

The Northeast Michigan Materials
Management Authority (NMMMA):
The Recycling Hub for Northeast Michigan

July 25, 2023



WASTE NOTHING.

KEEPING VALUE IN MICHIGAN COMMUNITIES

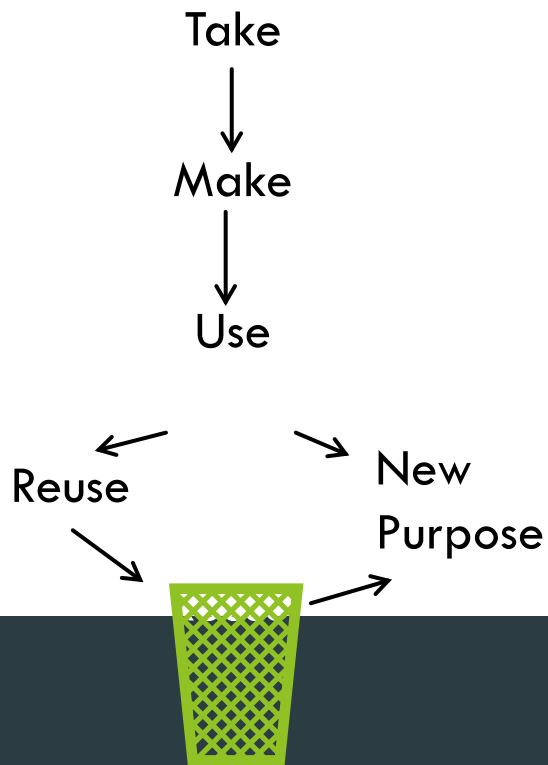
Progression of consumption and 'waste'

Grandma's Kitchen

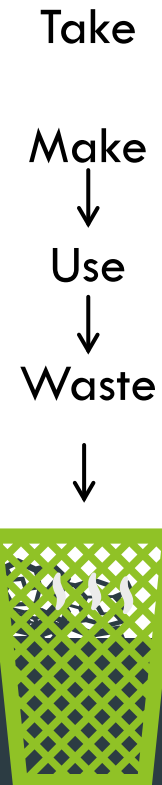
Single Use Revolution

World Population: 7.95 Billion

Waste Nothing Culture



Linear Economy



Circular Economy



COLLECTION



END MARKET



PROCESSING



State
Priorities

State &
Federal
Funding

Industry and
Other Funding

Local
Tools

Local
Willingness

THE TIME IS NOW:
Stars are Aligned

EGLE Materials Management Planning

- ▶ EGLE to kick off planning process in late Sept.
- ▶ Determine plan as individual county or as region
- ▶ Funding to support planning over 3 years
- ▶ Funding can support implementation once MMP complete.
- ▶ Regional planning provides opportunity to work on planning the expansion of recycling collection both in and out of the county to increase volumes processed at new MRF.
 - ▶ Greater volumes processed at MRF reduces costs per ton.

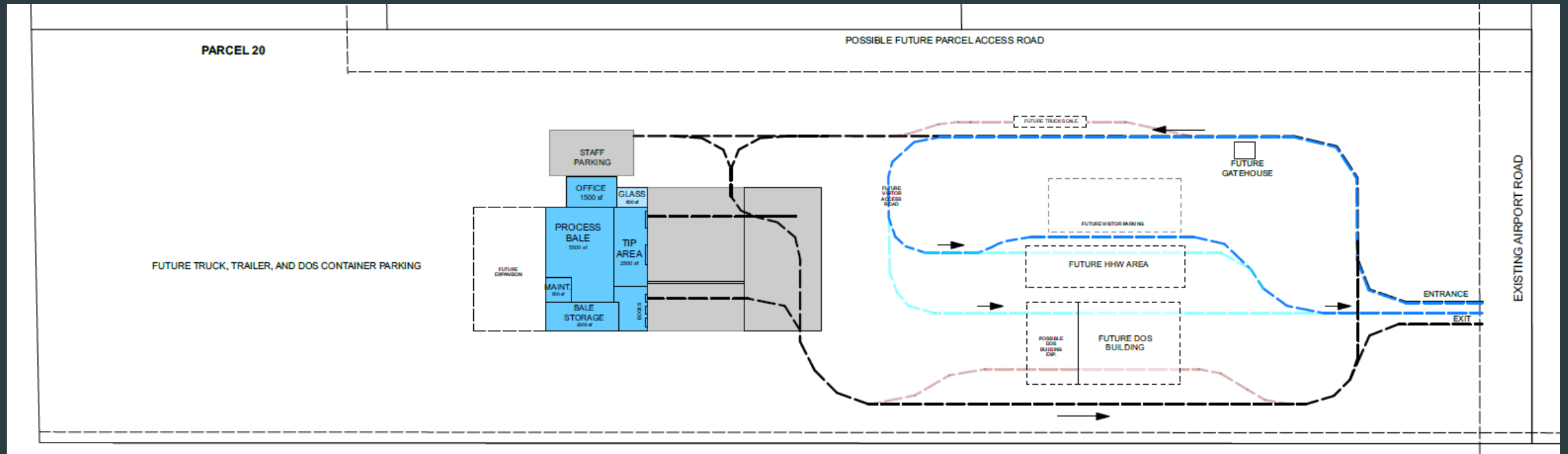


Dual Stream Recycling Facility in Planning Stages: Regional Hub

- ▶ Planned siting at Alpena Airport
- ▶ 5,000 ton per year capacity, serving ~30k households
- ▶ Revolution Systems Technology
 - ▶ Efficient use of space
 - ▶ Great flexibility with labor
- ▶ Capacity for expansion
- ▶ Public sector authority

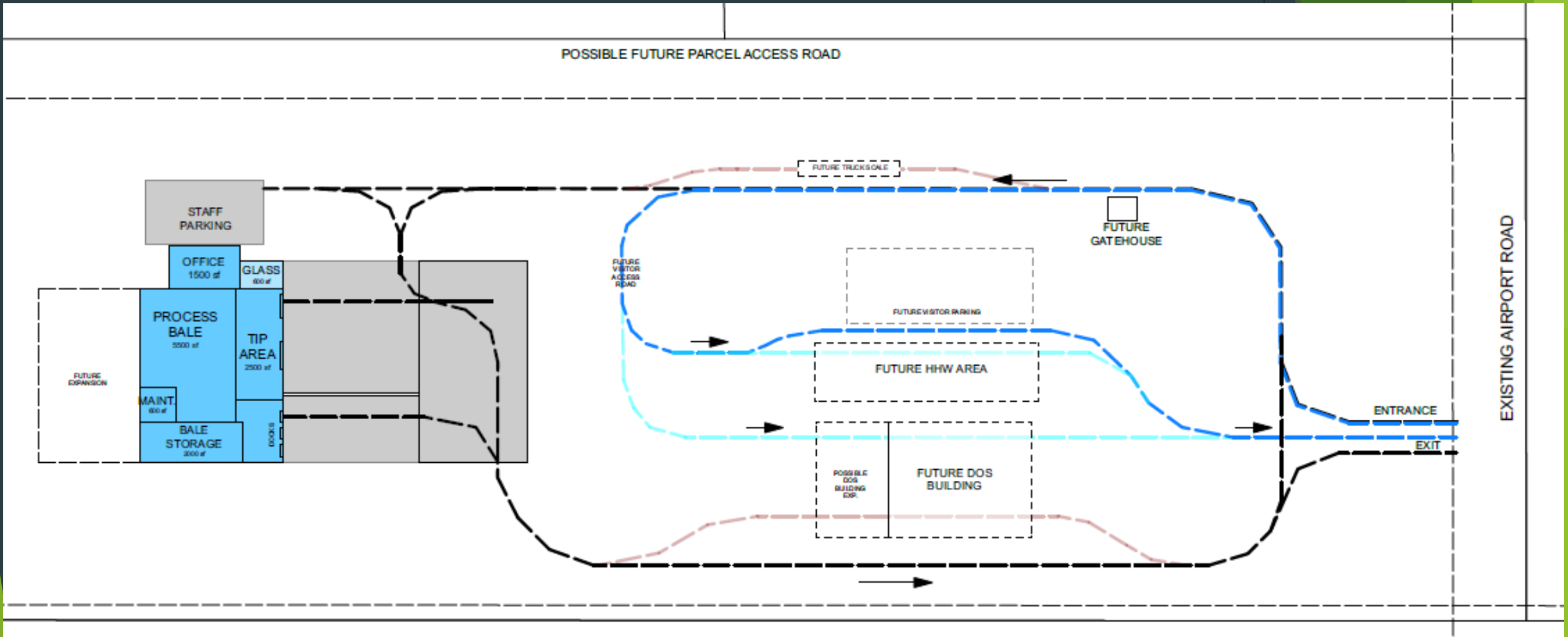


Updated Preliminary Site Layout



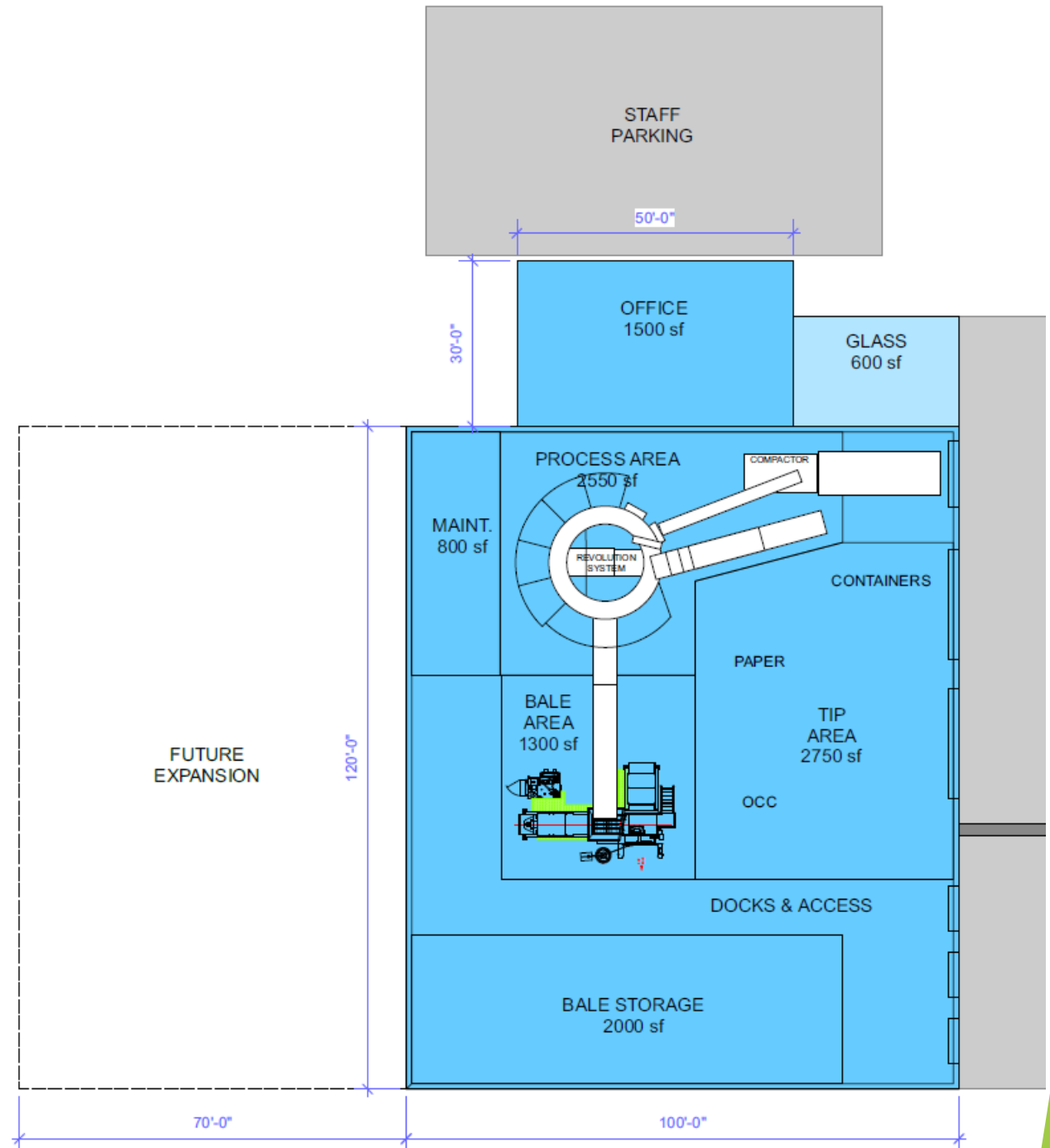
- ▶ Layout updated for construction on parcel 20 at airport.
- ▶ Design ensures space for future expansion and right-sizes road construction for current needs.

Updated Preliminary Site Layout



Preliminary Building Arrangement

- ▶ Circular sorting line minimizes building square footage compared to conventional design, reducing capital building costs.
- ▶ Rectangular building design reduces costs associated with future expansion
- ▶ Location of tip area and bale storage right-sizes new roads while ensuring safe, efficient traffic flow.



Regional Comprehensive Drop-off Opportunity

- ▶ Electronics
- ▶ Tires
- ▶ Mattresses
- ▶ HHW / Hazardous
Recyclables/
Household
Chemicals



Alpena Regional Resource Recovery Facility

Current Volume

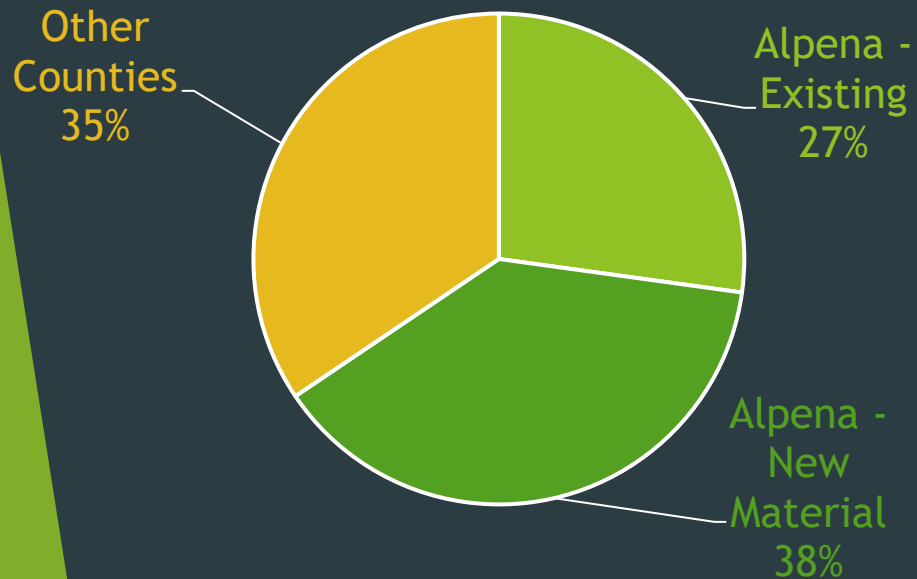
~1,000 Tons

Future Impact

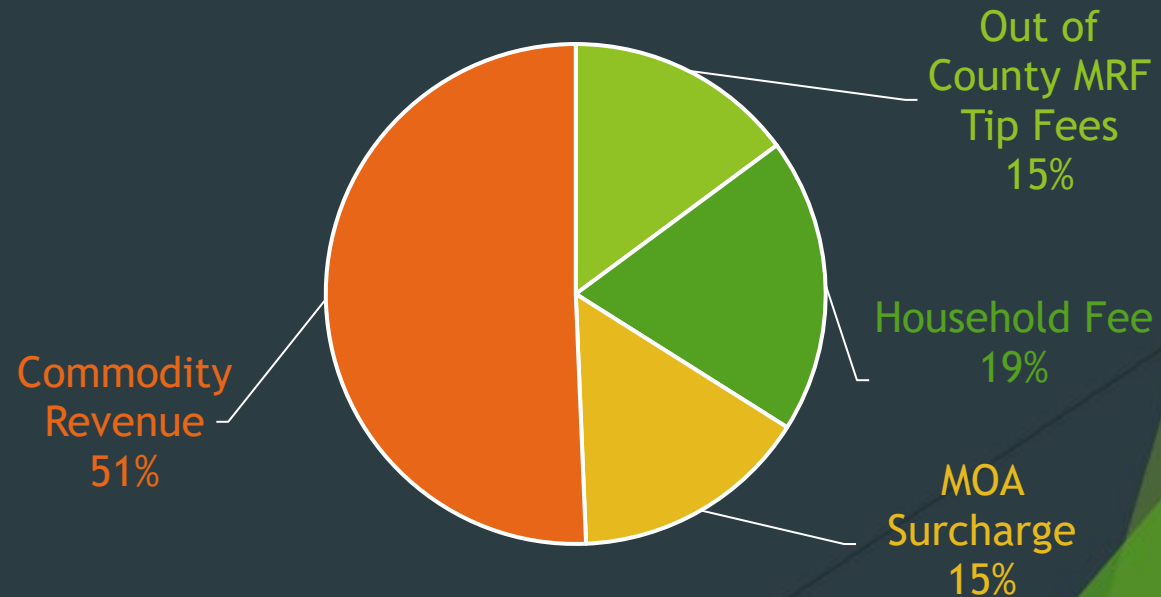
Year 6 Estimated
~4,300 Tons

\$150,000
in Landfill Disposal
Savings

Year 6 MRF - Feedstock Sources



Year 6 MRF - Revenue Sources



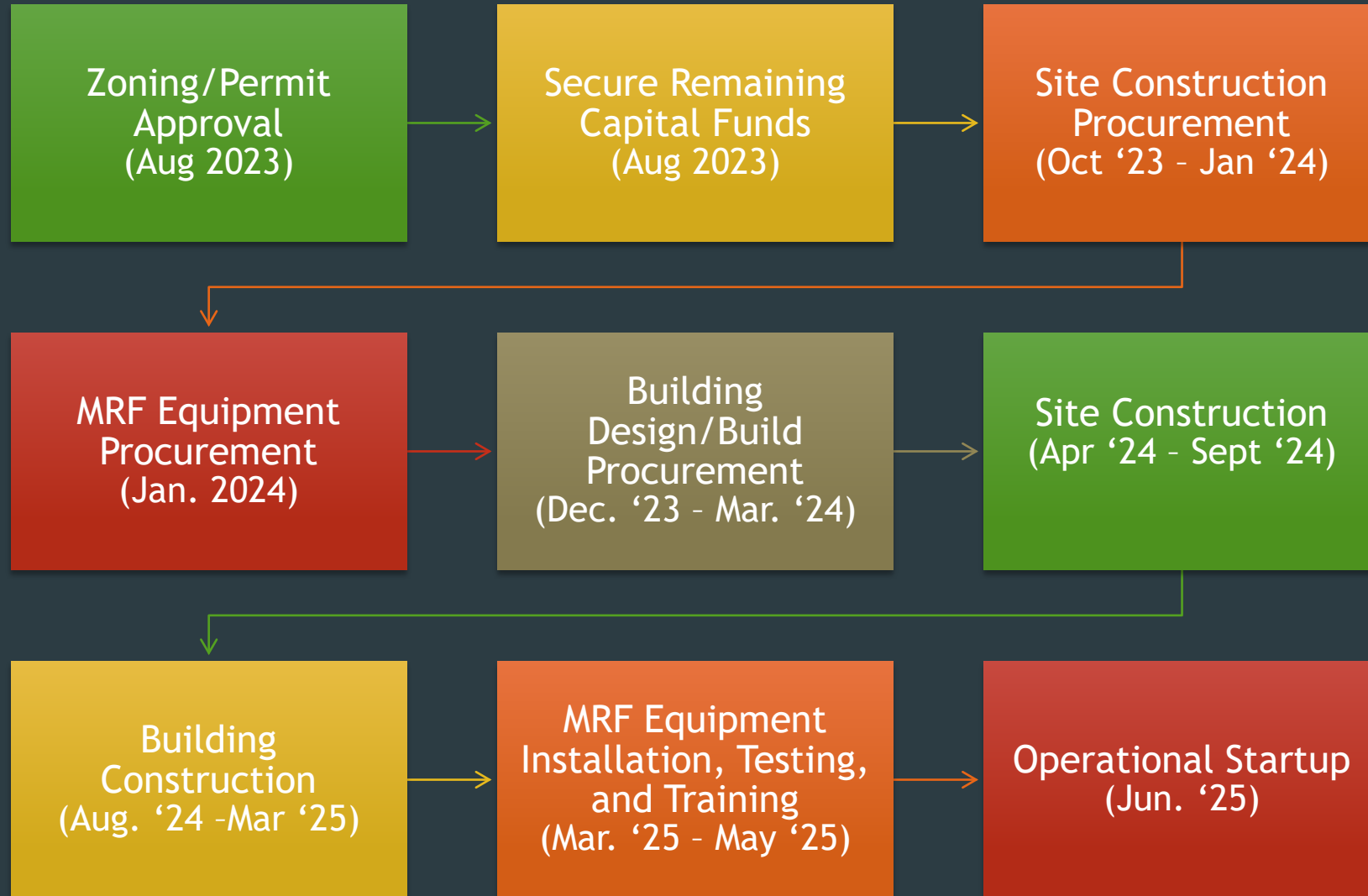
~70% OF CAPITAL FUNDS SECURED TO DATE

\$2.7M	Federal appropriations
\$1M	State of Michigan EGLE
\$500K	Alpena County
\$15k	Carton Council of North America
\$15k	Food Packaging Institute (FPI)
\$1.9M	EPA (submitted)
\$500k - \$1M	Closed Loop Partners (in discussions)
<\$500k	Recycling Partnership (in discussions)

Total Need: ~\$6M



Timeline



Next Steps



Secure remaining capital funding gap (~2M)



Adopt MOA landfill surcharge;
Execute Construction Plan



Support expansion of regional drop-offs;
Gauge interest for curbside in high density areas of Alpena County.

Thank you!

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Recycle.com