

Lower Mainland Plumbing Code Committee



Minutes of the meeting of the Lower Mainland Plumbing Code Committee in
Clerks Meeting Room, Burnaby City Hall, 4949 Canada Way, Burnaby BC.
Thursday November 1, 2018, 1:30 p.m.

Chairman:	Bob Kennedy	City of Coquitlam
Co- Chair:	James Siemens	City of North Vancouver

Present:	Patrick Maguire	IPEX
	Grant McKechnie	City of Abbotsford
	Guy Gareau	City of White Rock
	Derek Slykerman	City of Vancouver

(1) CALL TO ORDER:

The meeting was called to order by the Chairman at 1:33

(2) MINUTES OF MEETING:

A Motion was made to adopt the Minutes of the meeting of the Oct 4, 2018 by Grant McKechnie of Abbotsford and Seconded Guy Gareau of White Rock.

Motion Carried

(3) BUSINESS ARISING FROM MINUTES:

a) None

(4) NEW BUSINESS

- The committee looked at an example of multiple RPBD's installed by example in a dental office on a third floor. If someone were to take the loads from the devices discharging, and size them as a "semi-continuous" flow under 2.4.10.3.(1) and convert the GPM discharge to sanitary FU, you would find that the branch size required to serve the area would be artificially oversized.

RPBD's are not fixtures with a "continuous or semi-continuous" flow that would fall under 2.4.10.3. they are emergency devices.

A table was produced and presented in the LMPCC Minutes of June 4, 1998 for "Reduced Pressure Backflow Preventor Discharge Locations". This was established from a graph in the Pacific Northwest Society, American Water Works Association Chapter 6 (6th Edition)

**Reduced Pressure Backflow
Preventor Discharge Locations**

Reduced Pressure Device	US GPM Flow Rates (1)	F.D. Grate Opening and Outlet	Hub Drain c/w 24" Inlet Standpipe	Open Pipe to Outside c/w 24" Vertical Drop at device Prior to any 90° Change of Direction
½"	40	2"	1 ½"	2"
¾"	80	3"	2"	2"
1"	80	3"	2"	2"
1 ¼"	160	4"	3"	3"
1 ½"	195	6"	3"	3"
2"	195	6"	3"	3"
2 ½"	360	6"	4"	4"
3"	360	6"	4"	4"
4"	575	8"	6"	4"
6"	575	8"	6"	4"

(1) Note: Calculations based on 80 PSI pressure available (Max - PRV - BCPC)

It is not necessary to cumulatively add the drain sizing on the branch for multiple RPBD's. However if RPBD drains are connected together prior to discharging at a drain, then some sizing will be necessary. Typically on larger jobs if a P.Eng is involved, this would fall on them if it has not already been addressed.

Committee once again deferred to the sizing Table as presented.

➤ **Stainless Steel Piping Review / J. Siemens**

The concept of grooved technology, as it is known today, was born into existence in 1919 when Ernest Tribe, a British Royal Engineers Lieutenant and Dr. Henry Selby Hele-Shaw, a renowned engineer, finalized a patent application of the invention of the grooved mechanical coupling. Originally known as *The Victory*

Pipe Joint Company, Victaulic began to market this revolutionary new concept in the pipe connector industry. Nearly 100 years later this technology continues to evolve and change the way the construction industry looks at piping systems. It's simply a faster, easier and safer way to join pipe.

Jim gave the group an update on last month's presentation by Victaulic on Stainless Steel water piping, specifically roll grooving. There is specific product training required as there is unique tools required for each type of the three rolled grooved processes that Victaulic has. OGS (Original Groove System) Groove Profile, AGS (Advanced Groove System) Groove Profile and StrengThin™ 100 Groove Profile. Each has different roll groovers required and you will see different knurling patterns inside the pipe, from fine to large.

➤ **Condensate Drains**

CPVC piping being used as condensate drains from fan coils in high buildings due to flame and smoke classifications. It was pointed out that in many cases some of these units are discharging oils along with the condensate. CPVC cannot tolerate oil and will not be warranted by the manufacture in this type of installation. (Note; PVC is OK with oils but the flame and smoke ratings are too high for use in a high building)

➤ **Combined Water Supplies**

A discussion with a 8" fire / domestic combined service into a building and a separate 6" domestic water takeoff within the mechanical room, then a 4" DCVA on the domestic water. There was a question on the pressure drop through the DCVA, which can be answered from the manufactures specification sheets found on their web page. More of a concern though is the downsizing to the 4" DCVA on the DCW from the 6" nominal pipe size. It may be that the 4" valve could pass the "total system" GPM, the velocity may well be too high for safe operation of the valve. Most backflow valve manufactures recommend staying with the same nominal pipe size as at your chosen point of installation.

B-64.10-07, 6.2. Sizing, states devices shall be sized according to manufactures recommendations. Watts by example on their 6" 774 DCVA gives a 10' per sec flow rate with 1000 GPM as the recommended flow rate. Their 4" device is at 15' per sec with 500 GPM.

6" copper @ 5' per/sec = 418GPM
6" Ductile @ 8' per / sec = 680 GPM
4" Ductile @ 8' per / sec =300 GPM

So in this example downsizing the DCVA to 4" decreases the water service capacity by more than half. While the 4" valve may flow more than the recommended, up towards the UL Tested limits, it will be flow in excess of 20' per /sec to do so.

➤ **Storm Management Systems**

A question was asked of the group of how involved they get with storm water retention and detention systems. By example Brentwood box Systems can be used for types of systems, when fully tanked it is used for detention and when only wrapped on the sides it is a retention system.

These system should be designed by P.Geo and inspected by them as well with submitted letters of field review. It is fair for us to inspect the storm drainage systems upstream and downstream of their systems, but the internal piping of the detention / retention systems should be reviewed by the professional. We then collect their paper work and schedules for the file.

(5) OTHER BUSINESS

➤ None

(6) NEXT MEETING:

The next meeting of the Committee will be held on Thursday, December 4, 2018, 1:30 p.m. in the **Clerks Meeting Room, Burnaby City Hall, 4949 Canada Way, Burnaby BC.**

(7) ADJOURNMENT:

The business of the meeting having been concluded, the Chairman adjourned the meeting at 3:40 PM