

# Dixie

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# AGGREGATES

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Dykes Paving is using Excel crushers to recycle concrete into new construction material at the Kraft plant site near Atlanta.

# New materials from old

**F**or many years, Kraft operated an enormous plant in Georgia's DeKalb County just east of downtown Atlanta. The sprawling building, which covered 15 acres under roof, was solidly built, with concrete walls and floors and even a concrete roof. It included a large concrete railroad loading dock with massive concrete footings, and much of the surrounding parking space was paved in concrete too. There was also some asphalt paving in some of the parking areas.

Recently, Kraft made the decision to close the plant. The site is to be reborn as a commercial and residential development, with a shopping center and large Kroger store on the front and an apartment development on the back of the site.

But before this new construction could get underway, the old plant had to be removed. Demolition contractor SCS, based in Niagara Falls, N.Y., got the contract for taking down the building; SCS in turn sub-

At a demolition site near Atlanta, Dykes Paving and Construction is producing new construction materials by recycling old ones.

By Steve Hudson

contracted the job of recycling the massive amount of concrete rubble to Dykes Paving of Norcross, Ga.

Dykes Paving is no stranger to large materials recycling operations. The company currently has several concrete and asphalt recycling operations underway in the Atlanta area. But this job, says company

president Jim Dykes, is the largest single recycling project that the company has tackled to date.

Work on this mammoth project began this past May.

"We have a four month timetable to recycle all of it," Dykes says.

What will become of the recycled material?

"We're going to stockpile some of it on site — enough for use during construction of the shopping center and the apartment development," Dykes explains. "We will put most of it right back on site as base material, paving aggregate or #57 stone for drain fill."

The rest will be marketed to other contractors and developers — and that market should be good, says Dykes Paving's operations manager Roy Simonsen. The reason: the Kraft plant recycling operation is strategically located near several of Atlanta's busiest construction areas, but the nearest source of virgin aggregate is a quarry located



**Dykes Paving is using a Cat 322L, equipped with a variety of attachments, to break up the debris prior to crushing. Among the attachments are an Okada 7,500 ft.-lb. hammer (shown above) and an Okada muncher (at right).**

18 miles away.

"So the recycled material can be delivered to jobsites without incurring large transportation costs," Roy says.

According to Dykes, the concrete to be recycled at the Kraft plant site totals about 150,000 tons.

"It is probably one of the biggest single on-site crushing jobs that has ever taken place in the state," he says.

Following demolition, the material is stockpiled near the recycling operation. The Kraft plant was constructed with a tremendous amount of reinforcing steel, so the debris





**A Cat 966F stockpiles material after it has been processed in the crushers. A number of recycled construction materials – including #57 stone for use as drain fill, crusher run for use as base, and #67 and #810 screenings for paving aggregate applications – are being produced at the site. Much of it will be used in new development at the site. At right: Typical material before processing.**



pile is (in Dykes' words) "a tangled mess."

To reduce the debris to manageable proportions, the pile is first attacked by a Cat 322L excavator equipped with one of several attachments. Initially, the Cat is fitted with an Okada 7,500 ft.-lb. hammer, which breaks up the largest pieces into smaller chunks. The hammer is then exchanged, if necessary, for an Okada muncher attachment, which breaks up the larger chunks and readies them for the crusher.

This precrushing not only breaks up the larger pieces but also liberates large quantities of rebar. The steel is then removed with "a lot of handwork," says Simonsen.

From that point the concrete is

processed by the crushers and stacked according to type. At the Kraft site, Dykes is using two Excel crushers — a 3062 primary and a 1520 secondary — to produce a variety of recycled construction materials from the massive piles of demolition debris. Following processing, a Cat 966F handles the stockpiling of the various products.

Among the products coming from the processing operation are #57 stone for use as drain fill, crusher run material for use as base, and #67 and #810 screenings for paving aggregate applications.

Another product will be dirt

screenings with a 50 percent aggregate value, a byproduct of the initial cleaning.

"We're cleaning the product up by screening it to remove the dirt," Jim Dykes says. "That dirt has a certain percentage of rock in it, and it is excellent backfill material."

The final material to be recycled here — the small amount of asphalt from the asphalt parking areas — will be hauled to Dykes' Norcross, Ga., recycling plant, where it will be recycled in material for use in HMA production. □