

THE GLASS GAP

Bridging the Distance Between Glass and the Markets

GLASS IN OUR COMMUNITIES

RESIDENTIAL

COMMERCIAL /
INDUSTRIAL

HOSPITALITY

POST
INDUSTRIAL



LOTS OF OPTIONS FOR COLLECTING GLASS



SINGLE-STREAM
CURBSIDE



SUBSCRIPTION
COLLECTION



DROP-OFF
CENTERS



BOTTLE RETURN /
DEPOSIT SYSTEMS



HOSPITALITY
ROUTES



COMMERCIAL /
POST-INDUSTRIAL

Collection is
only the beginning.
Without a viable path
to market, glass falls
to the easy option.



LANDFILL
and
ALTERNATIVE DAILY COVER



GLASS TO THE MARKETS

BOTTLE
MANUFACTURERS

FIBERGLASS /
INSULATION

ABRASIVE
BLASTING

CONSTRUCTION
SAND &
BUILDING
MATERIALS

FOAM GLASS
& POZZOLAN

SOIL
AMENDMENTS



OUR GOAL:

KEEP GLASS OUT
OF LANDFILLS AND
IN PRODUCTS THAT
BUILD OUR COMMUNITIES.



THE CHALLENGE ISN'T COLLECTING GLASS. | THE CHALLENGE IS BUILDING THE PATH TO MARKET.

THE GAP: Why Good Glass Doesn't Make It to Market

GLASS STARTS HERE

LET'S BUILD A BRIDGE
WITH THE RIGHT
SYSTEMS & PROCESSING

COLLECTED GLASS CAN TURN INTO VALUABLE PRODUCTS



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MANUFACTURERS



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ABRASIVE
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CONSTRUCTION SAND
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FOAM GLASS
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KEY BARRIERS IN THE GAP



CONTAMINATION



PROCESSING
REQUIREMENTS



TRANSPORTATION
& LOGISTICS



LACK OF
COMMODITY
ECONOMICS MODELS



MARKET
DEVELOPMENT



Building The Bridge:

How To Start A Glass Recycling Business

1. SOURCES OF GLASS

- How much waste glass is available?
- What types of glass can be accepted?
- What recycling programs are in place now?
- Types of glass that can be accepted include bottles, plate glass, mixed color glass.

2. LOCATION

- What permitting & zoning is required?
- What size location & building?
- Outside storage required?

3. TECHNOLOGY

- What type of crushing, screening, cleaning, and material bundling systems are required to meet market specifications?
- Is the finished product sized as cullet, glass sand, or fine material?
- Systems can be upgraded to produce clean cullet and further processed to create pozzolan.

4. FUNDING

- Can you get community support and funding to make this possible?
- Investors?
- Grants?
- Loans or Leasing?
- Incorporate into the existing or new recycling system.

5. MARKETS

- Glass Processors
- Connect to or develop local markets.

THE FINANCIAL MODEL: MAKING GOOD GLASS GOOD BUSINESS.

1. DISPOSAL AVOIDANCE



- Avoid tipping fees
- Avoid landfill taxes

Reduce
environmental risk.

2. COLLECTION & TRANSPORTATION



- Transportation costs
- Backhauls & partnerships
- Local solutions = lower cost

Lower miles.
Lower costs.

3. PROCESSING & TECHNOLOGY



- Equipment investment ROI
- Energy & operations
- System design & scale

Right technology.
Right size.
Right cost.

4. PRODUCT VALUE & MARKET PRICE



GLASS SAND
< 3/16"



CULLET
3/16" – 3/4"

- Multiple product options
- Local end markets
- Consistent supply

Better products.
Better markets.
Better returns.

5. THE RESULT: SUSTAINABLE SOLUTIONS & ROI VALUE



- Financially sustainable
- Environmentally responsible
- Valuable products
- Build community glass recycling credibility.

Good for the bottom line.
Good for our communities.
Good for the future.

GLASS PROCESSING CHALLENGES

1

Product Destruction & Size Reduction

Prepare for downstream processing.



- Product destruction?
- Volume or size reduction?
- Reducing non-glass residue?

2

Pulverizing & Crushing

Removing Metals, Organics, & Other Non-Glass



Metals Organics Other Non-Glass

- Crushing & Cleaning
- Remove organics and other non-glass materials
- Reduce glass and keep contaminants larger for removal

3

Color & Size Separation, Optical Sorting, Size Reduction & Contamination Removal

Separate by color and size, remove remaining contaminants, and produce cullet, sand, or fine material as needed.



- Limited glass processors
- Distance to markets

4

Meeting Specific Product Specifications

Produce consistent, high-quality materials that meet the requirements for your end use.



- Meet size and quality specifications
- Ensure consistency
- Deliver a product ready for its intended use

THE BRIDGE IS BUILT.

GOOD GLASS. GOOD MARKETS. STRONGER COMMUNITIES.

1. GLASS SOURCES



Communities and businesses provide the glass.

2. GLASS PROCESSORS



Advanced systems turn glass into valuable materials.



Pulverize to sand and aggregate



Clean to cullet for bottle markets



Crush for security and compliance

3. END USE MARKETS



Glass becomes part of everyday products and infrastructure.

4. STRONG MARKETS & LONG TERM VALUES



KEEP GLASS OUT OF LANDFILLS



CONSERVE NATURAL RESOURCES



BUILD GLASS ECONOMIC MODELS



CREATE A STRONGER, MORE RESILIENT FUTURE



THE BRIDGE CONNECTS US ALL.