

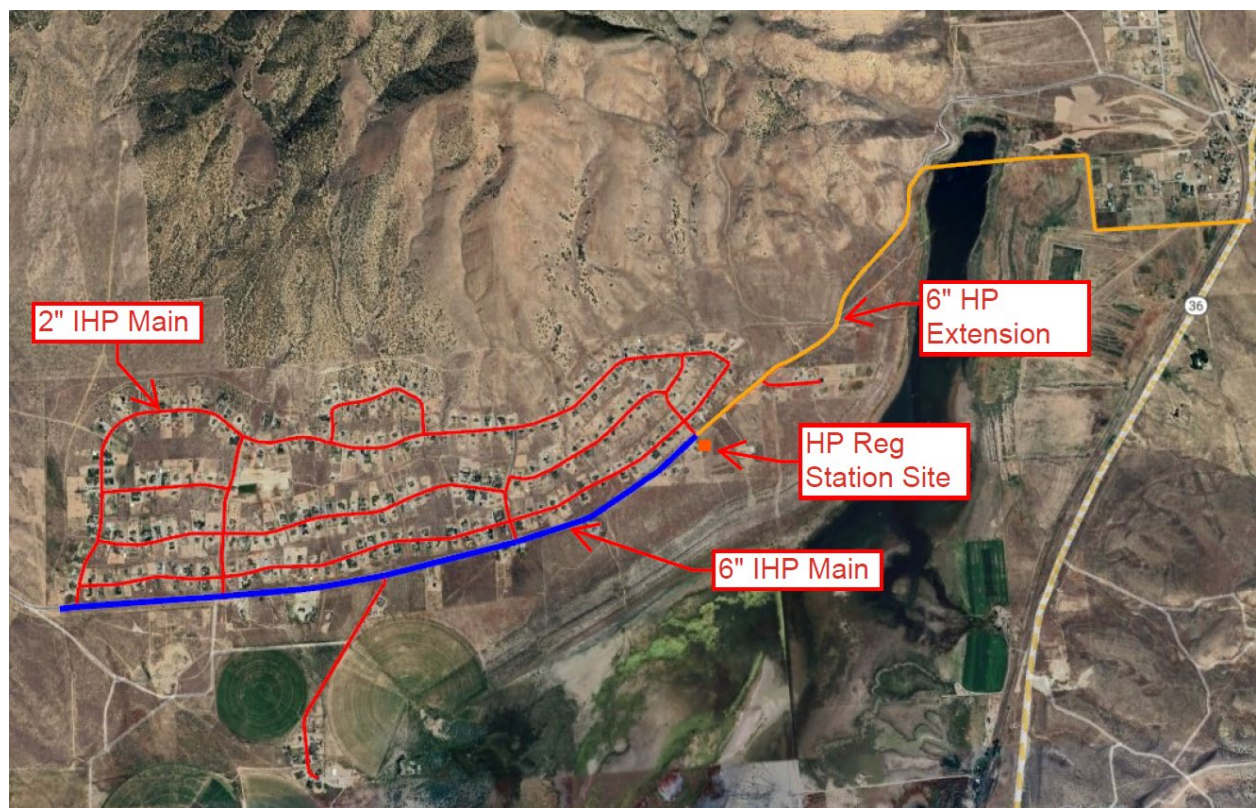
## ***South Rim Expansion Analysis, IHP***

System Analysis: Sal Delgado, IHP Distribution Region Engineer, Salt Lake Region  
Requested By: Will Radford, Engineering Manager

### ***Purpose***

The Company is proposing to extend natural gas service to the South Rim community in Stockton City, Utah. A high-pressure feeder line (FL48) currently runs along Highway 36 in Stockton, approximately 2.5 miles from the South Rim area.

To connect the community, a new high-pressure line would need to be installed from Highway 36 to the northern edge of South Rim, where a regulator station will be established. A suitable property at the northern end of the community will need to be acquired for this station. From the regulator station, a 6-inch plastic distribution main would be installed heading southwest along W Silver Avenue. Additionally, 2-inch gas mains would be laid along the remaining roadways in the community to provide service to individual homes.

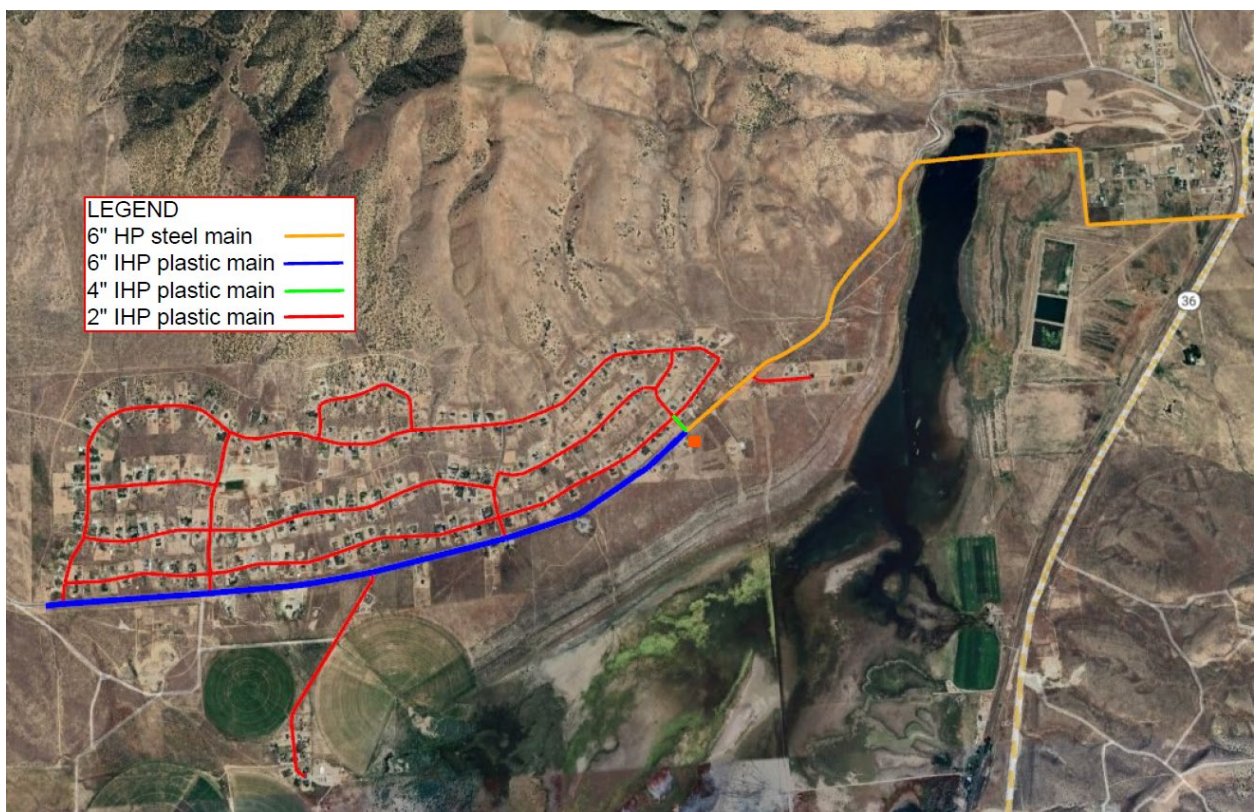


***Figure 1: IHP – HP Overview project***

## Analysis

A steady-state hydraulic model was used to evaluate the minimum gas pressures throughout the proposed South Rim subsystem. Several design scenarios were tested, incorporating 2-inch, 4-inch, and 6-inch plastic primary feed lines extending from the regulator station.

The system's estimated peak-hour demand was calculated at 44,072 cubic feet per hour (44.072 MCFH). Based on this demand and the existing base load, the analysis determined that a 6-inch diameter primary feed from the regulator station is required, with 2-inch distribution branches extending throughout the community.



**Figure 2: Proposed IHP Mains**