

From: Langdon, Robert <RLangdon@scsengineers.com>
Sent: Tuesday, July 21, 2020 3:25 PM
To: Ackerman, Jeffrey A - DNR
Cc: Oelkers, Eric
Subject: Building Inspection for VMS, 200 Deer Valley Road, Madison
Attachments: IMG_1971.JPG; IMG_1973.JPG; IMG_1972.JPG; IMG_1959.JPG;
IMG_0601.jpg; IMG_1979.JPG; 1_Site Plan with Potental VMS Pickup
Points.pdf; 2264_001.pdf

Hi Jeff, last Friday I met with Mick Mullee (property owner) and mitigation contractor (Zander Solutions) at the 200 Deer Valley Road apartment building. We inspected the basement and one ground floor apartment located at the north corner of the building. We understand that there are 16 units in the building, with 8 of them on the ground floor. We were not able to access the other northern unit, but understand its layout is a mirror image of the one we looked at. The unit we looked at had two bedrooms, a bathroom, kitchen and living room.

From our inspection it appears we could install pickup points within two bedroom closets in each unit at approximate locations shown on the attached figure. The closets are located along outer walls so we should be able to run the piping through the closet walls to the exterior of the building and then connect it with fans mounted on the building exterior. See attached photos of bedroom closets. It may not be necessary to install more than one pickup point per unit. In any case, mitigation of these units appears to be feasible, but there will be some loss of closet space to accommodate piping.

The basement is not a full basement. See attached sketch. There are two floor sumps in the utility room in the north end of the basement. See photo. The northernmost sump is a typical basement sump with three plastic drain pipes that enter it from underneath the floor. It did not have a sump pump. The second sump serves to capture water from the basement washing machines where it is pumped up (lifted) to the sanitary sewer.

The northernmost sump could be used as a pickup point and it might provide good vacuum distribution under the basement slab through the drain lines that enter it. The sump lid would need to be sealed to eliminate vacuum loss. The lift sump lid should also be sealed if we plan to depressurize the basement slab. Other pickup point options for the basement could include points that penetrate the basement floor or possibly the walls a few feet below the basement ceiling to try and create vacuum laterally underneath the slab on grade portions of the units to the north and south of the basement.

The challenge with the basement pickup points would be routing of the pickup point lines out of the building. Routing up the stairs would be a long distance and might look unappealing. The lines could potentially be extended through the basement walls underneath the first floor slab. For this we'd need to have a better handle on utilities and the construction costs would go up considerably if horizontal drilling is needed.

I think we could provide a quote without a second trip to look at the building if we only plan to install pickup points in the two northern units. If we want additional points in the basement we'll need a second visit with both Zander and a private locate company.

Let's discuss whenever you have a few minutes.

-Rob

Robert Langdon

Senior Hydrogeologist/Project Manager

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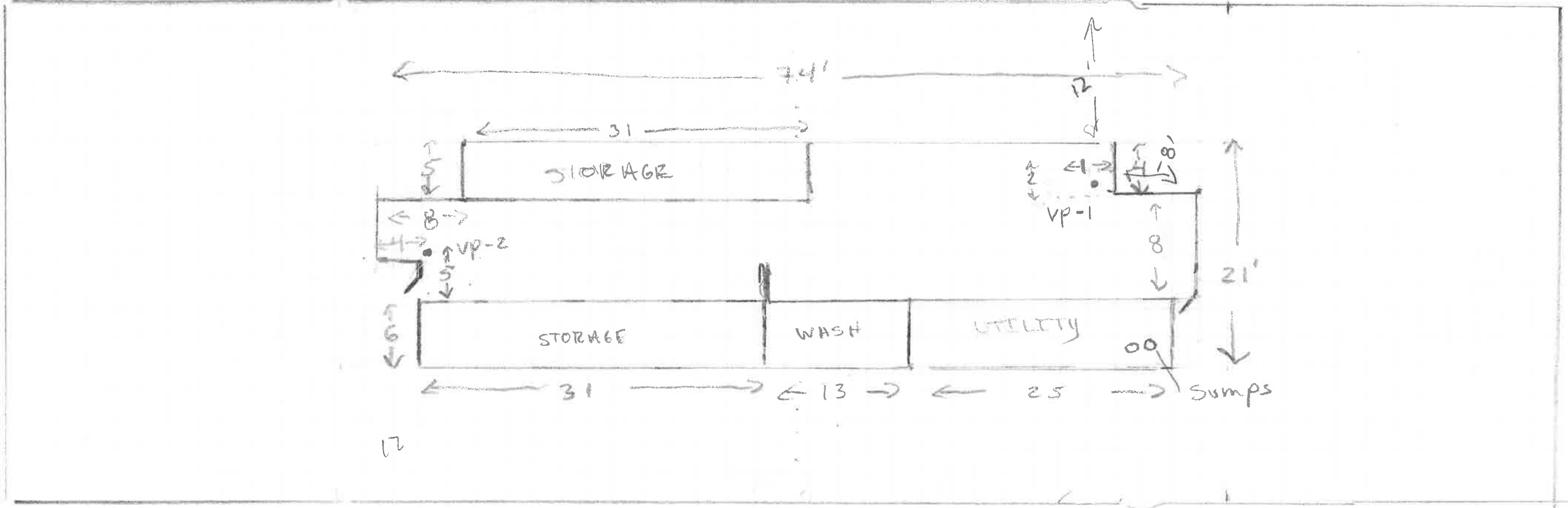
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← 140 →

← 30 →

↑ 45 ↓



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Sumps

IMG_0601.jpg





IMG_1971.JPG







