Index 425-020 through 425-025 Curb Inlets Types 1-10

Design Criteria

FDOT Design Manual (FDM); Drainage Manual (DM); Drainage Design Guide (DDG)

Design Assumptions and Limitations

To provide access for maintenance, Types 1-4 are preferred.

Types 5-6 are only permitted when Right-of-Way is limited or where utilities would conflict with manhole installation.

Locate inlets outside of pedestrian crosswalks.

Inlet Types 1-6 are designed for use with standard curb and gutter Type E and Type F. Inlet Type 7 is used in Traffic Separators Types I and II; or, in separators constructed with Curb Types A, B, and E and sidewalk paving, which cannot accommodate Inlet Types 1-6. Do not use Type 7 Inlets on through traffic side of the separator in medians with Curb Types A and B.

Inlet Types 5 and 6 may require modification for use with concrete pavement. the reinforced concrete in front of the grate frame results in an irregularity and depth difference with the concrete paving. For use on a concrete pavement job, the designer should either modify the inlet top or pavement reinforcement, or provide a special detail.

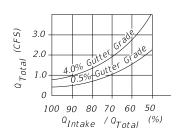
Inlet Type 8 is used only in Traffic Separators Types IV and V; or, in separators constructed with Curb Types D and F and sidewalk paving, which cannot accommodate Inlet Types 1-6. Avoid use of a Type 8 Inlet on the through traffic side of a separator in medians constructed with Curb Type D – Curb Inlet Types 9 and 10 are recommended in this situation.

Inlet Type 9 is primarily intended for locations with light to moderate flows where right of way does not permit the use of throated Curb Inlet Types 1-6. Typical application is on curb returns to city streets. The inlet grate is suitable for pedestrian and bicycle traffic. Locate the inlet outside of curb ramp areas in vertical faced curbs such as Type F.

Inlet Type 10 is primarily intended for locations with light flows where right of way does not permit the use of throated Curb Inlet Types 1-6. Typical application is on curb returns to city streets. The inlet grate is suitable for pedestrian and bicycle traffic. Locate the inlet outside of curb ramp areas in vertical faced curbs such as Type F.

425-024 Efficiency Curve:

Approximate Debris Free Capacity (0.02 Pavement Cross Slope)



425-025 Efficiency Curve:

Approximate Debris Free Capacity (0.02 Pavement Cross Slope)

3.0

3.0

1.0

4.0% Gutter Grade de Grad

0 100 90 80 70 60 50 Q_{Intake} / Q_{Total} (%)

Plan Content Requirements

Include Drainage Structure information in the Plans in accordance with the requirements of the Basis of Estimates Manual (*BOE*) and the *FDM*.

Modify inlet details for inlets to be constructed on a curve.

For Type 7 and 8 Inlets, the length of the inlet is included in the Traffic Separator quantities, and the inlet is paid for by the Inlet pay item.

For Type 9 and 10 Inlets, identify the direction of predominant flow.

Payment

| Item number | Item Description | Unit Measure |
|-------------|------------------|--------------|
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See the **BOE** and **Specification 425** for additional information on payment, pay item use and compensation.