

# MRF of the Month

## Kent County Recycling & Education Center



Across from the Grand River, on a five-acre brownfield site near downtown Grand Rapids, Michigan that the county bought for \$1 (though it endured \$316,000 in remediation costs to make the site suitable for construction), sits Kent County's brand-spanking-new recycling facility.

Owned and operated by the Kent County Department of Public Works (DPW), the Kent County Recycling & Education Center consists of a 56,000-square-foot single-stream processing facility and 5,000-square-foot education center, replacing the county's aging dual-stream MRF that had been in operation for nearly 20 years. According to Kristen Wieland, a resource recovery specialist with the DPW, the \$11.5-million plant was built sans the use of tax money, as, being an enterprise fund of Kent County, the department obtains revenue from user fees generated from its South Kent Landfill and North Kent Transfer Station and Waste-to-Energy facility, and from sales of MRF-processed material.

The recycling facility processes residential material from curbside recycling programs based in and around Kent County (population of over 604,000) and from three DPW-operated drop-off centers. Material is presently collected using both a single-stream and dual-stream approach, as not all haulers have converted over to commingled collection yet. And Wieland states that tonnage has increased by 30 percent since the county switched over to a single-stream collection approach. The plant does not handle commercially-generated material.

The MRF operates one processing line for six hours per day, handling an average of 16 to 18 tons of material per hour, or 96 to 108 tons per day. That compares to the county's previous dual-stream facility, which processed between 30 and 40 tons per day, over the course of a 13-hour shift. Presently, the MRF is producing a residue rate of between six percent and seven percent, and Wieland states that handling shredded paper and non-recognized materials, such as scrap metal, appliances, bulky plastics, etc., are the biggest challenges currently being faced at the facility. The Kent County facility is outfitted with a RRT Design & Construction processing system.

## Technical Specifications\*

### Kent County Recycling & Education Center

#### Location:

Grand Rapids, Michigan

#### Start-up date:

August 2010

#### Number of processing lines:

One

#### Throughput:

16 to 18 tons per hour

#### Estimated tons of material to be processed annually:

Between 16,500 (conservative estimate) and 30,000 tons

#### Residue rate:

Between six percent and seven percent

### 2007-2008 Materials Processing and Recycling in the United States: Yearbook and Directory

#### 5th Edition — Print or CD-ROM

The 1,300 page Yearbook is the only comprehensive guide to Materials Recovery Facilities (MRFs) in the United States, providing information on 583 operating, planned and shut projects. A nationally recognized resource, it provides a strategic analysis of the post-consumer recycling industry and a database of U.S. Material Recovery Facilities. It is an invaluable reference tool for solid waste decision makers, planners, consultants, and organizations interested in the present and future of recycling.

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Constructed to LEED standards

(DPW staff are presently seeking silver LEED certification), notable green features of the recycling and education center include carpeting made from recycled plastic; office furniture designed for end-of-life recycling; energy-saving HVAC and lighting systems; and a Windtronics roof-top wind turbine that begins generating power with a mere two-miles-per-hour wind. In addition, the second-story education center offers visitors a safe platform for viewing much of the sorting process, and is open to tours.

The Kent County Recycling & Education Center has a full-time staff of five, plus employs court-assigned community service workers, all of whom work under two staggered shifts, five days per week (facility only operates six hours per day). County officials expect the MRF to turn a profit within three to five years time.

\*Know of a North American MRF that you feel *Resource Recycling* readers should know about? If so, e-mail your recommendation, with hi-resolution pictures, to [justin@resource-recycling.com](mailto:justin@resource-recycling.com), and your facility may just be highlighted in a future “MRF of the Month” column.