

**LEGEND**

- HYDRANT (FIG 305-A)
- HYDRANT OR AIR VALVE (FIG 305-A, D, E or F)
- × ALL IN ONE VALVED HYDRANT (FIG 305-B)
- × VALVED RISER PLUS HYDRANT OR AIR VALVE (FIG 305-C or D)
- ⊗ AIR VALVE (FIG 305-D, E or F)

**NOTES:**

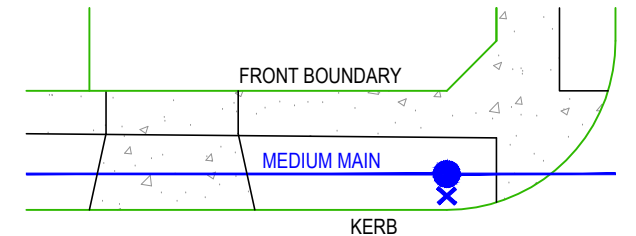
- a. Refer Table 304B-A for definitions of "small", "medium" and "large" mains in the context of air fittings.
- b. Air valves rarely required on small & medium sized mains.
- c. Always locate nature strip valves and hydrants as close as practical to the splay corner.

**TABLE 304B-A: MAIN SIZE DEFINITIONS**

WATER MAIN NOTATION	WATER MAIN SIZE (DN) CWW and YVW	WATER MAIN SIZE (DN) - SEW
SMALL	DN100, 150 & 225	
MEDIUM	DN300 & 375	DN300, 375 & 450
LARGE	≥DN450	≥DN600

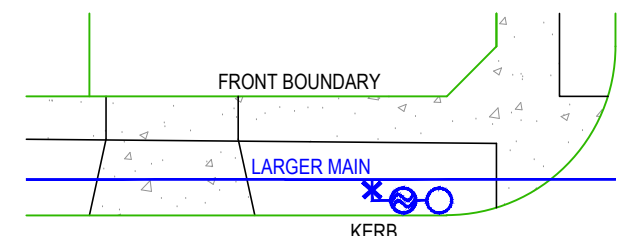
Locate valves and hydrants in the nature strip as close to the splay corner as practical

Underground fittings may be single offset where practical. Above ground fittings shall be double offset where practical.



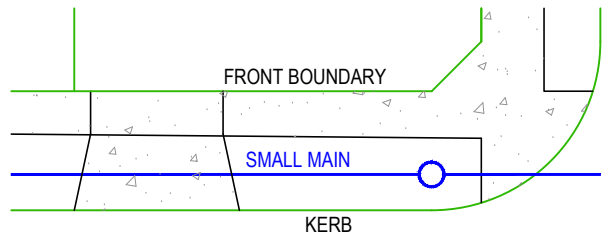
**FIGURE 304B-D: CWW-SEW-YVW. MEDIUM NON-TRAFFICABLE MAIN**

- IN LINE VALVED RISER PLUS AIR FITTING.
- WHEN FIG 304B-C CANNOT BE INSTALLED DUE TO SITE CONSTRAINTS.
- CWW or YVW IN LINE HYDRANTS or
- CWW or SEW BELOW GROUND AIR VALVES.



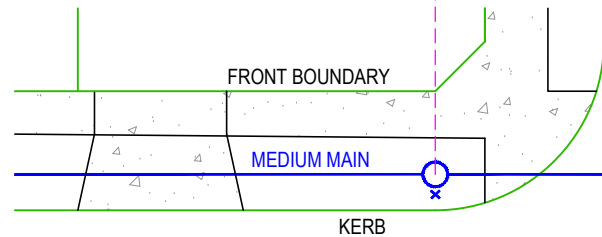
**FIGURE 304B-E: LARGE NON-TRAFFICABLE MAIN**

- OFFSET VALVE CONTROLLED AIR VALVE + HYDRANT
- YVW AIR VALVE SHALL BE ABOVE GROUND
- CWW - SEW AIR VALVE SHALL BE BELOW GROUND



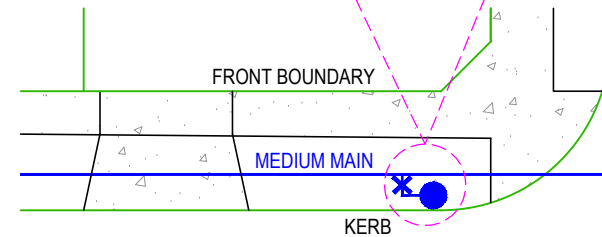
**FIGURE 304B-A: CWW-SEW-YVW. SMALL NON-TRAFFICABLE MAIN**

- IN LINE STANDARD HYDRANT



**FIGURE 304B-B: SEW NON-TRAFFICABLE HYDRANTS. MEDIUM MAINS**

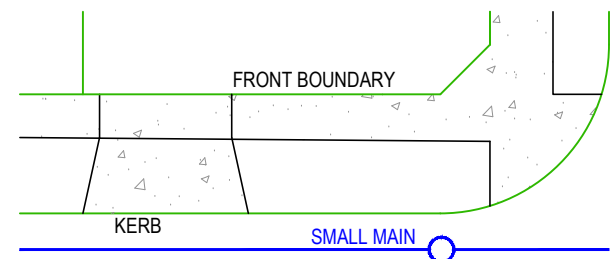
IN LINE ALL IN ONE VALVED HYDRANT



**FIGURE 304B-C: MEDIUM NON-TRAFFICABLE MAIN**

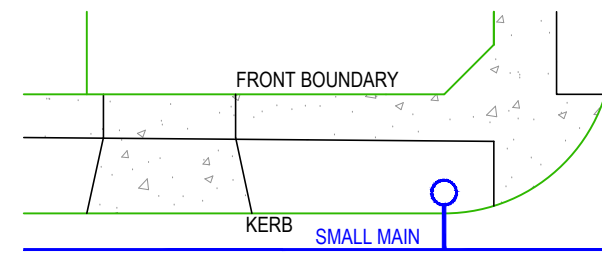
- CWW or YVW - OFFSET VALVE CONTROLLED HYDRANT OR AIR VALVE
- SEW - OFFSET VALVE CONTROLLED AIR VALVE
- YVW AIR VALVE TO BE ABOVE GROUND
- ALL OTHER FITTINGS TO BE BELOW GROUND

**TRAFFICABLE MAINS ≤DN250**



**FIGURE 304B-F: SEW. SMALL TRAFFICABLE MAIN**

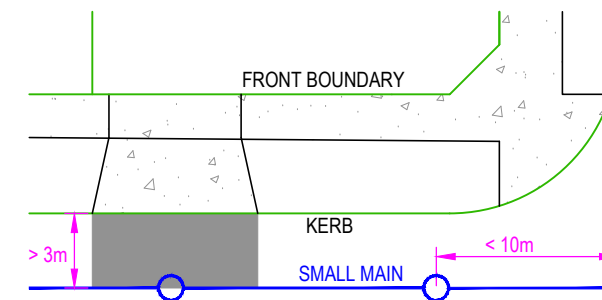
IN LINE STANDARD BELOW GROUND HYDRANT



**FIGURE 304B-G: CWW-YVW. SMALL TRAFFICABLE MAIN**

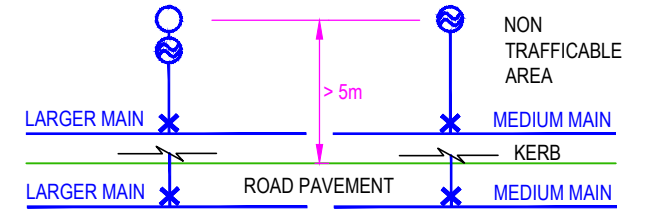
OFFSET STANDARD BELOW GROUND HYDRANT

**NON TRAFFICABLE**



**FIGURE 304B-H: CWW-YVW. SMALL TRAFFICABLE MAIN**

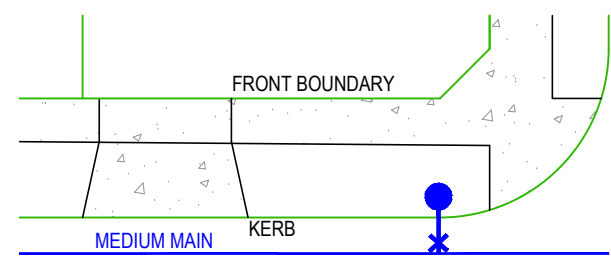
- IN LINE STANDARD BELOW GROUND HYDRANT WHERE IT IS IMPRACTICAL TO OFFSET
- LOCATE HYDRANT IN FRONT OF DRIVEWAY OR WITHIN 10m OF INTERSECTION, and
- OFFSET >3m FROM BACK OF KERB WHERE PRACTICAL.



**FIGURE 304B-I: CWW-SEW. ABOVE GROUND AIR VALVES**

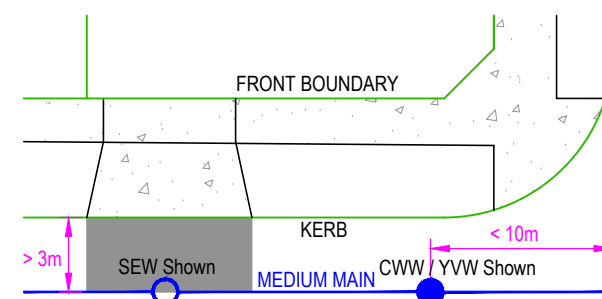
- WHERE BELOW GROUND AIR VALVE IMPRACTICAL.
- LOCATE ABOVE GROUND AIR VALVES IN NON-TRAFFICABLE AREAS > 5m FROM ROAD PAVEMENT.
- MAIN MAY BE LOCATED IN A NON-TRAFFICABLE / TRAFFICABLE AREA.
- AIR VALVES RARELY REQUIRED ON MEDIUM MAINS.

**TRAFFICABLE MAINS ≥DN250**



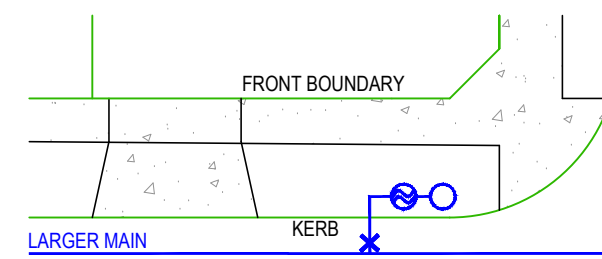
**FIGURE 304B-J: CWW-SEW-YVW. MEDIUM TRAFFICABLE MAIN**

- VALVE CONTROLLED OFFSET BELOW GROUND HYDRANT OR AIR VALVE
- YVW AIR VALVE TO BE ABOVE GROUND
- ALL OTHER FITTINGS TO BE BELOW GROUND



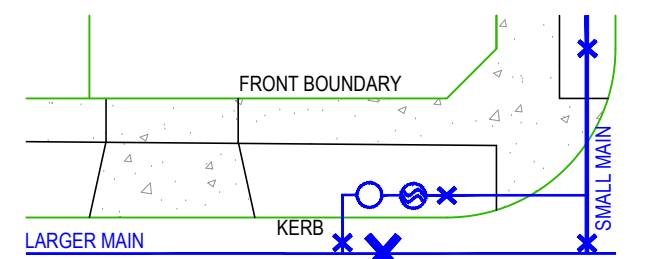
**FIGURE 304B-K: CWW-SEW-YVW. MEDIUM TRAFFICABLE MAIN**

- in line below ground valved hydrants or air valves where it is impractical to offset
- locate hydrant or air valve in front of driveway or within 10m of intersection, and
- offset main >3m from back of kerb.



**FIGURE 304B-L: CWW-SEW-YVW. LARGE TRAFFICABLE MAIN**

- OFFSET VALVE CONTROLLED AIR VALVE PLUS HYDRANT
- YVW AIR VALVE TO BE ABOVE GROUND
- ALL OTHER FITTINGS TO BE BELOW GROUND



**FIGURE 304B-M: CWW-SEW-YVW. DIVIDE VALVE ON LARGE TRAFFICABLE MAIN**

- OFFSET BYPASS WITH HYDRANT AND AIR VALVE.
- AIR VALVE LIKELY REQUIRED WHERE THIS IS AT A DISTINCT HIGH POINT

REV	DESCRIPTION	DATE	APPROVED	DESIGNED	DATE	CHECKED	DATE	APPROVED	DATE
3	MAIN SIZE DEFINITIONS INCLUDED (CHANGED)	APR 20	CP / GA / WS	R. JAGGER	1/02/2016	NAME	DATE	NAME	DATE
2	PUBLISHED FIRST ISSUE	01/12/16	RJ / CP / JT	R. JAGGER	1/02/2016	NAME	DATE	NAME	DATE
1	PRE PUBLISHED DRAFT FOR COMMENT	12/03/16	RJ / CP / JT	R. JAGGER	1/02/2016	NAME	DATE	NAME	DATE

MELBOURNE RETAIL WATER AGENCIES

City West Water

South East Water

Yarra Valley Water

MRWA WATER SUPPLY STANDARDS

HYDRANT AND AIR VALVE ARRANGEMENT EXAMPLES

NOT TO SCALE

MRWA-W-304B

ISSUED 2016 REVISION NO. 3