Extend subdrain 3 inches minimum (6 inches maximum) into precast subdrain headwall. Connect using one of the following methods:

- Grouted connection using a non-shrink grout complying with Materials M. 491.13.
- Gasketed connection approved by the Engineer.

Shape adjacent slope to match slope of precast subdrain headwall:

1. Perforated Subdrain (Polyethylene Corrugated Tubing).
2. On projects where existing shoulder material is removed, replace the shoulder material according to Article 2902.03, C of the Standard Specifications.
3. "Y" or "T" connection will not be allowed. Place subdrain on 1 foot minimum radius.
4. Direction of flow:
5. 6 inch minimum drop in elevation between longitudinal subdrain and outlet. 12 inch minimum drop for projects using recycled PCC subbase.
6. Precast concrete headwall:
7. Bevel the trench to provide a minimum of 3 inches of porous backfill surrounding all portions of subdrain pipe.
8. Place class 'A' crushed stone or Special Backfill over outlet and carefully compact to avoid damaging outlet pipe.

Possible Contract Item:
Subdrain Outlet, DR-306

Possible Tabulation:
104-5C
194-9
Two #4 Vertical Bars

PLAN

4" Horizontal Bar (Centered)

Retaining Rod

6" DIA PIPE

PLAN

SECTION A-A

Two #4 Vertical Bars

Levelling Pad

#4 Horizontal Bar

Optional Handling Hole

1.2" Dia. Hole

Min. 1.5" clr

2% Level

21" 3'-0"

2" 6"

3'-11"

2'-11"

LEVELING PAD

END

BENT BAR SHAPES

#4 Horizontal Bar

#4 Vertical Bar

DETAIL 'A'

(RECESS FOR RETAINING ROD)

RETAINING ROD

ELEVATION

TOP

2" Dia. Retaining Rod

2" Dia. Retaining Rod

2" Plate

Drilled Hole

" Dia.

4" 3" 2"

" Dia.

4" 3" 2"

" Dia.

4" 3" 2"

Retaining Rod

9 21" 6"

9 21" 6"

2" 6"

2% Level

21" 3'-0"

2" 6"

3'-11"

2'-11"

LEVELING PAD

END

BENT BAR SHAPES

#4 Horizontal Bar

#4 Vertical Bar

DETAIL 'A'

(RECESS FOR RETAINING ROD)

RETAINING ROD

ELEVATION

TOP

2" Dia. Retaining Rod

2" Dia. Retaining Rod

2" Plate

Drilled Hole

" Dia.

4" 3" 2"

" Dia.

4" 3" 2"

" Dia.

4" 3" 2"

Retaining Rod

9 21" 6"

9 21" 6"

2" 6"

2% Level

21" 3'-0"

2" 6"

3'-11"

2'-11"

LEVELING PAD

END

BENT BAR SHAPES

#4 Horizontal Bar

#4 Vertical Bar

DETAIL 'A'

(RECESS FOR RETAINING ROD)

RETAINING ROD

ELEVATION

TOP

2" Dia. Retaining Rod

2" Dia. Retaining Rod

2" Plate

Drilled Hole

" Dia.

4" 3" 2"

" Dia.

4" 3" 2"

" Dia.

4" 3" 2"

Retaining Rod

9 21" 6"

9 21" 6"

2" 6"

2% Level

21" 3'-0"

2" 6"

3'-11"

2'-11"

LEVELING PAD

END

BENT BAR SHAPES

#4 Horizontal Bar

#4 Vertical Bar

DETAIL 'A'

(RECESS FOR RETAINING ROD)

RETAINING ROD

ELEVATION

TOP

2" Dia. Retaining Rod

2" Dia. Retaining Rod

2" Plate

Drilled Hole

" Dia.

4" 3" 2"

" Dia.

4" 3" 2"

" Dia.

4" 3" 2"

Retaining Rod

9 21" 6"

9 21" 6"

2" 6"

2% Level

21" 3'-0"

2" 6"

3'-11"

2'-11"

LEVELING PAD

END

BENT BAR SHAPES

#4 Horizontal Bar

#4 Vertical Bar

DETAIL 'A'

(RECESS FOR RETAINING ROD)

RETAINING ROD

ELEVATION

TOP

2" Dia. Retaining Rod

2" Dia. Retaining Rod

2" Plate

Drilled Hole

" Dia.

4" 3" 2"

" Dia.

4" 3" 2"

" Dia.

4" 3" 2"

Retaining Rod

9 21" 6"

9 21" 6"

2" 6"

2% Level

21" 3'-0"

2" 6"

3'-11"

2'-11"

LEVELING PAD

END

BENT BAR SHAPES

#4 Horizontal Bar

#4 Vertical Bar

DETAIL 'A'

(RECESS FOR RETAINING ROD)