

November 5, 2020

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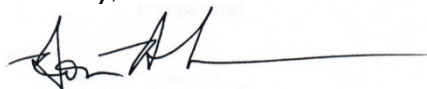
GEOTECHNICAL ENGINEERING CONSULTATION
Mr. Rondema's History with the S-curves Slide, Pre-Horizontal Drains
Roberts Tax Lot 600 - Cannon Beach, Oregon

As requested this letter summarizes our involvement in geotechnical engineering at the S-curves for the City of Cannon Beach. The slide had historical movement for several decades prior to Mr. Rondema's involvement. Beginning in 1995 Mr. Rondema was hired by different property owners to evaluate slide risks on their portion of the S-curves. During this era several abutting property owners installed piles for foundation underpinning and improvements to runoff capture to improve their residences. In 1999 the S-curves incurred significant new movement and Mr. Rondema provided recommendations for surface pavement repair to the City. In 2002 Geotech Solutions was hired by the City to evaluate new roadway damage and cracking, provide recommendations for surface repair for the pavement, and to complete subsurface investigations and analyses of the slide. These analyses were ongoing for several winters, and included reading 6 inclinometer casings, digital water level recorders, rainfall monitoring, surface movement surveys, and related slope stability analyses. In 2007 and 2008 the current 19 horizontal drains were installed, and they have been cleaned annually, and slide instruments read periodically, since their installation.

Mr. Rondema's involvement is also part of the listed references included on pages 1 and 2 of our 2020 report for the Roberts lot.

We appreciate the opportunity to work with you on this project and look forward to our continued involvement. Please contact us if you have any questions.

Sincerely,



Don Rondema, MS, PE, GE
Principal



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