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## TOWN OF EAGLE – PLANNING and PUBLIC WORKS

Kyle,

I am designing the irrigation system for the Red Mountain Ranch project , Eagle CO and below is a brief description of the pump being proposed for this project.

The pump is currently shown located above the 100 year flood plan line along the river. This pump station will be a premanufactured skid station with either an aluminum factory enclosure or field fabricated enclosure that will better fit the area and not look like a utility box.

The skid system will be either an end suction or vertical turbine complete skid mounted and will include an automatic self-flushing scanning filter on discharge side it to minimize the chances of clogs on the irrigation equipment. It will also have a mag-meter that will keep total flow and allow for connection to the controller to use available flow controlled scheduling operations. Controls will include operator friendly PLC (Program Logical Controls) digital display, variable frequency drives (to maintain required flow and pressure), cell or wi-fi connection (for remote monitoring). The remote connection will also be used to send alerts if needed and for operator to check remotely for system status or any alarms. Automatic safety features to assure pump protection.

The system will have river turn out and supply pipe that will be coordinated with the civil engineer. The river supply pipe will be extended to a stilling wet-well (with maintenance access) and will include an automatic self-cleaning lake screen installed inside to remove any debris larger than 12 mesh. A second supply pipe with an isolation valve will be extended to a second wet-well where the pump skid will be installed on the top of it. The pump's skid self-cleaning scanning screen will be the final filtration to keep any debris from clogging the irrigation system during operation.

The system will be operated via pressure drop on and not flow off. The mainline will maintain constant pressure.

Any field fabricated pump enclosure plan can be submitted for approval.

Please feel free to contact me with any questions.

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