

SECTION 2.4 SEWER FACILITY GUIDELINES

2.4.1 PURPOSE

This section is a guideline to be used in the design of proposed sewer systems. The Engineer of Work shall be responsible to ensure that improvement plans are processed in accordance with Section 2.2 and designed in accordance with Sections 6.1 through 6.4 and accepted standards of good engineering practice.

Developer facilities will be designed by the Engineer of Work, constructed by the developer's contractor and transferred to the District upon satisfactory completion and acceptance in accordance with the District's Rules and Regulations.

2.4.2 STANDARD TERMS AND DEFINITIONS

Wherever technical terms or pronouns occur in these guidelines or in related documents, the intent and meaning shall be interpreted as described in Standard Terms and Definitions.

The following terms and definitions as found in this section shall have the following meaning:

DHS: The State of California, Health and Welfare District, Department of Health Services (DHS). DHS set requirements for minimum horizontal and vertical separation between potable water, recycled water and/or sewer lines.

2.4.3 GENERAL

It is the responsibility of the user of these documents to make reference to and/or utilize industry standards not otherwise directly referenced within this document. The Engineer of Work may not deviate from the criteria presented in this section without prior written approval of the District's Engineer.

2.4.4 PIPE SIZE AND MATERIAL

- A. The minimum size and type of material for sewer pipelines shall be in accordance with Section 6.1. Residential, commercial or industrial lateral service sizes shall be as shown on the improvement plans. The District will not accept sewer lines that are constructed in a common trench with another utility.
- B. Approved materials and manufacturers for service materials and connections are listed in the Approved Materials List.

2.4.5 FLOW DESIGN CRITERIA

- A. Residential, commercial, and industrial design flows shall be based on flow and peaking factors listed in Section 4.2.
- B. The maximum depth of flow in relation to the diameter of pipe is listed in Section 4.2.
- C. For minimum and maximum slope criteria for sewer pipelines, see Section 4.2.
- D. For minimum and maximum velocity criteria for gravity sewer pipelines, see Section 4.2.

2.4.6 DEPTH OF COVER

Depth of cover for sewer pipelines shall be in accordance with Section 6.1.

2.4.7 STANDARD LOCATION AND ALIGNMENT

For standard location and alignment of gravity sewer pipelines, see Section 6.1. For sewer lines allowed within an easement, refer to Section 1.5 for easement widths and locations.

2.4.8 SEPARATION CRITERIA FOR WATER, SEWER AND RECYCLED WATER

A. Horizontal and Vertical Separation:

The State of California, Health and Welfare District, Department of Health Services (DHS) regulations require a minimum horizontal and vertical separation between water and recycled water, hazardous fluids, storm drainage, or sewer lines as described in their guidelines. Those guidelines govern all improvements within the District.

B. Guidance Memo 2003-02 no longer applies and any deviation from the required separation must be submitted to the State Water Resource Control Board for evaluation, and only they can grant a waiver. See Exhibit 2.3 A describing the revised regulations.

2.4.9 STATIONING PROCEDURE

Stationing for sewer lines shall be as listed in Section 1.1.

2.4.10 NOTES

The District's Notes for development improvement plans are listed in Appendix 2.2.B.

2.4.11 MANHOLES

Manhole type, size, spacing, access, lining and manhole appurtenances shall be in accordance with Section 6.2.

2.4.12 FORCE MAIN DESIGN CRITERIA

A. For sewer lift station force main design criteria refer to Section 6.4.

B. For minimum and maximum velocity criteria for sewer lift station force mains refer to Section 4.2.

2.4.13 SEWER LATERALS

Sewer laterals shall be in accordance with Section 6.3.

2.4.14 SEWAGE LIFT STATIONS

The District has established standard design guidelines for interim sewage lift stations. Interim sewage lift stations will serve a development until a master planned sewer lift station or facility is

constructed and operational. The interim sewage lift station design criteria are listed in Section 10.1. The Engineer of Work shall follow the criteria to meet the needs of an individual development and the developer shall be responsible to pay all costs for design, construction, and eventual demolition of the interim lift station.

Design criteria for permanent master planned lift stations are also listed in Section 10.1. The District will reserve the right to have a developer's engineer design and contractor construct a lift station and reimburse them for the costs or provide the design and construction services independent of the developer.

In some cases it may be necessary for a developer to design, construct, and dedicate to the District a permanent sewer lift station that is not a master planned facility. The design criteria for permanent sewer lift station shall govern for these unplanned facilities.

2.4.15 REFERENCE

Should the reader have any suggestions or questions concerning the material in this section, contact the District Engineer.

The publications listed below form a part of this section to the extent referenced and are referred to in the text by the basic designation only. Reference shall be made to the latest edition of said publications unless otherwise called for. The following list of publications, as directly referenced within the body of this document, has been provided for the users convenience. It is the responsibility of the user of these documents to make reference to and/or utilize industry standards not otherwise directly referenced within this document.

1. Valley Center Municipal Water District Standards:

A. Design Guidelines

- i. Section 1.1, Drafting Guidelines
- ii. Section 1.5, Easements and Encroachments
- iii. Section 2.2, Development Plan and Permit Processing Procedures
- iv. Section 4.2, Sewer Planning
- v. Section 6.1, Gravity Sewer Pipeline Design
- vi. Section 6.2, Sewer Manholes and Cleanouts
- vii. Section 6.3, Sewer Laterals
- viii. Section 6.4, Pressure Systems (Force Main)
- ix. Section 10.1, Sewer Lift Station Design

B. Approved Materials List for Sewer Facilities

END OF SECTION