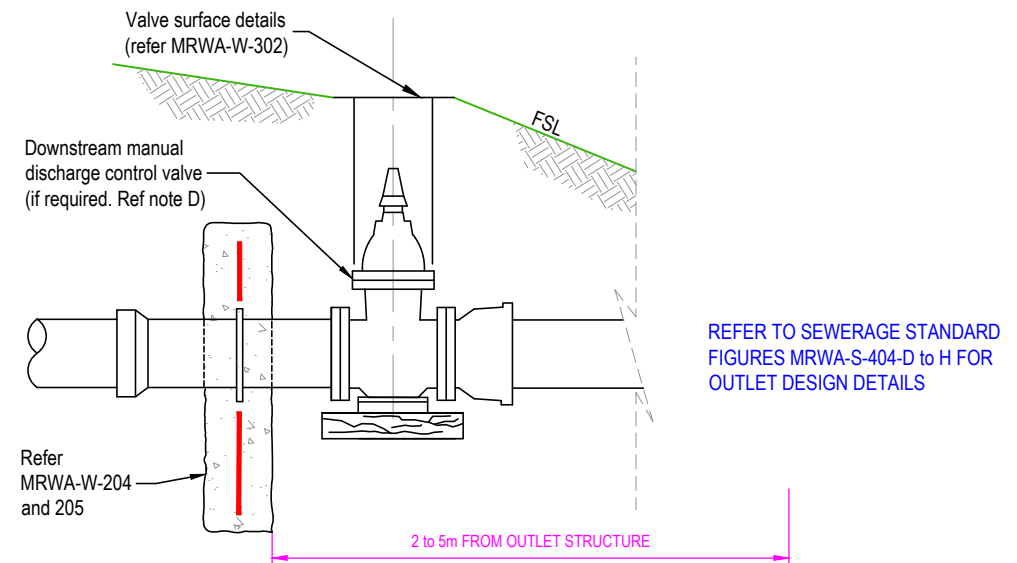
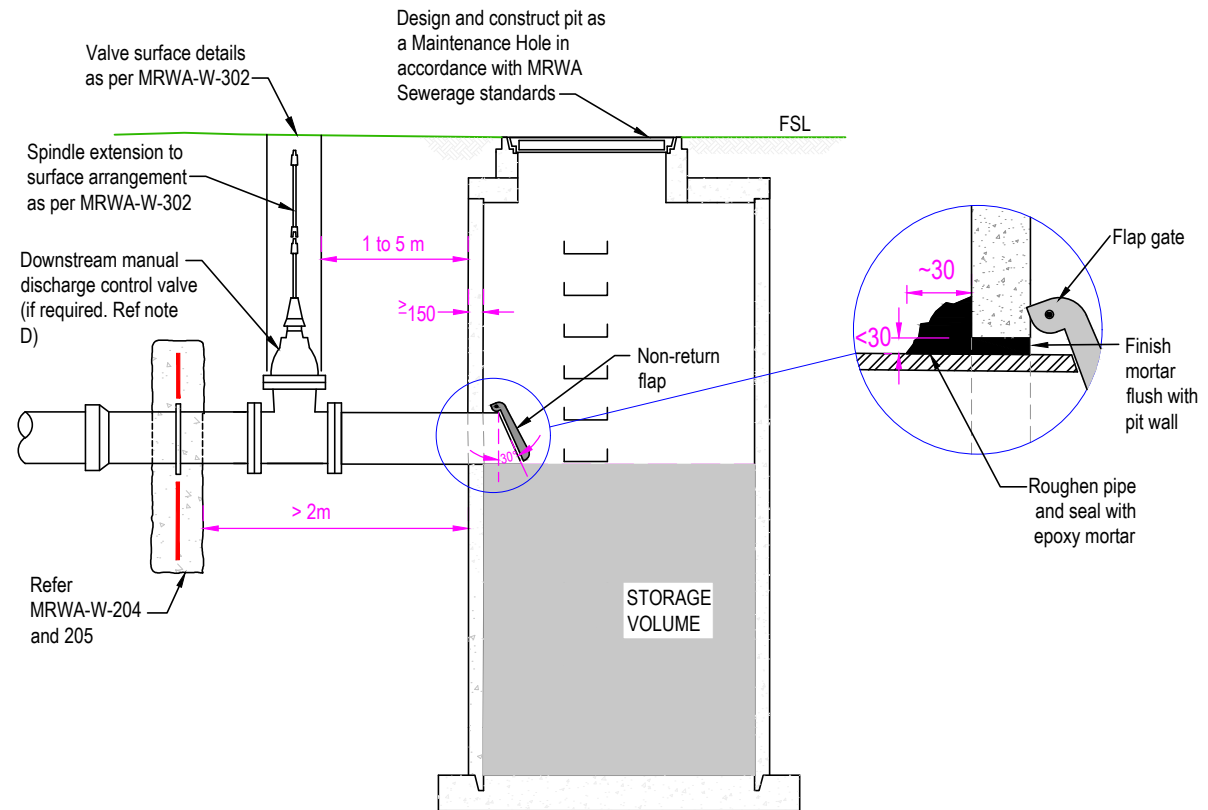


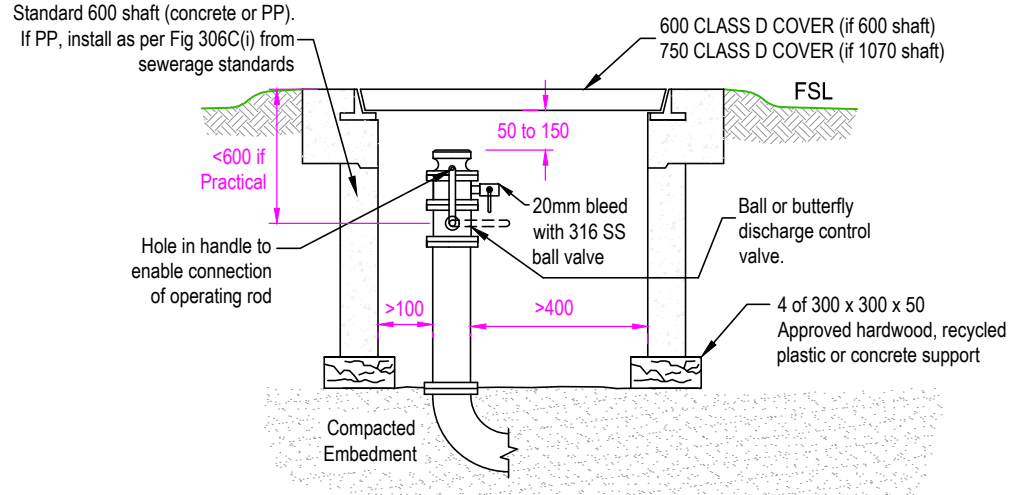
**FIGURE 307-A: SCOUR CONNECTION**



**FIGURE 307-C: DISCHARGE TO WETLANDS OR WATERWAYS**



**FIGURE 307-B: DISCHARGE PIT DETAIL**



**FIGURE 307-D: TANKER CONNECTION POINT**

**NOTES Regarding Discharge Pits:**

- To be used on NDW mains only. Locate nearby ≥DN300 sewerage main maintenance structures if practical.
- Pump out pits may only be used on DW mains in cases where there the water main is constructed ahead of drainage. DW Pump out pits shall be decommissioned and replaced with properly constructed drainage system scour connections when drainage becomes available.
- Use minimum 1050 manhole design. Consider larger manholes for larger mains.
- Construct pit in accordance with WSA 02- cast in situ manholes.
- Designers must produce a feasible scour water removal plan and adjust the scour pit design to suit. The plan should take into account: the grade of the main, the volume of water in the main, the volume of the pit, the feasibility of pumping pit contents to a sewer, or the number of eductor truck loads required to empty the main.
- Pit storage shall be no less than 1/50 of the water main shutoff volume being removed unless the pit is within 50m of a nearby ≥ DN300 sewer. Water main shutoff volume must be ≤ 300m³.

**NOTES Regarding Tanker Connection Points:**

- This arrangement is an alternative to Figure 307-B. It is preferred when the scour water removal plan indicates a single tanker truck could empty the isolated section of main within the required time (refer to table 8.3 of WSA03).
- Locate the pit in a non trafficable location if possible.
- Cover shall be Class D and the shaft shall be reinforced concrete if the pit is located in a trafficable location.
- Approved polymeric or concrete shaft may be used in non trafficable locations.
- Cover should lie 25mm above the surrounding natural surface level (not to protrude excessively above ground) in non trafficable locations.
- System to be operated as follows; 1) sit on edge of opening, with legs in pit, 2) couple truck hose to quick connector, 3) open discharge control valve & fill tanker, 4) close valve, 5) disconnect hose from quick connector or truck. The shaft shall be sized and dimensioned to enable this.
- Quick connector is a Bauer couplings for CWW.

**GENERAL NOTES:**

- Scour valve and pipework to provide required main drainage time (refer table 8.3 of WSA 03- MRWA edition).
- Discharge to drains and water ways is preferred for drinking water.
- Discharge to a pit or tanker connection point is required for non drinking water. Locate discharge pits nearby ≥DN300 sewerage main maintenance structures if practical.
- Downstream valves at the end of the scour line are only required when the discharge cannot be seen or heard at the distribution main's offtake valve which is typically when the drain, pit or waterway is more than 20m away. For tanker connection points, the butterfly valve below the connection coupling provides satisfactory discharge control.
- Unreinforced concrete to be N20 and reinforced concrete N25.
- Connections into drains shall be undertaken as per the requirements of the relevant drainage authority.
- Discharge to wetlands, creeks and drains only permitted for drinking water and treated storm water.
- Scours are typically sized as per bypass valves, although drainage time and scour flow velocity should also be taken into account (refer to Table 105-A for details).

DESIGNED:	R. JAGGER	DATE:	13/04/2011
DRAWN:	R. JAGGER	DATE:	13/04/2011
CHECKED:	NAME	DATE	APPROVED: NAME
3	C. RIVETTE	04/04/12	C. RIVETTE
2	C.PAXMAN	04/04/12	G.REYNOLDS
1	K.DAWSON	04/04/12	A.COSHAM
REV	DESCRIPTION	DATE	APPROVED

MELBOURNE RETAIL WATER AGENCIES		MRWA WATER SUPPLY STANDARDS		NOT TO SCALE	
SCOUR ARRANGEMENTS FOR ≥ DN300 MAINS				MRWA-W-307	
				ISSUED 2012 REVISION NO. 3	