ADDENDUM TO SEWERAGE CODE OF AUSTRALIA WSA 02-2002

2.3.1 Loading per Serviced Property

Refer to Section DG 6.8 - Design Criteria of this Manual.

2.3.2 Assessment of future loads

Refer to Section DG 6.8 - Design Criteria of this Manual.

3.1 DESIGN FLOW ESTIMATION

Refer to Section DG 6.8 - Design Criteria of this Manual.

3.2 DESIGN FLOW ESTIMATION METHOD

Refer to Section DG 6.8 – Design Criteria of this Manual.

4.2.5 Easements

Refer to Section DG 6.12 – Dedication of Land, Easements and Permits to Enter of this Manual.

4.3.7 Horizontal Curves in Sewers

Horizontal curves in sewers are not permitted.

4.5.3 Minimum Air Space for Ventilation

Refer to Section DG 6.8 – Design Criteria of this Manual.

4.5.4 Minimum pipe sizes for maintenance purposes

Refer to Section DG 6.13 – Property Connections in this Manual.

4.5.7 Minimum Grades for Self Cleansing

Refer to Section DG 6.8 – Design Criteria of this Manual.

4.6.5 Minimum Depth of Sewer Connection Point

The sewer shall be deep enough to drain the entire lot except where a private pump station is approved on the lot.

4.6.7 Vertical Curves

Vertical curves are not permitted.

4.6.8 Compound Curves

Compound curves are not permitted.

5.2 LIMITS OF CONNECTION TO SEWERS

Add: connections into manholes will be permitted at end of lines only, elsewhere connections are required in line only.

5.3 METHODS OF PROPERTY CONNECTION

The methods of property connection shall be as per Council's Standard Drawing
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5.5 NUMBER OF PROPERTY CONNECTIONS

5.5.2 Multiple Occupancy Lots

An application shall be made at design stage for determination of servicing method.

5.6 LOCATION OF CONNECTION POINTS

5.6.1 Undeveloped lots

Property connections should generally be located at the lowest corner of the allotment between 0.5 and 1.5m upstream of the allotment boundary or manhole.

Where a sewer main lies within an adjoining allotment, the property connection is to extend a distance of 1.0m into the allotment. For battle-axe allotments with the property connection located within the access, the property connection shall extend along the access to a point 1.0m within the main part of the allotment or, where a sealed driveway is required for the full length of the hatchet 'handle' then 1m past the extents of the driveway to allow a suitable future point of connection. Where a sewer is contained within a stormwater drainage easement, then the property connection should extend a minimum of 1m past the easement boundary and into the lot it is serving. All property connections should be finished a minimum of 1m clear of any infrastructure.

5.7 Y – PROPERTY CONNECTIONS

Y-property connections are not permitted.

6. MAINTENANCE STRUCTURES

Table 6.1

The use of horizontal and vertical bends is not permitted.
The use of Maintenance shafts shall be by conditional approval only.
The use of terminal maintenance shafts is not permitted.

6.3.2 Maintenance Structure Spacing – Reticulation Sewers

The maximum distance between any two consecutive maintenance structures shall be 90m.

6.6.3 Design Parameters for MHs

External drops are not permitted for use with precast manholes.

6.6.4 Property Connections in MHs

Property connections must not be connected into maintenance holes.

6.6.8 Ladders Step Irons and Landings

Ladders, step irons and landings are not required.

6.7 MAINTENANCE SHAFTS

6.7.1 General

The use of maintenance shafts is permitted, subject to approval in reticulation sewers subject to the design parameters detailed in this Manual and WSA 02-2002.

6.7.2 Design Parameters for MSs and TMSs

The following design parameters apply to maintenance shafts and terminal maintenance shafts in addition to or instead of those detailed in WSA 02-2002.

- Sizing and installation of maintenance shafts to generally comply with the manufacturers recommendations.
- Maintenance shafts shall be graded to the intersection point of the sewer main and maintenance shaft coupling/bend/fitting.
- Maintenance shafts may be used on 100mm, 150mm and 225mm diameter sewer mains and house connection branches only.
- Maintenance shafts shall be used to a maximum depth of 3.0m.
- Maintenance shafts must be supported on a concrete cradle/surround.
- Testing of maintenance shafts shall generally be carried out in conjunction with the testing of the sewer main.
- Property connection branch inspection tees shall be 200mm clear of the centre of the Maintenance Shaft.
- Property connections must not be made into maintenance shafts.
- Maintenance shafts must be provided with a 600mm dia Ductile Iron Class B cover located within a precast surround. The trench bedding material shall extend below the shaft inspection opening surround.
- A maximum of five (5) Maintenance Shafts will be permitted between two conventional maintenance holes with a total length of sewer of not more than 250m between maintenance holes.
- Maintenance Shafts shall be located with a maximum spacing of 50 metres to an adjoining structure.

Maintenance shafts are not permitted in the following locations:

- As the receiving manhole at a pumping/lift station;
- As a discharge manhole for a rising main;
- Within roadway central medians, roundabouts or within kerb and channel;
- As the connection structure for future development stages;
- In an area zoned Industrial, Commercial, or Multi-unit.

7.2 WATER SEALS, BOUNDARY TRAPS AND WATER – SEALED MH'S

Water seals are not required.

7.3 GAS CHECK MH'S

Gas check MH's are not required.

7.4 VERTICAL AND NEAR VERTICAL SEWERS

Prior approval must be obtained from Council for the use of vertical or near vertical sewers.

7.7 VORTEX INLETS AND WATER CUSHIONS

Prior approval must be obtained from Council for the use of water inlets and water cushions.

7.8 INVERTED SYPHONS

The use of inverted syphons is not permitted.

7.10 FLOW MEASURING DEVICES

Flow measuring devices are not required to be installed. Not withstanding this provision shall be made in the design of the valve chamber to allow the future installation of an electromagnetic flowmeter.

7.11 WET WEATHER STORAGE

Prior approval must be obtained from Council for using wet weather storage as a means of reducing downstream infrastructure.