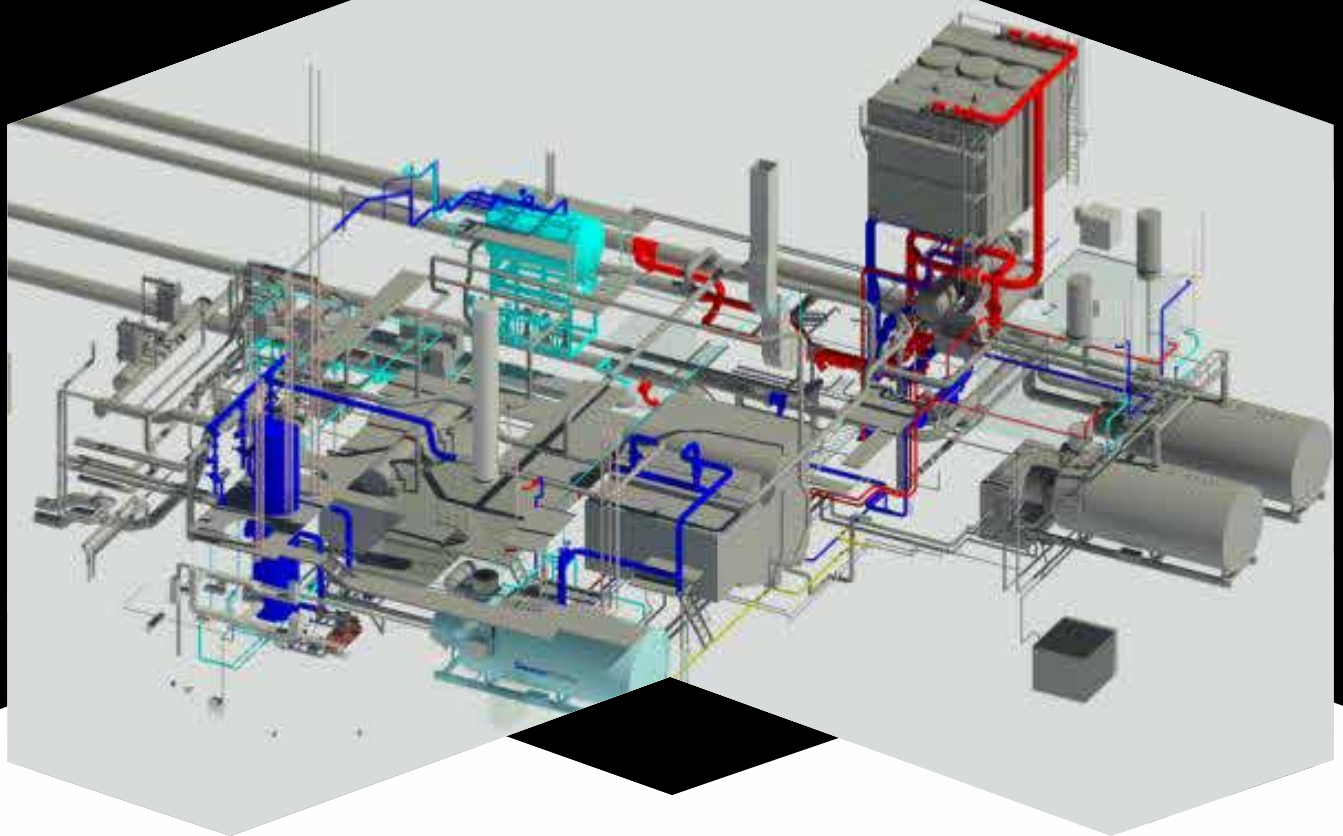




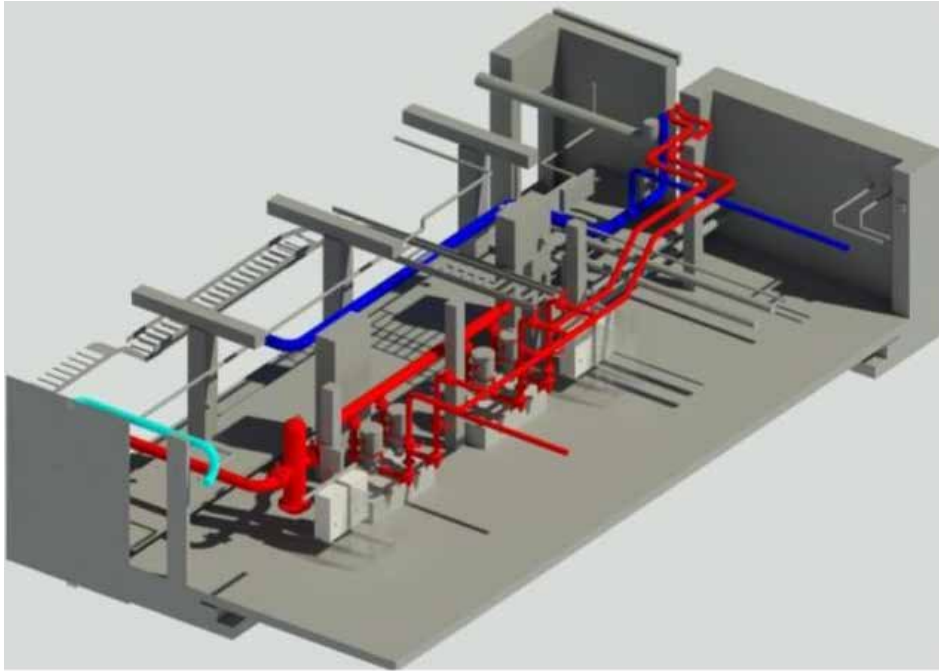
BIM Plumbing Solutions for Pump Room

(Plumbing Modeling, BIM & VDC Coordination Services)

CASE STUDY



TECHTURE



Client : Plumbing Consultant

Team Size : 2 No.s (BIM Engineer & BIM Coordinator)

Disciplines : Plumbing

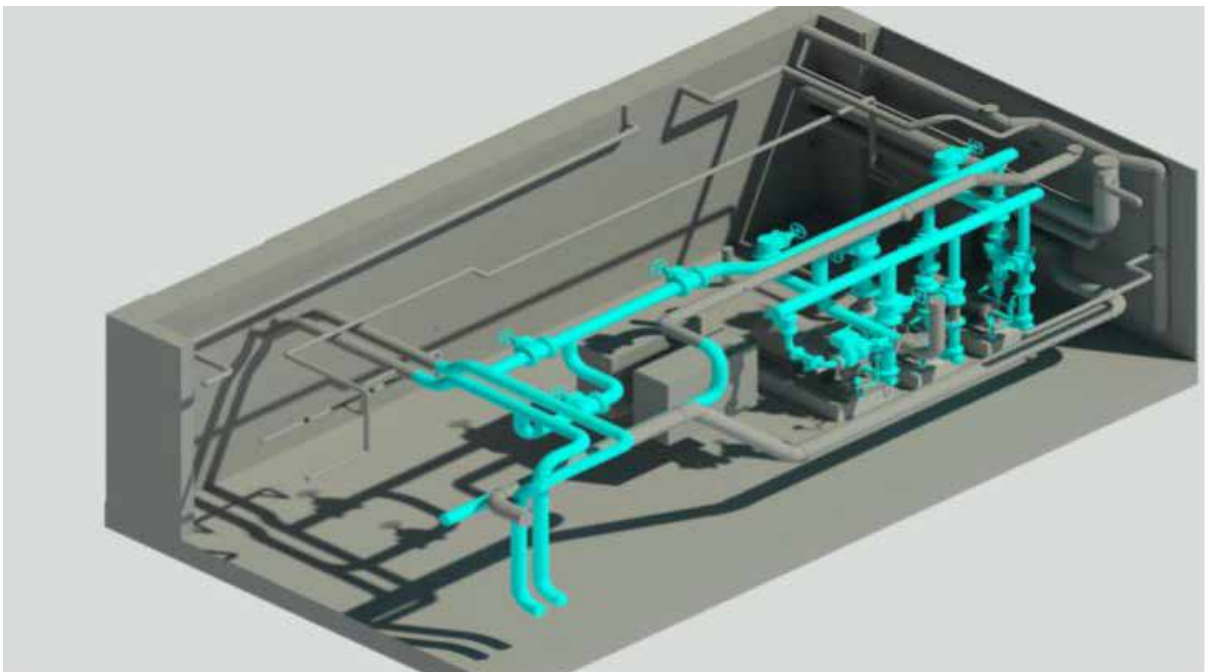
Duration : 7 months

Scale : 10,000 Sq. ft.

Software : Autodesk Revit, Navisworks, Bluebeam

Type : Pump Room

Location : Winnipeg, Canada



Project Overview

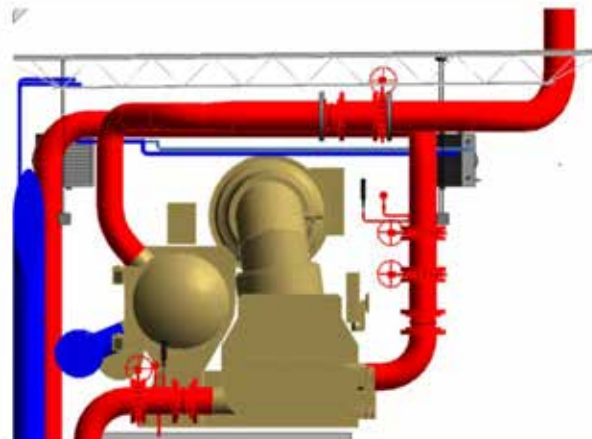
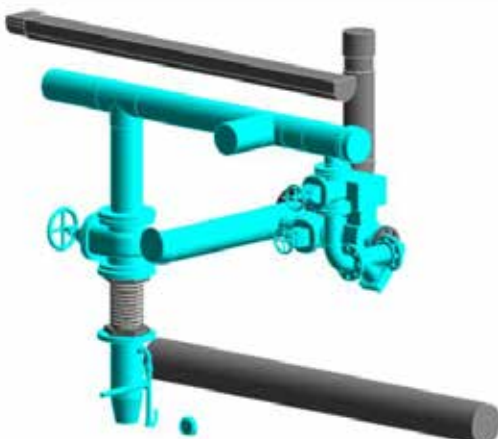
Techture provided BIM support for the plumbing scope of a college building's pump room. The scope involved developing a detailed LOD 400 plumbing model and generating spool drawings to support fabrication and on-site installation. The primary objective was to achieve seamless, clash-free integration with other building services while adhering to strict project timelines.

Scope & Deliverables

- Development of an LOD 400 plumbing model based on design drawings and consultant inputs.
- Extraction of spool drawings to support fabrication and installation.
- Clash detection and coordination with architectural, structural, mechanical and electrical disciplines.
- Ongoing model updates to incorporate client revisions and detailing inputs.
- Collaboration with the client and subcontractors to ensure alignment with site execution standards.

Challenges

- Information Delays:** Waiting for critical design and detailing inputs from the client impacted workflow efficiency and extended timelines.
- Multidisciplinary Coordination:** Ensuring clash-free integration across multiple trades within the shared BIM model.
- Tight Timelines and Budget Constraints:** Fixed delivery schedules required minimal rework and efficient resource allocation.
- Frequent Design Revisions:** Numerous client-driven changes created challenges in maintaining model coordination and version control.



Techture Approach

- ❏ Establish clear data exchange protocols, use CDE platforms (ACC/Procore/Revizto), and conduct live VR walkthroughs to minimize delays.
- ❏ Federate all discipline models in Resolve VR, run clash detection, and track issues directly within integrated BIM tools.
- ❏ Optimize large models with Wellington Engine, use automated issue tracking, and conduct multi-user VR sessions for faster resolution.
- ❏ Enable automatic model sync from project platforms, maintain version logs, and leverage VR for rapid review of frequent revisions.

Benefits

- ❏ Faster client feedback and reduced workflow stoppages.
- ❏ Seamless multidisciplinary coordination with fewer clashes and RFIs.
- ❏ On-time delivery with minimal rework and efficient resource usage.
- ❏ Always updated with latest design revisions, ensuring accurate and coordinated models.

