



**GROUP 2 - ATTACHMENT A**  
**MRF OPERATIONS & MATERIALS MARKETING**  
**RECOVERED MATERIALS COMPOSITION**

**CITY OF PHOENIX**

- The City anticipates only slight growth-related annual increases in inbound recyclable material tons. The City is developing landfill diversion goals and plans for its facilities and hopes to significantly increase diversion of materials away from the landfill. Dependent on the rate of overall growth in the City reaching these goals could significantly increase the quantity of recyclable material delivered to the facility.

In addition, the City is planning to install a Trommel within the City’s transfer station refuse side tip floor. The use of this Trommel will pre-process 40,000 tons of the most contaminated single stream and remove any valuable recyclable material. The “unders” that are recovered from the Trommel will be weighed and delivered to the MRF tip floor for processing by the MRF. Of the 87,000 tons delivered to the 27th Avenue MRF, the Trommel will process all but 47,000 tons. It is estimated 12,000 tons of recoverable recycle commodity will be extracted by the Trommel. It is expected the new MRF will end up processing approximately 59,000 tons annually. This helps maintain the life of the equipment until further advancement to reduce inbound contamination occurs.

Below is a breakdown of material processed and shipped at the 27th Ave. MRF.

**27th Ave. MRF: Processed Materials**

Commodity	2017		2018		2019		2020	
	Tons	% of Total	Tons	% of Total	Tons	% of Total	Tons	% of Total
<b>Aluminum</b>	344	0.8%	303	0.9%	309	1.1%	455	1.5%
<b>Ferrous Metals</b>	814	1.8%	947	2.7%	384	1.4%	500	1.7%
<b>HDPE Colored</b>	902	2.0%	833	2.4%	698	2.5%	731	2.4%
<b>HDPE Natural</b>	697	1.6%	674	1.9%	549	2.0%	590	2.0%
<b>Mixed Glass</b>	2,381	5.4%	3,108	9.0%	2,753	9.9%	3,138	10.4%
<b>Cardboard (OCC)</b>	12,322	27.7%	9,998	28.9%	8,665	31.2%	10,360	34.5%
<b>Polyethylene #1</b>	2,326	5.2%	2,277	6.6%	1,816	6.5%	2,223	7.4%
<b>Plastics 3-7</b>	265	0.6%	-	0.0%	-	0.0%	-	0.0%
<b>Mixed Rigid</b>	60	0.1%	127	0.4%	119	0.4%	36	0.1%
<b>Polypropylene #5</b>	675	1.5%	537	1.5%	386	1.4%	252	0.8%
<b>Scrap Metal</b>	1,323	3.0%	977	2.8%	1,014	3.7%	1,047	3.5%
<b>Special News Mix #56</b>	22,323	50.2%	14,868	42.9%	11,054	39.8%	10,700	35.6%
<b>TOTAL</b>	<b>44,432</b>	<b>100.0%</b>	<b>34,650</b>	<b>100.0%</b>	<b>27,747</b>	<b>100.0%</b>	<b>30,032</b>	<b>100.0%</b>



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**GROUP 2 – ATTACHMENT B**  
**MRF OPERATIONS & MATERIALS MARKETING**  
**OPERATIONS AND MAINTENANCE PLAN**

**CITY OF PHOENIX**

1. The Operations and Maintenance Plan shall specify how Contractor intends to fulfill its responsibilities to manage the operation and maintenance of the Facility in accordance with this Agreement. The Operations and Maintenance Plan shall build upon and supplement Contractor's representations regarding operation and maintenance as specified in Contractor's Proposal. The Operations and Maintenance Plan shall specify how Contractor will operate and maintain the Facility.
2. The Operations and Maintenance Plan shall address compliance with all municipal, State and federal laws and regulations.
3. In addition to the topics discussed above, the Operations and Maintenance Plan shall include, but not be limited to:
  - 3.1 A schedule for basic operation and maintenance activities;
  - 3.2 A plan for operating the Facility under the range of tonnage throughputs anticipated during the Term of the Agreement;
  - 3.3 Safety procedures, including welding and cutting procedures;
  - 3.4 A description of plans for accommodating tours;
  - 3.5 An organization chart with job description and staffing requirements for all personnel who will be directly employed at the Facility;
  - 3.6 Procedures and methods for personnel hiring, training and supervision;
  - 3.7 Inspection, acceptance and rejection procedures for all incoming Recyclables;
  - 3.8 A security plan that addresses procedures for preventing theft and other types of loss, including a plan for monitoring, recording and documenting Contractor's use of the City's fueling station.
  - 3.9 Inspection of Recovered Materials to ensure compliance with Market Specifications;
  - 3.10 Recordkeeping procedures, including preparation and maintenance of all journals, ledgers, accounts, records, receipts, checkbooks, financial documents, and reports, including personnel records and payrolls;
  - 3.11 Provision of agreed upon accounting procedures for the Facility prepared by a Certified Public Accounting (C.P.A.) firm acceptable to the City; and
  - 3.12 A fire plan that addresses fire prevention, evacuation, and emergency procedures.
  - 3.13 A tipping floor management plan and procedures.
4. The Operations and Maintenance Plan shall also discuss procedures for all routine and long-term maintenance of Processing Equipment and Mobile Equipment and scheduling of downtime associated with the maintenance program including, but not limited to, the following:
  - 4.1 Maintaining the Recycling Process System, and all Mobile Equipment associated with the Facility at the performance level of the successful certified acceptance test; and
  - 4.2 Establishing a routine preventive maintenance schedule that meets or exceeds equipment manufacturers' recommendations. Written maintenance instructions shall be included in the Operations and Maintenance Plan and a written system shall be established to schedule and log required maintenance (e.g., software, work orders, tagging, or visit-cards).



**GROUP 2 – ATTACHMENT B**  
**MRF OPERATIONS & MATERIALS MARKETING**  
**OPERATIONS AND MAINTENANCE PLAN**

**CITY OF PHOENIX**

- 5.** Contractor shall develop an Operations and Maintenance Manual for the Facility. The purpose of the Operations and Maintenance Manual is to provide the overall background, data, and guidance necessary for proper Facility operation and maintenance. This document shall be in addition to and supplement the provisions of manufacturers' operation and maintenance manuals that shall be supplied for all Processing Equipment and Mobile Equipment.
- 5.1** At a minimum, the following major processes and operations shall be addressed:
- A.** Recyclables tipping area;
  - B.** Recyclables processing; and
  - C.** Recovered Materials removal, storage and shipping.
- 5.2** For each process, at a minimum, the following information shall be provided:
- A.** Process description, layout and schematic Process diagram;
  - B.** Design criteria;
  - C.** List of Processing Equipment and Mobile Equipment and the respective specifications;
  - D.** Process start-up, shut-down and typical operating procedures;
  - E.** Process monitoring, control and sampling;
  - F.** Routine operator duties;
  - G.** Troubleshooting procedures;
  - H.** Preventive maintenance procedures and schedules;
  - I.** Emergency conditions and response plan;
  - J.** Safety procedures; and
  - K.** Housekeeping procedures.
- 5.3** One (1) copy of the manufacturers' operation and maintenance manuals for all Processing Equipment and Mobile Equipment shall be provided with each Facility Operations and Maintenance Manual. These manufacturers' operation and maintenance manuals shall include:
- A.** Equipment or system description;
  - B.** Shop drawings;
  - C.** Maintenance and lubrication requirements (including all component parts that may require servicing);
  - D.** Assembly drawings (for all field replaceable assemblies);
  - E.** Support or appurtenant equipment information; and
  - F.** Recommended spare part and lubricant inventory.



**GROUP 2 - ATTACHMENT C**  
**MRF OPERATIONS & MATERIALS MARKETING**  
**MAINTENANCE PLAN**

**CITY OF PHOENIX**

1. The Maintenance Plan shall specify how Contractor intends to fulfill its responsibilities to manage the maintenance of the Facility in accordance with this Agreement. The Maintenance Plan shall build upon and supplement Contractor's representations regarding maintenance as specified in Contractor's Proposal.
2. Contractor shall provide recommended Maintenance Schedule based on 1 shift operation. Equipment should be based on **GROUP 1-EQUIPMENT PROCESSING SYSTEM** proposal. Below is a sample breakdown table:

Equipment Based on Group 1 Proposal			Maintenance Frequency			
	Equipment	Task	Daily	Weekly	Monthly	Other
1						
2						
3						
4						
5						
6						
7						
8						
9						
10						
11						
12						
13						
14						
15						
16						
17						
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...						



**GROUP 2 – ATTACHMENT D**  
**MRF OPERATIONS & MATERIALS MARKETING**  
**MARKETING PLAN**

**CITY OF PHOENIX**

The Marketing Plan shall specify how Contractor intends to fulfill its Marketing obligations in accordance with this Agreement. The Marketing Plan shall build upon and supplement the Contractor's representations regarding Marketing as specified in Contractor's Proposal. The following information, at a minimum, must be submitted to the City as part of the Marketing Plan.

- 1. Statement of Recyclable Materials Marketing Policy.** The Marketing Plan shall include a detailed statement of overall policy concerning specific Recyclable Materials Marketing goals, objectives and means including, but not limited to, the following:
  - 1.1** Maximizing revenues;
  - 1.2** Development/support of local and innovative Material Markets
  - 1.3** Use of long-term versus spot Material Markets;
  - 1.4** Use of brokers versus end-users;
  - 1.5** Use of export versus U.S. Material Markets.
  
- 2. Organization of Marketing Function.** The Marketing Plan shall include a detailed description of the organization of the Marketing function. Said description shall include at the minimum a flow diagram of the function and copies of forms and reports inherent to the function. Specific individuals and responsibilities shall be identified.
  
- 3. Identification of Specific Material Markets.** The Marketing Plan shall include a preferred Material Markets listing. Said listing will include at least two final consumers (primary and secondary) of each material and sufficient detail concerning that purchaser (including current Material Markets price and floor prices, if available) to facilitate the sale of materials to that purchaser. The Marketing Plan shall include a procedure whereby additional names may be added to the list. The following criteria, at a minimum, shall be researched before inclusion on the list.
  - 3.1** The final consumer's compatibility with the Market Specifications of the Recovered Materials;
  - 3.2** The location where Recovered Materials must be delivered or the ability of the Commodity Broker to price material freight-on-board (FOB) the Facility;
  - 3.3** The creditworthiness of the Commodity Broker as determined by Contractor's accounting policy;
  - 3.4** The history of any business relationship, which Contractor, its employees, or the City and its employees has had with the Commodity Broker; and
  - 3.5** A statement that it is the goal and obligation of Contractor to attempt to increase the number of names on the preferred Market list sufficient for diversity and backup redundancy.
  
- 4. Marketing Meetings.** The Marketing Plan shall discuss a process whereby Contractor and the City formally meet on a quarterly basis (and additionally if necessary) to review and discuss Marketing issues including pricing, contracts for sale of Recovered Materials, quality control, and trends.
  
- 5. Marketing Strategy.** The Marketing Plan will detail the Marketing strategy to be employed by Contractor and include the following elements:
  - 5.1** Identification of viable Markets;
  - 5.2** Solicitation of specifications, pricing and contract proposals;
  - 5.3** Solicitation of transportation costs for each Recovered Material type;



**GROUP 2 – ATTACHMENT D**  
**MRF OPERATIONS & MATERIALS MARKETING**  
**MARKETING PLAN**

**CITY OF PHOENIX**

- 5.4 Negotiations with selected Commodity Brokers;
- 5.5 The monitoring of all transportation and sales agreements;
- 5.6 The review of agreements as they may expire resulting in additional specifications, pricing or contract proposals;
- 5.7 Near and long-term Market and pricing trends for all Recovered Materials; and
- 5.8 The procedure for comparing and reporting on actual revenues received by Contractor versus the following Market indicators:
  - A. For recovered paper: Paper Recycler, Midwest and West Coast prices;
  - B. For recovered containers: Recycling Times, West Central prices; and
  - C. Other mutually agreeable Market indicators approved in writing by the City.
  
- 6. **Facility Notification.** The Marketing Plan shall detail the procedures whereby the City is notified of all Recovered Material sales and transportation agreements on a timely basis to ensure proper compliance with these agreements.
  
- 7. **Material Shipments.** The Marketing Plan shall include a preferred transportation listing. Said listing shall include at least two transportation options for each alternative mode (rail, land, etc.) for the shipment of each Recovered Material type from the Facility to each final consumer on the preferred Market list. Sufficient detail shall exist for each transportation option so as to facilitate the movement of materials. The Marketing Plan shall also detail the procedures whereby shipments of materials are scheduled. The feasibility and cost effectiveness of each option shall be evaluated and documented before inclusion on the list.
  
- 8. **Quality Control.** The Marketing Plan shall include the procedures whereby material quality control is maintained and include the following:
  - 8.1 Material Specifications;
  - 8.2 Ongoing quality training;
  - 8.3 On-line quality control;
  - 8.4 Inventory inspection;
  - 8.5 Shipment inspection;
  - 8.6 Quality deviance notification and procedures; and
  - 8.7 Quality deviance records.
  
- 9. **Contingency for Severe Market Depressions.** The Marketing Plan shall detail the procedures and obligations of Contractor in the event of a severe Market depression. Included within the Marketing Plan shall be the process whereby the City is notified of such an event. Additionally, the Marketing Plan shall provide the initial planning necessary for the development of alternate Markets, utilization of fixed commitments from Commodity Brokers, or, as a last resort, emergency storage of materials in the event of a severe Market depression.