



**Urban Development
Institute**
Edmonton Metro

#324 Birks Building
10113 – 104 Street
Edmonton, AB T5J 1A1

info@udiedmonton.com
udiedmonton.com
780.428.6146

August 9, 2022

9999-04-UDI

Jessica Jones
Manager, Land Development Engineering
Planning and Development Services
Strathcona County
2001 Sherwood Drive
Sherwood Park, AB T8A 3W7

**Re: Strathcona County Proposed Wastewater Lift Station Standard Update.
Strathcona County UDI Technical Committee Letter of Support.**

Thank you for contacting the Strathcona County UDI Technical Committee and providing us the opportunity to review the proposed wastewater lift station standards and to provide comments. In review of the proposed standards provide on November 26, 2021, we offered the following comments:

1. *We acknowledge that Section 4.2.1.13 has been relocated in the standards and is now in Section 4.5 Sanitary Lift Stations.*
2. *Based on review of section 4.5 it is very apparent that this section has been drafted in an attempt to capture most if not all of the possible requirements and preferred systems that could arise in the design/construction of a sanitary sewer lift station within the County. With this in mind we would like to maintain the understanding that each application of a sanitary lift station and its circumstances are different and as a result there is no "one size/configuration fits all" when it comes to designing and constructing lift stations. There would likely be very different circumstances when applying this standard to an Urban vs. Rural setting.*
3. *The complexity of the lift station should be based on factors such as service area, location, size, flows, and if the facility is planned as an interim, or permanent solution. All of these factors need to be considered when determining what elements are required in the lift station.*
4. *Not all requirements in 4.5 can be met on a consistent basis. An example of this is in 4.5.4.1 (iii) where all sewage in the discharge forcemain is replaced during each pumping cycle. Depending on the length of the forcemain this may not be achievable in every scenario. We can make every attempt to accommodate this but upsizing the lift station to achieve this when it might not be required based on development flows may not be the most economical or realistic solution.*
5. *If every sanitary lift station is required to meet all of these requirements, then there is a risk where some areas of the County may become undevelopable due to high lift station costs and limited basin areas.*
6. *General suggested text edits and wording considerations are as follows:*
 - a. *4.5.1.2 (i) 3rd sentence replace will with should. "reviewed on a case by case basis and should only be considered....."*
 - b. *4.5.1.2 (i) add "unless otherwise approved by Strathcona County" at the end of the section*

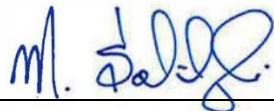
- c. 4.5.4.1 (iv) remove the requirements for a sump in the collection manhole. The sump on a storm manhole to collect grit works, but in a sanitary application the sump would fill with solids and would require extensive cleaning during regular sanitary lift station operation.
- d. 4.5.6.1 (i) first bullet. Other alternatives may be required at some point other than just PVC for forcemains, or 316L stainless steel piping in manholes. Please consider a statement such as "or approved equivalent subject to Strathcona County approval". This provides the opportunity for flexibility as circumstances change.
- e. 4.5.6.1 (i) second bullet. Consider increasing the maximum discharge velocity to 2.5 m/s since this will allow for possible reduction in wet well detention times and forcemain size.
- f. 4.5.7.1 (ii) Air changes for both wet well and dry well are typically 6 per hour. Are 12 air exchanges for the wet well necessary or will 6 be adequate?
- g. 4.5.7.1 (v) should the maximum noise rating measurement for the HVAC system be 42db as noted or 55db as per the current County noise bylaw?

In general, we would like an acknowledgment from the County that not every lift station proposed within the County is required to have all of the elements outlined in Section 4.5 and that there is flexibility to work with the County to ensure that an appropriate level of service can be achieved while still taking into account the circumstance surrounding that specific situation and that we are not over designing infrastructure. Perhaps a general statement in 4.5.1 could be made that reflects the opportunity and considerations that need to be taken into account with each specific project application and its needs.

We understand that these comments have either been incorporated into revisions within the standards or added as a general statement at the beginning of the standards as outlined in your email from May 31, 2022.

Please consider this a letter of support for the updated wastewater lift station standards provided on May 31, 2022 which incorporates our comments. We would like to thank the County again for working with industry to find collaborative solutions and improve how we develop land.

Sincerely,



Mark Solikowski, P. Eng.

Chair, UDI-EM Strathcona County Technical Committee



Peter Reeson

UDI-EM Manager,
Policy and Governance