Irrigation Design Report

# **Grand Valley Estates II Subdivision**

October 5, 2018 (Revised -----)

Prepared for:

**Grand Valley Estates Development Company** PO Box 119 Fruita, CO 81521

Prepared by:



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# I. LOCATION AND WATER ALLOCATION TO THE PROPERTY

#### 1.1 PROPERTY LOCATION

The proposed project is located at the southwest corner of Fremont Street and J 2/10 Road within the city limits of Fruita, CO. The project site is positioned within a single parcel (Parcel No. 2697-163-00-130) and has the current address of 1849 J 2/10 Road. In more legal terms, the project site is situated in the West ½ of the NW ¼ of the SW ¼ of the SE ¼ of Section 16, Township 1 North, Range 2 West of the Ute Meridian, Mesa County, Colorado. Refer to Figure 1 for the General Location Map.

#### **1.2 WATER SHARES AND IRRIGATED ACREAGE**

Irrigation water to this site is provided by Grand Valley Irrigation District. The shares are currently listed under headgate 440. The supply valve for the subdivision is provided from an existing pump station located in Grand Valley Estates I (GV1), with a stub for supply to Grand Valley Estates II (GV2) located the south east corner of the parcel. Presently, there are 14 shares of irrigation water belonging to both properties, including a storage vault located in GV1. An additional four shares may be purchased after evaluation of the storage vault at final submittal.

# II. DESIGN CRITERIA

The design of GV1 provided adequate shares, storage volume, and pumping capacity for supplying irrigation to GV1 and GV2.

# III. SYSTEM DATA

A proposed watering schedule to utilize the available supply will be developed at the final engineering state. A 4" supply line will be utilized to supply lots pressurized irrigation, in accordance with City of Fruita standards, Chapter 7.

# **IV. CONCLUSIONS**

Adequate irrigation shares will be provided in accordance with City of Fruita standards. It is our opinion water schedules can be also be developed that will provide sufficient irrigation to meet the City of Fruita Standards. We recommend low water rate rotary style application devices, which are suitable to smaller flow rates per lot, and the resulting smaller horse power pumps per lot. The irrigation distribution system is designed to deliver options.

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