

# Unlocking the Value of Effective Tonnage

Peyton Finical

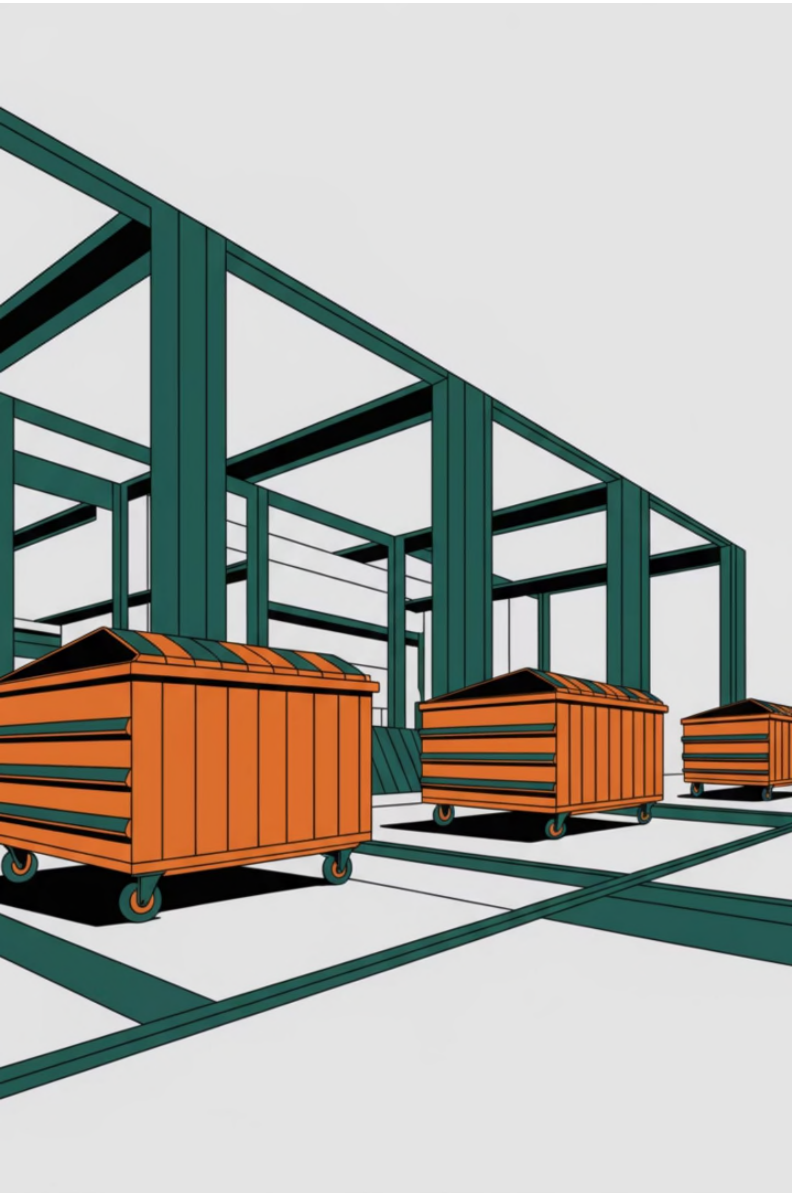
Co-Founder

Sasquatch Waste

*"Rethinking Waste Efficiency"*

**P.S. - I LOVE TRASH**





## Why Waste Management Needs a Rethink

### Beyond Hauling & Disposal

Waste Management is no longer just about hauling and disposal—it's about strategic optimization.

### Vendor Responsibility

As vendors, we have the responsibility to **optimize, innovate** and **help lead** in efficiency.

### Industry Evolution

The industry is shifting toward **trackability, transparency,** and **results.**

### Meeting Expectations

Facilities expect efficiency from vendors – vendors should be ready to deliver.

# Mobile Trash Compaction

New Technology → Changing the Way Waste is Managed

## Safe & Controlled Process

3-ton drum compacts waste directly inside roll-off containers, ensuring operator safety and precision.

## Optimized for Industrial & Construction Streams

Ideal for plant trash and construction debris profiles—designed for real-world waste challenges.

## Maximizes Container Efficiency

Increases *effective tonnage per load* by reducing air space and maximizing payload density.

## Fewer Hauls = Lower Costs & Emissions

Cuts hauling frequency, saves money, and reduces carbon footprint, a win for your budget and the environment.





# What Does Effective Tonnage Mean?

## The Definition

**Effective Tonnage:** Total amount of tons removed divided by the total amount of hauls needed to remove it.

*Example: 100 tons / 40 hauls = 2.5*

*Tons ← Effective Tonnage*

## The Impact

Effective tonnage reflects how many hauls it takes to manage a facility's yearly waste—revealing hidden inefficiencies.

## The Goal

Effective tonnage aims to reduce hauls, making waste management more efficient and cost-effective for your operations.

# Why This Matters...



## Aligns with ESG & Sustainability Goals

More Truck Trips → More Emissions.  
Traditional dumpster trucks get 4MPG, while modern compaction trucks achieve 8MPG—doubling fuel efficiency.



## Rising Disposal Costs

Extra hauls and long hauls to landfills drive up hauling fees and inflate budgets. Minimum tonnage billing (5-ton to 8-ton minimums) means you pay more per disposal event.



## Complicated Billing

More hauls generate more bills to track, reconcile, and process—adding administrative burden to your procurement team.

# The Hidden Inefficiency



## The Appearance Problem

Dumpsters often "look" full but are hauled at only 30–50% capacity—you're paying full price for half loads.



## The Convenience Trap

Busy facilities rely on haulers to monitor dumpsters—convenient, but highly inefficient and costly over time.



## New Client Hauling Info

### Cost Impact

04/01/25	COMMERCIAL TRASH	1.23
04/01/25	COMMERCIAL TRASH	1.42
04/01/25	COMMERCIAL TRASH	0.80
04/01/25	COMMERCIAL TRASH	3.42
04/01/25	COMMERCIAL TRASH	2.23
04/01/25	COMMERCIAL TRASH	3.50
04/02/25	COMMERCIAL TRASH	2.84
04/02/25	COMMERCIAL TRASH	3.56
04/02/25	COMMERCIAL TRASH	3.33
04/02/25	COMMERCIAL TRASH	1.55
04/02/25	COMMERCIAL TRASH	2.66
04/02/25	COMMERCIAL TRASH	1.50
04/02/25	COMMERCIAL TRASH	3.55
04/02/25	COMMERCIAL TRASH	2.98
04/04/25	COMMERCIAL TRASH	3.24
04/04/25	COMMERCIAL TRASH	2.20
04/04/25	COMMERCIAL TRASH	1.02
04/07/25	COMMERCIAL TRASH	0.70
04/07/25	COMMERCIAL TRASH	4.06
04/07/25	COMMERCIAL TRASH	2.82
04/07/25	COMMERCIAL TRASH	4.85
04/07/25	COMMERCIAL TRASH	3.95
04/07/25	COMMERCIAL TRASH	1.93
04/07/25	COMMERCIAL TRASH	0.87
04/07/25	COMMERCIAL TRASH	1.00
04/07/25	COMMERCIAL TRASH	0.66
04/07/25	COMMERCIAL TRASH	0.55
04/07/25	COMMERCIAL TRASH	0.63
04/07/25	COMMERCIAL TRASH	1.32
04/07/25	COMMERCIAL TRASH	3.20
04/08/25	COMMERCIAL TRASH	3.97
04/09/25	COMMERCIAL TRASH	3.73
04/09/25	COMMERCIAL TRASH	3.20
04/09/25	COMMERCIAL TRASH	6.56
04/09/25	COMMERCIAL TRASH	2.49
04/10/25	COMMERCIAL TRASH	3.42
04/10/25	COMMERCIAL TRASH	0.31
04/10/25	COMMERCIAL TRASH	1.97
04/10/25	COMMERCIAL TRASH	1.89
04/10/25	COMMERCIAL TRASH	0.72

Local Facility:

# 2.46

Average Effective Tonnage

Tons per haul

# 81

Monthly Hauls

Per month

# \$44.5K

Monthly Cost

In hauling expenses

# Proof in the Numbers...

Case Study: Raised effective tonnage by **39.7%** for Plant Trash and **23.6%** for Construction, with a **32.2%** combined increase in effective tonnage

Date Range	Loads	Tons	Average Tons per Load	% Increase per load
9/23/22 - 9/22/23	1125	2165	1.92	1.92
9/23/24 - 9/22/24	727	1837	2.53	
9/23/24 - 9/22/25	<b>635</b>	1825	2.87	<b>39.70%</b>
9/23/22 - 9/22/23	429	1509	3.52	3.72
9/23/23 - 9/22/24	411	1762	4.29	
9/23/24 - 9/22/25	<b>76</b>	356.1	4.69	<b>23.59%</b>
9/23/22 - 9/22/23	1554	3675	2.36	2.36
9/23/23 - 9/22/24	1138	3599	3.16	
9/23/24 - 9/22/25	<b>711</b>	2181	3.07	<b>32.19%</b>

# Back to New Client...

## Projected savings of Effective Tonnage raised to 39%



Effective Tonnage

**3.42 Tons**

2.46 Tons



Hauls per Month

**58 Hauls**

81 Hauls



Monthly Waste Cost

**\$31,900**

\$44,550

This represents a **\$12,650 monthly savings** and **\$151,800 annually** — achieved through optimized compaction and reduced haul frequency.



# Real World Examples

General Plant Trash



Pallets



Cooling Tower Fill



Insulation



55 Gallon Drums



Totes



# Measuring Efficiency Gains Through Effective Tonnage

## Before (Inefficient):

**Total Tonnage:** 1,824

**Effective Tonnage:** 1.92

**Total Hauls:** 950

**Cost per Ton:** \$312 per ton

## After (Optimized):

**Total Tonnage:** 1,824

**Effective Tonnage:** 2.87

**Total Hauls:** 635

**Cost per Ton:** \$241 per ton (*Price of Compaction Included*)

By increasing effective tonnage by **49.5%**, this facility eliminated **315 unnecessary hauls** and reduced cost per ton by **23%** delivering substantial annual savings.

# From Reactive to Proactive

## Monitor Dumpsters with Compactions, Not with Dumpster Haulers

01

### Maximize Every Container

Get the most out of every dumpster, not just what's convenient for the hauler's route schedule.

02

### Switch to On-Call Hauling

Set hauls to on-call: maximize efficiency, minimize expense, and eliminate premature pickups.

03

### Set the New Standard

Set the new standard of Waste Management—data-driven, efficiency-focused, and strategically optimized.

#### Old Method

Pick up & Dispose

Vendor as Service Provider

Limited data, no visibility

Compliance-focused

#### Modern Approach

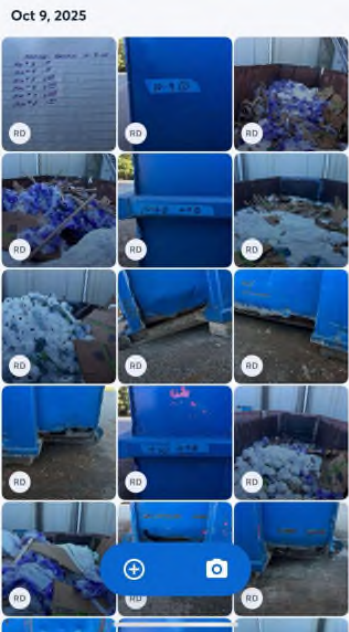
Optimize & Reduce

Vendor as Strategic Partner

Real-time tracking & reporting

Efficiency-focused + Compliant

# Load Monitoring...

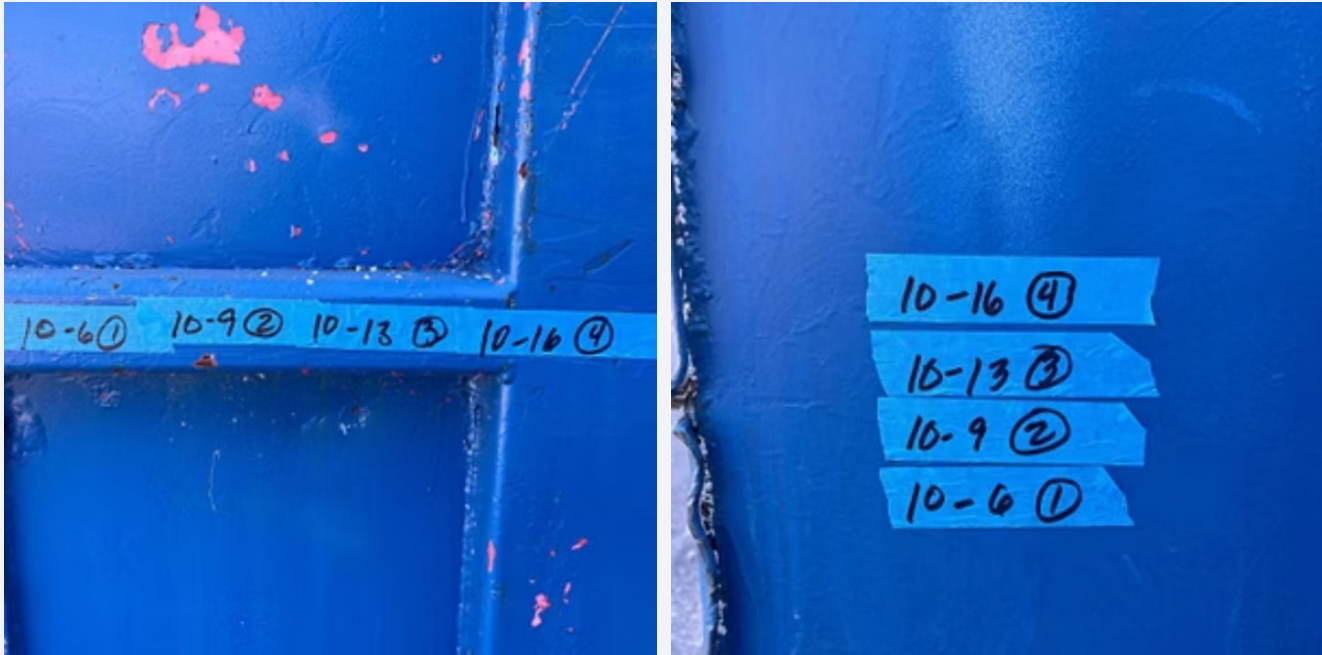


## Photo Database Intelligence

Our photo database can be utilized to determine what compacts well and what doesn't—building institutional knowledge for your waste streams.

Some material can be compacted once and then hauled, while other materials can be compacted 2, 3, or even 4 times—maximizing efficiency based on material.

We can also identify when it is time to have a dumpster picked up, all from a photo database.



# SKY VIEW



# Future of Smart Waste



AI Cameras



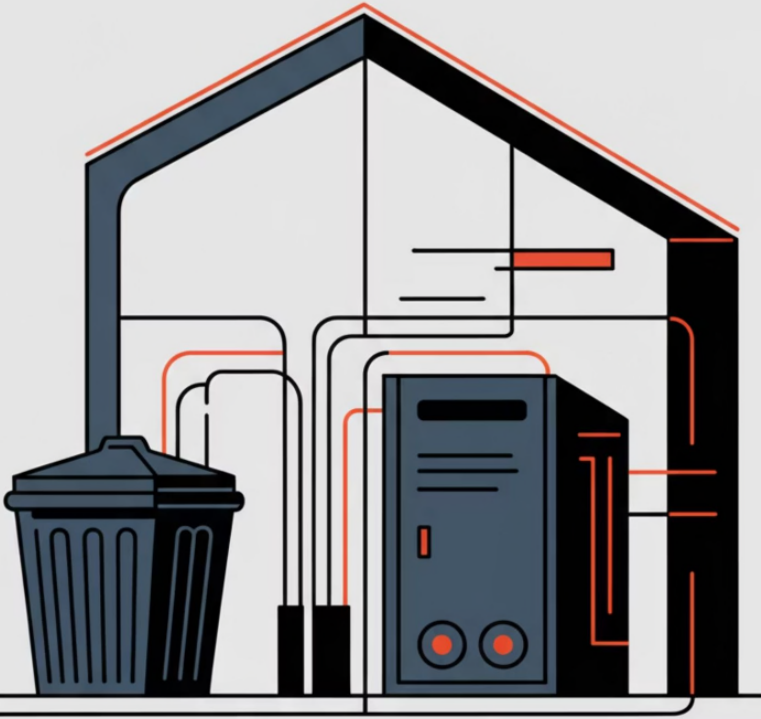
E-Manifest Integration



Bin Sensors



Data Driven Procurement



# AI Cameras



## Contamination Detection

Identify prohibited materials before they enter waste streams, preventing costly rejections and compliance issues.



## Real-Time Monitoring

Continuous visual oversight of waste operations provides instant alerts and actionable insights.



## Waste Categorization

Automatically classify waste types for improved sorting, recycling opportunities, and regulatory reporting.



**Manifest**

Uniform Manifest #  Doc #: 22418

Flag:  OPEN

Manifest Manifest Item / Load Final Disposition Rejection

**Generator Facility**

Pickup: CHEMICAL SAFETY  VA988177803

Parent:

Invoice:

Cert:

Territory:  Region:

**Transporter Information**

1: A1  TEST TSDF OF VA

2:  0

3:  0

4:  0

TSDF: A2  TEST TSDF OF VA TWO

**Handling Instructions / Additional Information**

## E-Manifest Integration

Digital waste tracking from generator to disposal—eliminating paperwork, improving compliance, and providing complete chain-of-custody documentation in real-time.



# Theory of a Perfect System

## 1. At the Generator

01

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### Internal Logging

Waste is logged in the facility's internal system (could be ERP, EHS software, or a standalone app).

02

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### Auto-Generated E-Manifest

An **e-Manifest auto-generates** with: Generator EPA ID, waste codes, container counts, weights (estimated or measured), plus QR code/digital token attached.

03

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### Digital Authorization

Generator digitally signs and time-stamps the manifest—creating an immutable record from the moment of generation.

# During Transport

## Digital Handoff

The hauler receives a **digital handoff**—either a QR scan or mobile app acknowledgment instead of a stack of paper.

1

2

3

4

## Checkpoint Updates

As the waste moves, each checkpoint (transfer station, weigh station, etc.) updates the manifest electronically.

## Automatic Logging

The transporter's details (company, EPA ID, driver ID) are automatically logged into the manifest.

## GPS Tracking

GPS + telematics data could optionally be linked for full transparency and real-time location awareness.



# At the Receiving Facility

## Arrival Scan

When the load arrives, the facility scans the same QR or token—instant verification and tracking update.

## Automatic Updates

The manifest auto-updates with actual tonnage (from scale ticket) and acceptance info, no manual data entry required.

## Discrepancy Management

If there are discrepancies (rejected waste, over/under load), the system prompts a correction workflow immediately (e.g., "Reject 2 drums – reroute manifest to alternate facility").

# Data Integration/Closing the Loop

**EPA Submission**  
Once received, the system automatically submits the completed manifest to EPA's Manifest system.



## Instant Distribution

Generator, transporter, and facility all receive **instant digital copies**—no waiting for mailed paper.

## Complete Archives

All data is archived and exportable for **compliance, ESG reporting, and procurement metrics**.

# Data Driven Procurement

1

## Efficiency Metrics

**What Data-Driven Procurement Means:** Introducing quantifiable efficiency metrics (effective tonnage/cost-per-ton/emissions per haul) as benchmarks for evaluating vendor performance, negotiating contracts, and setting performance standards.

2

## Vendor Accountability

Vendor data can be put into KPIs—creating clear performance expectations and accountability frameworks.

3

## Budget Forecasting

Procurement can forecast based on tons of waste generated rather than unpredictable haul counts—improving budget accuracy.

4

## Compliance + ESG Reporting

Procurement can meet sustainability or emissions targets by showing reductions backed with data—supporting corporate responsibility goals.

**Waste Vendors should be proactively looking for efficiencies for your sites!** It is a huge opportunity to work with you and to continue working with you.

# Monthly Waste Performance Metrics

**300**

Total Monthly Tonnage  
tons

**2.87**

Effective Tonnage  
tons per haul

**104**

Total Hauls  
hauls

**62**

Dumpsters Saved  
hauls

**310**

Emissions Saved  
gallons of diesel

**3.5**

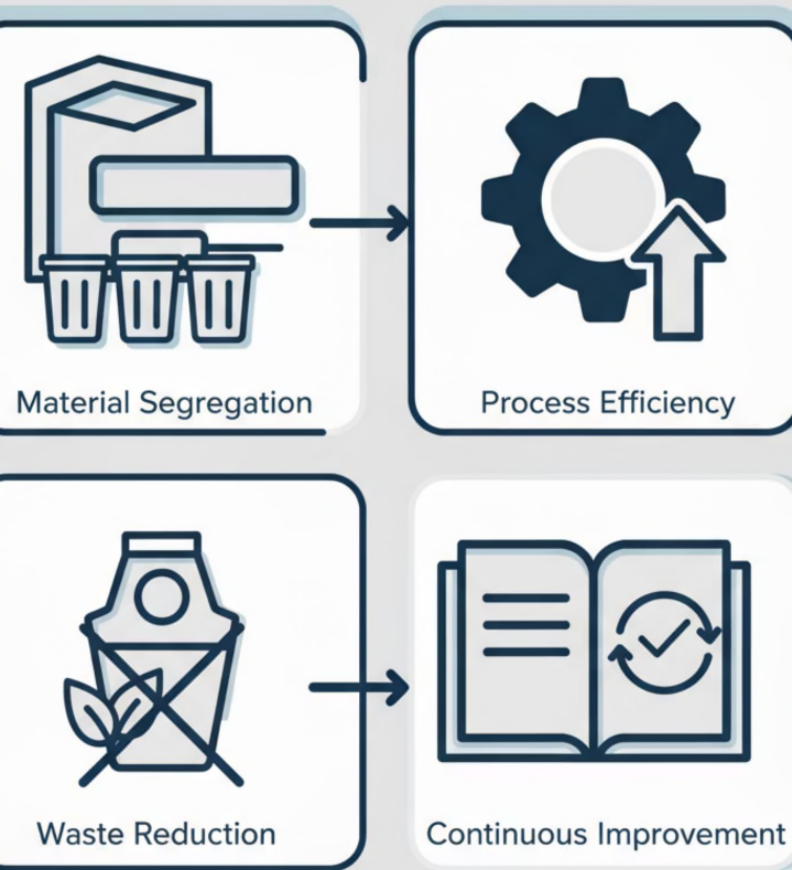
CO2 Reduction  
tons of CO2

**\$57.2K**

Total Monthly Cost  
USD

**\$190**

Cost per Ton  
USD



## What is the Goal?

The goal is not to just "Pick Up" Trash — it's about understanding, reducing, and optimizing.

### Key Factors:

- Material segregation (Landfill Diversion)
- Process efficiency
- Education & compliance

**Goal: Maximize value from every pound, upstream and downstream.**

### Upstream Waste

Materials wasted before use  
(supply & production)

### Downstream Waste

Materials wasted after use  
(consumption & disposal)



## Call to Action - Next Steps

1

### Track Effective Tonnage

- What is your current cost per ton?
- How many tons, on average, are you producing per year?

2

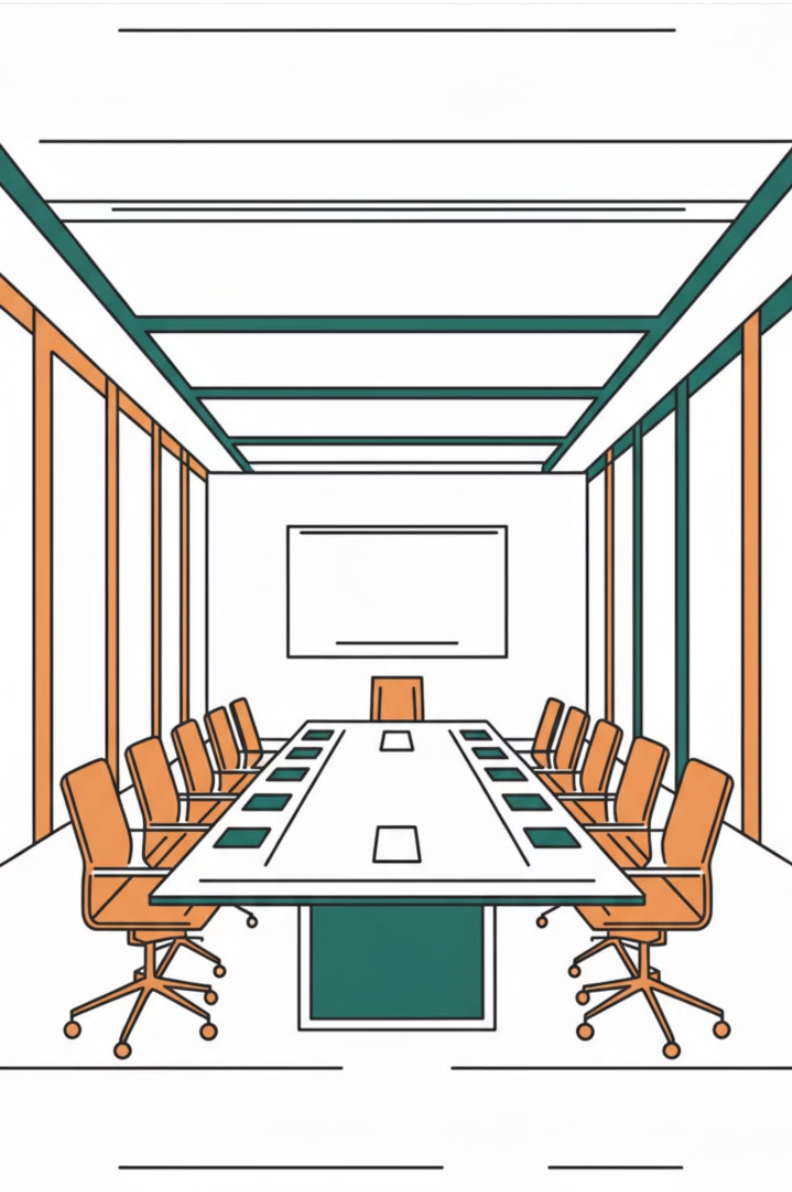
### Pilot One Improvement

- Mobile Compaction
- Audit Current Haul Practices - Where is the waste (inefficiency)?
- Calculate Tons Per Haul (effective tonnage)
- Measure and Share results internally

3

### Partner with Proactive Vendors

Partner with vendors that are looking to be proactive instead of reactive — driving continuous improvement in your waste operations.



## Closing Q&A

Waste isn't just removal – It is efficiency, savings, performance, and sustainability

Questions?