

Union Ridge Master Utility Plan - Water Systems

Emergency Intertie / Sanitary Sewer / Storm Sewer System

Ridgefield,
Washington



This project included the land use and Utility Master Plan for an approximately 450-acre mixed-use zoned site in Ridgefield, Washington. HDJ was responsible for all civil master planning elements, including design of a water system emergency intertie, a sanitary sewer system, storm sewer system and regional water quality facility.

The emergency intertie entailed the construction of 5,300-lineal feet of a 16-inch diameter water main and emergency fire flow interconnect and pressure reducing valve installation. The City's existing main was extended and then connected to the Clark Public Utilities (CPU) system. This intertie was constructed to improve the level of fire flow and system reliability in the Ridgefield Junction area.



To provide sanitary sewer services to the site, HDJ designed a network of gravity sewer mains and submains that extended 4,080 feet from the City's existing sewer connection to the Union Ridge site. To avoid impacts to an environmentally sensitive area along the alignment, the project also included 150-feet of directional boring under an existing wetland.

The storm sewer system is made up of a network of stormwater collection, conveyance, quality and quantity control elements. The system piping provides the backbone of the collection and conveyance system, which is designed to allow for service to be expanded to each area upon its development. Where feasible, open channel conveyance systems were also used. Stormwater runoff is conveyed in each of the systems to sub-regional storm water facilities. The facilities have been located in an effort to maintain natural flow patterns. Additionally, the facilities were designed to serve the site assuming full build-out.

SERVICES

- Civil Master Planning:
 - Water System Emergency Intertie
 - Sanitary Sewer System
 - Storm Sewer System
 - Regional Water Quality Facility

DESIGN FEATURES

- Site Area: 450-Acre Mixed-Use Site
- 5,300 LF of 16-Inch Diam. Water Main & Emergency Fire Flow Interconnect, PRV Station
- Network of Sewer Mains & Submains, Extending 4,080 Feet From the City's Existing 12-Inch Sewer Main to the Union Ridge Site