



# CITY OF RAPID CITY

RAPID CITY, SOUTH DAKOTA 57701

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## Public Works Department Engineering Services Division

300 Sixth Street

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Web: [www.rcgov.org](http://www.rcgov.org)

July 15, 2014

Mr. Dana Foreman  
KLJ Engineers  
330 Knollwood Drive  
Rapid City, South Dakota 57701

Re: Request for Exception to the Infrastructure Design Criteria Manual Section 3.14.1 to Allow No Emergency Overflow Tank.

City Files #14EX140, Related Files # DEV14-1197

The request for exception to the Infrastructure Design Criteria Manual (IDCM) Section 3.14.1 to provide no emergency overflow tank on a pressure sewer system is denied.

The IDCM Section 3.14.1 requires a duplex pump system containing two grinder pumps and an emergency overflow tank with a minimum capacity of 500 gallons for a pressure sewer system. City staff previously denied exceptions to allow a single grinder pump with no overflow tank in June 2014 (City Files 14EX119 and 14EX120). Following discussions with the three affected property owners, Staff has reconsidered their position and is willing to allow the use of a single grinder pump in lieu of a duplex grinder pump as SD DENR recommended criteria for pressure sewer systems does allow for a single grinder pump to serve a single family residence (City File 14EX139).

Staff is not willing to approve an exception to the requirement to provide a 500 gallon overflow tank. The overflow tank provides storage for an emergency event when a power failure or pump failure occur. A 500 gallon storage tank provides approximately 2 days of storage for the average single family residence, based on industry standards for anticipated sanitary sewer flow generation. The 70 gallon working volume within the proposed E-one pump system does not provide for sufficient storage in the event of a power failure or pump failure. The overflow tank shall be a separate tank, in which waste is not anticipated within unless an overflow event occurs. If an overflow event occurs, the tank would need to be pumped completely dry as soon as possible or the tank configured so that waste would flow back into the pump station once the pumps are operable.



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Most importantly, the three homes are located immediately adjacent to Canyon Lake. The close proximity to the lake provides even more reasoning for the overflow tank and protecting from an overflow event. Also, the three proposed lift stations are located within an area identified by the DENR as a sensitive area, an area deemed particularly sensitive to the detrimental effects of nutrients, pathogenic organisms, organic chemicals and other substances that may be present in sanitary sewer waste.

The denied exception request may be appealed to the City Council by requesting it be placed on the next Public Works Committee agenda. The City Council has final approval of exception requests. In order to appeal the denial the applicant shall file a written request of appeal to the Public Works Director within 10 working days of the denial. Please contact the Public Works Engineering Department if you desire to appeal.

Sincerely,

City of Rapid City

A handwritten signature in black ink, appearing to read "Nicole Lecy", with a long, sweeping horizontal line extending to the right.

Nicole Lecy, Project Engineer