



Situation: Vacating a 17-story student apartment building with 165 apartments housing more than 550 students.

Material Composition & Quantity: Approximately 560 dormitory sets (bed, dresser, desk, chair) plus living and dining furnishings, common area and administrative furnishings.

Setting: Center City Philadelphia, one block from City Hall, on a major thru street. No loading area. Trailers had to be loaded curbside, occupying a traffic lane.

Overview

The Art Institute of Philadelphia turned over a 550-student downtown dormitory for conversion to private apartments. New dorm space was established elsewhere in the city, so the 550+ dormitory sets, associated living and dining furniture, plus common area and administrative furnishings were all declared surplus.

The Art Institute retained property manager CBRE to oversee the cleanout and handover of the building. CBRE hired Graebel Movers, Inc. by competitive bid to remove and dispose of the furnishings. IRN was engaged by Graebel as the least-cost, environmentally and socially preferable service provider to handle the physical disposition of the furniture, through IRN's Surplus Property Reuse Program.

The project was scheduled in two phases, two weeks apart. Because of traffic and parking restrictions, trailers had to be loaded in the evening after 6:00 PM. Phase 1 filled nine trailers in three nights' work; Phase 2 filled 15+ trailers over five nights.

Implementation

Graebel established two crews for the project. During the day, one crew emptied the apartments, put the furnishings on panel carts and four-wheel dollies, and staged them near the elevators. Then in the evening, a second crew brought the furnishings downstairs and loaded them into tractor-trailers for shipment. This crew was further subdivided; one set of men loaded and brought the furniture to the ground-floor; a second group shuttled the pieces outside; and two or three men packed the trailers.

The building had no loading or parking area, so trailers were loaded at curbside, where they blocked a major traffic artery. In consequence, the City stipulated that Graebel could load only after 6:00 PM. This was too late to bring shipping containers from the Port of Philadelphia, so IRN arranged delivery of containers to Graebel's warehouse, a few miles from the project site. Each evening, Graebel drivers brought containers to the project to be filled, then returned them to Graebel's warehouse. The next day, Port drivers took the full containers to the Port for shipment, and supplied more empties for the night's work.

Typical for a project this size, Graebel worked from the top of the building down, and each trailer held a representative mix of furniture. The packing crew worked with furnishings more or less as they came from the building, rather than attempting to group and load furniture by type.

Composition

Item	Count	Item	Count	Item	Count
Bed Frame	559	Table, Coffee	190	Chair, Desk/Dining	1,140
Mattress	555	Table, Computer	21	Chair, Lounge	169
Desk	575	Table, Dining	151	Sofa (2 Person)	3
Dresser	911	Table, End	192	Sofa (3 Person)	181
Storage Cabinet	91	Table, Work	3		-----
Bookcase	9	Other	57	Total	4,807

Keys to Success *Crew coordination.* The project was on a very tight schedule, with three or four trailers loaded every night. Graebel's organization made this possible. Rather than each man pushing furniture from the elevator to the trailer outside, Graebel set up like a bucket brigade, with each man passing furniture to the next in line. A separate two-man crew collected empty dollies and carts and returned them inside to be loaded again.

Staging trailers. To minimize idle time between filling one trailer and starting to load the next, Graebel brought each night's trailers to a parking area close to the project. When one trailer was nearly full, Graebel's onsite manager called for the next. As soon as the full trailer departed, an empty trailer pulled into its place, and loading proceeded without interruption.

Efficient Packing. Graebel loaded over 200 pieces per container, about 10% above average for an IRN dormitory project. Graebel also filled the containers fast – about 1.5 hours per container, compared to an IRN project average slightly over two hours. Contributing both to speed and high piece count was the fact that the crew set aside a stockpile of light items (e.g., chairs, mattresses) to make up the top of the load. So the packers never had to stop and wait for inventory to come from the building, and could load the top of the trailer (the hardest volume to pack) quickly and efficiently.

Cost With the exception of about 125 metal bedframes, none of the Art Institute inventory was recyclable for scrap value. The 25 trailers that IRN filled on this project replaced 75-90 rolloff containers otherwise needed to manage the furnishings as waste or mixed debris. At Philadelphia disposal rates, IRN's Surplus Program yielded a savings to Graebel and CBRE of some \$23,000, or 50% of the disposal cost.

Additional savings came through reduced time onsite. Loading and swapping 25 trailers instead of 75-90 rolloff containers saved between 20 and 30 hours of crew time. With a dozen union movers onsite at overtime wages, this savings in crew cost amounted to some \$15,000.

Destination The Art Institute Inventory was divided between two destinations. Phase 1 (approximately 1,700 pieces) was provided to the American Nicaraguan Foundation (Managua, Nicaragua). Phase 2 (3,100 pieces) was shipped to Food For The Poor's central Caribbean warehouse in Kingston, Jamaica, for distribution to communities in Jamaica and other Caribbean Basin countries.

[See a photo album of this project here.](#)