

Report to Council



Date: September 17, 2018
File: o600-10
To: City Manager
From: Joel Shaw, Infrastructure Engineering Manager
Subject: Bylaw 7900 – Schedule 4 and 5 Update

Recommendation:

THAT Council receives, for information, the report from the Infrastructure Engineering Manager dated September 17, 2018, with respect to amending the Subdivision, Development and Servicing Bylaw 7900 Design and Construction Standards and Council Policy No. 266 – Subdivision, Development & Servicing - Approved Products List;

AND THAT Council Policy No. 266 – Subdivision, Development & Servicing – Approved Products List be amended as set out in Attachment A to the Report of the Infrastructure Engineering Manager dated September 17, 2018;

AND FURTHER THAT Bylaw No. 11692, being Amendment No. 18 to Subdivision, Development and Servicing Bylaw No. 7900 be forwarded for reading consideration.

Purpose:

To amend the Subdivision, Development and Servicing Bylaw 7900 Design and Construction Standards and Policy 266 – Approved Products List so they align with industry best practice and ensure construction of quality and long-lasting infrastructure.

Background:

Schedules 4 and 5 of the Subdivision, Development & Servicing Bylaw sets the standards and specifications for works and services in connection with the subdivision and development of land within the City boundaries. Schedule 4 outlines the design standards and Schedule 5 outlines the construction standards for municipal infrastructure like water distribution, sanitary sewer, drainage, roads, sidewalks, traffic signals, street lighting and landscaping. Policy 266 – Approved Products List specifies the approved products to be used in the construction of Works and Services in the City of Kelowna. Policy 266 is referenced and used in coordination with Schedule 4 and 5 of the Subdivision, Development and Servicing Bylaw.

The City periodically updates these standards so that the infrastructure constructed is high quality, long lasting and supports service delivery that the community expects. Standards are also reviewed against industry best practice and standards in other communities to ensure the City is obtaining best value from its infrastructure.

The last major update to Schedules 4 and 5 of the Subdivision, Development & Servicing Bylaw ('the Bylaw') was completed in 2012. Given that it has been more than 6-years since the last update, staff have taken a fresh look at how best to administer changes to the Bylaw and engage all stakeholders. To this end, a working committee was formed with representation from the Infrastructure Division, Development Engineering, Civic Operations, Infrastructure Delivery and Infrastructure Engineering. The working group meets regularly to review sections of the Bylaw, engage with internal and external stakeholders (like the Urban Development Institute) and decide on changes to bring forward to Council. The working group is systematically working through the sections of the Bylaw with the goal of updating all sections of the Bylaw on a more frequent and continued basis.

The working group has completed updates to the design standards for the Water and Sanitary Sections of the Bylaw as well as updated construction drawings in Schedule 5 and amended Policy 266 - Approved Products List.

Summary of changes to Schedule 4 of Bylaw 7900 – Design Standards include:

1. A significant formatting change to the design standards for Water and Sanitary Sewer was made so City standards aligned with the Master Municipal Construction Documents (MMCD) Design Guidelines. The MMCD Association is a non-profit society, founded in 1989 and supported by BC municipalities to create improved construction documents for roads, sidewalks, sewers, water, traffic signals and street lighting. The reason for the change was to demonstrate that City infrastructure is designed to industry best practice and that the City's requirements are consistent with other communities in BC. The City consulted the Urban Development Institute (UDI) with the proposed change and they were strongly supportive of the City's direction to align with MMCD Design Guidelines.
2. A new "General Section" was added to address common design requirements and avoid duplication across service areas (ex. Independent Utilities, Utility ROW, Utility Separation and Record Drawings).
3. Water and wastewater pump/lift stations now have a separate or isolated room or kiosk for electrical equipment to ensure a safe environment for workers and avoid water damaging electrical equipment.
4. Water Pressure Reducing Valve stations are now to be installed in an above ground kiosk to eliminate the risk of workers having to enter a confined space during maintenance.
5. Wastewater Lift Stations are now to have above ground valve chamber to eliminate the risk of workers having to enter a confined space during maintenance.

Summary of changes to Schedule 5 of Bylaw 7900 – Construction Standards include:

Water Drawings:

- SS-W4 Hydrant - Offset dimension revised for Hydrant and notes updated.
- SS-W52 AC Water main Crossing Detail – New detail drawing added.

- SS-W53a Above Ground PRV (11X17) – New detail drawing added. Now required above ground to eliminate confined space entry. Consistent with Schedule 4.
- SS-W53b PRV Kiosks (11X17) – New detailed drawing (as above).

Sanitary and Drainage Drawings:

- SS-S1a Manholes – Frame to be set flush with hard surface - changed from 7mm below asphalt
- SS-S1b Manhole Frame & Cover - Extra thickness of the cover added – flush with top of frame and strength
- SS-S1c Adjustable MH Frame & Cover – New detail drawing. Installation of adjustable Manhole.
- SS-S4 Inside Drop - Added drop bowl at riser section for ease of access. Replaces tee; and added benching notes.
- SS-S7 Sanitary & Storm Sewer Service Connection - added painted end caps to differentiate sanitary and storm and added extended tail section inside property if depth is greater than 2m to accommodate onsite excavations.
- SS-S9 IC for 100 to 200 Sanitary Sewer or Storm Drain Connection – Inspection Chambers for Storm services added; and colour coded.
- SS-S13B Storm Drain Outlet with Safety Grillage – Modifications to grillage detail
- SS-S55 Flow Control Chamber (with Sediment & Grease Trap) – Corrected Dimension lines for clearance

Summary of changes to Policy 266 – Approved Products List include:

- Reformatting the document.
- Updating the lists to include some new products and removed out of date products and descriptions.
- Eliminated product parts that are no longer easily available locally such as CLOW hydrants and valves.
- Eliminated air valve products that have failed or provided poor serviceability over the years.
- Added Street Light products (now LED)

The working group will align the other service areas like drainage, roads, street lighting and traffic signals with MMCD where practical. This work is ongoing and updates to the other service areas will be brought forward to Council in the coming months.

This year the City has integrated with the South East Kelowna Irrigation District (SEKID). Staff will return with further amendments to incorporate the necessary design standards for the irrigation system into City bylaws, which will allow the city to repeal the SEKID bylaws.

Internal Circulation:

Infrastructure Delivery Department Manager
 Development Engineering Manager
 Engineering Technical Support Coordinator
 Utility Services Manager
 Utility Planning Manager
 Community Engagement Manager

Legislative Coordinator

Legal/Statutory Authority:

Subdivision, Development and Servicing Bylaw 7900 Design and Construction Standards will be amended upon Council's approval.

Existing Policy:

Policy 266 – Approved Products List Standards will be amended upon Council's approval.

External Agency/Public Comments:

The City met with UDI on two occasions and received feedback on the proposed changes to Bylaw 7900 and Policy 266. UDI and the City are in agreement with the proposed changes.

The City reviewed the proposed changes to the Water Design standards with the other water purveyors in the City (i.e. Rutland Water Works, BMID and GEID). They are also in agreement with the proposed changes.

Considerations not applicable to this report:

Financial/Budgetary Considerations:

Personnel Implications:

Legal/Statutory Procedural Requirements:

Communications Comments:

Alternate Recommendation:

Submitted by:

J. Shaw, Infrastructure Engineering Manager

Approved for inclusion:



A. Newcombe, Infrastructure Divisional Director

Attachment A – Revised Council Policy No. 266

Attachment B - Bylaw 7900 - Schedule 4 and 5 Update Presentation

cc: City Clerk

Divisional Director, Community Planning & Strategic Investments

Divisional Director, Corporate Strategic Services

Divisional Director, Infrastructure

Infrastructure Delivery Department Manager

Infrastructure Operations Department Manager