



WILDWOOD

MEMORANDUM

To: Administration/Public Works Committee Members

From: Rick C. Brown, Director of Public Works / City Engineer

Date: September 4, 2023

Re: Proposed Future Capital Improvement Project to Address Groundwater in Crown Pointe Estates Subdivision

Background

The Department of Public Works has been contacted by a trustee of Crown Pointe Estates subdivision regarding groundwater concerns. Crown Pointe Estates is located off of Ridge Road near Old State Road (see **Exhibit 1**). Groundwater seepage has been a longstanding concern in the southwest corner of this subdivision, where the water table is high. Several property owners have responded to this concern by installing underdrainage systems on their property to help to drain away the groundwater. While the installation of such systems benefits the property owner, the underdrains typically discharge at the sidewalk or near the edge of the road, which can create a nuisance, as these areas are constantly wet. For that reason, these discharge areas can be slippery, due to the accumulation of mud or algae growth. The Department's response has been primarily to monitor and clean the sidewalk or street (by power washing), however, this requires a continued effort. In some instances, in response to complaints, code enforcement has requested that homeowners relocate the discharge point to at least 10' beyond the right of way, however, this approach is not always well received by homeowners. And while it may help, moving the discharge point away from the sidewalk does not always address the problem, as the ground remains saturated and may continue to seep onto the nearby road or sidewalk.

Therefore, the Department is seeking a more permanent solution to this issue and has been considering the installation of sidewalk underdrains for these locations. Therefore, it is proposed to construct a sidewalk underdrain under or adjacent to the existing sidewalk, either within the existing right of way or on the adjacent private property, along Westonridge Court and Crown Pointe Estates Court (see **Exhibit 2** for the proposed locations). Consideration of allowing private drains to connect to the system would be encouraged, however this would require agreements with proper owners to clarify maintenance responsibilities. The installation of the sidewalk underdrain system would require the assistance of an engineering firm to complete a survey, prepare a plan, prepare any necessary easements, and obtain a permit from MSD. Thus, there will be engineering costs as well as construction costs involved. It would be expected that property owners would agree to donate any necessary easements prior to beginning the final design of the

system. Thus, property owner coordination and support will be critical for the installation to be implemented.

Costs:

A rough estimate of the cost to build a sidewalk underdrain system is \$85-\$110 per foot, plus survey and design costs. Thus, the estimated construction cost to address the above locations is shown in **Table 1**.

| Table 1 – Construction Cost Estimate | | |
|---------------------------------------------|---------------------------|----------------------------------|
| Location | Approximate Length | Cost Range (Construction) |
| Location #1: Crown Pointe Estates Court | 380 ft. | \$32,300- \$41,800 |
| Location #2: Westonridge Court | 470 ft. | \$39,950- \$51,700 |
| Location #3: Crown Pointe Estates Court | 130 ft. | \$11,050 - \$14,300 |
| Location #4: Westonridge Court | 175 ft. | \$14,875- \$19,250 |
| Total = | 1,155 ft. | \$98,175 - \$127,050 |

Recommendation

The Department is recommending proceeding with the design of a sidewalk underdrain system for Location #1 only at this time.

With the Committee’s approval of this recommendation, the Department plans to engage a consultant to complete the survey and design. We believe this initial cost will be less than \$10,000 and if so, could be approved by the City Administrator. If the cost is greater, then subsequent approval of the survey and design work will be required by this committee, as well as the City Council.

I will be available at the September 5, 2023, Admin/Public Works Committee meeting for any questions regarding this matter.

RCB



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Exhibit 1: Crown Pointe Estates Subdivision



