December 28, 2016

Honorable Mayor Allender and Members of the Rapid City Common Council
City of Rapid City
300 Sixth Street
Rapid City, SD 57701

RE: Rear Yard Drainage Easement at Duckhorn/Vinecliff
KTM Project No. 16-0803

Ladies and Gentlemen:

This letter is provided to briefly summarize points previously offered in support of reducing the width of the rear lot line drainage easement situated between Duckhorn Street and Vinecliff Drive. Please also see the enclosed Exhibit ‘A’ which presents an illustration of the situation.

• Although the City’s Infrastructure Design Criteria manual requires a minimum easement width of 20 feet for water and wastewater utility mains, the required width of drainage easements – per the City’s manual – shall be based on the 100-year runoff rate.
• The design 100-year runoff rate in the drainage swale is 17 cubic feet per second; the design maximum top width of flow in the swale is 10 feet (see Exhibit ‘A’).
• The existing 20 feet wide drainage easement accommodating the swale can safely be reduced to 10 feet wide with no adverse impacts to the storm drainage.
• All fences and above-grade obstructions will be removed from within the proposed 10 feet wide easement and any future encroachments are prohibited.
• The property owners are obligated to perform all maintenance of the drainage swale.
• The 20 feet wide drainage easement will remain at the rear of Lot Nos. 1, 2, and 29 to accommodate the drainage swale, the storm inlet, and the buried storm pipe.

Thank you for kindly considering this matter. If you have further questions or comments, please do not hesitate to contact me at (605) 791-5866 or gregb@ktmdsi.com

Sincerely,
KTM DESIGN SOLUTIONS, INC.

Gregory T. Barbeauld

Enclosure
X:\800-849\803 Vinecliff-Duckhorn Drainage\Drainage\Letter Easement Request DEC 2016.docx
CROSS SECTION '2'
SCALE: 1"=5'

CROSS SECTION '1'
SCALE: 1"=5'
PROPOSED CHANNEL FLOW DURING 100 YEAR STORM EVENT

DUCKHORN STREET

EAST MINNESOTA STREET

REAR YARD DRAINAGE SWALE AT DUCKHORN / VINECLIFF
DECEMBER 28, 2016

EXHIBIT 'A'
PRELIMINARY
FOR REVIEW ONLY