

OPTIONS I) TO IV) APPLY ONLY TO ≥DN150 MAINS

Acceptable where a valve is better set back from the end of the main (ie: at a splay corner) and there are <10 connections in between.

Preferred when >10 connections between next valve back and the end of line. Maintain FL-FL piece to keep distance from concrete restraint.

Preferred where a hydrant is also required for on going operational or fire fighting reasons.

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≤DN225 MAINS.
SEW DN300 & DN375 MAINS- Non Trafficable
 Required for permanent valves when:
 1. Hydrants required on both sides of a valve, or
 2. DN225 end of line valve, or
 3. SEW and Non-Trafficable DN300 or DN375 end of line valve. Hydrants as per Figure 305-B required in this case.

≥DN225 MAINS WITH TEMPORARY FITTINGS
 Required where a larger flow rate is required to facilitate swabbing at 0.5 to 1.0 m/s and a permanent end of line valve is not justified. Refer Figure 106-D for an example. Temporary fittings shall be sized as per Table 106-D.

≥DN450 MAINS.
DN300 & DN375 MAINS- CWW & YVW. SEW Trafficable
 Required for permanent valves when:
 1. ≥DN450 end of line valve, or
 2. CWW or YVW DN300 or DN375 end of line valve, or
 3. SEW DN300 or DN375 end of line trafficable valve
 • Joint details not shown for clarity.
 • Refer to MRWA-W-105 for assembly details.
 • Connect chlorination hose & fittings between permanent and temporary hydrants to facilitate charging and chlorination.

NOTES Regarding Main Termination Valve & Hydrant Requirements:
 Unrestrained main examples shown. Similar concepts apply to restrained mains.

a. Permanent valve(s) are generally required at temporary dead ends as per Option ii) to v). This is to ensure that the minimum number of customers are affected when later works are completed.
 If practicable, <10 existing connections shall be designed into a SOB which is to be completed at a later date (as indicated in Option i).

b. With respect to Option i), the undisturbed ground behind the washout shall not be disturbed for a distance of at least 2 meters.

c. Where washouts on new mains are to be placed hard up against a blank plate at the end of a previous stage (Options ii, iii & iv), multiple blocks will make it easier to remove the temporary washout, and in the case of Options ii & iii, the increased separation will make it easier to attach the standpipes without them clashing.

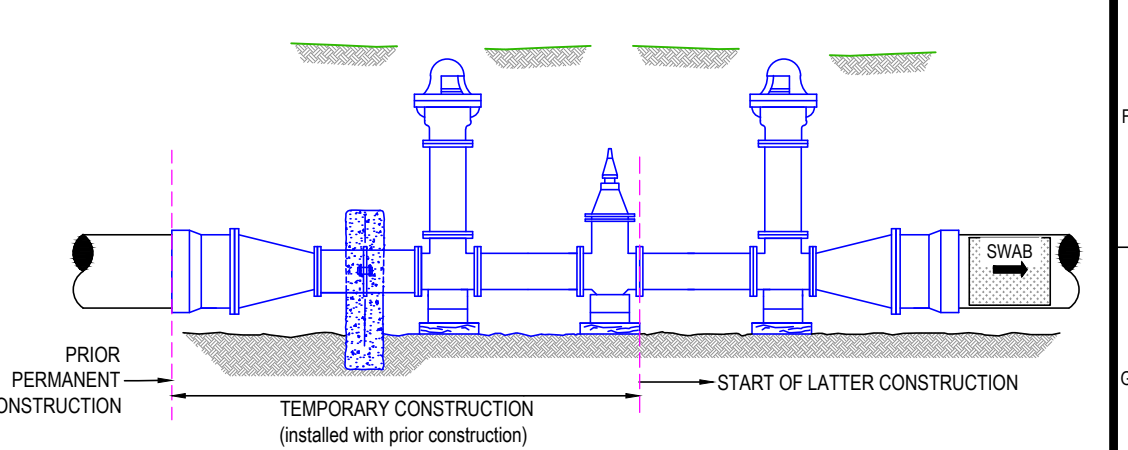
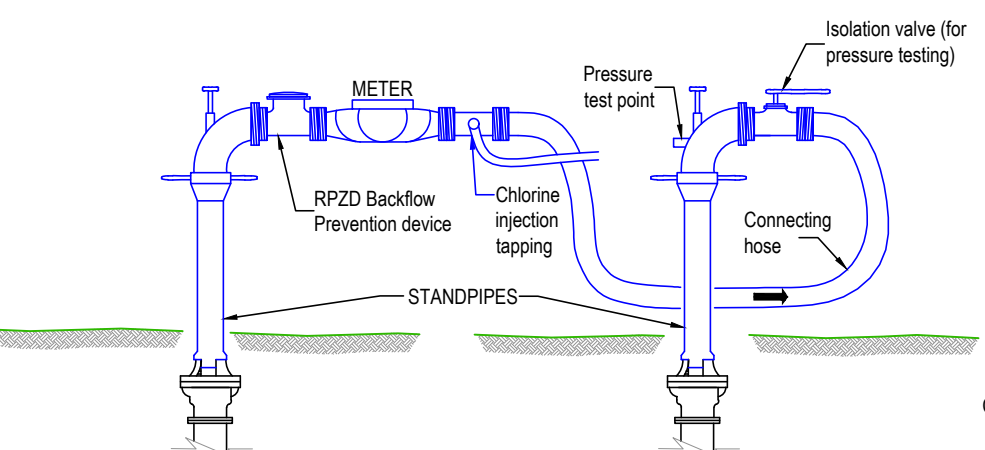
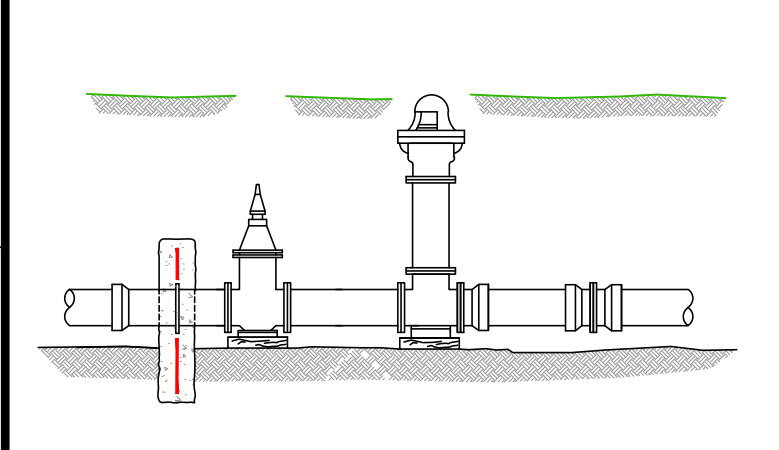
KEY REFERENCES:

- Chlorination and water quality compliance as per WSA 03-2010 / MRWA Specification 04-02.
- Concrete thrust restraints as per MRWA-W-204 and 205A or 205B.
- Surface covers as per MRWA-W-302 & 303.

ITEMS SHOWN IN BLUE ARE TEMPORARY

NOTES Regarding Large Main End of Line Arrangements:

- Where the distance back to the last permanent divide valve on the main is close to the maximum spacing (ie: > 2/3rds of the maximum spacing in Table 300-B), the end of line valve and hydrant arrangement shall be permanent (refer Options v) and vii)).
- Where the distance back to the last permanent divide valve on the main is substantially less than the maximum spacing, the end of line valve and hydrant arrangement shall be temporary (refer Option vi)).
- Hydrants shall be valve controlled &/or offset in accordance with MRWA-W-304.
- For ≥DN225 mains, a temporary hose connection between the hydrants will be unable to push the swab with adequate velocity.
- In such cases, swabbing flows will need to be delivered through the operation of an in line valve.
- This valve (and any bypass valve) shall successfully pass a pressure test to the new system test pressure prior to installation (to ensure it does not leak super chlorinated water back into the in service main).
- Install these valves closed and do not operate until the downstream system successfully passes its pressure test (other than to swab).
- Temporary end of line assemblies shall be sized as per Table 106-D.
- ≥DN225 offtakes from large mains require a site specific design schematic for before, during and after the main's extension, otherwise:
- ≤DN150 offtake mains shall be constructed according to Options i) to iv).



REV	DESCRIPTION	DATE	APPROVED
4	REMOVE ALL SWABBING CONTENT	Mar 2020	CP, GA, WS
3	ADD TEMPORARY END OF LINE ARRANGEMENT	1/12/16	RJ / CP / JT
2	PUBLISHED FIRST ISSUE	04/04/12	R. JAGGER
1	PRE PUBLISHED DRAFT FOR COMMENT	12/07/11	R. JAGGER

DESIGNED:	R. JAGGER	DATE:	20/01/2011				
DRAWN:	R. JAGGER	DATE:	20/01/2011				
CHECKED:	NAME	DATE	APPROVED:	NAME	DATE		
<input checked="" type="checkbox"/>	C.WW	C. RIVETTE	04/04/12	<input checked="" type="checkbox"/>	C.WW	R.CARRUTHERS	04/04/12
<input checked="" type="checkbox"/>	SEWL	C.PAXMAN	04/04/12	<input checked="" type="checkbox"/>	SEWL	G.REYNOLDS	04/04/12
<input checked="" type="checkbox"/>	YVW	K.DAWSON	04/04/12	<input checked="" type="checkbox"/>	YVW	A.COSHAM	04/04/12

MELBOURNE RETAIL WATER AGENCIES

MRWA WATER SUPPLY STANDARDS

CHLORINATION AND TERMINATION & EXTENSION OF MAINS

NOT TO SCALE

MRWA-W-308

ISSUED 2012 REVISION NO. 4