

Comprehensive Reuse



A Triple Bottom Line Solution for Surplus Furnishings



Presenters



Brandeis

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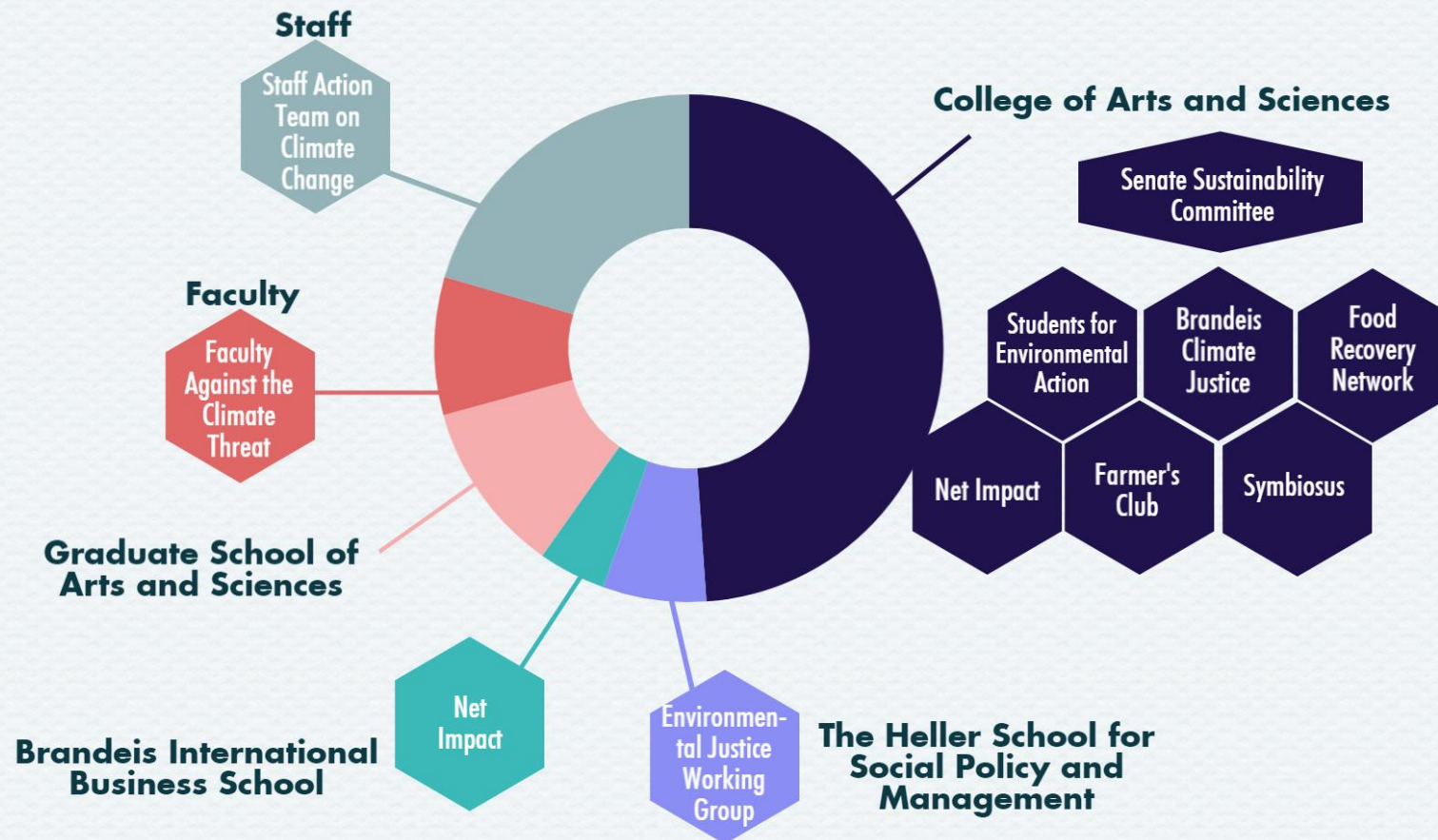
1. How Brandeis established and manages internal and community communications and logistics to achieve a lower disposal of surplus.
2. Barriers that stand in the way of successful aggressive reuse, and how to overcome them.
3. Different approaches that can be taken to maximize reuse of surplus assets, practical considerations in their selection, and the factors that affect the likelihood of success of different approaches.

What is Comprehensive Reuse?

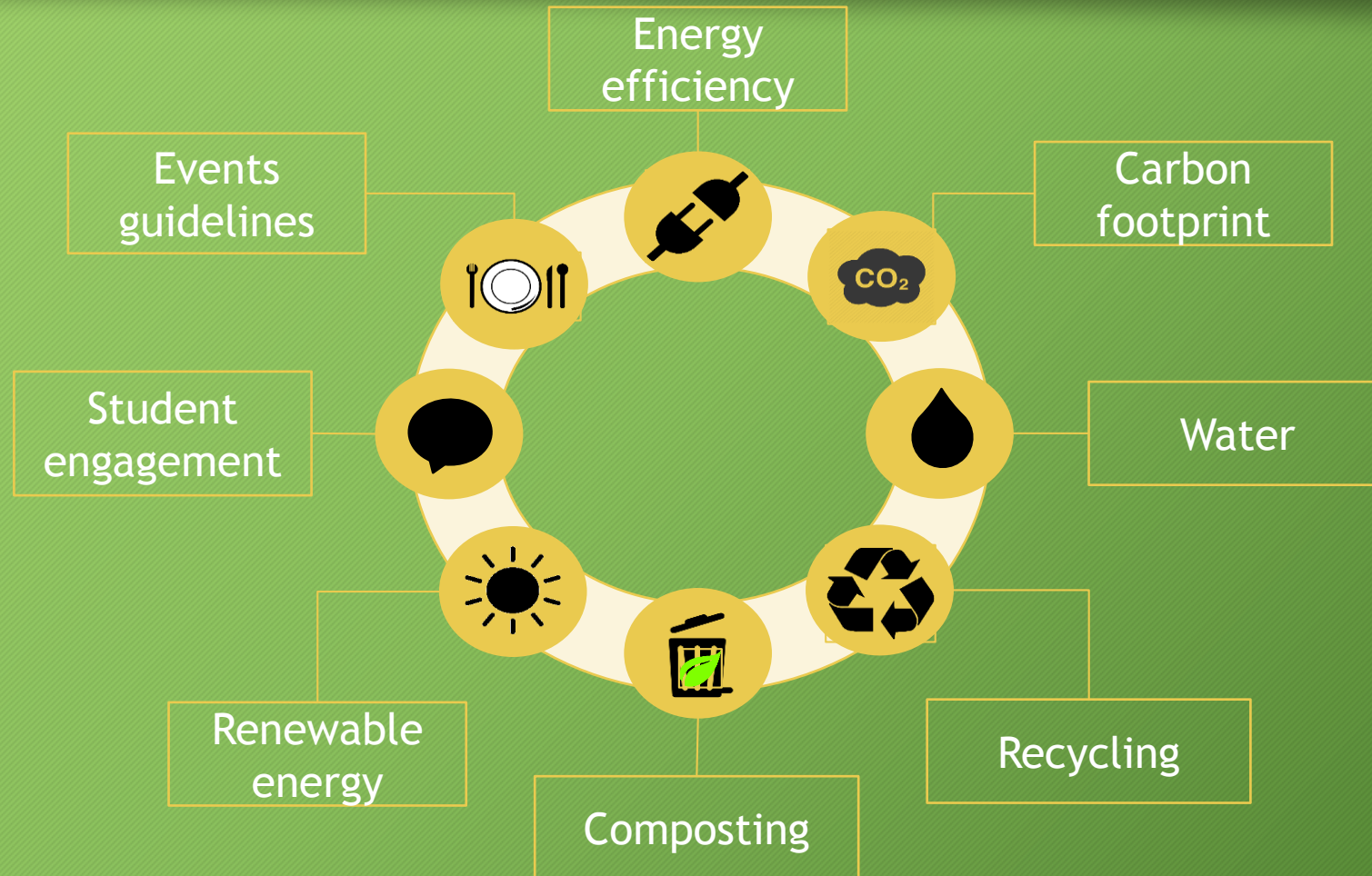
Reuse is a sustainable, humanitarian, and financially responsible solution for surplus furniture and equipment that still serves a purpose.



Sustainability at Brandeis



Sustainability at Brandeis



We are still in...

WE ARE STILL IN

“We, the undersigned mayors, governors, college and university leaders, businesses, and investors are joining forces for the first time to declare that we will continue to support climate action to meet the Paris Agreement.”

President Liebowitz

 NATIONAL
GEOGRAPHIC

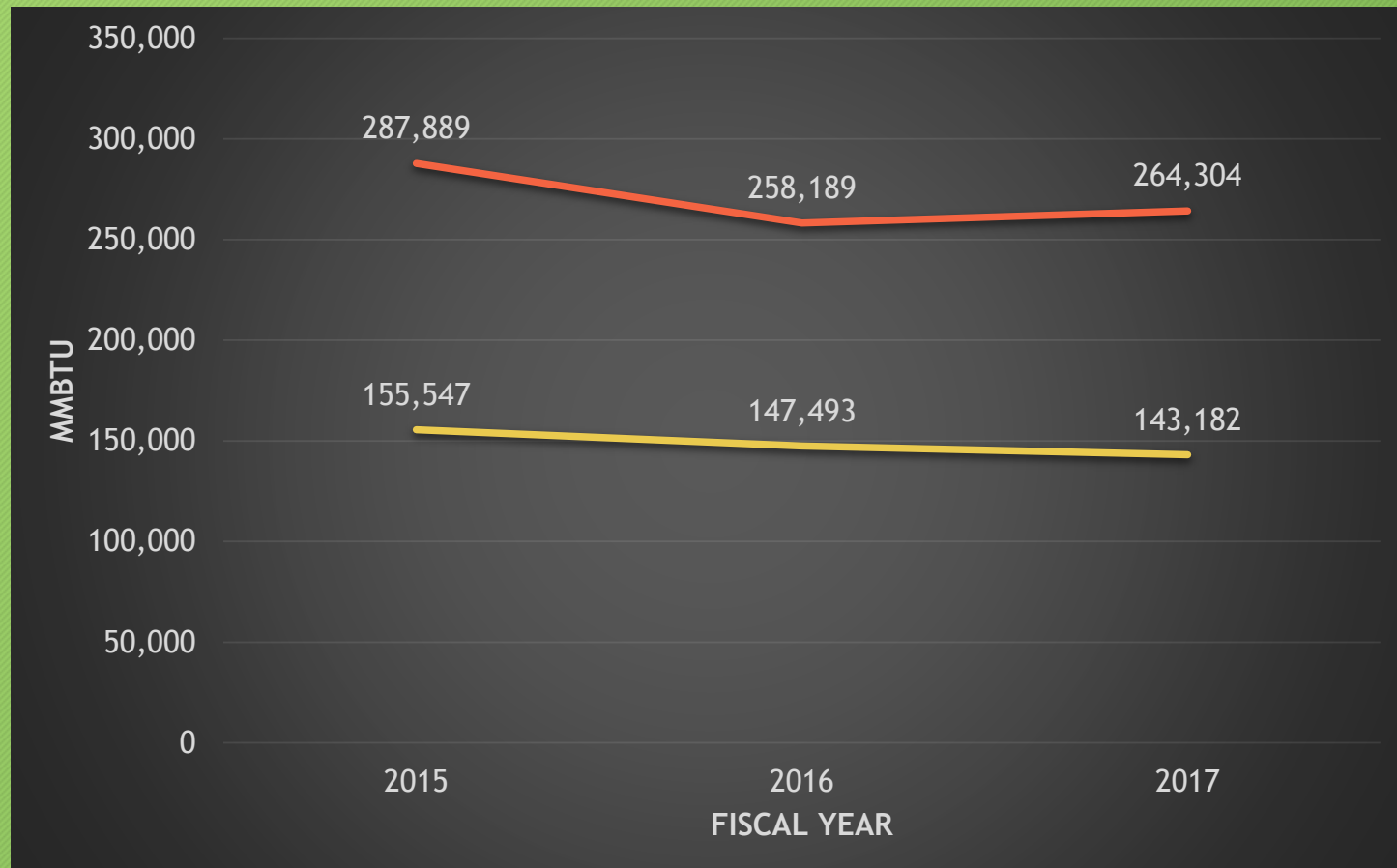
The New York Times



 CBS NEWS

HUFFPOST

wearestillin.com

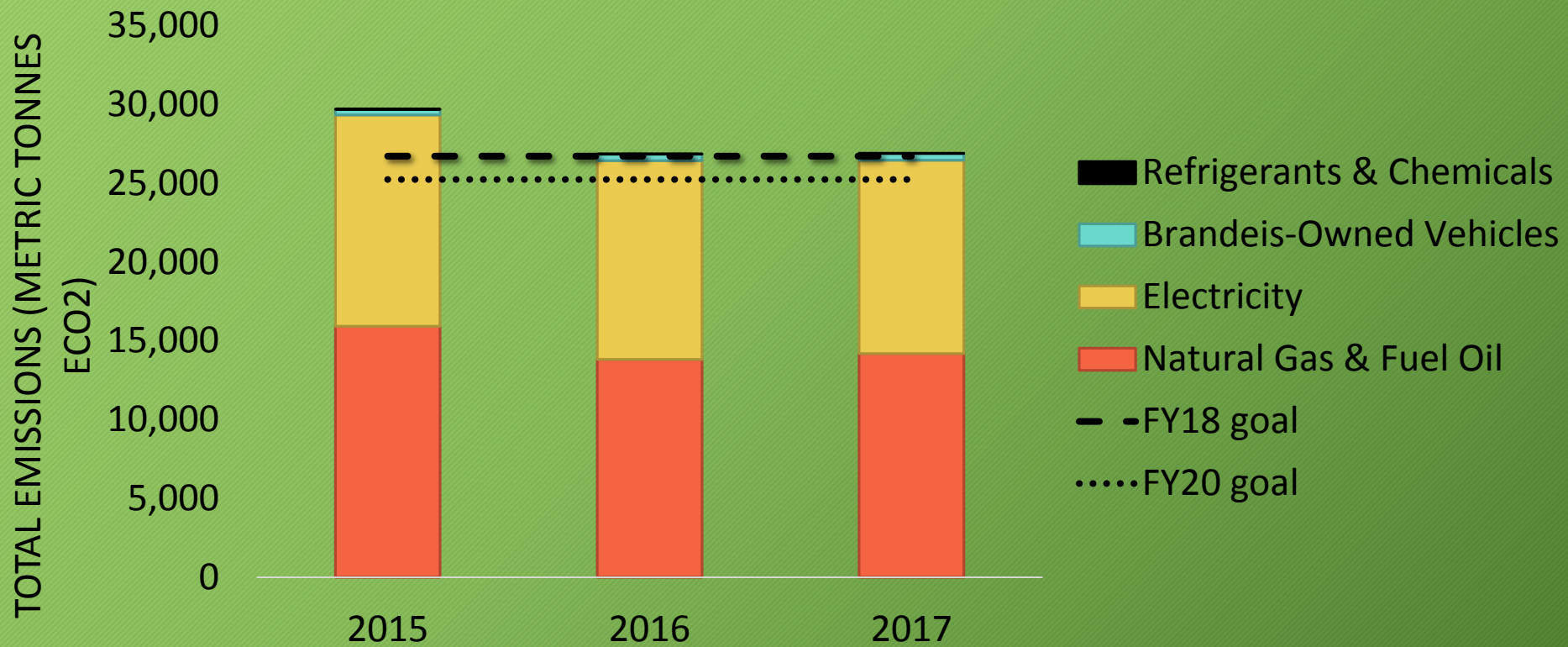
Energy Usage



-  Campus gas usage
-  Campus electricity usage

Carbon

Brandeis Scope 1 and 2 Emissions (CO₂e)

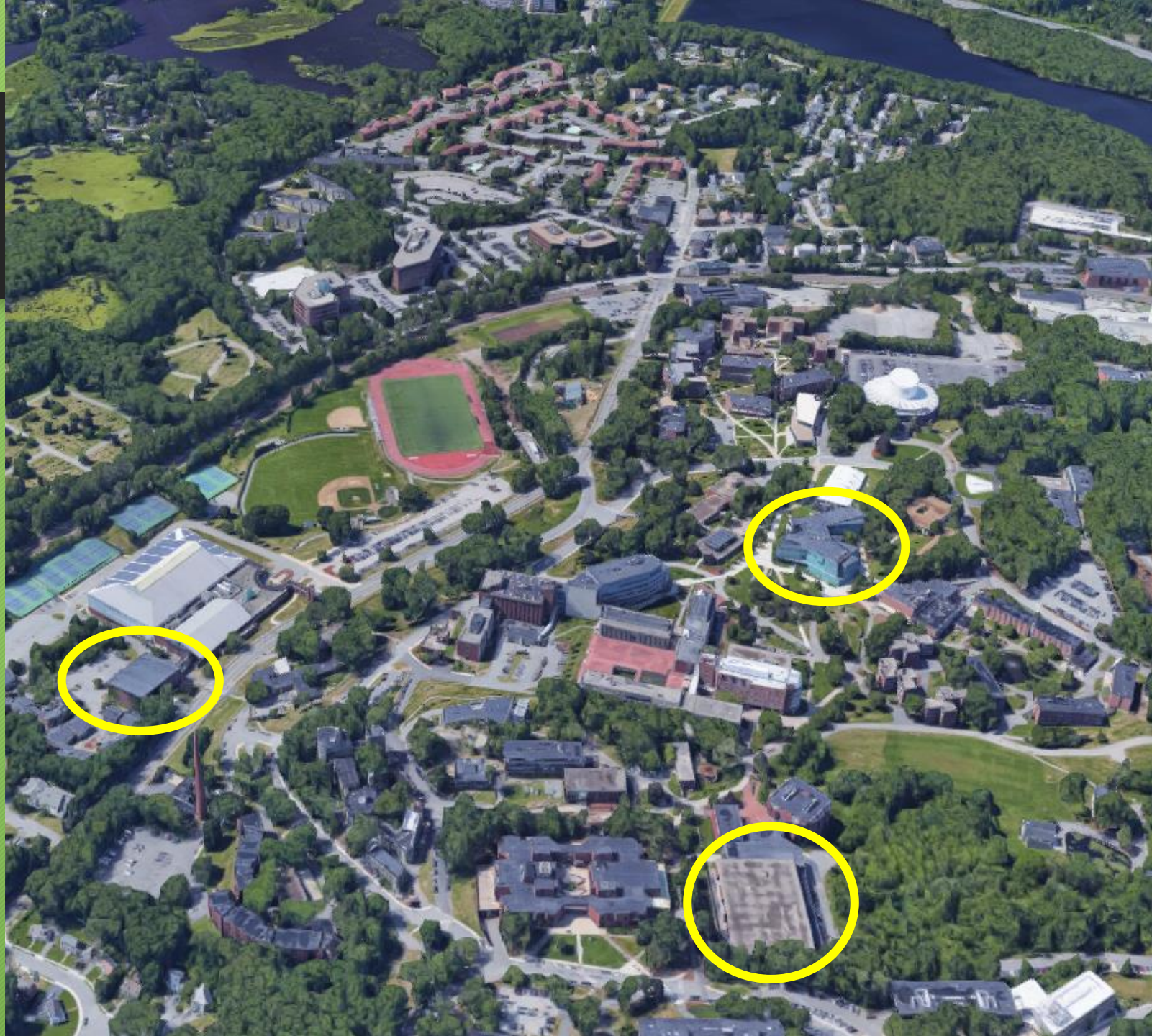


Solar

Goldfarb Library
Shapiro Campus Center
Linsey Pool

577,000 kWh of solar
electricity [190 MT CO₂e]

Over 2% of electricity will
be solar vs. today <1%



Geothermal

Geothermal will provide 100% of the new residence hall's heating and cooling needs

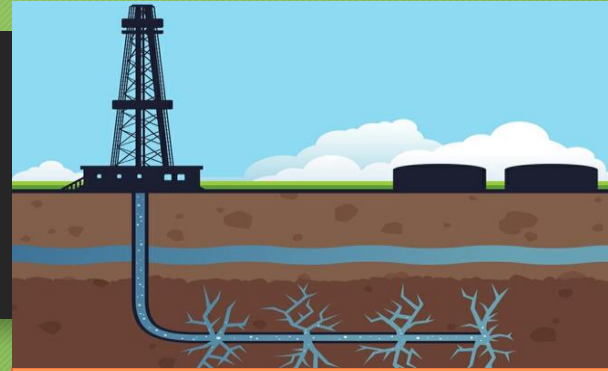
40 500-ft wells drilled this summer



Renewable Fuel Oil

Will displace up to 10% of our natural gas use this winter

Supports a local, green business



NATURAL GAS

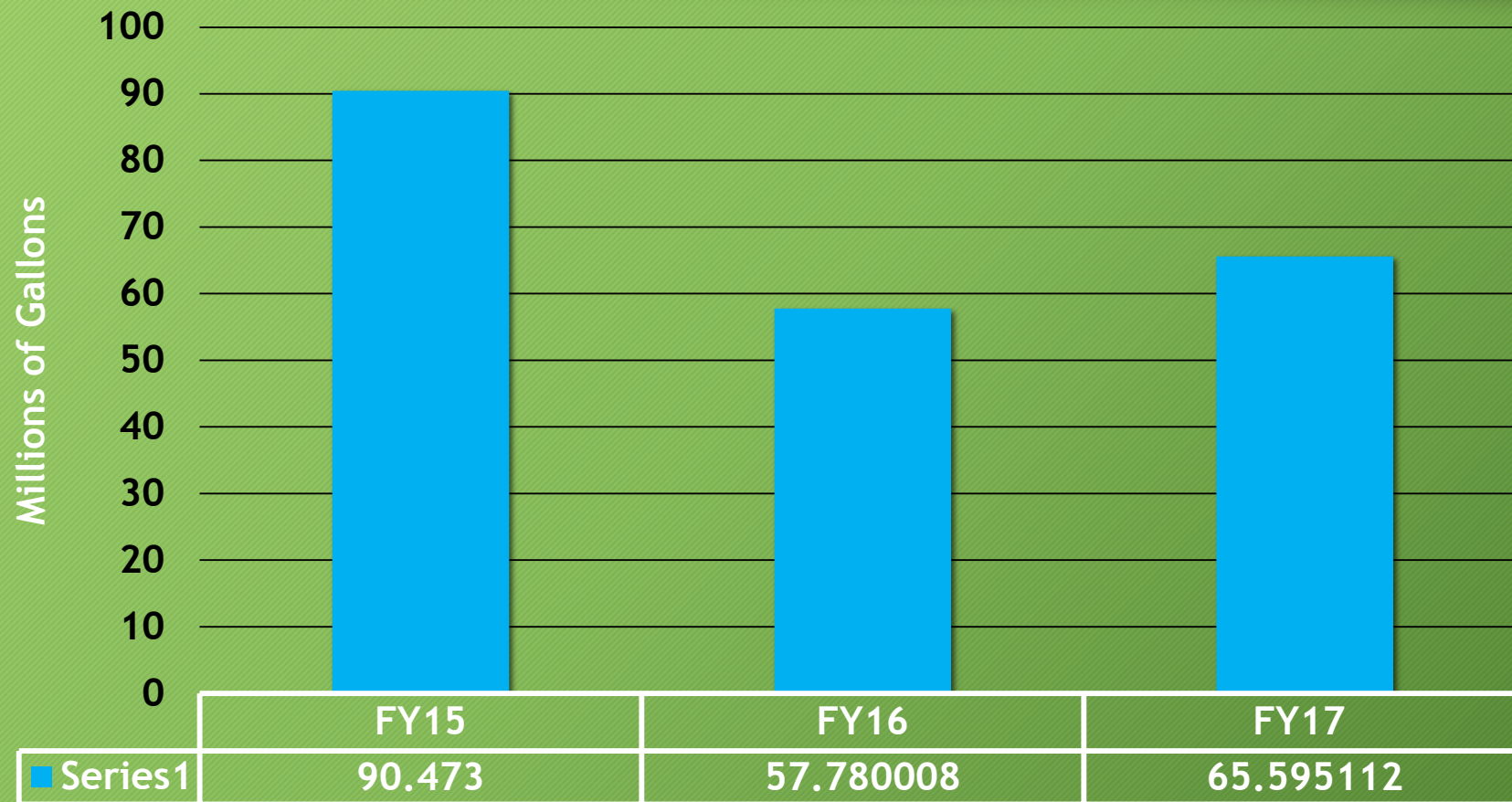
- Fossil fuel
- Fracked
- Causes groundwater contamination
- High water use
- Causes land use change
- Pipeline issues
- Natural gas leaks
- Is a GHG



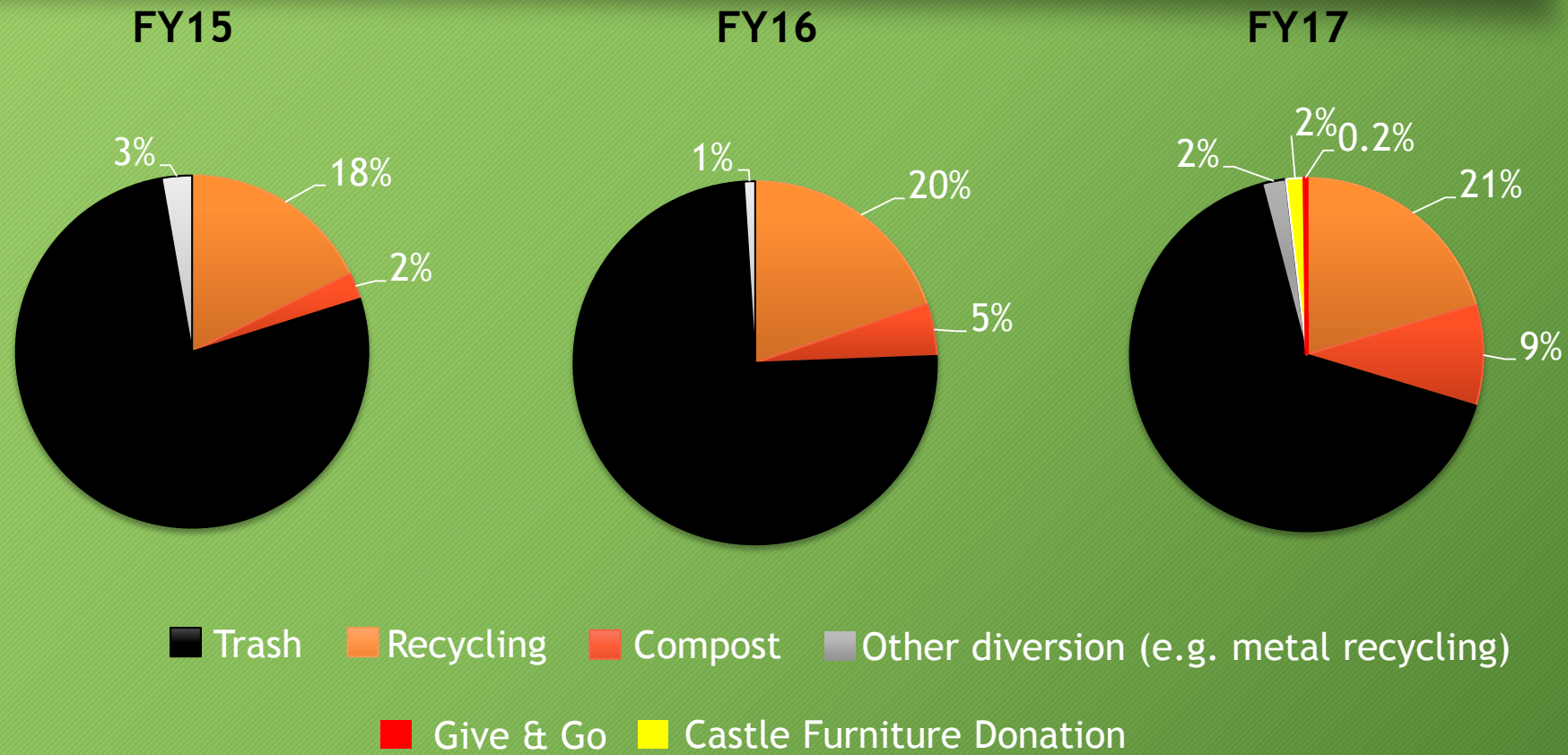
RENEWABLE FUEL OIL

- 100% waste vegetable oil
- Collected from local restaurants
- No land use change, water consumption/contamination
- No fossil fuel

Water



Campus Waste Diversion Rates



What can be diverted from the landfill?

Campuses across the nation find waste in all different places, which can be diverted from the landfill.

- Furniture and equipment from renovations, decommissions, and over-capacity storage areas.
- Residence Hall trash and debris from move-outs
- Food waste from dining halls
- Paper, lightbulbs, and everything else in-between

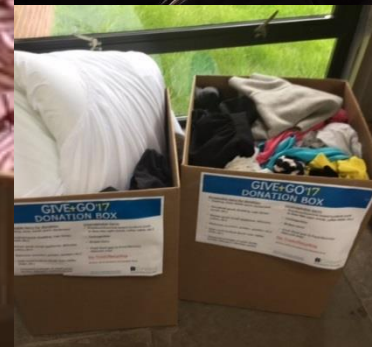
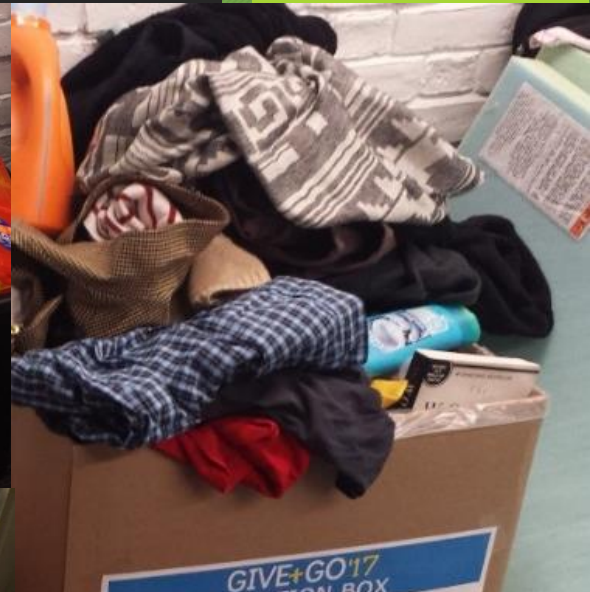
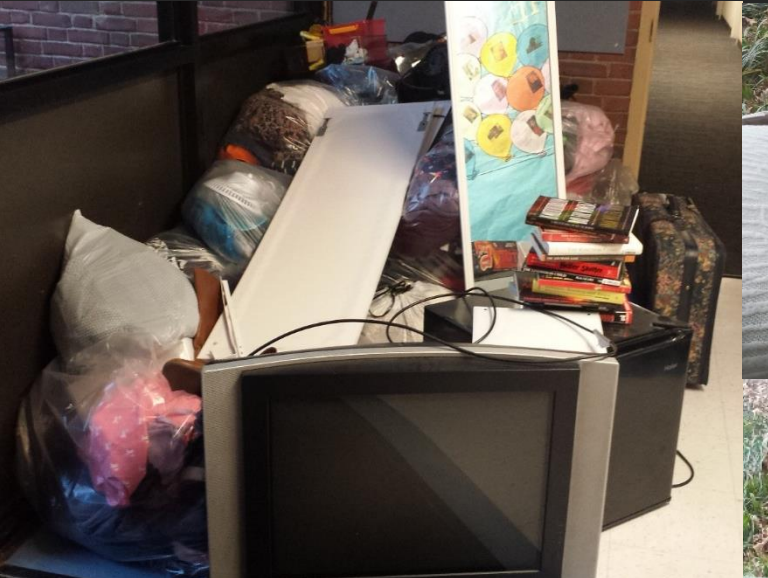
The Small Stuff

Like many campuses, Brandeis has a very successful "Give & Go" program. The following is collected from students at the end of the year and donated to Salvation Army:

1. Clothing, shoes, books, sports equipment
2. Household goods (bedding, rugs, lamps, towels, etc.)
3. Kitchen goods (small appliances, dishware, cutlery, etc.)
4. Electronics (monitors, printers, speakers, etc.)
5. Solid wood furniture (book cases, tables, chairs, etc.)
6. Unopened packages of paper goods, laundry detergent, cleaning supplies



Give and Go 2017



Give and Go 2017

30 YARD DUMPSTER



9 TRUCK LOADS



What about the big stuff?

Castle Furniture Donated

619 pieces of furniture / 51,093 lbs.

Donated to Relief Efforts in
Honduras

Diverted from waste stream



About IRN

- Established in 1999, IRN (Institution Recycling Network) was designed to be a catch-all recycler for educational, healthcare and corporate institutions.
- IRN would help institutions recycle the small stuff, like paper, batteries, lightbulbs, e-waste, and everything else in between.



IRN
THE RECYCLING NETWORK

About IRN cont.

- In 2002, our partner Boston College was looking to recycle over 300 sets of dorm furniture.
- It was good stuff, and we asked why they wouldn't donate it to a charity instead of recycling it.
- BC's response? They tried. They, alongside every other college in Boston had filled up every halfway house and goodwill within three neighboring states. They just needed it to go away, sustainably.



From Recycling to Reuse

- We discovered a market failure. There was a huge need among relief organizations for useable furniture, but no one making the match.
- Potential generators - in this instance, schools who have surplus to dispose of - do not have the time or resources to network with dozens of charities worldwide.
- Among potential recipients, no one has the time and resources to contact the thousands of schools that might have furniture to offer.
- Neither side has the capability to plan and manage the projects to make the transfer happen - setting up moving crews, transportation, pack trucks, fill out customs paperwork, track the furniture to its destination.



Fast Facts about Furniture Waste

- According to the EPA's 2014 *Advanced Sustainable Materials Management* report, it is estimated that 9.8 MILLION tons of furniture were disposed into the landfill in 2009 alone.
- In the same study, it is estimated that furniture is the number one least-recycled item in the country, and one of the bulkiest to enter our landfills.
- The cost to dispose of furniture by the landfill grows by approximately 1.5% each year in the Northeast.

Mission Statement

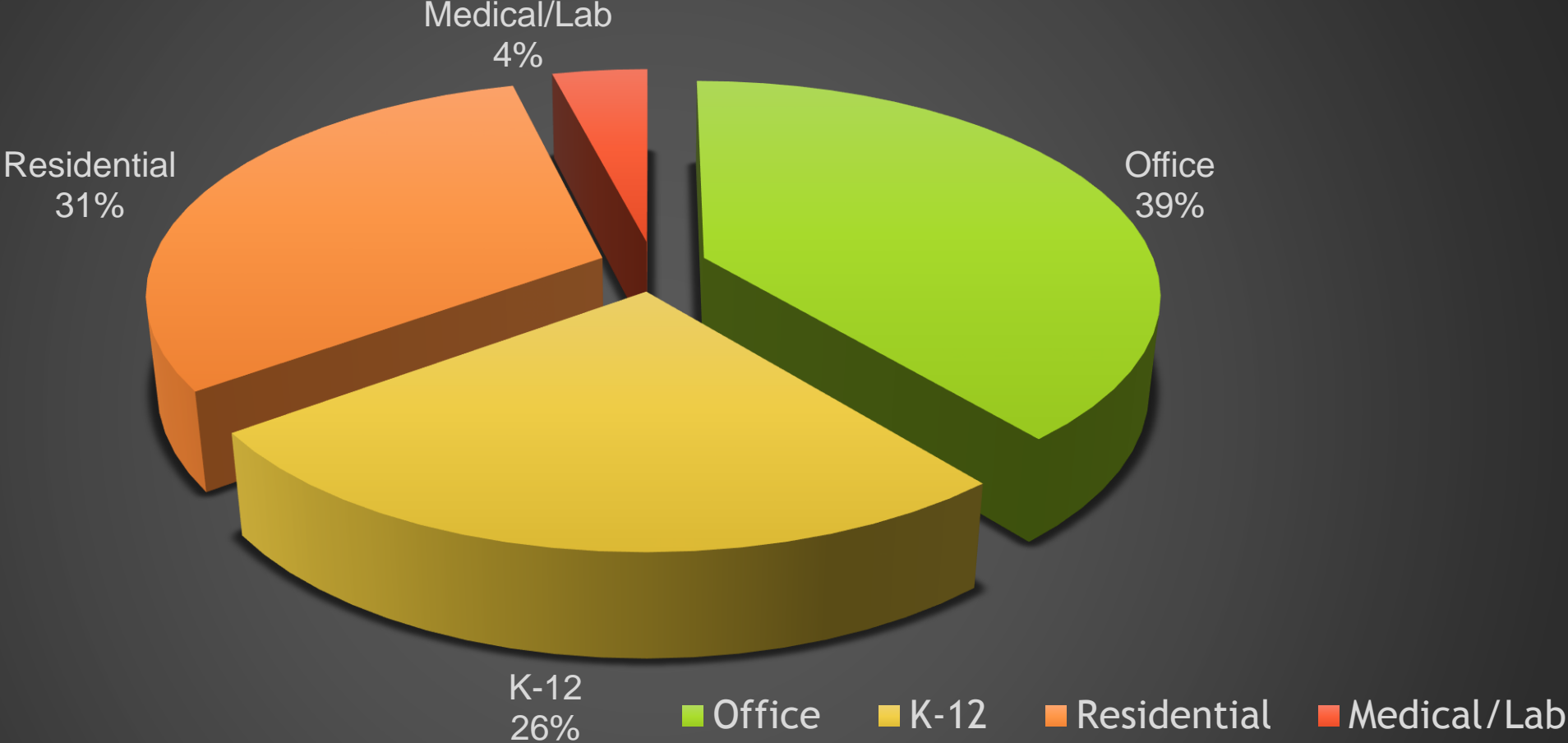
Reuse or Recycle **EVERYTHING**

Make Sure Reuse in **SIMPLE**

Make Reuse **COST EFFECTIVE**



IRN's Reuse Breakdown



Tonnage Reused to Date

Between 2002-2016

63,705,124 lbs.

Reused

Sibahle

Where Does it all go?

Disaster Relief

- International Relief Efforts (BVI's, Haiti, Etc.)
- Domestic Charities (Habitat for Humanity)

Economic Development

International charities, charter, public, tribal and other independent schools who can furnish their spaces at essentially zero cost, releasing funds for other urgent priorities.

Domestic Humanitarian Missions

- Habitat ReStores, Goodwill stores, and others who resell furniture to support their humanitarian missions.
- Furniture banks that place IRN furnishings with low income residents.

Benefits of Reuse

Cost



Reuse/recycling through IRN typically costs less than disposal

Environment



Reuse/recycling diverts products from landfills and contributes toward LEED certification

Community



Schools and communities benefit for years to come

Publicity



IRN can provide press releases, stories, or other publications about your reuse/recycling projects



BRANDEIS
UNIVERSITY

Brandeis/IRN Partnership

2009

Our partnership

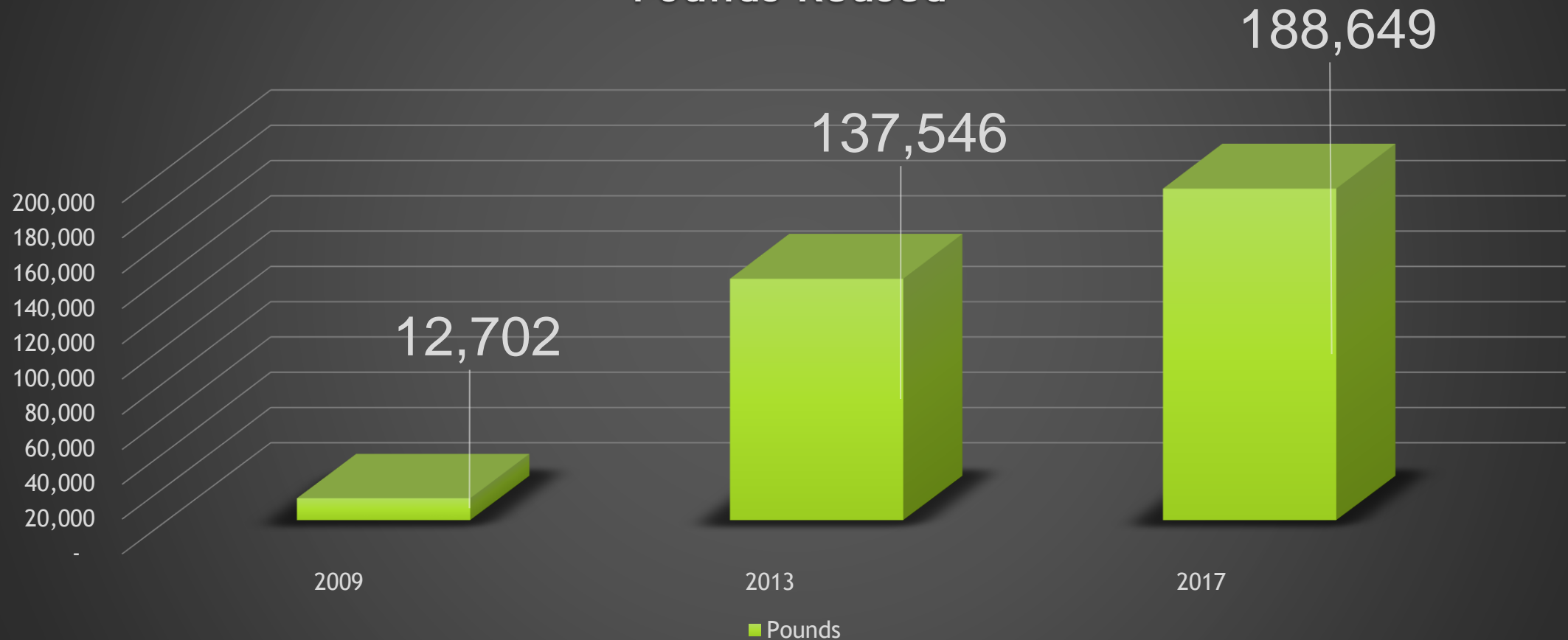
In 2009, Brandeis reached out to IRN – The Reuse Network to assist in the removal and reuse of 183 pieces of classroom and office furniture.

Since 2009, Brandeis has dedicated themselves to reuse by diverting over 188,000 lbs of furniture (2471 pieces) from the landfill, and sending it to those in need.



From 2009 to 2017

Cumulative Pounds Reused



Project Start

Initial Information

Get Started as an IRN Surplus Generator

Your contact information
Tell us about you.

Your name *
 First: Last:
 Middle: Fischer

Your title

Organization *
 Brandeis University

Type of organization
 Education

Phone
 XXX-XXX-XXXX Extension:
 Alternate phone:

Email *
 mfischer@brandeis.edu

Generator/Project information
 Provide details about the surplus property.
 If you don't have a specific project need right now, leave everything below blank, and we'll send you more information about our surplus program.

Company or Organization's Name

Project address

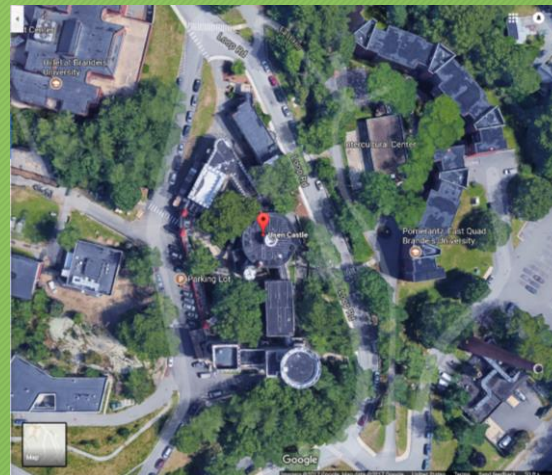
Street Address

Related topics

- IRN Reuse Program
- FAQs
- Accepted Items
- Case Studies

- Location
- Schedule
- Material composition and quantity
- Where and how material is stored and installed
- Basic logistics information
- Labor availability and qualifications

Site visit (if necessary)



A site visit is typical on larger projects, to review site layout, develop a detailed inventory, assess access, elevators, and stairwells, contact moving firms if needed, and meet onsite project managers.

Develop detailed inventory

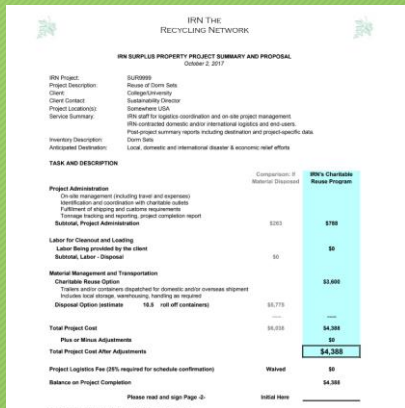
IRN Project Inventory

Project #	SUR	Projected Inventory		
	Trailers or Shipping Containers for Re	5		
Item	Description	Composition	Count	Picture
Bed/Frames	Head/Foot Hooked, Bolted and metal frames with 12 legs & Captain Style	Wood/Metal	99	
Coffee Tables		Wood	2	
Chairs	Desk	Wood	110	
Couch		Wood/Cloth	2	
Desk	Standard Student Dorm Desk with Study Carrol	Wood	110	

The inventory is what we offer to our charitable partners, so it's important that it be accurate. Pictures are a huge plus.

Execution

Comprehensive project proposal



IRN THE RECYCLING NETWORK
IRN SURPLUS PROPERTY PROJECT SUMMARY AND PROPOSAL
October 2, 2017

IRN Project: SURPLUS
Project Description: Reuse of Dorn Site
Client: Calgeosimetry
Client Contact: Sustainability Director
Project Location: Sacramento, CA
Service Summary: IRN staff for logistics coordination and on-site project management. IRN contracts domestic and/or international logistics and air-seals.
Inventory Description: Post-project surveys reports including destination and project-specific data.
Anticipated Destination: Local, domestic and international disaster & economic relief efforts.

TASK AND DESCRIPTION	Commitment to Material Donated	IRN's Charitable Reuse Program
Project Administration On-site management (including travel and expenses) Identification and coordination with charitable recipient Fulfillment of shipping and customs requirements Damage handling and reporting, project completion report Reliable Project Administration	\$500	\$750
Labor for Chemical and Loading Labor Being provided by the client Refusal, Labor - Disposal	\$0	\$0
Material Management and Transportation Charitable Reuse Option Tobacco and/or containers required for domestic and/or overseas shipment Includes local storage, warehousing, handling as required Disposal Option (estimate 10.0 roll off containers)	\$0,770 — —	\$3,000 — —
Total Project Cost	\$5,270	\$4,350
Plus or Minus Adjustments	—	\$0
Total Project Cost After Adjustments	—	\$4,350
Project Logistics Fee (15%, required for schedule confirmation)	Waived	\$0
Balance on Project Completion	Initial Here	\$4,350

The proposal defines the exact scope of the project and responsibilities of all parties. Included is a detailed budget, proposed on a not-to-exceed basis; you know your maximum cost, and reap the benefit if we come in below the budget.

At this point, we will have offered the project to our network of nonprofit partners, and will have made at least a preliminary match with a recipient. When we submit a proposal, that's our commitment that we can find a partner who will reuse your surplus.

Confirm schedule and logistics



When the proposal is signed, we reconfirm start date and time, project duration, and logistics details (access to buildings, keys, local and emergency contacts, etc.). We schedule moving crews and confirm crew size. And we schedule the trailers or shipping containers that will take the surplus away.

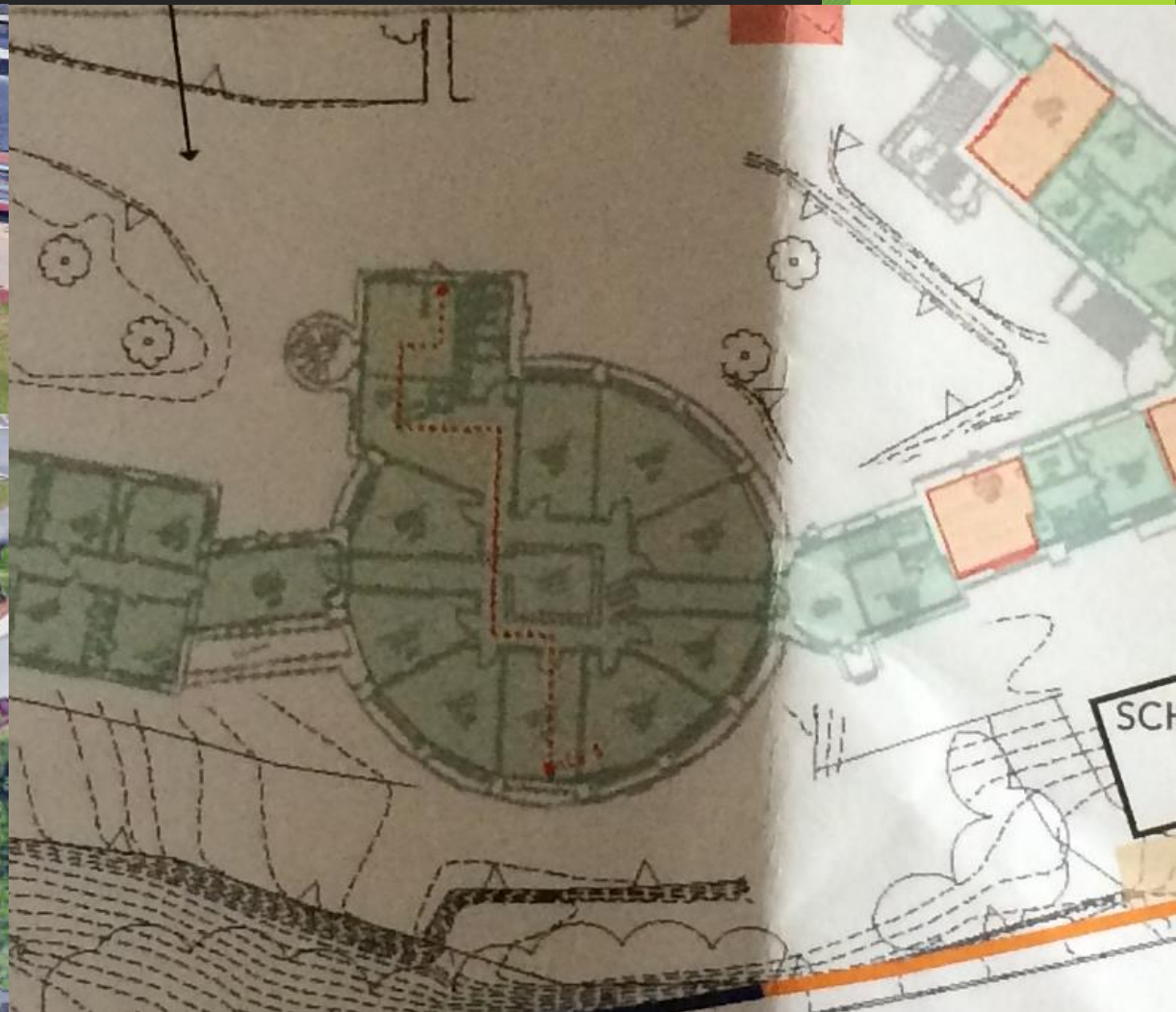
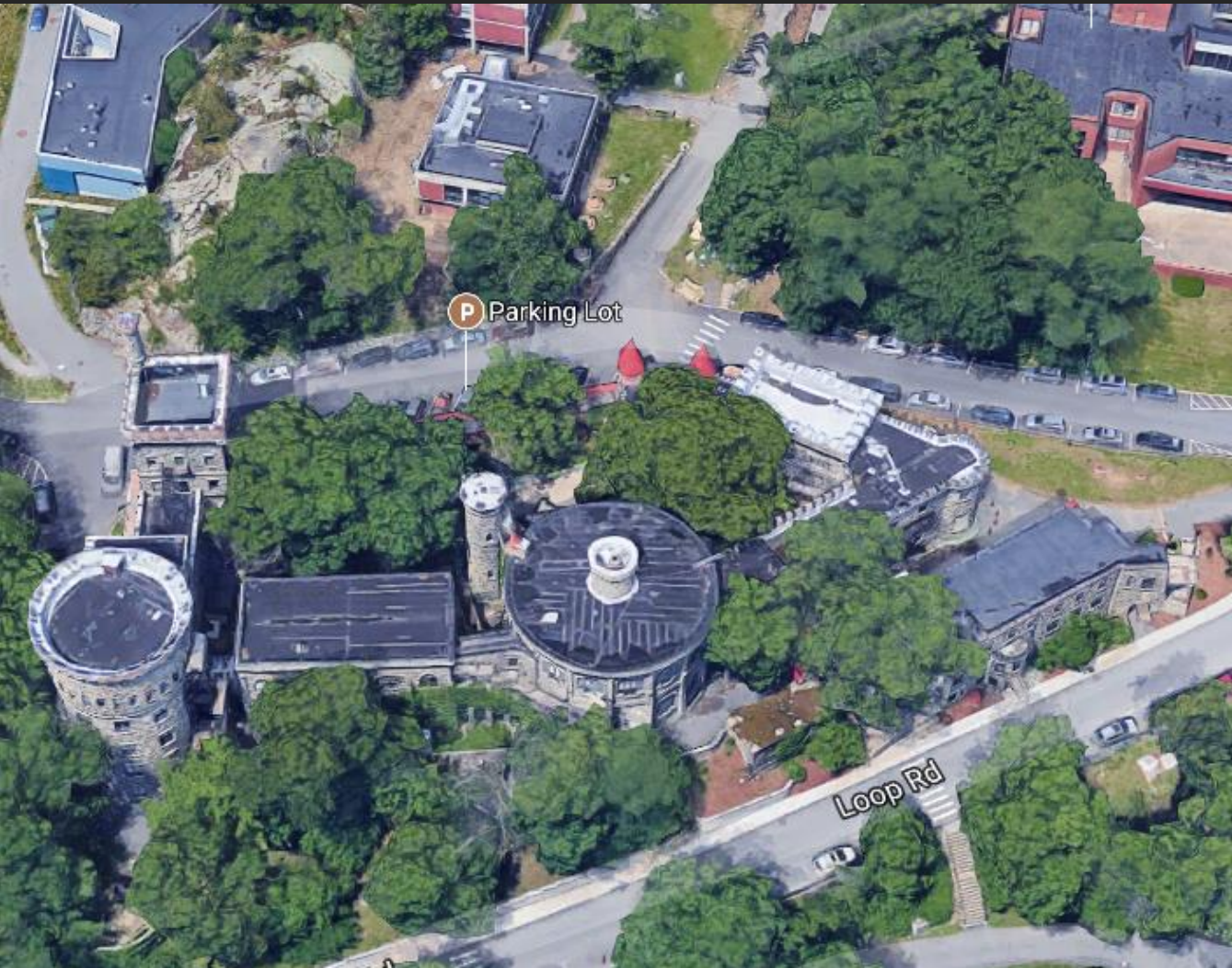
Execute the project



IRN offers on-site project management on moving days to ensure optimum loading, inventory accuracy and quality, and to make sure logistics run smoothly.

We have a nearly 100% track record for completing projects on schedule and within budget. With hundreds of projects under our belts, it's a track record we're proud of

Logistical Difficulties



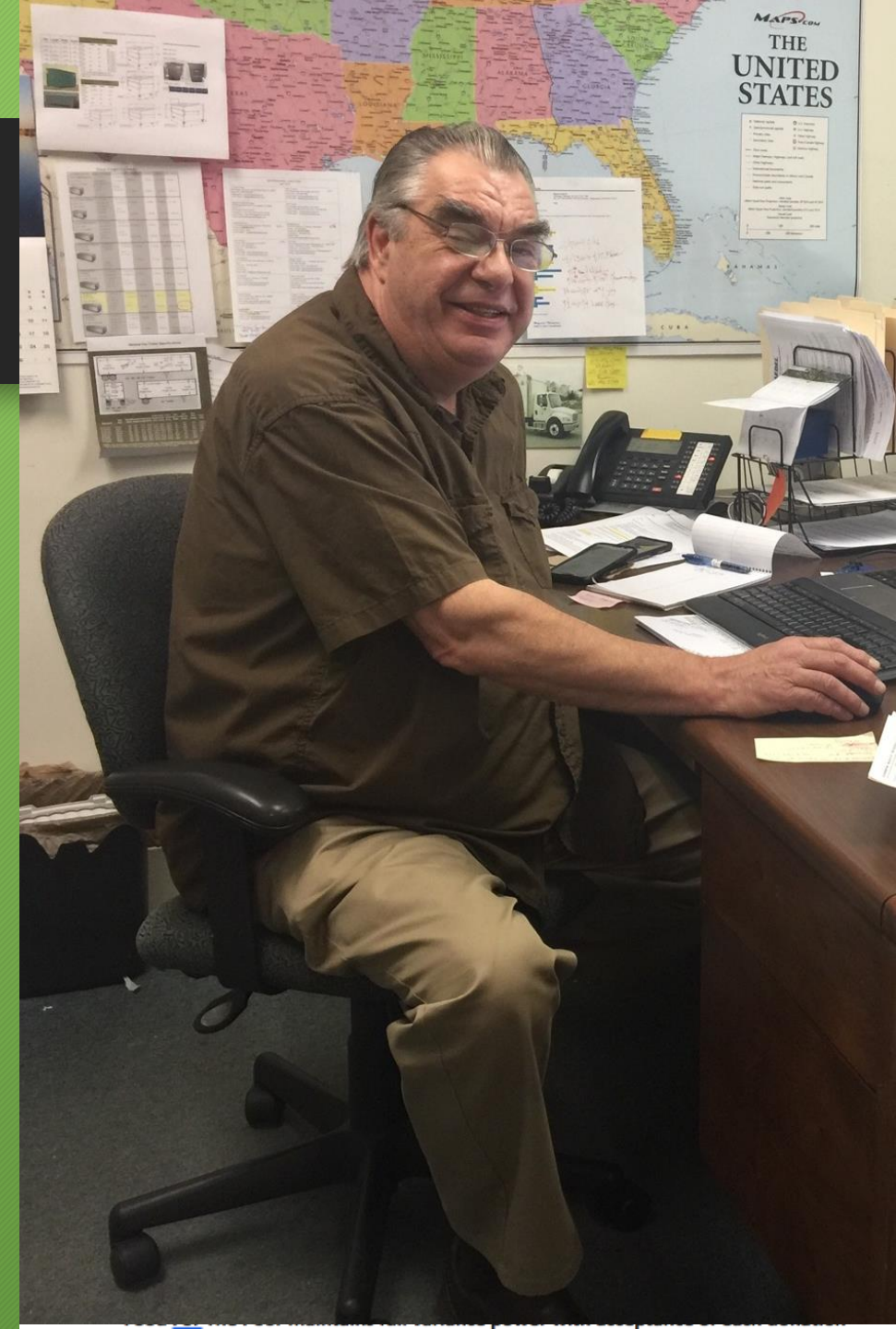
Loading a truck

1. Have truck-specific inventory ready
2. Stage the items coming out in an accessible area (if possible)
3. Pack the beginning of the truck high and tight. Metal on metal, wood on wood, floor to ceiling
4. Make sure the truck is as full as it can be
5. Fill out paperwork and send to port



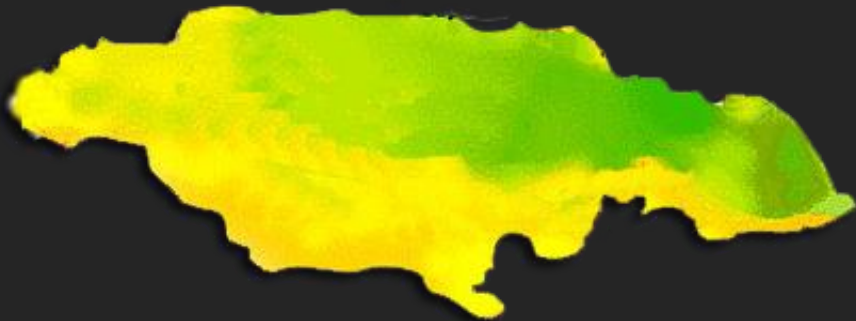
Before we send off the truck...

1. Take a picture of the back (completely open)
2. Take a picture of the back (one door closed)
3. Affix a seal specific to the container
4. Fill out customs paperwork
5. Email logistics team



From Brandeis to...

Jamaica



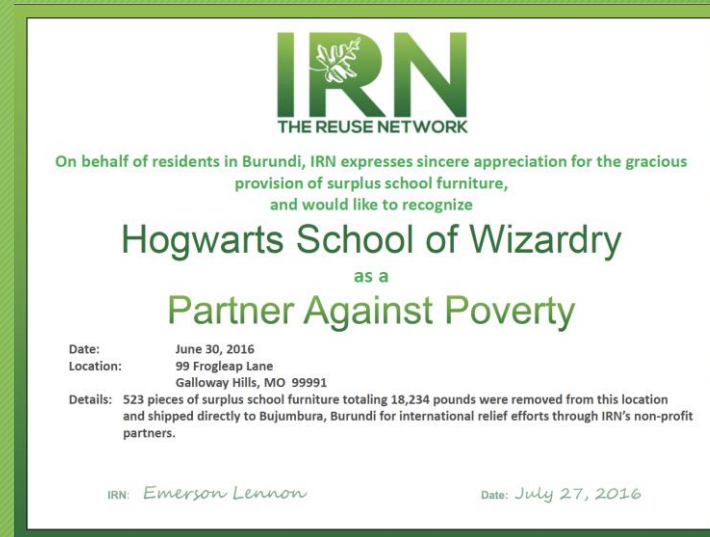
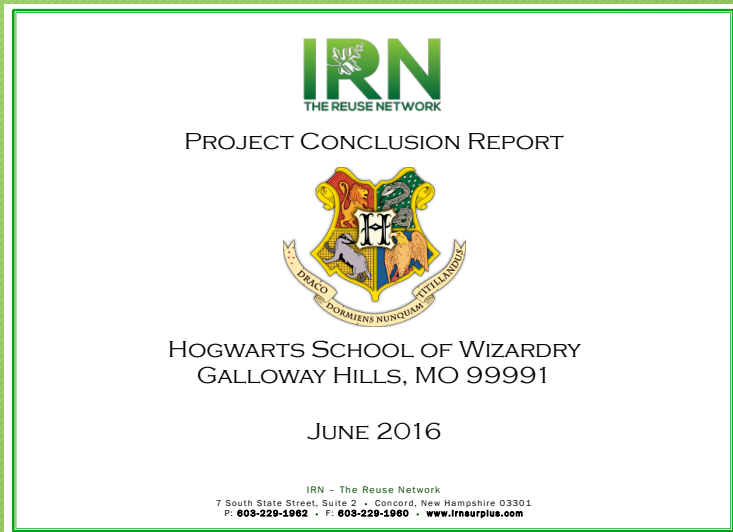
2009-2013
School Furniture, Office Furniture,
Dorm Furniture
137,546 lbs. reused
1,852 pieces

Honduras



2013-2017
Dorm Furniture
137,546 lbs. reused
1,852 pieces

Conclusion Package



IRN
THE REUSE NETWORK

SUR2222 Shipment Summary
Hogwarts School of Wizardry
Surplus School Furniture

June 2016 Project:	Destination	Units	Weight	
53438- 6/30/2016	Bujumbura, Burundi	Chairs, Desk Metal/Composite, Metal	125	3,750
		Desks, Student, Lift top, Wood and Metal	117	5,850
53439- 6/30/2016	Bujumbura, Burundi	Benches, Wood	1	30
		Cabinets, Floor-standing, Wood	1	30
		Cabinets, Wood	1	30
		Chairs, Center, Plastic and Metal	34	1,156
		Chairs, Desk Metal/Composite, Metal	125	3,750
		Chairs, Stacking, Wood, Metal and Plastic	89	1,513
		Desks, Student, Lift top, Wood and Metal	12	600
		Desks, Table style, Wood	2	60
		Desks, Teacher, Wood	7	1,085
		File Cabinets, Three Drawer Vertical, Metal	3	90
		Tables, Classroom, Metal and Wood	6	300
Report		523	18,234	

IRN - The Reuse Network
7 South State Street, Suite 2 • Concord, New Hampshire 03301
P: 603-229-1962 • F: 603-229-1960 • www.irn surplus.com

3

Cover Page

This facet of the conclusion report will usually contain the schools logo, address, and date of the project.

Reuse Certificate

Something nice to hang on the wall. This provides a synopsis of where the project was, what materials were reused, how much was diverted from the landfill, and who it is currently helping.

Shipment Summary

A detailed report of the items reused. In instances where a project has more than one recipient destination, we'll let you know where each individual item went.