A  \( S_L > S_T \)
SAME CURB HEIGHT
REQUIRES
DEPRESSION LINE

B  \( S_L > S_T \)
PROPOSED CURB
HEIGHT < EXIST.
CURB HEIGHT
NO DEPRESSION LINE

1. INLET TO EXIST. CB
5% MIN SLOPE ON 8"DIP
< 50LF OR
USE CB WITH
INDEPENDENT CONNECTION
TO PS, PSD.

2. NEW CB AS REQUIRED.
LOCATE OUTSIDE OF CURB
BULB.

FIGURE 2
NOT TO SCALE
**Sₖ < Sₜ**
Proposed curb height < existing.
Curb height: no depression line.

1. **Inlet to exist. CB or new, 5% min slope on 8” dip < 50’ or use CB with independent connection to PS, PSD.**

2. **New CB as required. Locate outside of curb bulb.**

3. **Same as 1. This is an alternative location.**

FIGURE 3
Not to scale
1. CONNECT TO PS, PSD

2. INLET (NEW OR EXIST.) TO CB (NEW OR EXIST.) OR NEW CB

FIGURE 4
NOT TO SCALE
$S_l < S_t$
Proposed curb height < exist.
Curb height
No depression line

1. Inlet to exist. CB or new, 5% min slope on 8" dip < 50 LF or use CB with independent connection to PS, PSD.

2. New CB as required.
Locate outside of curb bulb.

3. Same as 1. This is an alternative location.

4. Inlet (new or exist.) to CB (new or exist.) or new CB.

R/W margin

No depression line

FIGURE 5
NOT TO SCALE
1. Inlet to exist. CB 5% min slope on 8” dip < 50 LF or use CB with independent connection to PS, PSD.

2. New CB as required. Locate outside of curb bulb.

3. Inlet (new or exist.) to CB (new or exist.) or new CB.

A
- $S_L \geq S_T$
- Same curb height requires depression line

B
- $S_L \geq S_T$
- Proposed curb height < exist.
- Curb height, no depression line

R/W Margin

Depression Line

FIGURE 6
NOT TO SCALE
1. Connect to PS, PSD CB (new or exist.)
2. 252 inlet w/ADA grate (within 10lf of curb).
3. 252 inlet overflow w/ADA grate (within 10lf of curb). Overflow elevation shall be lower than lowest door threshold elevation.
4. Closed contour curb bulb

6" MIN DIP

FIGURE 7
NOT TO SCALE
1. CONNECT TO PS, PSD. PSD EXTENSION MAY BE REQUIRED

$S_L \geq S_T$
$S_L < S_T$
SAME CURB HEIGHT

EXISTING CURB
CB (CURB INLET)
DEPRESSION LINE
R/W MARGIN

CW
CW

FIGURE 8
NOT TO SCALE
1 \text{ CONNECT TO PS, PSD. PSD EXTENSION MAY BE REQUIRED}

S_L \geq S_T
S_L < S_T
PROPOSED CURB
HEIGHT < EXIST CURB HEIGHT

\text{EXISTING CURB}
\text{CB (CURB INLET)}
R/W MARGIN

\text{FIGURE 9 NOT TO SCALE}
$S_L \geq S_T$

$\sigma$

CW

NO DRAINAGE STRUCTURE REQUIRED

CW

OR

CW

1 DEPRESSION LINE REQUIRED IF CURB BULB SLOPES TOWARDS EXIST. CURB LINE.

R/W MARGIN
$S_L \leq S_T$

WITH SAME CURB HEIGHT (6" OR GREATER). IF $S_L > S_T$ ALLOW DRAINAGE TO FLOW AROUND WITH 1 BEING A DEPRESSION LINE.

TRENCH GRATE
LAST RESORT, USE ONLY IF NO INFRASTRUCTURE IS AVAILABLE.

12" WIDE LOCKING ADA TRENCH GRATE

EXIST. CURB LINE

REINFORCED CONCRETE

SECTION A-A

TRENCH GRATE

PROPOSED CURB

FLOW

DETAIL B
(OPPOSITE HAND ON DOWNSTREAM END)

FIGURE 11
NOT TO SCALE
1. PSD OR PS (PSS NOT ALLOWED).
2. CB OUTFALL PIPE. MIN SLOPE 2%–8" MIN DIAMETER IF NEW 240A CB.
3. EX CB (MAINTAIN UNOBSCTURED ACCESS).
4. DOWNSPOUT – MIN SLOPE 2%
5. 6" MIN DOWNSPOUT, DIP CLASS 50 MIN, MIN SLOPE 2%
6. MAXIMUM 22½" BEND.
7. PIPE HANGERS (AS REQUIRED BY THE STRUCTURAL ENGINEER).
8. CONCRETE BLOCKING.
9. 6" WYE DOWN
10. 6" WYE UP
11. CONNECT DOWNSPOUT TO BRIDGE DRAIN. FERNCO STRONGBACK SHIELDED COUPLING OR MISSION ARC FOR SAME MINIMAL SIZE. SEE NOTE BELOW FOR EXIST BRIDGE DRAINS.
12. BRIDGE DRAINS TO FIT TYPE 265 GRATE (NEW BRIDGE ONLY)
13. REMOVABLE PLUGS ON THE WYES.
14. 1' MINIMUM PIPE BETWEEN FITTINGS.

**NOTE:**
1. THE USE OF STEEL PIPE WITH GALVANIZING IS NOW DISCOURAGED BECAUSE OF WATER QUALITY ISSUES WITH ZINC. DIP IS LIGHTER IN WEIGHT.
2. PROTECT DOWNSPOUTS FROM VEHICULAR DAMAGE.
3. DO NOT CREATE A PEDESTRIAN HAZARD.
NOTES:
1. PROVIDE MAINTENANCE & OPERATIONS ACCESS TO CLEANOUTS
2. FOR NO.11, IN CASES WHERE THE EXISTING BRIDGE DRAIN IS SMALLER THAN 6”, USE THE ABOVE DETAIL.
3. FOR BRIDGE DRAINS GREATER THAN 6”, THE DOWNSPOUT MUST MATCH THE NOMINAL DIAMETER. REDUCING IS NOT ALLOWED.
4. SEE SPEC SECTION 7-08.3(9).
\( \frac{1}{4} \)" THICK NEOPRENE GASKET

STAINLESS STEEL PIPE CLAMP

\( \frac{1}{4} \)" SMOOTH STEEL BAR WITH 180° HOOK AT EACH END

WELD \( \frac{1}{4} \)" SMOOTH STEEL BAR @ 1" SPACING, EACH DIRECTION

8" OR 15"Ø PSD (OUTFALL)

**ELEVATION VIEW**

**END VIEW**
MARKER BUOY ATTACHED TO OUTFALL ANCHOR. BUOY SHALL BE MARKED "NO MOORAGE" IN 2" MIN HIGH LETTERS. PROVIDE SUFFICIENT CORD LENGTH FOR HIGH LAKE LEVEL CONDITIONS.

30"LX30"WX18"D FISH SCREEN, SEE DETAIL BELOW

SAND LAYER FOR PIPE SUPPORT
THICKNESS = 6" ±
VOLUME = 3 ± CY

EXIST MUDLINE

GRAVEL LAYER FOR PIPE SUPPORT
GRAVEL SIZE = 1" TO 3"
THICKNESS = 6" ±
VOLUME = 3 ± CY

14" HDPE SDR 11 OUTFALL REPLACEMENT PIPE

MANTA-RAY HELIX TYPE SOIL ANCHOR. EACH ANCHOR SHALL HAVE A MINIMUM HOLDING CAPACITY OF 2,000 LBS.

PROFILE

CLEAR GAP BETWEEN PIPE AND STEEL PLATE SHALL NOT BE GREATER THAN 3/32". WRAP & BAND A NEOPRENE OR RUBBER SHEET AROUND PIPE TO CLOSE ANY GAP THAT IS GREATER THAN 3/32"

1.5"X1.5"X3/16" GALVANIZED ANGLE (TOP SIDE) WITH CENTERED EYE-BOLT FOR LIFTING (EYE-BOLT I.D.=1") 1.5"X3/16" FLAT BAR ON BOTTOM SIDE

30"X18"X3/16" GALVANIZED STEEL END PLATE (1 SIDE)

WORM-DRIVE HOSE CLAMP (2) OR APPROVED COMPRESSION TYPE FITTING

14" HDPE SDR 11 OUTFALL REPLACEMENT PIPE

1.5"X3/8" GALVANIZED FLAT BAR WELDED TO END PLATE (BOTH SIDES OF PIPE)

GALVANIZED, 6-14 WOVEN WIRE MESH ON 5 SIDES. (6 MESH OPENINGS PER LINEAL INCH, 14 GAGE WIRE PER WDF

OUTFALL FISH SCREEN

NOT TO SCALE
Use of Couplings

NOT TO SCALE
Tee Connections

NOT TO SCALE
Tee Connections

NOT TO SCALE
NOTE:
INSTALL PER STD PLAN NO 234
IF NOT EXISTING

Tee Connections
NOT TO SCALE
Tee Connections

12

Core Hole & Mud Pipe
DIP
Trap
FROM INLET
1' - 0" TYP
EX CB (BRICK OR CONC)
DIP
To PSD or PS
1' - 0" TYP

13

Shielded Coupling as Required
DI Tee
Core Hole and Mud
DIP or C900 PVC
Alternate Location
Core Hole and Mud
DIP Bell
DIP, PVC, Conc or Clay
Horseshoe Pipe
Box Culvert

NOT TO SCALE