**FENDER WASHERS**

**TRAFFIC SIDE**

**EACH END**

**NUT TYPICAL**

**18" INITIAL LENGTH**

**THREADER ROD**

**CONTINUOUSLY**

**TRAFFIC SIDE**

**TRAFFIC SIDE**

**SECTION WITHOUT SHIMMING**

**CONSTRUCTION SIDE**

**SECTION WITH SHIMMING**

**BOX BEAM STIFFENING OF TEMPORARY CONCRETE BARRIER**

**TOWARD TRAFFIC**

**TCB CURVING**

**PLAN VIEW**

**AWAY FROM TRAFFIC**

**TCB CURVING**

**PLAN VIEW**

**HOLE LAYOUT DETAIL**

**BOX BEAM GUIDE RAIL**

**CONSTRUCTION SIDE**

**SIDE VIEW**

**6" X 6" X ‰" BOX BEAM**

**WITH WASHERS CONNECTIONS**

**SHIM INSIDE HOLES**

**1" HOLE**

**3" HOLE**

**WITH ‰" 8" ROUND X ‰" THICK PLATE**

**SEE NOTE 11**

**HOLE**

**INSIDE CONNECTION**

**OUTSIDE CONNECTION**

**NOTE:**

1. TEMPORARY CONCRETE BARRIER (TCB) SHALL BE MADE IN ACCORDANCE WITH THE REQUIREMENTS OF THE PRECAST CONCRETE BARRIER AND STANDARD SHEET TITLED "TEMPORARY CONCRETE BARRIER - SHEET 1 OF 6" AND "TEMPORARY CONCRETE BARRIER - SHEET 2 OF 6".

2. BOX BEAM SHALL BE IN ACCORDANCE WITH THE REQUIREMENTS OF 711-01, BOX BEAM RAILING AND MEDIAN BARRIER, PAR. A. HOWEVER, THE BOX BEAM NEED NOT BE NEW.

3. THE SHIMMING SHALL CONSIST OF 8" X 1#2" ROUND PLATE, AND FENDER WASHERS AS NEEDED TO SNUG THE BOX BEAM STIFFENER TO THE TCB.

4. WHERE TEMPORARY CONCRETE BARRIERS ARE PLACED ON A RADIUS, THE RESULTING GAPS BETWEEN THE BOX BEAM AND CONCRETE BARRIER SHALL BE SHIMMED.

5. WHERE TEMPORARY CONCRETE BARRIERS ARE PLACED ON A RADIUS, THE RESULTING GAPS BETWEEN THE BOX BEAM AND CONCRETE BARRIER SHALL BE SHIMMED.

6. THE SHIMMING SHALL CONSIST OF 8" X 1#2" ROUND PLATE, AND FENDER WASHERS AS NEEDED TO SNUG THE BOX BEAM STIFFENER TO THE TCB.

7. FENDER WASHERS SHALL BE 3" NOMINAL O.D.

8. HARDWARE OTHER THAN THE BOX BEAM NEED NOT BE GALVANIZED.

9. THE PRESENCE OF NORMAL HOLES DRILLED PER THIS SHEET WILL NOT AFFECT THE REUSABILITY OF THE CONCRETE SEGMENTS.

10. Temporary concrete barrier with box beam stiffener may only be used with TCB segments 14'-0" or longer.

11. Cover threaded rod end with ½" plastic bolt cap on construction side.
NOTES:
1. The following modifications should be made to the box-beam stiffening details on Sheet 3 of 6.
   A. The edges of the plates facing the exposed side shall be ground to remove sharp edges and burrs.
   B. The edges of the box beam shall be ground to remove sharp edges and burrs.
   C. The edges of the box beam shall be covered with plastic bolt caps.
   D. The exposed side of the box beam shall be chamfered on exposed side.
2. The ends of the box beam shall be covered with plastic bolt caps.
3. For connection with the concrete barrier, see standard sheet 619-01, sheet 3 of 6.
THE BARRIER SEGMENTS. THE 6B2 AND 6B3 BARS SHALL BE 1'-0" SHORTER THAN THE NOMINAL LENGTH OF BOX BEAM 6 X 6 X ‰.

FINISHED GRADE SHELF ANGLE (TYP.) STANDARD HIGHWAY POSTS RUB RAIL 2 ' 3" 8" 1'-1" 1'-7" 6' 3'-0" 2 '-8 " 2 '-0 " 20'-0" MAX. (SHOWN) - 8'-0" MIN. HEAVY POSTS 2 '-3" 8" 1'-1" 1'-‰" T Y P. BOLTS IN TOP BEAM TO BE SNUG TIGHT. FLUSH AGAINST CONCRETE. END OF TAPER TO BE

ANCHOR HOLE (TYP.) 0" 1" 2'-0" TYP. LIFTING DEVICES, (2) MINIMUM ANCHOR HOLES AT EACH END OF 10' TO 15' EMBEDMENT LENGTH SHALL BE AS REQUIRED BY THE STANDARD SPECIFICATION SECTION 619. BOLTS THROUGH SECTION 94 MAY NOT BE RE-USED IN REGULAR BARRIERS.

NOTES:
1. THE DETAILS SHOWN ON THIS SHEET REPRESENT AN ACCEPTABLE MEANS OF TRANSFERRING FROM BOX BEAM TO TEMPORARY CONCRETE BARRIER. OTHER MEANS MAY ALSO BE ACCEPTABLE IF APPROVED BY NYSDOT ENGINEER.
2. REFER TO SHEET 606-22, SHEET 3 FOR ADDITIONAL NOTES.
3. THE SET OF AND SET OF MUST BE 1'-0" SHORTER THAN THE MINIMUM LENGTH OF THE BARRIER SEGMENTS.
4. AT A MINIMUM 1\" STUD AND ANCHOR PINS SHALL BE PLACED TO PROVIDE AT LEAST 3'-0" ANCHOR HOLES AT EACH END OF 10' TO 15' EMBEDMENT LENGTH SHALL BE AS REQUIRED BY THE STANDARD SPECIFICATION SECTION 619.
5. BOLTS THROUGH SECTION 94 MAY NOT BE RE-USED IN REGULAR BARRIERS.
1. Detail shown in this sheet represents acceptable means of transitioning from box beam to temporary concrete barrier (TCB) and back. Other means may also be acceptable as approved by the Designer.

2. Shoulder posts shall be added as needed to ensure that post spacing within 10 feet of upstream end of the TCB does not exceed 3 feet.

3. Newley installed slopes shall be the same as the slopes of the shoulders. The face of the slope shall be no steeper than a 1:3 slope unless the height is 3 feet or less, which may be installed to a 1:2.5. Both materials shall satisfy requirements in place. All beam materials shall be removed when TCB is removed and slope shall be seeded.

4. The leading top edge of the beam shall be flush with the shoulder break on a 1:2 or lower slope.

5. Box beam end may be extended up to 30 feet, at upstream end of TCB, every 5 feet, extending downstream from point of transition of box beam that are drilled for horizontal bolts shall be replaced with intact grouting when the TCB is replaced.

6. All-threads hex nuts and washers may be used in lieu of key bolts. End of bar or threaded end shall be flush with TCB.

7. At a minimum, a 10 ft long and anchor pipe shall be placed in front of box beam to provide support and replace when box beam is removed. Beam length shall be as required by the standard specifications Section 8.5.

8. If box end is not covered, see transition for horizontal bolts. See Note 6.

9. Use of steel pipe instead of concrete pipe shall be as required by the Designer.