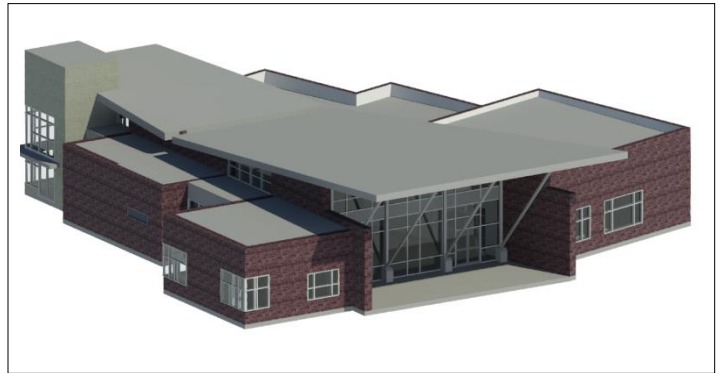
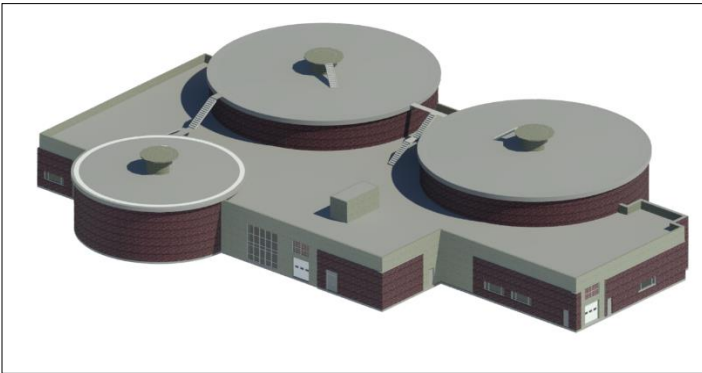


## 3D Laser Scanning a 59 Acre Wastewater Treatment Plant

A LOD 350 Revit Model was created of this \$417 million facility to plan for future expansion



“Our client wanted a quick turnaround on this project, with 27 buildings completely detailed in LOD 350 model, it was a huge undertaking that TruePoint completed successfully and within their needed timeline.” -- Aaron Hunt, Lead Technical Manager

**Task:** 59 acres and 27 buildings were 3D laser scanned to provide complete as-built documentation of a Colorado Wastewater Treatment Plant. This client is the largest water reclamation provider in the Rocky Mountain West, serving 1.8 million people in a 715 square-mile area. TruePoint was tasked with 3D laser scanning the existing conditions of this \$417 million facility and producing an LOD 350 Revit model to assist with on-going operations and plan for future expansion.

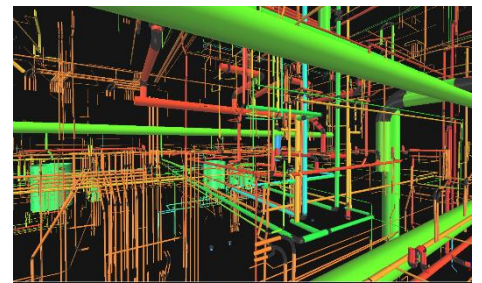
**Challenge:** The client needed the fastest way to document 59 acres and 27 buildings with the highest level of quality. Each building was unique and needed to be documented and modeled to plan for expansion, including pumping stations, sludge digester, thickener, tank reclamation, purification systems, aeration, primary and secondary settling, maintenance facilities and visitor center. The client had their own laser scanner, but did not have the manpower and resources to complete the project timely.

**Solution:** TruePoint has a highly integrated and highly motivated team of laser scanning professionals. 59 acres of campus was 3D laser scanned in a 4-month period, sometimes with up to 10 scan teams on site at one time. TruePoint scan technicians captured 2,990 color scans and an in-house team of engineers produced a complete BIM model of the 27 buildings, including structural, architectural and MEP features.

**Deliverable:** TruePoint provided an LOD 350 Revit model of the interior and exterior of 27 buildings including architectural and structural details, MEP and process piping ½" and above, valves, flanges, equipment detail and location, stairwells, railings, closets, restrooms and janitor rooms. The client also requested EdgeWise files, so TruePoint CAD technicians modeled all piping, valves, flanges, ducts, conduit and framing and organized it in layers in accordance with the client's naming conventions for location, plant process and material specifications. The client also used the BIM model to determine if the existing drawings reflected actual site conditions.

**Added Value:** 3D laser scanning enables clients to add, modify, validate and document their design digitally. 3D laser scanning allowed the plant to have a full scope of the existing conditions before renovations are made to the facility.

**Location:** Denver, Colorado



TruePoint CAD technicians modeled all piping, valves, flanges, ducts, conduit and framing and organized it in layers in accordance with the client's naming conventions.

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