DETAIL 'A' / DETAIL 'B'

Nested Thrie Beam Rails ③

2 threads showing min.

$\frac{7}{8}$" dia. Hex Nut and Washer

$\frac{7}{8}$" dia. Hex Bolt and Washer

Thrie-Beam Terminal Connector ③

DETAIL 'A'   **DETAIL 'B'**

TYPE A

31$\frac{1}{2}$"   18$\frac{3}{4}$"

11$\frac{1}{2}$"

BTS Post #15 ①

Concrete Barrier End Section or Bridge Rail End Section
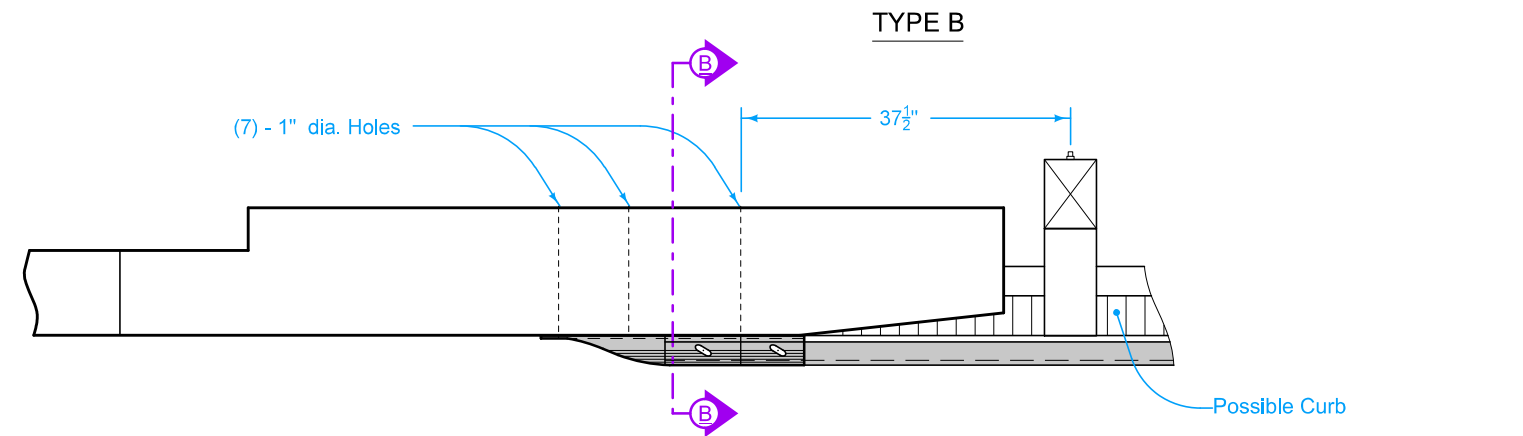
(5) - 1" dia. Holes

② BTS Post

Possible Curb

PLAN

① See BA-201.

② BTS post # 14 BA-201. BTS post #5 BA-221.

③ Lap the Terminal Connector on the outside of the nested thrie beam rails for attachments on the trailing end of a bridge.
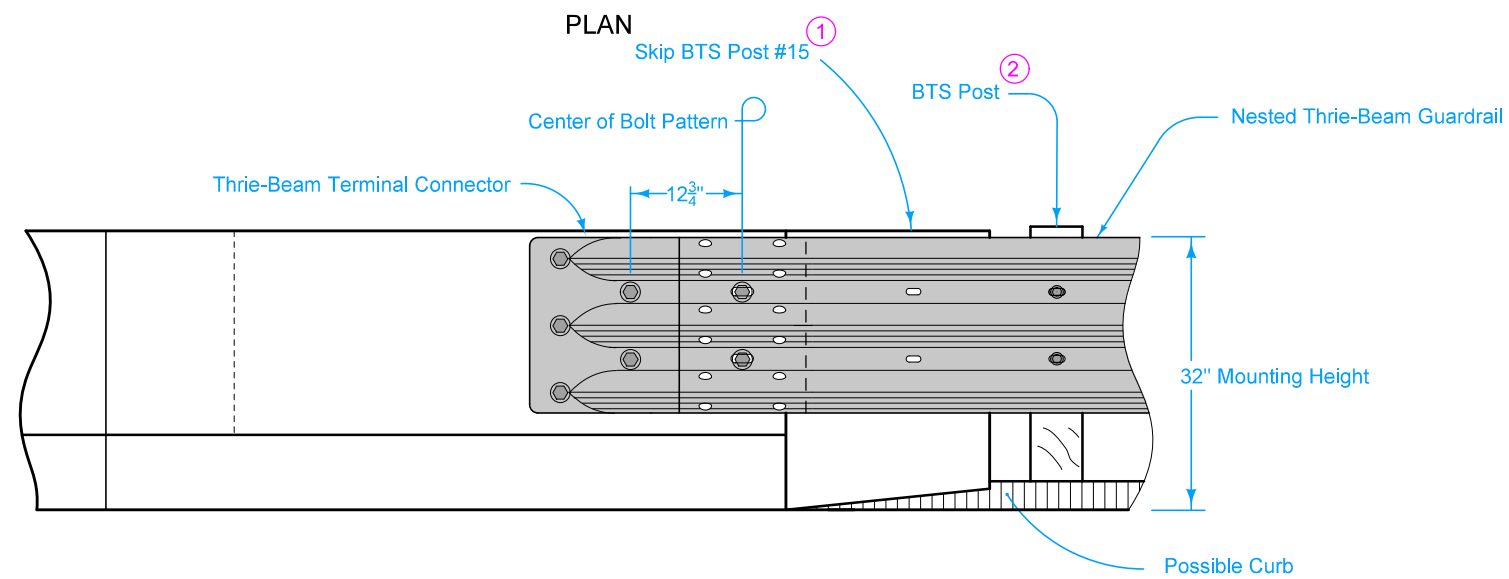
Thrie-Beam Terminal Connector / Nested Thrie-Beam Guardrail

Nested Thrie-Beam Guardrail

Center of Bolt Pattern

Thrie-Beam Terminal Connector

12$\frac{3}{4}$"   18$\frac{3}{4}$"

32" Mounting Height

Possible Curb

ELEVATION

THRIE-BEAM TERMINAL CONNECTOR

Neutral Axis

3$\frac{3}{8}$"

3"

30"

PLAN

Center of Bolt Pattern

2" 8" 8$\frac{1}{2}$" 4$\frac{1}{4}$" 4$\frac{1}{4}$" 3"

50°

2$\frac{3}{8}$"

7$\frac{5}{8}$"

20" (+/- $\frac{3}{16}$")

7$\frac{5}{8}$"

2$\frac{3}{8}$"

6$\frac{3}{16}$"

7$\frac{5}{8}$"

6$\frac{3}{16}$"

1" dia. Holes (typ.)

1" x 2$\frac{1}{2}$" Post Bolt Slot

2" long 1" Slotted Holes

ELEVATION

THRIE - BEAM TERMINAL CONNECTOR

SECTION A-A

See Detail 'A'

Installation Line

32" Mounting Height

1" Hole (typ.)

See Detail 'B'

SECTION A-A

5 - BOLT PATTERN

1" dia. Hole (typ.)

3$\frac{13}{16}$"

3$\frac{13}{16}$"

3$\frac{13}{16}$"

3$\frac{13}{16}$"

7$\frac{5}{8}$"

8"

5 - BOLT PATTERN
Thrie-Beam Terminal Connector

Possible Contract Item:
Steel Beam Guardrail End Anchor, Bolted

Materials included in the Contract Item:
Thrie-Beam Terminal Connector
Approved $\frac{7}{8}$" x sufficient length Hex Bolts
Approved $\frac{7}{8}$" Hex Nuts
Approved $\frac{15}{16}$" Washers

IOWA DOT

STANDARD ROAD PLAN

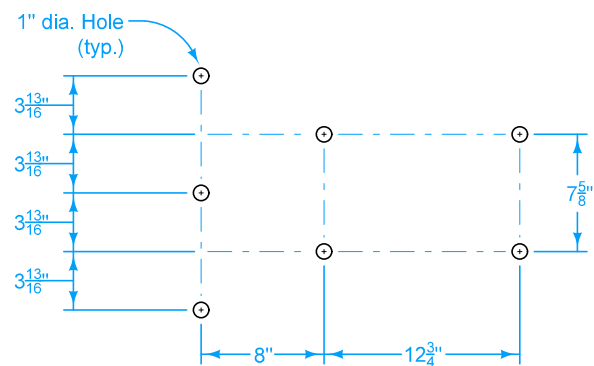| REVISION	
5	10-15-24

BA-202

SHEET 1 of 4

REVISIONS: Added Type 'D'.

APPROVED BY DESIGN METHODS ENGINEER

**STEEL BEAM GUARDRAIL
BOLTED END ANCHOR**
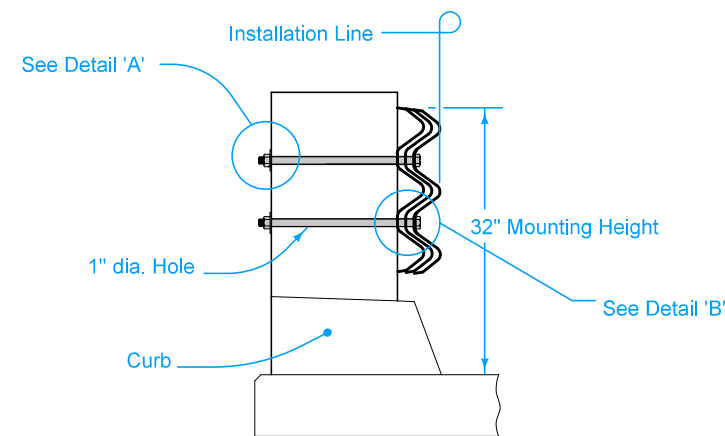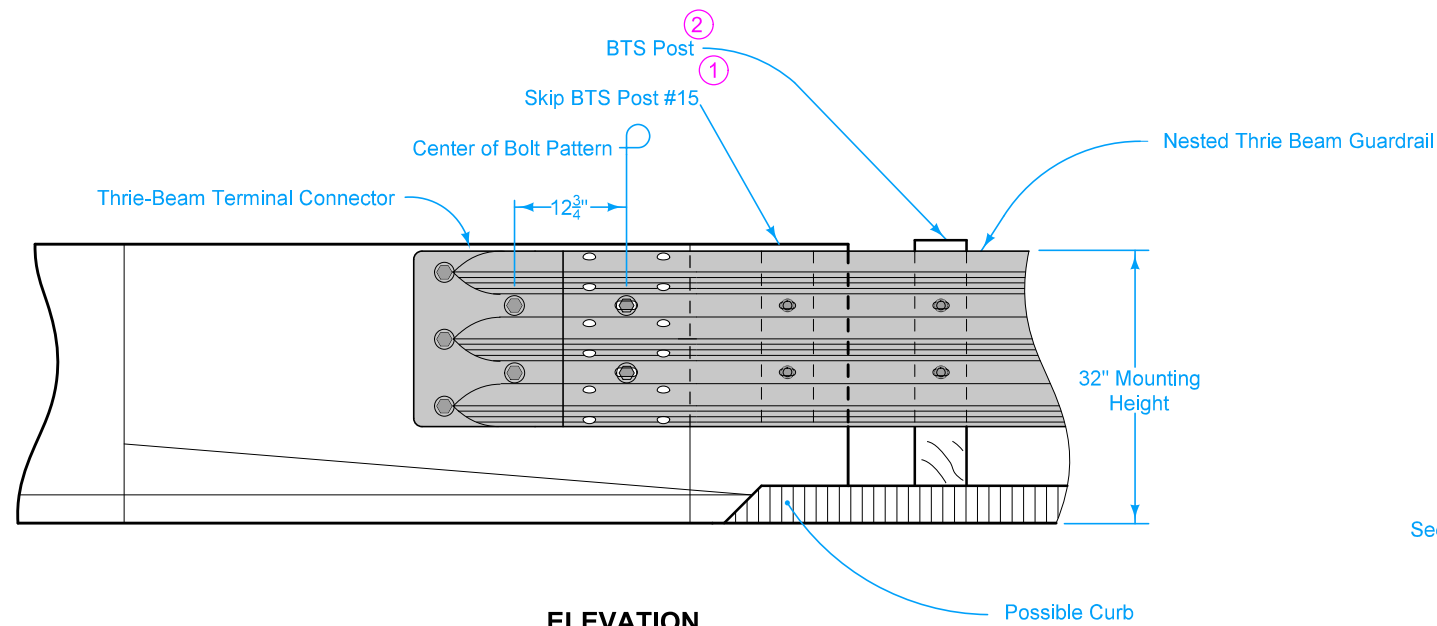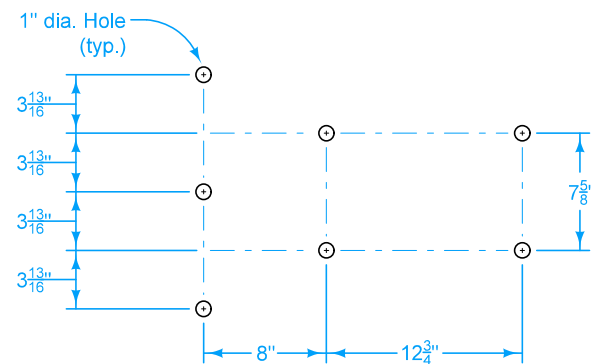
TYPE B

(7) - 1" dia. Holes

$37\frac{1}{2}$"

Possible Curb

① See BA-201.

② BTS post # 14 BA-201. BTS post #5 BA-221.

PLAN

Skip BTS Post #15 ①

Center of Bolt Pattern

BTS Post ②

Nested Thrie-Beam Guardrail

Thrie-Beam Terminal Connector

$12\frac{3}{4}$"

32" Mounting Height

Possible Curb

ELEVATION

1" dia. Hole
(typ.)

$3\frac{13}{16}$"

$3\frac{13}{16}$"

$3\frac{13}{16}$"

$3\frac{13}{16}$"

$7\frac{5}{8}$"

8"

$12\frac{3}{4}$"

7 - BOLT PATTERN
Thrie - Beam Terminal Connector

See Detail 'A'

Installation Line

1" dia. Hole

32" Mounting Height

See Detail 'B'

Curb

SECTION B-B

TYPE C

PLAN

(7) - 1" dia. Holes

18¾" 18¾"

Wedge Blockout
at BTS Post #15
See Detail 'C'

① See BA-201.

② BTS post # 14 BA-201. BTS post #5 BA-221.

④ Use treated spacer boards (1 in. x 6 in. or 2 in. x 6 in.) to produce a tight fit between the wedge blockout and endpost. A nominal 1 inch gap is acceptable. Spacer boards are incidental to bolted end anchor.

DETAIL 'C'

6"

30°

4½"

8"

Countersink Guardrail Bolt so bolt does not protrude past outside edge of Wedge Blockout.

Wedge Blockout

④

Section of Guardrail

(2) Approximately 6" long Guardrail Bolts

ELEVATION

Thrie-Beam Terminal Connector

Center of Bolt Pattern

Skip BTS Post #15 ①

BTS Post ②

Nested Thrie Beam Guardrail

12¾"

32" Mounting Height

Possible Curb

7 - BOLT PATTERN
Thrie - Beam Terminal Connector

1" dia. Hole (typ.)

3¹³⁄₁₆"
3¹³⁄₁₆"
3¹³⁄₁₆"
3¹³⁄₁₆"

7⅝"

8" 12¾"

SECTION C-C

Installation Line

See Detail 'A'

1" dia. Hole (by others)

32" Mounting Height

See Detail 'B'

IOWA | DOT
STANDARD ROAD PLAN

REVISION	
4	10-15-24

BA-202

SHEET 3 of 4

REVISIONS: Added Type 'D'.

APPROVED BY DESIGN METHODS ENGINEER
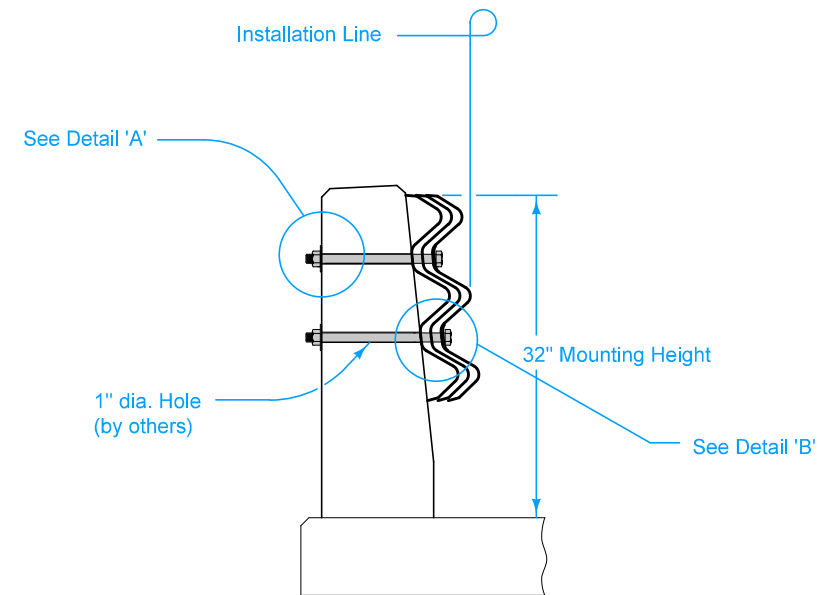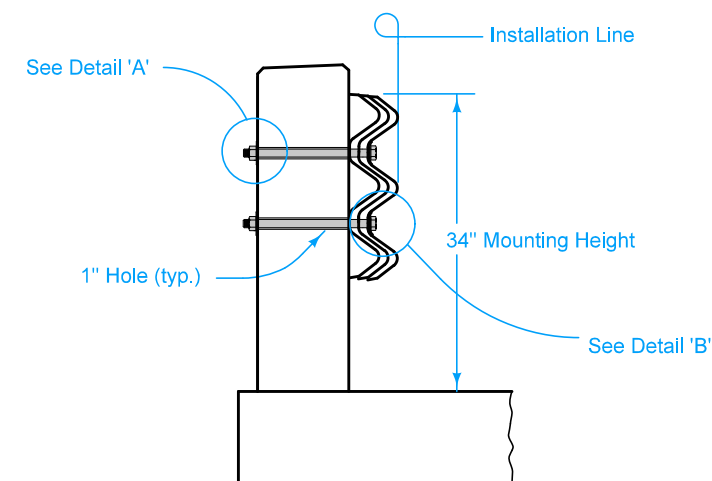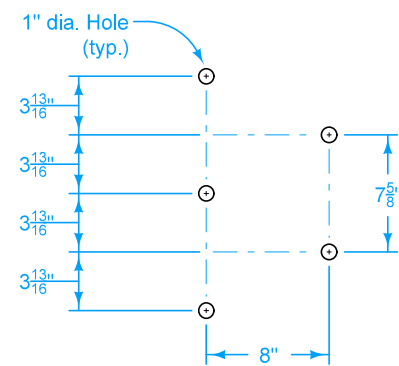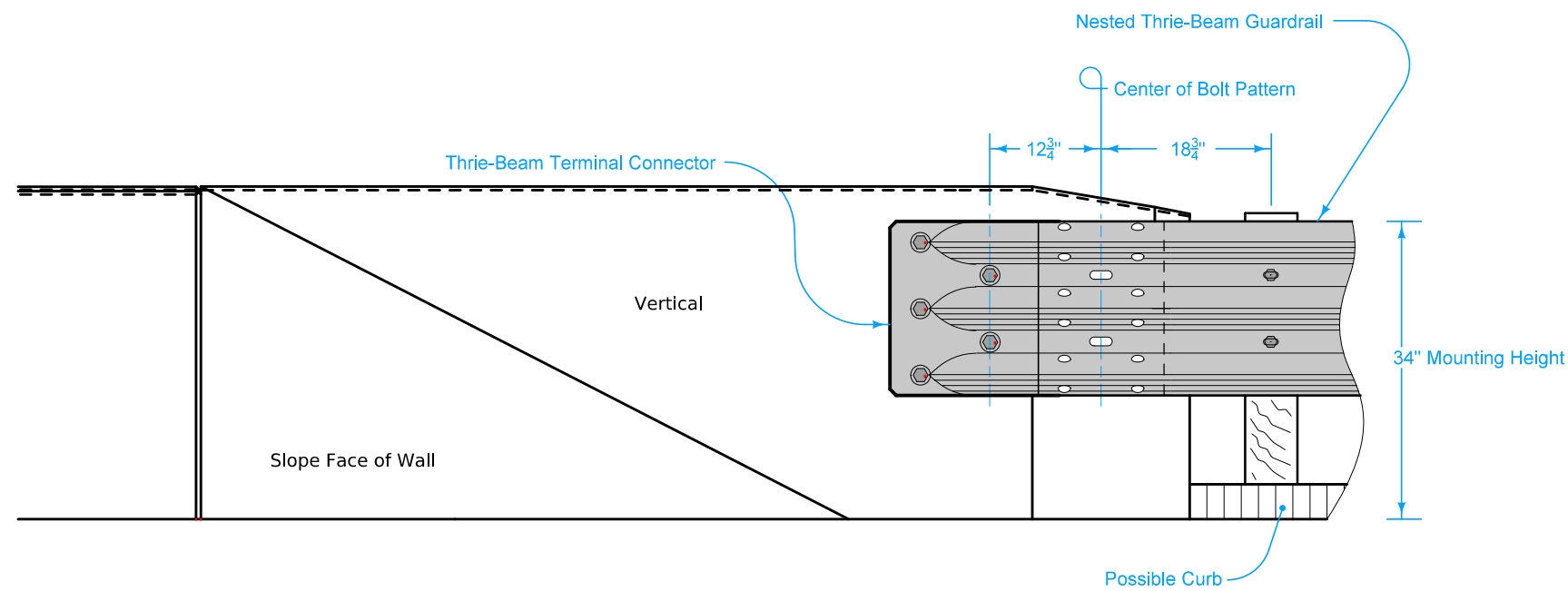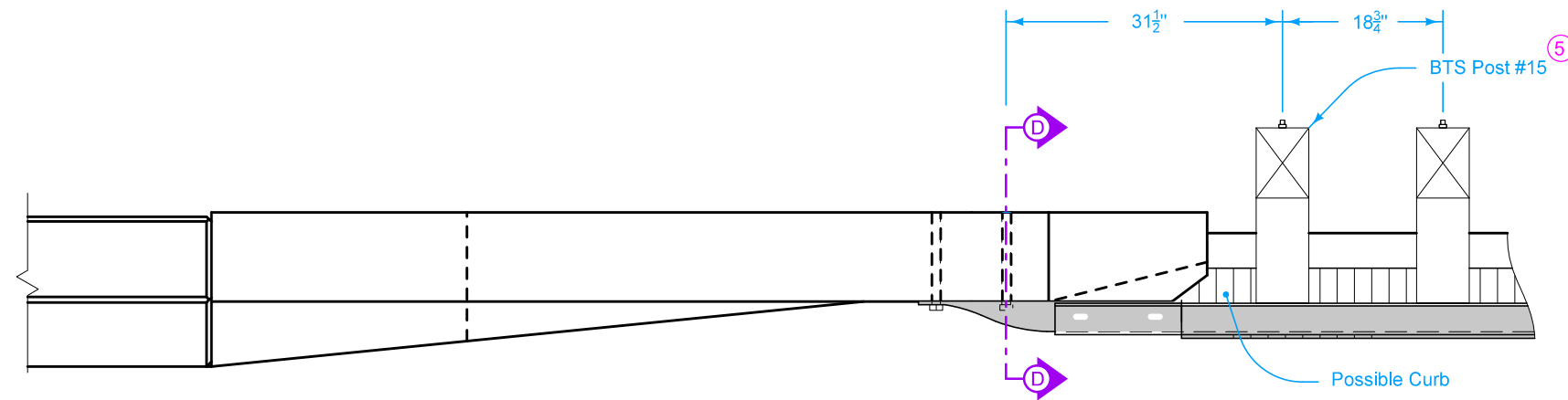
**STEEL BEAM GUARDRAIL
BOLTED END ANCHOR**

TYPE D

⑤ See BA-209.

$31\frac{1}{2}$" $18\frac{3}{4}$"

BTS Post #15 ⑤

D

D

Possible Curb

Nested Thrie-Beam Guardrail

Center of Bolt Pattern

Thrie-Beam Terminal Connector

$12\frac{3}{4}$" $18\frac{3}{4}$"

Vertical

34" Mounting Height

Slope Face of Wall

Possible Curb

Installation Line

See Detail 'A'

34" Mounting Height

1" Hole (typ.)

See Detail 'B'

SECTION D-D

1" dia. Hole (typ.)

$3\frac{13}{16}$"
$3\frac{13}{16}$"
$3\frac{13}{16}$"
$3\frac{13}{16}$"

$7\frac{5}{8}$"

8"

5 - BOLT PATTERN
Thrie-Beam Terminal Connector

STEEL BEAM GUARDRAIL
BOLTED END ANCHOR