OFFICE OF

**ROADWAY ENGINEERING** 

07-21-2023 TDS ENGINEER

D. Fisher

REVISIONS

### General:

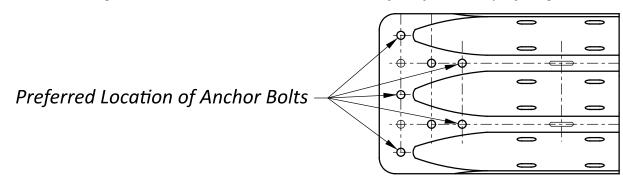
- This transition may be used once per mile with the approval of the project engineer. This can be used with traffic on both sides of the barrier, in either unidirectional or bidirectional situations.
- A minimum of 100 feet of unanchored PCB must be on each side of the transition.
- This transition is not approved to be used with the J-J Hook 32" New Jersey Shape PCB.

NOTES (Generic 32" New Jersey Shape PCB to Generic 32" F-Shape PCB

- This transition can be used to connect barrier of the same shape.
- See SCD's MGS-1.1, MGS-3.1, RM-4.2, and MT-101.80 for additional details.

#### Thrie-Beam Terminal Connector Details:

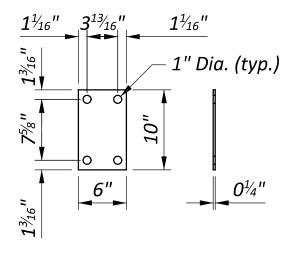
- The contractor shall adjust the location laterally of the thrie-beam terminal connector to avoid resteel in the barrier. There must be a minimum of 6" from the end of the PCB to the thrie-beam terminal connector.
- Anchor bolts shall be %" diameter through bolts conforming to ASTM A325 or A449 as detailed on SCD MGS-3.1
- If the anchor bolts can't be installed in the preferred locations, the following requirements must be met:
  - 1. A minimum of 5 anchor bolts must be installed.
  - 2. 3 anchor bolts must be installed in the outer, vertical row.
  - 3. The remaining 2 anchor bolts can be installed in any of other 2 vertical rows.
  - 4. All anchor bolts must be installed a minimum distance of 6" from the end of the PCB segment and a minimum distance of 3" from any lifting holes or other voids.



See SCD MGS-1.1 for additional Thrie-Beam Terminal Connector details.

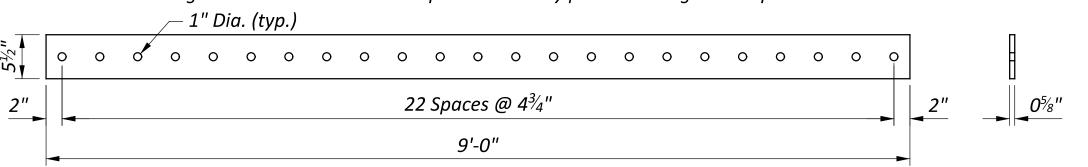
#### Thrie-Beam Terminal Connector Steel Spacer Details:

- Thrie-beam terminal connector steel spacer shall meet the specifications of CMS 711.01 and shall be galvanized after fabrication as per CMS 711.02.
- Additional thrie-beam terminal connector steel spacers can be used to adjust for varying field conditions.



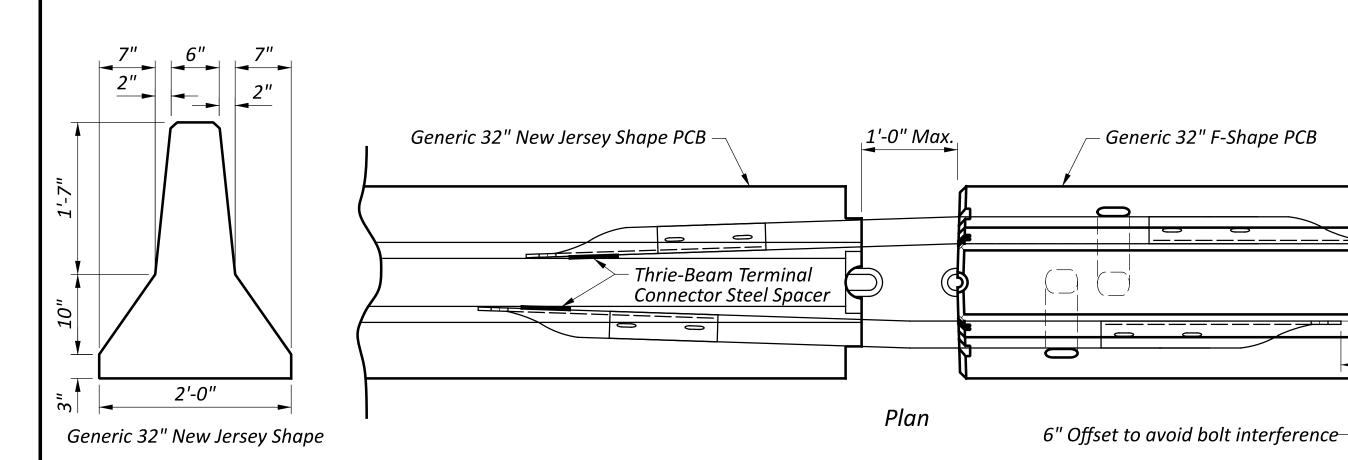
## Toe Plate Details:

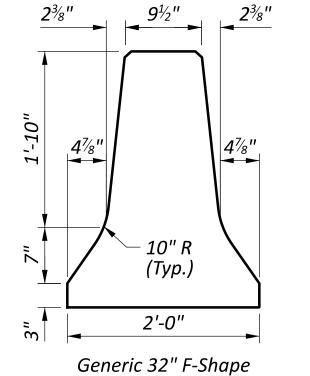
- The toe plate shall meet the specifications of CMS 711.01 and shall be galvanized after fabrication as per CMS 711.02.
- Anchor bolts shall be %" x 6" anchors conforming to CMS 712.01, or Anchors as per FF-S325, Group VIII, Type 1 with Proof Load Certification as per CMS 712.01.
- Toe Plate Anchoring Requirements
  - 1. A minimum of 4 anchor bolts must be installed on each end of the toe plate.
  - 2. Anchors may not be placed within 6" of the center of an anchor bolt pocket or within 4" of a drainage slot.
- 3. One anchor must be placed in the first hole located at a minimum of 6" away from the end of the PCB segment. If reinforcing steel in the barrier prevents installation of an anchor, a field-drilled anchor can be drilled in the toe plate a minimum of 3" longitudinally from an existing hole. Field-drilled hole shall be spray galvanized.
- 4. One anchor must be placed in the final anchor hole at the end of each toe plate. If reinforcing steel or other feature of the barrier segment prevents installation at this location, then the next closest hole to the end of the toe plate shall be used. Alternatively, the toe plate may be shifted upstream or downstream slightly to allow proper anchor bolt installation.
- 5. The remaining two anchor bolts shall be spaced as evenly possible along the toe plate.



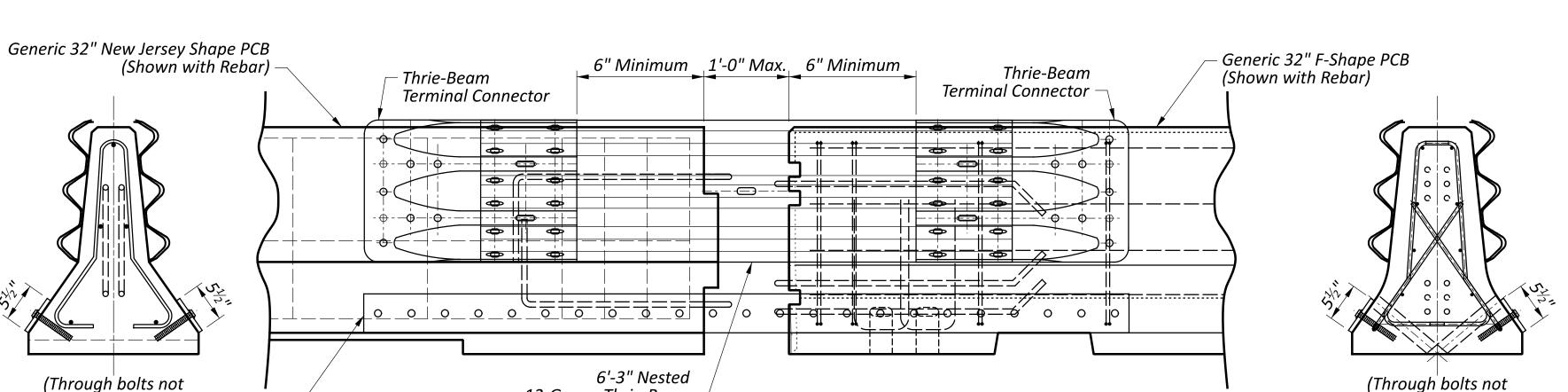
## **Payment:**

The thrie-beam transition for portable concrete barrier shall be incidental to pay Item 622 **Portable Barrier, Unanchored** and shall include all hardware, material, labor, installation, and removal.



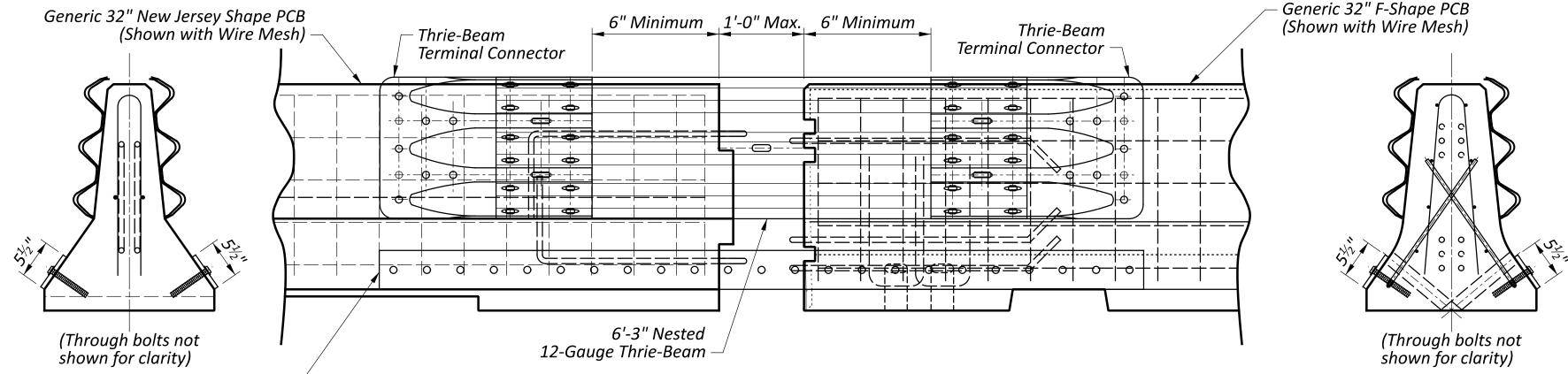


shown for clarity)



Elevation (With Reinforcing Steel)

12-Gauge Thrie-Beam —



Elevation (With Wire Mesh)

shown for clarity)

 $9' \times 5\frac{1}{2}'' \times \frac{5}{8}''$  Steel Toe Plate

9' x  $5\frac{1}{2}$ " x  $\frac{5}{8}$ " Steel Toe Plate

CD NUMBER RM-4.7 P.1 3

ESIGN AGENCY

OFFICE OF

ESIGN AGENCY

CD NUMBER RM-4.7 P.2 3

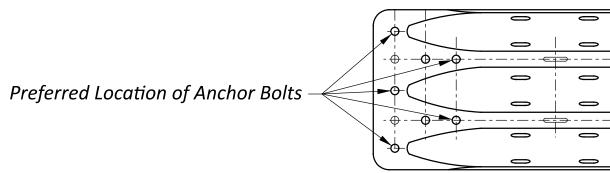


#### General:

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#### Thrie-Beam Terminal Connector Details:

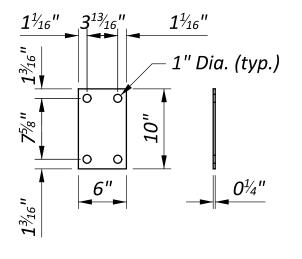
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See SCD MGS-1.1 for additional Thrie-Beam Terminal Connector details.

## Thrie-Beam Terminal Connector Steel Spacer Details:

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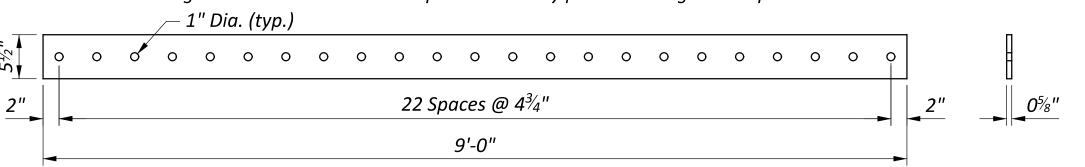




Toe Plate Details:

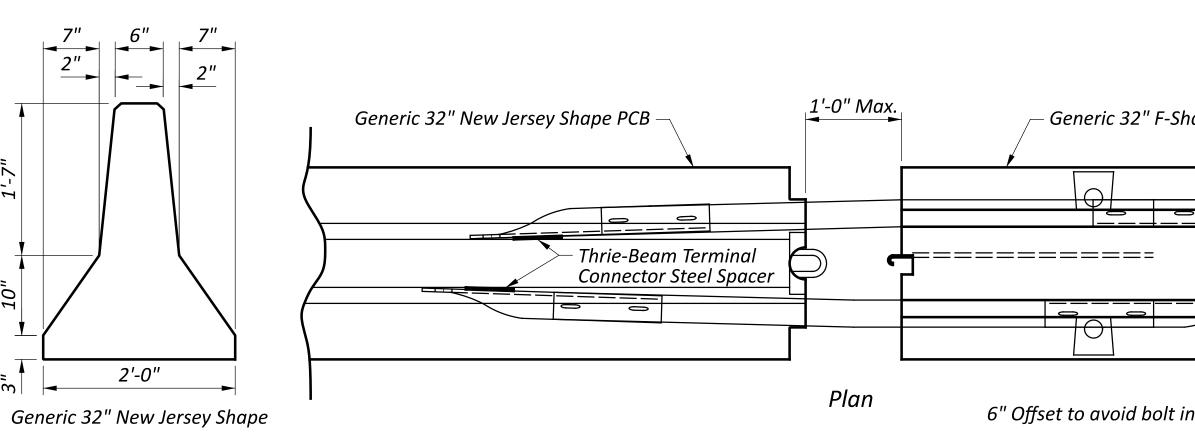
- The toe plate shall meet the specifications of CMS 711.01 and shall be galvanized after fabrication as per CMS 711.02.
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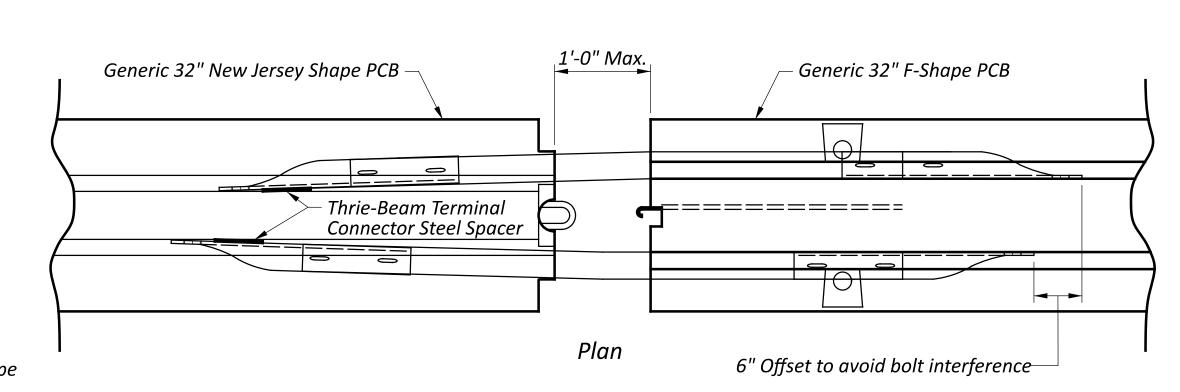
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  - of the barrier segment prevents installation at this location, then the next closest hole to the end of the toe plate shall be used. Alternatively, the toe plate may be shifted upstream or downstream slightly to allow proper anchor bolt installation.
  - 5. The remaining two anchor bolts shall be spaced as evenly possible along the toe plate.

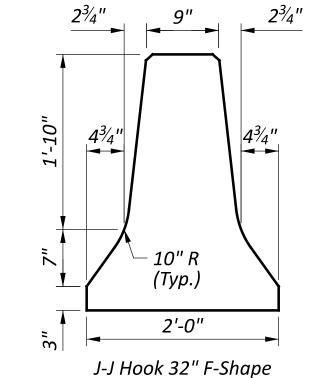


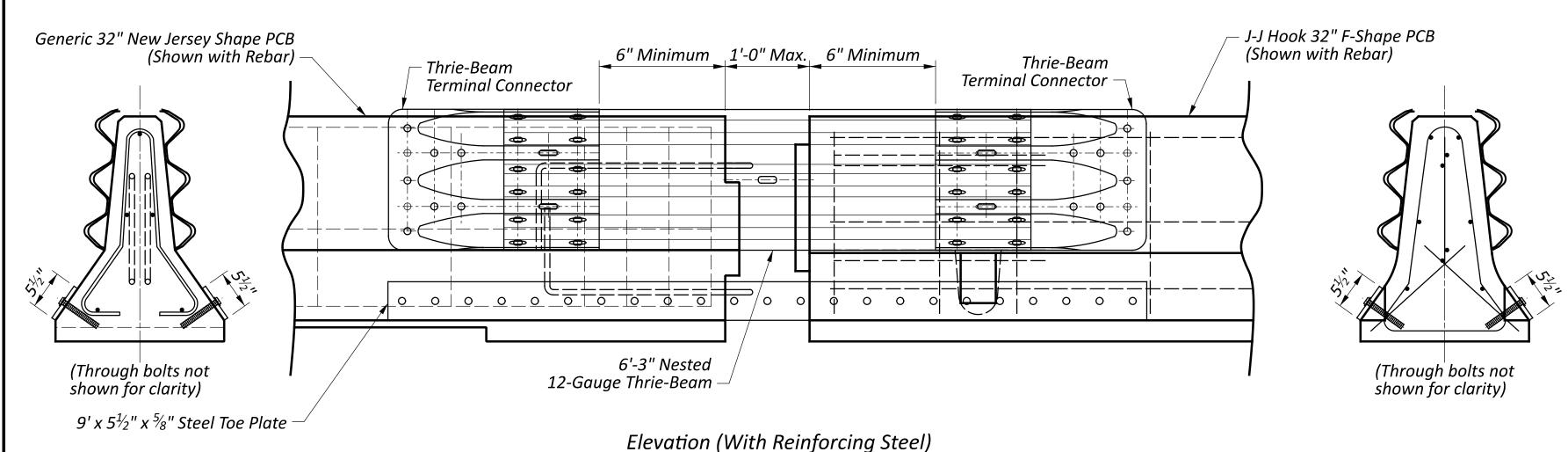
## **Payment:**

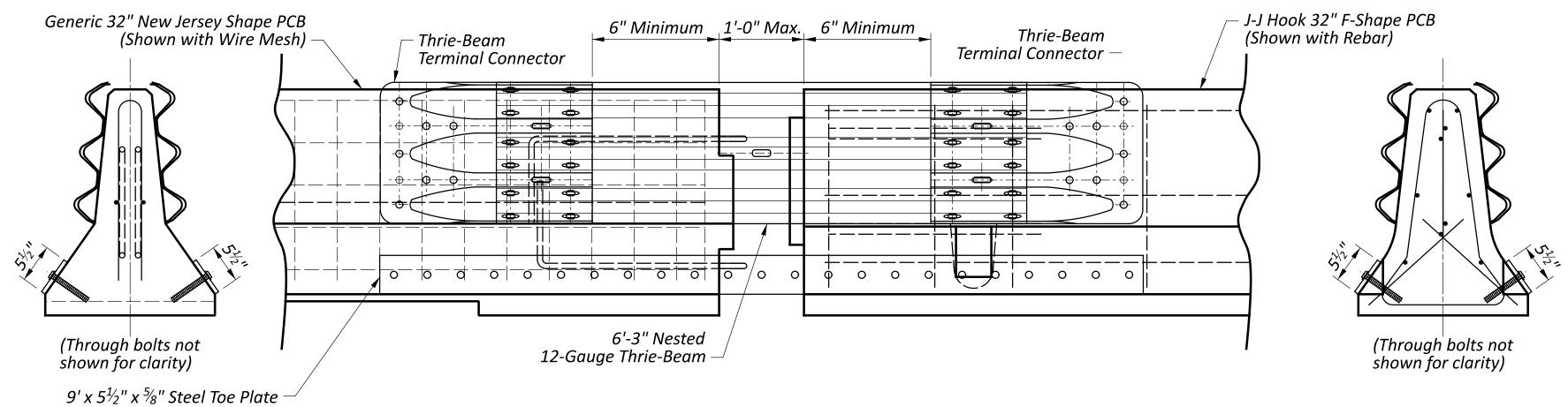
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Elevation (With Wire Mesh)

1'-0" Max.

=========

6" Offset to avoid bolt interference—

Generic 32" F-Shape PCB

(Typ.)

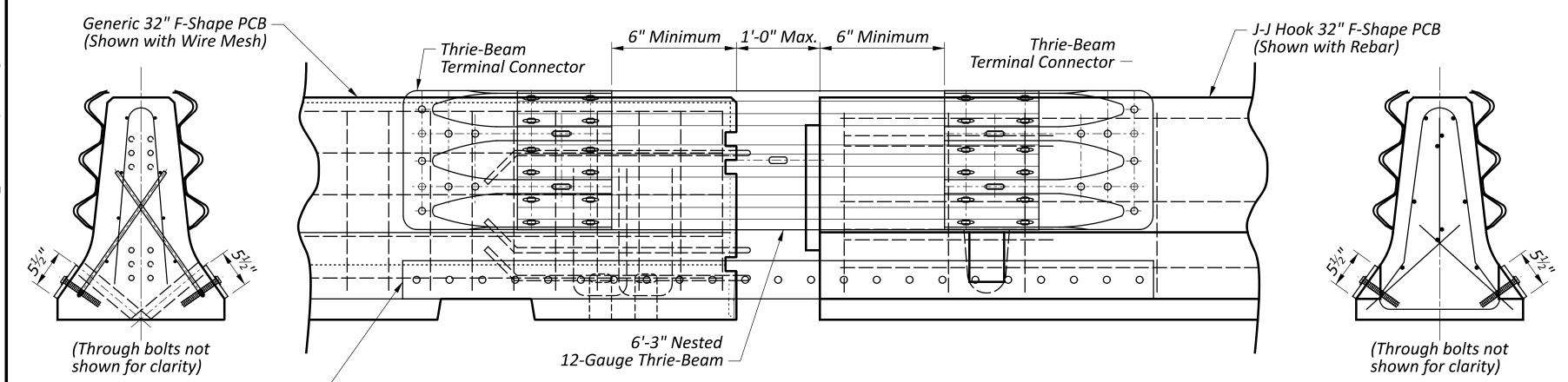
2'-0"

Generic 32" F-Shape

 $9' \times 5\frac{1}{2}" \times \frac{5}{8}"$  Steel Toe Plate

 $9' \times 5\frac{1}{2}" \times \frac{5}{8}"$  Steel Toe Plate

Elevation (With Reinforcing Steel)



Elevation (With Wire Mesh)

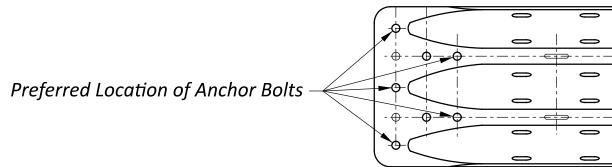
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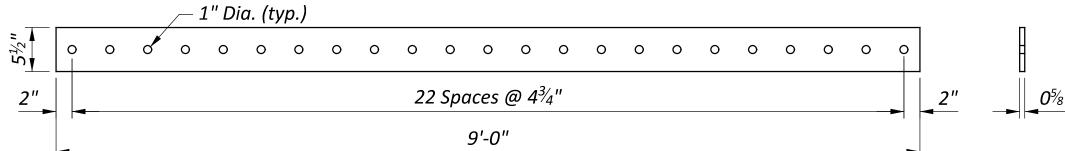
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OFFICE OF **ROADWAY ENGINEERING** 

REVISIONS

07-21-2023 TDS ENGINEER

D. Fisher

Koenig Adam

Shape PCB Barrier **NSTRUCTION DRAWING** Concrete 7 I-J Hook Portable for P CB to 00 PCB ROADWAY Transition -Shape STANDARD I Thrie-Beam T Generic 32" F-Generic

DESIGN AGENCY



CD NUMBER RM-4.7

P.3 3