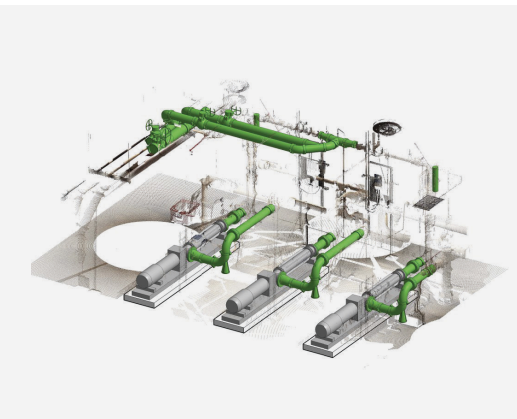
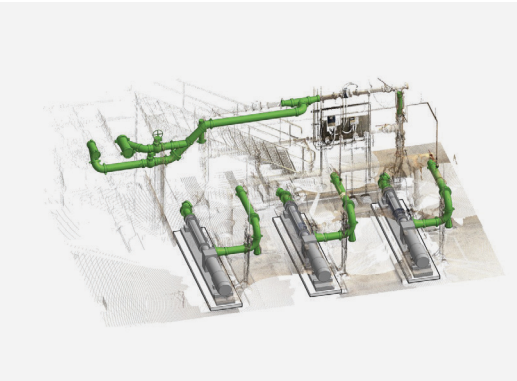


FWRC Primary Sludge Thickening Improvements

Clark County, NV



PROJECT OVERVIEW

LOCATION:

Clark County, NV

SOLUTION USED:

Ferguson Virtual Design & Construction (VDC) services

CHALLENGE:

Tight coordination windows, complex design requirements, congested existing infrastructure and no room for dimensional error in a high-stakes system upgrade.

SOLUTION:

A fully integrated, construction-ready modeling solution created using laser-accurate point cloud data of existing site conditions.

THE FERGUSON ADVANTAGE:

- Innovative Virtual Design & Construction technology
- Vast treatment plant design-build experience
- Dedicated project management support
- Precision reality-capture services
- Expert point cloud data analysis

BACKGROUND AND SCOPE

Clark County's FWRC 19102 Primary Sludge Thickening Improvements project is a critical infrastructure upgrade to improve the region's wastewater treatment capacity, reliability and efficiency. The project involved complex coordination across a network of new and existing infrastructure systems, requiring precise planning, integration and modeling.

The client engaged the Ferguson Virtual Design & Construction (VDC) group to support internal and external project management teams with advanced 3D modeling and coordination solutions. By fusing technology with decades of practical expertise, we delivered high-performance above-grade and underground pipe modeling, ranging from 3" to 20", that drove clarity, speed and collaboration.

CHALLENGE

When Clark County needed to upgrade its Primary Sludge Thickening Facility as part of the FWRC 19102 initiative, it faced tight coordination windows, complex pipe rerouting across congested existing systems and zero margin for dimensional error.

METHOD

To support this high-stakes infrastructure upgrade, our VDC team delivered a fully integrated, construction-ready modeling solution that eliminated guesswork and streamlined execution. Leveraging laser-accurate point cloud data, our team created precise ductile iron piping models (3" – 20") that aligned with existing conditions. This technology-driven approach reduced field measurement time, resolved clashes before construction and enabled real-time coordination across stakeholders.

THE SOLUTION: FERGUSON WATERWORKS

One of the standout aspects of this project was our expertise and capability in navigating point cloud data to guide and validate our modeling work. By incorporating point cloud data of the existing site conditions, our team aimed to minimize rework caused by inaccurate field measurements, enhance spatial coordination between new and existing infrastructure and increase model accuracy and reliability to improve construction efficiency.

With an experienced team on plant-type projects, we strive to ensure clash-free coordination, install-ready models and seamless integration with project teams. The result is faster decisions, less rework and smarter builds that protect schedules and budgets.