

January 22, 2016

Dear Resident of The Pines,

The purpose of this letter is to update you with the latest information regarding ground settlement issues in the Pines 1 subdivision. Our primary engineering objective is to stabilize the affected area. Simultaneously, we are committed to providing you with timely and relevant updates about our progress. As you are reviewing these materials, please feel free to contact us with any follow-up questions.

The Town became aware last year of ground settlement issues that affected eight homes and a section of Mountain Stone Pine Way in the Pines 1 subdivision. Geotechnical maps of this neighborhood reveal that the sand and gravel mining operation on this site included a pond where the homes now stand. When the mine was filled-in prior to development, the soil in the pond area was not compacted adequately. As a result, these eight homes and a section of Mountain Stone Pine Way have experienced abnormal ground settlement. After extensive review of historical maps and completion of ground borings, the Town has determined that the area of potential settlement is limited to an area of twenty homes, of which the yards and street in front of eight homes are showing signs of ground settlement. Outside of this zone, there is no evidence of settlement beyond the naturally-occurring soil compaction settlement. Having identified the area of concern, the Town is actively working to address these issues. Throughout the month of January, the Town of Marana is completing deep stabilization in the isolated settlement area. This involves injecting a polymer foam from a maximum depth of 34 feet to approximately 5 feet below ground level. We anticipate completing this deep stabilization by the end of January.

Following this deep stabilization, Pima County Wastewater will begin repairing the affected sewer line, which has sagged as a result of the settlement. Repairing the line will minimize the risk of further infrastructure damage. Once the sewer line is repaired, the Town will be able to lift the ground to its original level and repair the street, curbs, and sidewalks in the settlement zone. We expect this entire process to be completed by the end of February.

Once all major repairs of the Town's infrastructure serving this neighborhood are addressed, the Town will continue to initiate borings and ground-level lasering throughout the Pines 1 neighborhood over the course of the next year. The borings will provide important data about

subsurface soil conditions, while the lasering will reveal any elevation changes which may occur due to soil settlement.

The Town has created a website, www.MaranaAz.gov/Pines, where you can access extensive information concerning this issue. Among the materials available is a map of the neighborhood with an overlay of the earlier mining operation. This map includes a clear outline of the areas with potential settlement issues. Outside of this zone, there is no evidence of settlement beyond the naturally-occurring soil settlement. We are also including engineering reports from the original subdivision, as well as documentation of our most recent efforts to ensure that homes outside the most affected area are stable.

Though we firmly believe areas outside this settlement zone are stable, we understand that this event is deeply troubling for residents. We wish to rebuild trust with this community and provide you with peace of mind. Eliminating any possibility of a similar event occurring in the future is part of that process.

We'd like to thank you again for your patience and support during this difficult time. The Town of Marana strives to create an exceptional community, and we fully intend to rectify this situation.

Please refer to www.MaranaAz.gov/Pines to access historical data, engineering reports, project updates, and much more. For general comments or concerns, please contact Public Information Officer Vickie Hathaway at WHathaway@MaranaAz.gov. For technical questions, please contact Town Engineer Keith Brann at KBrann@MaranaAz.gov.

Sincerely.

Gilbert Davidson Town Manager