contractor will need to apply for Class 3 Right-of-Way Permit and Temporary Traffic Control Permit.
Temporary Traffic Control devices shall only be placed where construction is actively working.
Temporary Traffic Control Notes:
Contractor will need to apply for Class 3 Right-of-Way Permit and Temporary Traffic Control Permit.
Temporary Traffic Control devices shall only be placed where construction is actively working.

Channelizers

LEGEND

Type II Barricade(s)
Sidewalk Closure Barricade/Sign
Channelizer
Construction Sign

Type III Barricade(s)

ROAD WORK AHEAD
W20-1 (36"x36")

SIDEWALK CLOSED
R9-11 (12"x24") on Type II Barricade

SIDEWALK CLOSED
R9-9 (12"x24") on Type II Barricade

SIDEWALK CLOSED
R9-11 (12"x24") on Type II Barricade

SIDEWALK CLOSED
R9-9 (12"x24") on Type II Barricade

SIDEWALK CLOSED
R9-11 (12"x24") on Type II Barricade

ROAD CLOSED
R11-2 on Type III Barricade (48"x30")

ROAD WORK AHEAD
W20-1 (36"x36")

Photograph of the site showing temporary traffic control devices, including channelizers, barricades, and signs indicating road and sidewalk closures. The diagram highlights specific locations along E. 10th Street from Rhode Island St. to Connecticut St. where temporary traffic measures are in place.
TEMPORARY TRAFFIC CONTROL
WEST 11TH STREET

Temporary Traffic Control Notes:
Contractor will need to apply for Class 3 Right-of-Way Permit and Temporary Traffic Control Permit.
Temporary Traffic Control devices shall only be placed where construction is actively working.

SIDEWALK CLOSED R9-9
(12"x24") on Type II Barricade

SIDEWALK CLOSED AHEAD
R9-11
(12"x24") on Type II Barricade

ROAD WORK AHEAD
W20-1
(36"x36")

LEGEND
- Sidewalk Closure Barricade
- Channelizer
- Construction Sign

Type II Barricade(s)
Sidewalk Closure Barricade/Sign
Channelizer

Type III Barricade(s)
W 12th St.
Tennessee St.
Kentucky St.

TEMPORARY TRAFFIC CONTROL

WEST 12TH STREET

Channelizers
Temporary Traffic Control Notes:
Contractor will need to apply for Class 3 Right-of-Way Permit and Temporary Traffic Control Permit.
Temporary Traffic Control devices shall only be placed where construction is actively working.

LEGEND
Type II Barricade(s)
Sidewalk Closure Barricade/Sign
Channelizer
Construction Sign

Type III Barricade(s)
SIDEWALK CLOSED
R9-9 (12"x24")
on Type II barricade

SIDEWALK CLOSED
R9-9 (12"x24")
on Type II barricade

ROAD WORK AHEAD
W12-1 (36"x36")

SIDEWALK CLOSED AHEAD
R9-11 (12"x24")
on Type II barricade

ROAD CLOSED
R11-2 on Type III barricade (48"x30")

ROAD WORK AHEAD
W20-1
TEMPORARY TRAFFIC CONTROL
EAST 19TH STREET

Temporary Traffic Control Notes:
- Contractor will need to apply for Class 3 Right-of-Way Permit and Temporary Traffic Control Permit.
- Temporary Traffic Control devices shall only be placed where Contractor is actively working.

LEGEND
- Sidewalk Closure Barricade
- Channelizer
- Construction Sign

Type II Barricade(s)
- SIDEWALK CLOSED
- R9-9 (12"x24") on Type II Barricade

Type III Barricade(s)
- SIDEWALK CLOSED
- R9-9 (12"x24") on Type II Barricade

Note: E. 19th Street (New Hampshire St. to Rhode Island St.) (See Sheet No. 18)
TEMPORARY TRAFFIC CONTROL
HARPER STREET

Temporary Traffic Control Notes:
- Contractor will need to apply for Class 3 Right-of-Way Permit and Temporary Traffic Control Permit.
- Temporary Traffic Control devices shall only be placed where construction is actively working.

LEGEND
- Sidewalk Closure Barricade/Sign
- Channelizer
- Construction Sign
- Type II Barricade(s)
- Type III Barricade(s)

Temporary Traffic Control:
- SIDEWALK CLOSED
- R9-9 (12"x24") on Type II Barricade
- SIDEWALK CLOSED AHEAD
- R9-11 (12"x24") on Type II Barricade
- ROAD CLOSED
- R11-2 on Type III Barricade (48"x30")
- ROAD CLOSED THRU TRAFFIC TO R11-4 (On Type III Barricade (Winged))
- ROAD WORK AHEAD
- W20-1 (36"x36")
1) Design Speed: Those items delegated to temporary traffic control should be designed and installed using the posted/legal speed of the roadway prior to work starting.

2) Minimum Lane Width: Lane widths shall be a minimum of 11' (measured between centerlines of pavement markings) or as shown on the plans, or as directed by the engineer. A lane width less than 11' may require restricted roadway width signing.

3) Consideration should be made to separate pedestrian and, if needed, bicycle movements from both work site activity and vehicular traffic. Unless a reasonable safe route that does not involve crossing the roadway can be provided, pedestrians should be appropriately directed with advance signing that encourages them to cross to the opposite side of the roadway. In urban and suburban areas with high vehicular traffic volumes, these signs should be placed at intersections (rather than midblock locations) so that pedestrians are not confronted with midblock work sites that will induce them to attempt skirting the work site or making a midblock crossing.

4) When existing pedestrian facilities are disrupted, closed, or relocated, the temporary facilities shall be detectable and include accessibility features consistent with the features present in the existing pedestrian facility.

5) When the driving surface open to traffic is milled or is a temporary surface made of loose material, or when directed by the engineer a WB-15 (Grooved Pavement) or WB-75 (Loose Gravel) sign shall be used on mainline approaches. This sign should be placed a "C" distance after the WB-1 (Road Work Ahead) sign. A WB-15 motorcycle plaque shall be used to supplement the WB-15 or WB-75 signs. All signs shall be displayed as long as the condition is present.

6) Alternative temporary rumble strip options may be available. Please contact the Temporary Traffic Control Unit for more information at 785-296-1179 or 785-296-1183.

![Diagram of traffic control components]

**TYPICAL WORK ZONE COMPONENTS**

- When concrete barrier system is used, portable channelizing devices are not needed along the barrier section.

<table>
<thead>
<tr>
<th>Minimum advance warning sign spacing (in feet):</th>
</tr>
</thead>
<tbody>
<tr>
<td>SPEED (MPH)</td>
</tr>
<tr>
<td>URBAN (40 MPH OR LOWER)</td>
</tr>
<tr>
<td>URBAN (45 MPH OR HIGHER)</td>
</tr>
<tr>
<td>RURAL (55 MPH OR LOWER)</td>
</tr>
<tr>
<td>RURAL (60 MPH OR HIGHER)</td>
</tr>
<tr>
<td>EXPRESSWAY/FREeway</td>
</tr>
</tbody>
</table>

- Posted speed prior to work starting
  - The minimum spacing between signs shall be no less than 100', unless directed by the engineer.
  - The spacing between any signs may be increased beyond the minimum values in the table above as approved by the engineer in order to maximize visibility.

- Taper Formulas:
  - \[ L = \text{WS} \text{ for speeds of } 45 \text{ MPH or more} \]
  - \[ L = \text{WS}/2 \text{ for speeds of } 40 \text{ MPH or less} \]
  - \[ S = \text{Numerical value of posted speed prior to work starting in MPH} \]
  - \[ W = \text{Width in offset feet} \]

- Shifting Taper=1/2 L, Shoulder Taper=1/3 L

Channelizer Placement:
1. The spacing between devices in transition area (taper) should not exceed a distance in feet equal to 1/2 the posted speed limit in mph prior to work starting.
2. The spacing between devices in the advanced warning area and the activity area should not exceed a distance in feet equal to two times the posted speed limit in mph prior to work starting.
3. Channelizing devices shall be placed for optimum visibility, normally at right angles to the traffic flow.
4. Place directional indicator barricades in series to direct traffic onto the new path. The arrow sign should not be visible to opposing traffic.
5. Alternating diagonal orange and white striping must slope downward in the direction traffic is expected to pass.

<table>
<thead>
<tr>
<th>Buffer Space</th>
</tr>
</thead>
<tbody>
<tr>
<td>SPEED (MPH)</td>
</tr>
<tr>
<td>LENGTH (ft)</td>
</tr>
</tbody>
</table>

- Posted speed prior to work starting
  - Neither work activity nor storage of equipment, vehicles, or material should occur in the buffer space. When a protection vehicle is placed in advance of the work space, the only space upstream of the vehicle constitutes the buffer space.
  - If temporary concrete safety barrier system is used to separate approaching traffic from the work space, the barrier system shall be considered part of the activity area. A full lane width should be available throughout the length of the buffer space. See typical work zone components above.