

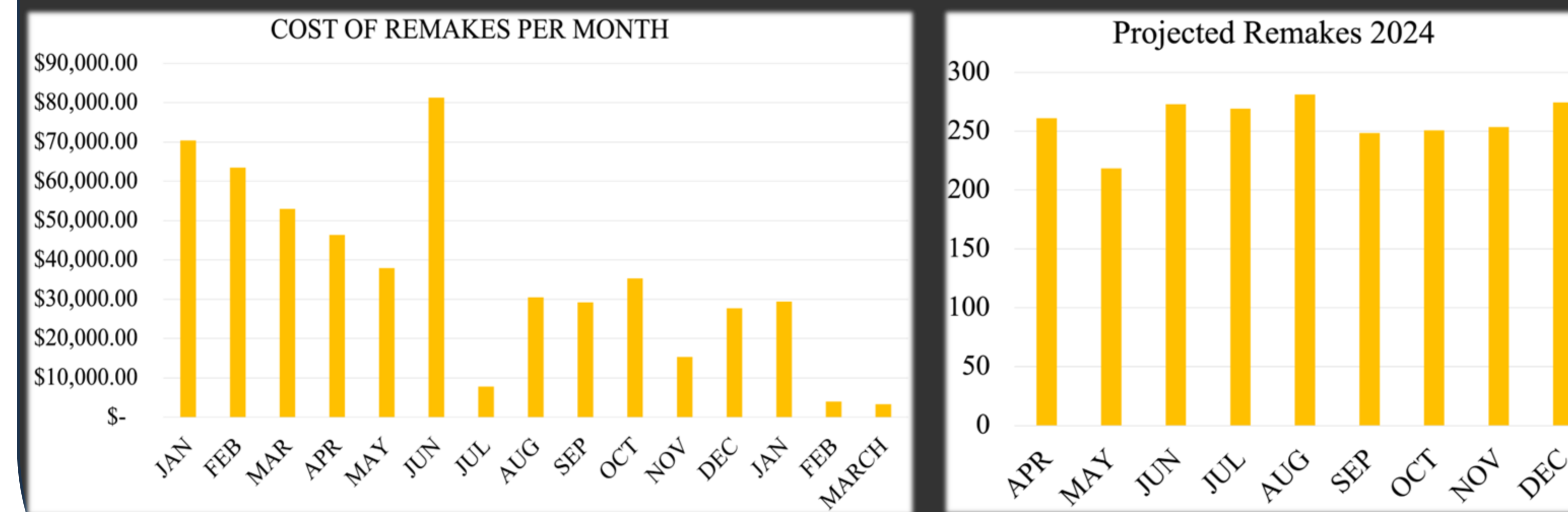
Client Background

- Founded in 1985, in Lafayette, IN
- Industry leaders in semi-trailer manufacturing
- Patented DuraPlate composite panel is gold standard
- Serve a growing field of industries
- Focusing on environmental impact with their next generation EcoNex Technology

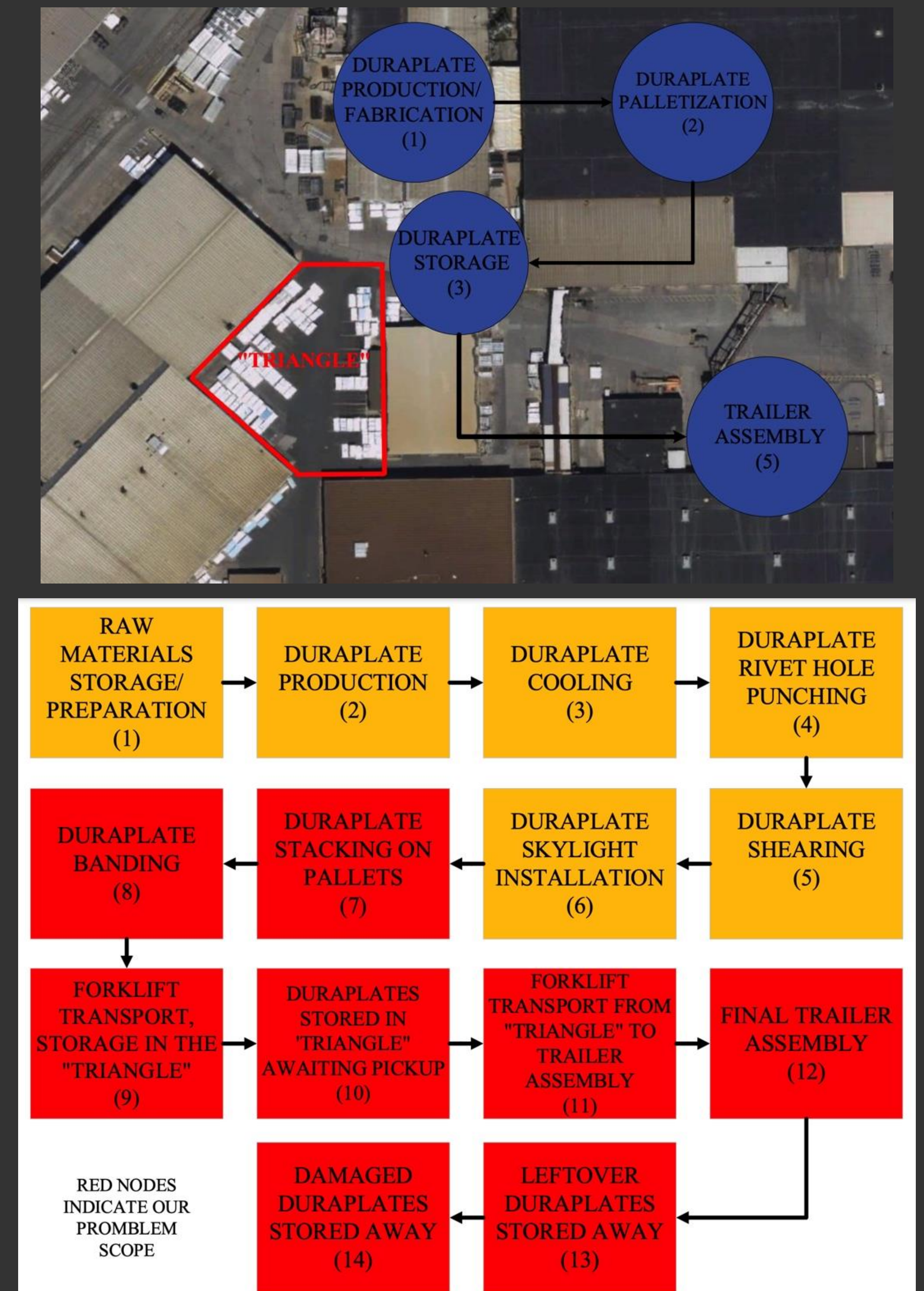


Problem Statement & Business Need

Wabash National is experiencing inefficiencies in its DuraPlate operation, leading to costly remakes and scrap. The operation is challenged by inventory count inaccuracies and damage done to the DuraPlates. These inefficiencies lead to significant financial losses & operational disruptions, directly impacting Wabash National's ability to meet market demands efficiently.



System Model



Current Issues

Primary Problem

- Forklifts damage plates in transit
A small dent can ruin an entire plate
- People don't report damage
Replacements are not made
- Damage is found later, work can't continue
- Entire job is delayed

Other issues

- Labels are not easily readable
- People struggle to find the right SKU
- Weather lowers drivers' visibility
- SKUs not returned to proper place

What Can We Do?

We need better tracking

- RFID tags on pallets could allow for easier tracking and faster identification during retrieval
- Is it Feasible? Wooden skids only last 3-5 jobs. \$65/skid 18k were replaced in 2023. That's a lot of tags
- Not Yet**

- Custom DuraPlate pallets have been built from scraps.
- It would cost \$200-\$265 in material to produce pallets
- They cost 3-4x more, **but last 5-6 years.**

Our Recommendation:

Build more DuraPlate pallets to phase out wooden pallets, then add RFID to pallets

Methodology

- Observe operations
- Research new solutions & their feasibility
- Document processes and flow
- Calculate ROI for proposed improvements