

MAY 24 1982

FORSGREN-PERKINS ENGINEERING, p.a.

May 21, 1982

Project #820007

Stan Strebels
Summit County Planning Office
County Courthouse
Coalville, Utah 84017

RE: Silver Spring 1A and 1B - Underdrains

Dear Stan:

At your request, we have inspected the underdrain system in Silver Springs 1A and 1B for an escrow release. We understand that Silver Springs Development has made the request for early release (one year) as this spring has been very wet and should have created any problems if they were to occur.

The few underdrain manholes that were still exposed in Phase 1A were inspected and found to be carrying a significant amount of flow. We understand that one line had been cut earlier this spring which created problems but was thought to have been repaired. We were unable to inspect this but did not see any evidence of ground saturation.

One other problem has occurred with a basement flooding - which was adjacent to, and lower than, the underdrain line. We also understand that the Homeowners Association By-laws forbid basements; therefore, coupled with the location problem, we do not consider this to be an underdrain system failure. Another half-basement and water service line were being constructed approximately six feet deep with no evidence of groundwater. Finally, contractors working in the area have indicated that groundwater has generally been lowered to about seven feet in places they have dug for service connections.

Basements
Forbidden



In Phase 1B, several manholes in the west half were exposed and inspected, with no flow seen. We then looked for the cast iron outlet at the corner of Lot 91 as shown on the construction drawings to determine flow and could not find it. There was a CMP in the middle of the creek which was covered with water, but we are not certain if this is the

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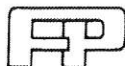
outlet. We then asked that representative test holes be dug throughout the phase to determine if there was a system failure or if the majority of the groundwater flow was being picked up by 1A's system and the sewer system trenches.

These holes were dug in the morning of May 20, 1982, on Lots 32, 60, 78, 83 and 94 to a depth of approximately ten (10) feet. All holes were dry when inspected on the afternoon of May 20 except for holes on Lots 78 (one foot of water) and 94 (five feet of water). The water in Lot 78 could be explained by its close proximity to Willow Creek. Mr. Tolley, of Webster and Associates, explained that water from the spring runoff had pooled at the north end (Lot 94) as an earth berm has been placed along the force line and a planned drainage channel has not been built to carry water to the creek. This could be a reasonable explanation of the relatively high groundwater level.

While we could not inspect each manhole due to being buried by dirt or covered by asphalt, and therefore cannot certify that the entire system can or does operate as designed, it is felt by this office that the system in 1A and 1B appears to be working properly and is serving its function. We would, therefore, recommend a release of the associated escrow for the system with the following reservations:

1. That the ^{developers or master} Homeowners Association be made specifically responsible for the ownership, repair and maintenance of the entire underdrain system.
2. That \$5,000 be held back until (a) the manholes in 1B that have pipes blocked or covered with debris be cleaned, (b) that the underdrain outlet for 1B be exposed and made flush with the stream bank with an end apron attached; if our assumption is correct that the CMP in the stream is the outlet, it needs to be removed to prevent blockage of

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Did Ray Fry and
Developer's HOA
complete these
exceptions?



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stream flow, (c) the drain line is built on the north property line as discussed with Mr. Jerry Tulley, and (d) that the hole on Lot 94 be covered with a suitable rigid material and weighted down sufficiently to protect the public for a month period to determine if the water level is drawn down by the adjacent underdrain line.

Did Ray Fry
do this?
What was outcome?

Please call if you have any questions.

Respectfully,

FORSYREN-PERKINS ENGINEERING



Douglas C. Jensen, P.E.
Principal/Sr. Area Manager

DCJ/RPK/bw

cc: Webster and Associates
Silver Springs, Inc.

