

# PARTICLEBOARD PLANT REBUILD

**CLIENT:** Confidential Client  
**LOCATION:** Missoula, Montana

Owners of a Northwest particleboard plant contracted Evergreen Engineering to rebuild their entire line from the truck dump through the press hydraulics and the board cooling system. Evergreen provided civil, structural, mechanical, and electrical engineering for a particleboard plant upgrade. The project delivered improved plant productivity and product quality by improving mat cross-panel density and decreasing cycle time. The project encompassed raw material delivery, screening and conveyance, fiber refining conveyance, surge bin installation, forming line, pre-compressor and press hydraulic replacement, related pneumatic bag filters and relay systems installation and sander dust-fired boiler replacement.

Evergreen's design comprised the following:

## Civil/Structural

- Site layout
- Building modifications
- Equipment foundations
- Equipment structural supports and platforms

## Mechanical

- Process flow diagrams
- Mass balance calculations
- Facility general arrangements
- equipment arrangements
  - Raw materials
  - Screening
  - Refining
  - Drying
  - Mat forming
  - Pre-compressing
  - Press hydraulics
  - Bag filters
  - Pneumatic systems
- Detail design for fabrication
  - Material conveyance
  - Material screening
  - Material surge bins

## Electrical

- Transformers & switchgear
- Motor control centers
- Grounding, lighting & controls

## Project Management

- Project budgeting
- Project scheduling
- Contractor coordination



**EVERGREEN ENGINEERING**

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