CHAPTER 4 - STORMWATER DRAINAGE SYSTEM DESIGN

Stormwater inlets shall be located at the following locations, but, in no case, be spaced further than 400-feet apart:

A. Within 50-feet of the curb returns on the upstream side of an intersection

B. At the ends of all dead-end streets with a descending grade

C. At intermediate locations so that stormwater flows at the curb line do not exceed 3-feet in width (measured from the curb face) or 3-inches in depth (measured at the curb face)

D. At the upstream or downstream end of the street improvements that abut unimproved roads or undeveloped property

Stormwater inlets shall be capable of completely intercepting the design stormwater flow.

4.05.04A CATCH BASINS

4.05.04B INLET MANHOLES

Except when otherwise approved by the City to install a flowthrough catch basin, ~~Where~~ where proposed stormwater drainage systems connect to the existing or proposed public stormwater drainage system at a catch basin location, inlet manholes shall be required where any of the following conditions apply. Refer to **Standard Details 404 (A-F).**

A. the pipe connection is larger than 6-inches in diameter,

B. 2 or more pipes discharge to the location, or

C. the design peak flow from the onsite system exceeds 0.5 cfs

When a flowthrough catch basin is approved by the City in lieu of an inlet manhole, the flowthrough catch basin may not be connected in a chain greater than one upstream catch basin, and the inlet elevation must be at least 0.20 feet above the outlet pipe elevation.

4.05.04C DITCH INLETS

4.05.04D BEEHIVE INLETS

4.05.05 Outfall Protection

4.06 Culverts

4.07 Conveyance Systems

4.08 Downstream Conditions Assessment

When the City has a known downstream deficiency in its stormwater system within a quarter mile downstream of the discharge point of a proposed development~~When required~~, the analysis of downstream conditions must be completed in accordance with the Downstream Conditions Assessment requirement in section 4.3 of the *Stormwater Management Manual*.

4.09 Erosion Prevention and Sediment Control

4.10 Stormwater Flow Control (Detention/Retention)

4.11 Stormwater Quality Treatment

4.12 Open Channel Design

4.13 Rear Lot Drainage

When subdivision lots drain away from the right-of-way, it may be necessary to provide a backyard storm drain system. When necessary, a ~~public~~ private ~~mainline~~ storm drain system collecting drainage from multiple properties may be approved by the City, and a private easement for the benefit of the affected properties shall be reviewed and approved by the City before recordation. ~~In this case, all laterals and appurtenances will be considered private and will be the responsibility of the homeowner. If the system only collects stormwater from individual lots, the public mainline shall be a minimum of 8-inches in diameter. The required public easement only needs to be 15 feet in width.~~

~~Any public main shall be publicly owned, in a public easement, and must follow requirements outlined in these ***Public Works Standards***. All public pipe must be within a 400-foot reach, uninterrupted by changes in grade or alignment, from a truck accessible manhole structure. Access structures shall be located in the right-of-way or have public access by means of a public access road per **Standard Detail 602A, Gravel Public Access Road** or **Standard Detail 602B, Paved Public Access Road**. Additional structures are still required for all grade and alignment changes and are subject to the 400-foot reach requirement, above, from all directions and must also be provided with a public access road per **Standard Detail 602A, Gravel Public Access Road** or **Standard Detail 602B, Paved Public Access Road**.~~

~~Publicly maintained storm systems and access areas shall be within an easement granted to the City that meets the easement requirements in **Chapter 2**, except where otherwise explicitly stated.~~

4.14 Private Storm Drain Systems