DEFLECTION SPACE REQUIREMENTS

When Stabilizing Above Ground Hazards:

<table>
<thead>
<tr>
<th>Design Speed</th>
<th>Deflection Space</th>
</tr>
</thead>
<tbody>
<tr>
<td>45 mph or Less</td>
<td>2'</td>
</tr>
<tr>
<td>50 mph and Greater</td>
<td>4'</td>
</tr>
</tbody>
</table>

When Stabilizing Dropoffs:

<table>
<thead>
<tr>
<th>Design Speed</th>
<th>Deflection Space</th>
</tr>
</thead>
<tbody>
<tr>
<td>45 mph or Less</td>
<td>2'</td>
</tr>
<tr>
<td>50 mph and Greater</td>
<td>4'</td>
</tr>
</tbody>
</table>

When used as a Temporary Median Barrier separating opposing traffic lanes:

<table>
<thead>
<tr>
<th>Design Speed</th>
<th>Offset To Travelway</th>
</tr>
</thead>
<tbody>
<tr>
<td>45 mph or Less</td>
<td>0' inch, 2' preferred</td>
</tr>
<tr>
<td>50 mph and Greater</td>
<td>2'</td>
</tr>
</tbody>
</table>

GENERAL NOTES

1. Temporary concrete barrier walls on roadways may be any of the following:
   a. The FDOT Type K Temporary Concrete Barrier Wall (Design Standard Index No. 414).
   b. The FDOT 415 Temporary Concrete Barrier Wall unit shown on Sheets 1 and 3 of this index. If manufactured prior to October 1, 2002, in good condition, and interlocked in accordance with the index, units may be either F-Shape or New Jersey Shape. The FDOT 415 and shown in this index is the design provided in Index No. 415. In prior editions of the Design Standards, see "NOTICE" below. Since units produced after October 1, 2002 cannot be used, complete fabrication details are omitted in this edition of the Design Standards.
   c. Temporary concrete barrier wall systems meeting NCHRP 350 Test Level 3 criteria and included on the Qualified Products List. Units may be either F-Shape or New Jersey Shape unless otherwise noted in the plans.

For temporary concrete barrier walls on bridges see Design Standard Index No. 414.

2. The FDOT 415 units with the optional end connections shown in this index may be interconnected within a run of wall. However, interconnecting units with different shapes (F-Shape, New Jersey Shape) and units with different interconnections (F-Shape, Type K) or interconnections within a continuous run of wall is not permitted. See Sheets 6 through 8 for required treatment for continuation of run of barrier with different shapes or dissimilar connectors.

3. Alignment, length of need, spooling and end treatment shall be in accordance with this index.

4. Wall units shall not be used for permanent barrier wall construction regardless of unit length, unless specifically permitted by the plans.

5. If the plans specify Barrier Wall (Type K) substitution with other barrier types is not permitted.

6. If the plans specify temporary concrete barrier wall, substitution with water filled barriers is not permitted.

7. Type C Steady-Burn Lights are to be mounted on top of temporary concrete barrier walls that are used as barriers along traveled ways in work zones. The lights are to be spaced at 50 feet center to center in each lane and 100 feet centers on cross slopes and 200 feet centers on tangent roadways. For additional information refer to Index 600.

8. Wall units used for work zone traffic control and other temporary applications shall be paid for under the contract unit price for Traffic Control Structures, Item 14.9. For work zone traffic control, the contract unit price for Traffic Control Structures, Item 14.9. Steady-Burn units shall be paid for under the contract unit price for Temporary, Barrier Wall Mount (Type C, Steady-Burn), ED.
The approach departure line location is determined by the line intersect with the back of the hazard or the area to be shielded, however the intersect offset distance is not to be beyond the clear zone limit. The trailing departure line is determined by the line intersect with the front of the downstream end of the hazard or the area to be shielded.

The length of barrier wall need is the distance from the approach departure line intersect with the upstream toe of the temporary concrete barrier wall to the trailing departure line intersect with the downstream toe of the temporary concrete barrier wall.

Where temporary concrete barrier wall end units are not anchored, two and one-half (2 1/2) wall units (min.) are required beyond the length of barrier need for wall end anchorage. Temporary concrete barrier wall end units shall be located at or outside the clear zone or shielded by other structure, earth embankment or a crash cushion.

Proprietary redirective crash cushions designed for use with temporary concrete barriers have the length of need and departure line intersect point indicated on the respective QPL drawing for each proprietary crash cushion. Where redirective crash cushions are located on the departure line by their length of need reference point, the wall upstream end unit shall be aligned with the crash cushion, and the wall's end unit secured with the anchor plates shown on Sheet 4 of this index. See Sheets 5 through 8 for configurations requiring end wall anchorage.

The wall offset from the near traffic lane, wall flare rate and wall flare length are to be in conformance with the alignment called for in the plans and the alignments called for by Department Design Standards specified in the plans. In absence of either plan requirement, the offset shall be as determined by the Engineer, and, unless other flare rates are approved by the Engineer the flare rates to be applied are 1:10 or flatter for speeds ≤ 45 mph and 1:15 or flatter for speeds > 45 mph; see Index No. 642 for other flare rates on freeway facilities.

The surface cross slope approaching the barrier wall and continuing across the required deflection space shall not exceed a rate of 1 vertical : 10 horizontal.

**ALIGNMENT AND LENGTH OF NEED**
Temporary crash cushions can be either new or functionally sound used devices. Performance of intended function is the only condition for acceptance, whether the crash cushion is new, used, refurbished, purchased, leased, rented, on loan, shared between projects, or made up of mixed new and used components.

5. Optional temporary redirective crash cushions are to be paid for per location under the contract unit price for Vehicular Impact Attenuator (Temporary) (Redirective Option), LO.

2. Temporary redirective crash cushions shall be installed in accordance with the manufacturer's specifications and recommendations.

4. A yellow post mounted Type 1 Object Marker shall be centered 3' in front of the nose of all temporary crash cushions. Mounting hardware shall be in accordance with Index Nos. 11860 and 11865. The cost of the Object Marker shall be included in the cost of the crash cushion.

3. Inertial crash cushions are not optional systems for locations designated for redirective crash cushions by the plans; cannot be substituted for redirective crash cushions, and are not eligible for VECP consideration.

NOTES FOR WALL END SHIELDING

1. Redirective crash cushions are the principal (standard) device to be used for shielding approach ends of temporary concrete barrier walls. Except where the plans designate a particular type of redirective crash cushion for a specific location, the contractor has the option to construct either the REACT 350, QuadGuard, TRACC, or TAU-35 crash cushions subject to the uses and limitations described on their respective drawings on the Qualified Products List. The barrier wall end unit must be anchored to a paved surface using anchor plates in accordance with “Anchor Plate Notes” and the details on this sheet.

2. Temporary redirective crash cushions shall be installed in accordance with the manufacturer’s specifications and recommendations. Temporary crash cushions can be either new or functionally sound used devices. Performance of intended function is the only condition for acceptance, whether the crash cushion is new, used, refurbished, purchased, leased, rented, on loan, shared between projects, or made up of mixed new and used components.

3. Inertial crash cushions are not optional systems for locations designated for redirective crash cushions by the plans; can not be substituted for redirective crash cushions, and are not eligible for VECP consideration.

4. A yellow post mounted Type 1 Object Marker shall be centered 3' in front of the nose of all temporary crash cushions. Mounting hardware shall be in accordance with Index Nos. 11860 and 11865. The cost of the Object Marker shall be included in the cost of the crash cushion.

5. Optional temporary redirective crash cushions are to be paid for per location under the contract unit price for Vehicular Impact Attenuator (Temporary) (Redirective Option), LO.

ANCHOR PLATE REQUIREMENTS FOR BARRIER WALL END UNITS ABUTTING CRASH CUSHIONS

1. For temporary barrier wall end units requiring anchor plates, see sheets 5 through 8.

2. The temporary concrete barrier wall end plate depicted above is a proprietary design by Energy Absorption Systems, Inc. Other temporary anchorage methods can be substituted when wall rigidity is assured by any of the following:

   (a) proven by established crash test of redirective crash cushions, or
   (b) meet anchorage prescribed in 'A Guide To Standardized Highway Barrier Hardware', or
   (c) crash cushion manufacturer's engineered design, or
   (d) approved shop drawings on a case by case basis.

3. The cost for anchoring the wall segment will be included in the cost for the adjoining redirective crash cushion.

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ANCHOR PLATE BOLTS

**SURFACE ANCHORAGE REQUIREMENTS**

**ANCHOR PLATE NOTES**

1. Redirective crash cushions are the principal (standard) device to be used for shielding approach ends of temporary concrete barrier walls. Except where the plans designate a particular type of redirective crash cushion for a specific location, the contractor has the option to construct either the REACT 350, QuadGuard, TRACC, or TAU-35 crash cushions subject to the uses and limitations described on their respective drawings on the Qualified Products List. The barrier wall end unit must be anchored to a paved surface using anchor plates in accordance with “Anchor Plate Notes” and the details on this sheet.

2. Temporary redirective crash cushions shall be installed in accordance with the manufacturer’s specifications and recommendations. Temporary crash cushions can be either new or functionally sound used devices. Performance of intended function is the only condition for acceptance, whether the crash cushion is new, used, refurbished, purchased, leased, rented, on loan, shared between projects, or made up of mixed new and used components.

3. Inertial crash cushions are not optional systems for locations designated for redirective crash cushions by the plans; can not be substituted for redirective crash cushions, and are not eligible for VECP consideration.

4. A yellow post mounted Type 1 Object Marker shall be centered 3' in front of the nose of all temporary crash cushions. Mounting hardware shall be in accordance with Index Nos. 11860 and 11865. The cost of the Object Marker shall be included in the cost of the crash cushion.

5. Optional temporary redirective crash cushions are to be paid for per location under the contract unit price for Vehicular Impact Attenuator (Temporary) (Redirective Option), LO.
SHOULDER BARRIER ON UNDIVIDED FACILITIES

SHOULDER BARRIER ON DIVIDED FACILITIES

INTERIOR MEDIAN BARRIER

CONTINUATION OF RUNS OF BARRIER WITH DISSIMILAR CONNECTORS

Note: Schemes on this sheet based on 12' units. See sheet Nos. 7 & 8 for bridge applications with barrier type K.
DEPARTURE (TRAILING) SHOULDER BARRIER ON UNDIVIDED FACILITIES

CONTINUATION OF BARRIER • FROM BARRIER TYPE K TO OTHER TYPE BARRIERS

BARRIER TYPE K ON BRIDGES AND APPROACH SLABS
Temporary Barrier Wall

Bidirectional - Separated Traffic

Temporary Barrier Wall

Unidirectional - Separated Traffic

Two-way traffic with crash cushion located outside opposing lane clear zone or one-way traffic shoulder - right or left (right side shown)

Temporary Barrier Wall

QuadGuard Redirective Crash Cushion

Flare Varies:
1:10 Or Flatter For ≤ 45 mph
1:15 Or Flatter For 50-70 mph

W-Shaped Transition

Special End Shoe (When Flared Steel Transition Called For)

Two-way traffic with crash cushion located within opposing lane clear zone

Wall end treatment when shielded by a QuadGuard crash cushion

Temporary Concrete Barrier Wall Segment

With Approach Corners Beveled 45°

Flare Varies:
1:10 Or Flatter For ≤ 45 mph
1:15 Or Flatter For 50-70 mph

REACT 350 Redirective Crash Cushion (Length Varies)

Flare Varies:
1:10 Or Flatter For ≤ 45 mph
1:15 Or Flatter For 50-70 mph

Flared Steel Or Dual W-Beam Transition

Special End Shoe (When Flared Steel Transition Called For)

WALL END TREATMENT WHEN SHIELDED BY A TRACC CRASH CUSHION

NOTES

1. For alignment and length of need see Sheets 2 and 5 through 8.
2. Anchor plates required only on units abutting crash cushions.
3. For crash cushion details see drawings posted on the Qualified Products List at "544 Vehicle Impact Attenuators".

Shielding wall ends with redirective crash cushions (Redirective Option)

(Continuation on Sheet 10)
Temporary Barrier Wall

BIDIRECTIONAL - SEPARATED TRAFFIC

Temporary Barrier Wall

UNIDIRECTIONAL - SEPARATED TRAFFIC

Temporary Barrier Wall

TWO-WAY TRAFFIC WITH CRASH CUSHION LOCATED OUTSIDE OPPOSING LANE CLEAR ZONE OR ONE-WAY TRAFFIC

Flare Varies:
1:10 or Flatter For 45 mph
1:15 or Flatter For 50-70 mph

TWO-WAY TRAFFIC WITH CRASH CUSHION LOCATED WITHIN OPPOSING LANE CLEAR ZONE

NOTES

1. For alignment and length of need see Sheets 2 and 5 through 8.
2. Anchor plates required only on units abutting crash cushions.
3. For crash cushion details see drawings posted on the Qualified Products List.

WALL END TREATMENT WHEN SHIELDED BY TAU II CRASH CUSHION

SHIELDING WALL ENDS WITH REDIRECTIVE CRASH CUSHIONS (REDIRECTIVE OPTION)