**FOOT 415 TEMPORARY CONCRETE BARRIER WALL UNIT AND GENERAL NOTES**

**When Shielding 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&quot;</td>
</tr>
<tr>
<td>50 mph and Greater</td>
<td>4&quot;</td>
</tr>
</tbody>
</table>

**When Shielding Dropoffs:**

<table>
<thead>
<tr>
<th>Design Speed</th>
<th>Deflection Space</th>
</tr>
</thead>
<tbody>
<tr>
<td>45 mph or Less</td>
<td>2&quot;</td>
</tr>
<tr>
<td>50 mph and Greater</td>
<td>4&quot;</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' min, 2' preferred</td>
</tr>
<tr>
<td>50 mph and Greater</td>
<td>2&quot;</td>
</tr>
</tbody>
</table>

**Note:** These deflection space requirements also apply to approved options identified in General Notes 1.

---

**DETECTION SPACE REQUIREMENTS**

---

**GENERAL NOTES**

1. Temporary Concrete Barrier walls on roadways may be any of the following:
   a. The FDOT Type K1 Temporary Concrete Barrier Wall (Design Standard Index No. 414)
   b. The FOOT 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 installed in accordance with this Index. Units may be either F-Shaped or New Jersey Shape. The FOOT 415 unit 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. For temporary concrete barrier walls on bridges see Design Standard Index No. 414.
   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.

2. The FOOT 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 dissimilar connections (415, Type K1 or other) with a continuous run of wall is not permitted. See Sheets 6 through 8 for required treatment for continuation of a run of barrier with different shapes or dissimilar connectors.

3. Alignment, length of need, anchorage 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 (Temporary) (Type K1), substitution with other barrier types is not permitted.

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

7. Type C Steady-Burn Lights are to be mounted on top of temporary concrete barriers that are used as barriers along traveled ways in work zones. The lights are to be spaced at 50' centers in transition, 100' centers on curves, and 200' 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 Barrier Wall (Temporary), L.E. Type C Steady-Burn Lights shall be paid for under the contract unit price for Lights, Temporary, Barrier Wall Mount (Steady-Burn), EU.
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 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 (2½") 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 reductive crash cushions designed for use with temporary concrete barriers have the beginning length of need and departure line intersect point indicated on the respective QFL drawing for each proprietary crash cushion. Where reductive crash cushions are located on the departure line by their length of need reference point, the wall upstream end must be aligned with the crash cushion, and the wall's end unit is secured with the anchor plates shown on Sheet 4 of this index. See Sheets 5 through 8 for configurations requiring end unit anchorage.

The offset from the near traffic lane, wall flare rate and wall flare length are to be in conformity with the alignment called for in the plans and the alignments called for by Department Design Standards specified in the plans. In absence of other 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 _ _ 50 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 Concrete Barrier**
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 crash cushion for a specific location, the contractor has the option to construct any of the redirective crash cushions listed on the Qualified Products List, subject to the uses and limitations described on their respective drawings. The barrier wall 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, or loan, shared between projects, or made up of mixed new and used components.

3. Interim crash cushions are not optional systems for locations designated for redirective crash cushions by the plans. The cost of redirective crash cushions is a part of the cost of the barrier wall unit.

4. A yellow post mounted Type 1 Object Marker shall be centered 3 in front of the nose of temporary crash cushions. Mounting hardware shall be in accordance with Index Nos. 11860 and 11863. 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, L.D.

ANCHOR PLATE REQUIREMENTS FOR BARRIER WALL END UNITS ABUTTING CRASH CUSHIONS

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

2. The temporary concrete barrier wall anchor plate depicted above is a proprietary design by Energy Absorption Systems, Inc. Other temporary anchorage methods can be substituted when weldability is assured by any of the following:
   (a) Hot by associated crash test of redirective crash cushions, or
   (b) Meet anchorage prescribed in "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.

SURFACE ANCHORAGE REQUIREMENTS

* ANCHOR PLATE BOLTS

6" Thick 4000 psi Compressive Strength PCC Pavement (Min.) or 7" Deck Structure (Min.)

FLEXIBLE PAVEMENT

5" Min. Asphalitic Concrete Over Optional Base Group I, Index No. 514, Or
6" Min. Asphalitic Concrete Over Compacted Subgrade, Or
8" Min. Asphalitic Concrete Without Compacted Subgrade

PICTORIAL VIEW
MEDIAN HAZARDS WITHIN CLEAR ZONES BOTH ROADWAYS

MEDIAN HAZARDS EXTENDS TO OR BEYOND CLEAR ZONES BOTH ROADWAYS

BARRIER WALL END UNIT ANCHORAGE

Note: Anchor Plates Required Only On End Units Abutting Crash Cushions. Schemes on this sheet based on 25' units.
45 MPH OR LESS

50 MPH OR GREATER

# Anchor Plates Required Front Side Only On Unit Absorbing Crash Cushion (See Sheet 4).

SHOULDER BARRIER ON UNDIVIDED FACILITIES

INTERIOR MEDIAN BARRIER

Note:
Schemes On This Sheet Based On 12' Units.
See Sheet Nos. 7 & 8 For Bridge Applications With Barrier Type K.

CONTINUATION OF RUNS OF BARRIER WITH DISSIMILAR CONNECTORS
45 MPH OR LESS

APPROACH SHOULDER BARRIER ON UNDIVIDED FACILITIES

50 MPH OR GREATER

APPROACH SHOULDER BARRIER ON DIVIDED FACILITIES

INTERIOR MEDIAN BARRIER

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

BARRIER TYPE K ON BRIDGES AND APPROACH SLABS
45 MPH OR LESS

50 MPH OR GREATER

* Anchor Plates Required - Front Side Only on Unit Abutting Crash Cushion (See Sheet 4).
* Overlap Reference Line

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

LEGEND

Dot Indicates Number Of Bolt Anchors Or Stakes

Note:
See Sheet No. 7 For Approach Shoulder Applications,
See Sheet No. 7 For Interior Median Applications.

TEMPORARY CONCRETE BARRIER
WALL END TREATMENT WHEN SHIELDED BY A QuadGuard CRASH CUSHION

UNIDIRECTIONAL - SEPARATED TRAFFIC

BIDIRECTIONAL - SEPARATED TRAFFIC

WALL END TREATMENT WHEN SHIELDED BY A TRACC CRASH CUSHION

UNIDIRECTIONAL - SEPARATED TRAFFIC

BIDIRECTIONAL - SEPARATED TRAFFIC

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

SHOULDER - RIGHT OR LEFT (RIGHT SIDE SHOWN)

WALL END TREATMENT WHEN SHIELDED BY TAU II 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.

SHIELDING WALL ENDS WITH REDIRECTIVE CRASH CUSHIONS (REDIRECTIVE OPTION)