



# HOLLER ENGINEERING

Water, Wastewater & Soils Consulting

3375 N Sams Dr. Wasilla, Alaska 99654 • 376-0410

February 26, 2024

Fred Wagner  
MSB Platting Officer  
350 East Dahlia Avenue  
Palmer, Alaska 99645

Re: *Hidden Jewel*; Useable Areas, Roads and Drainage  
HE #23073

Dear Mr. Wagner:

At the request of the project owners, we have performed a soils review and related preliminary design work for the referenced proposed subdivision. The project will create 4 new lots and a 5.7 acre tract from one existing parent parcel totaling 10 acres. Our soils evaluation included logging 2 new testholes on the parent parcel, review of adjacent existing soils information, review of the provided topography information, review of aerial imagery, and our other observations at the site. See the attached testhole location and topography map for details.

Topography. The project site forms a square shape west of the earlier Wisteria Meadows project, and south of the proposed Wisteria Meadows Addition 1. The entire parent parcel has very gently rolling terrain, with a minimal slope generally directed southward or to the southeast. No substantial areas with steep slopes over 25% were noted. The total elevation differential indicated from the provided topographical map is approximately 8'.

Soils & Vegetation. The parent parcel contains a developed farm field area comprising most of the western half, and a part of the eastern half. There are also 3 developed home sites. Other areas appear to remain in a native or near native state. Existing vegetation in the wooded portion primarily consists of mature growth cottonwood and birch trees, with a modest amount of mature spruce trees. The hayfield area has tall grasses scattered throughout. Two new testholes were dug on 1/11/24 to evaluate existing soil conditions. Near surface soils encountered in the testholes included a thin organic mat over a thick layer of silty loess topsoils which extended down to between 4.8' and 6'. Receiving soils under the topsoils were consistently found to be relatively clean sands and gravels. Two additional testholes from the earlier project were proximate; soil conditions were similar and the holes are shown on the map. Each testhole extended at least 6' downward into the granular base materials, to avoid the need for percolation tests on the thick topsoil layer.

Soils encountered were typical for the area, based on existing neighboring soils information and from our prior experiences on adjacent properties. A copy of the on-project testhole logs and a location/topography map is attached.

Groundwater. Groundwater was not encountered in any of the newly logged or adjacent testholes, which were all dug to depths of 12' to 14'; the holes on this project were both 14'. Groundwater is not expected to be a limiting factor for useable area for any of the proposed lots.

Useable Areas. The proposed lots have a few limitations on areas defined by MSB code as *useable septic area* or *useable building area*. Useable septic areas will be primarily limited by setbacks to water wells, and lot lines. For useable building area, lotlines and setbacks, utility easements, and ROW/PUE setbacks will be limiting factors. For all of the proposed lots, adequate unencumbered area exists to readily meet the code requirements. Based on the available soils and water table information, topography, MSB Title 43 Code definitions, and our observations at the site, ***the proposed 4 new lots and the remainder Tract A will each contain over 10,000 square feet of contiguous useable septic area, and an additional 10,000 square feet of useable building area.***

Roads and Drainage. The proposed new lots will be accessed by way of a new northward extension of S. Jewel Street. Approximately 294' of new road will be constructed as a part of this extension, terminating in a temporary cul-de-sac bulb. Three existing driveways will need to be modified and re-connected to the new road. Sandy gravel materials adequate to construct the road base exist on the project, or could be hauled in. Road topping materials could be screened at the site, or hauled in, or may not be required if the road is paved. A preliminary drainage plan is part of the attached map, similar to a full drainage report which has been prepared by another firm.

Please do not hesitate to call with any questions you may have.

Sincerely,

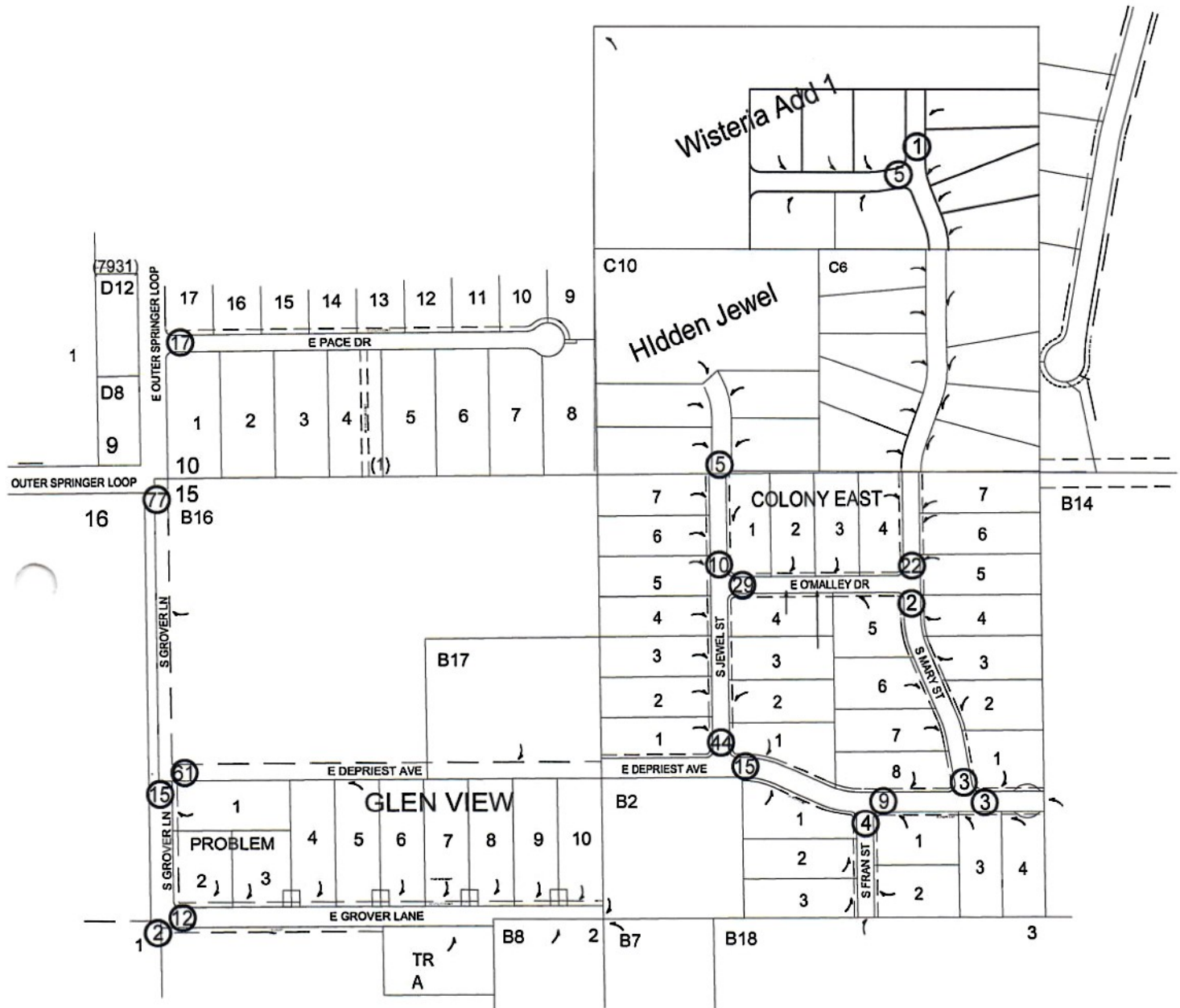
Curtis Holler, PE

c: R. Camey, w/attachments









# Traffic Count Map

Feb 2024 Wisteria Add 1 & Hidden Jewel