# GREENE COUNTY BUILDING **OPERATIONS**

FRANZ WILLIAMS- DIRECTOR OF OPERATIONS

**GARY ROWE- ASSISTANT DIRECTOR** 



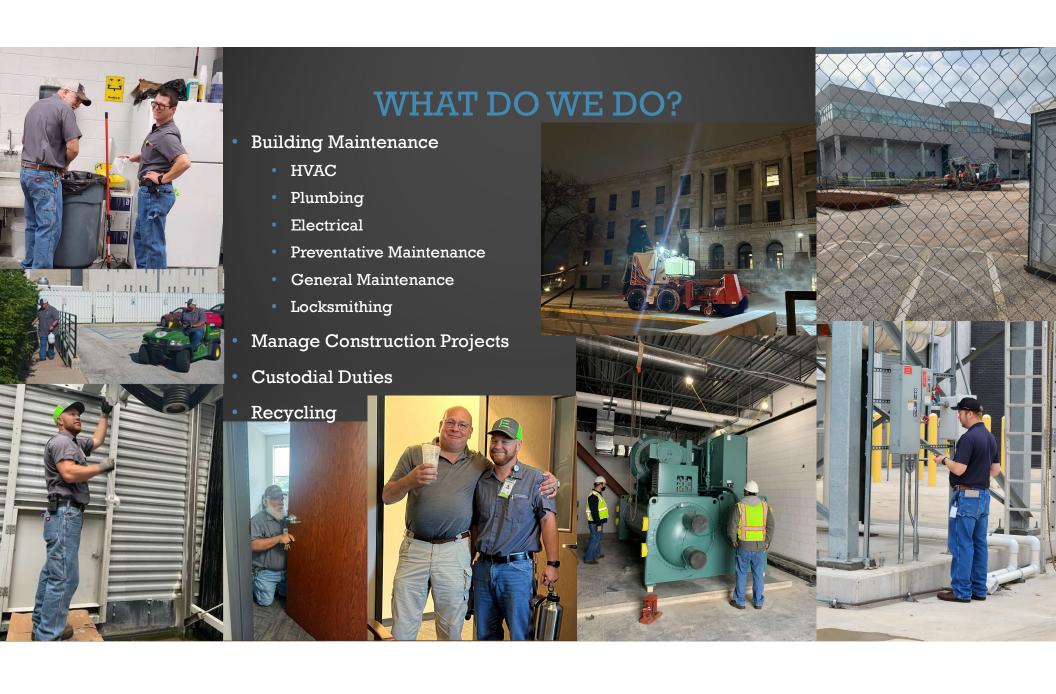


- Work order numbers:
  - Total 3 month avg: 611/month
    - ~34/employee/month
  - Non-PM 3 month avg: 238/month
    - These often include work orders that can take hours if not days to complete such as installing equipment, building cabinets, rekeying doors, etc.
  - Total currently open as of 5/14: 436

#### GENERAL INFORMATION

- We take care of 14 buildings, excluding Cox tower, that span 3 campuses.
  - This is a total of 822,675 square feet, which has increased by 617,230 square feet since 2008.
- We currently have a total of 38 employees. This includes:
  - 18 maintenance staff
  - 15 custodial staff
  - 5 administrative staff

	Resource Management Department - Personnel								
	2008	2014	2018	2019	2020	2021			
Director and Admin Asst	2	2	2	2	2	2			
Bldg Regs/PZ/Env	26	10	22	25	26	26			
General Services	8	5	5	5	5	5			
Building Operations	27	20	21	22	23	27			
	63	37	50	54	56	60			





#### **HVAC**

- Our HVAC team does all the installing of new equipment, troubleshooting, and repairing of all the heating and cooling systems in the buildings.
- We are finishing upgrading the last of our building controls this year so that we can adjust temps, diagnose problems, and make sure everything is running properly, all from a laptop.
- This means that typically our staff can fix what's wrong before you may even notice a problem.







# ELECTRICAL

- Our electricians are here to assist with anything from a breaker tripping to installing new conduit.
- I'm sure you often see them changing light bulbs around campus, both in the building and in the parking lots.
- They often work with HVAC when installing new units to help get electrical ran.
- With the continuous renovations that seem to be happening all over campus, our electrical department stays busy moving electrical, installing new panel boxes, etc.



- Our plumbers do everything from unclogging a toilet (which happens often with the inmates) to installing new piping.
- Most of their work orders are unexpected and can take some time to fix. Especially when it's a pipe leaking, because that often means they have to shut the water off and repair that section.





at Judicial.



#### PREVENTATIVE MAINTENANCE

- In recent years, we have been changing our mindset from Deferred Maintenance (fix it when it breaks) to Preventative Maintenance in order to save money in the long run.
- Preventative maintenance is never ending. It includes things like changing filters (every 3 months here on campus and every month at the new jail), changing belts yearly to prevent breakage, making sure things are properly cleaned/oiled, etc.
- We currently have 5 techs that take care of all PM work on all campuses.
- PM by the numbers:
  - On a 3 month average, 387 PM work orders roll every single month. Some months may only have 230 while others end up with 585 rolling out. While this number has decreased this year due to the old jail being under construction, it will drastically increase as we complete the LG install and current/future construction projects.
  - This means that currently, each PM Mechanic must complete a minimum of 4 work orders every single day to keep up. This can be extremely difficult when some PM's take hours to complete, not minutes.



- Our locksmiths are responsible for anything related to doors, locks, mechanical locks, detention locks and keys.
- As many of you have experienced, we have had a very long, 4 year project of rekeying the entire campus. We began rekeying our buildings in 2021. This streamlined our keying system and minimizes the amount of keys our employees have to carry to be able to do their jobs.
- We are currently wrapping up our rekeying project this year. Our last buildings to be rekeyed are Judicial (currently in progress) and Juvenile.

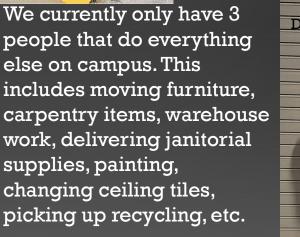


#### GENERAL MAINTENANCE



supplies, painting,







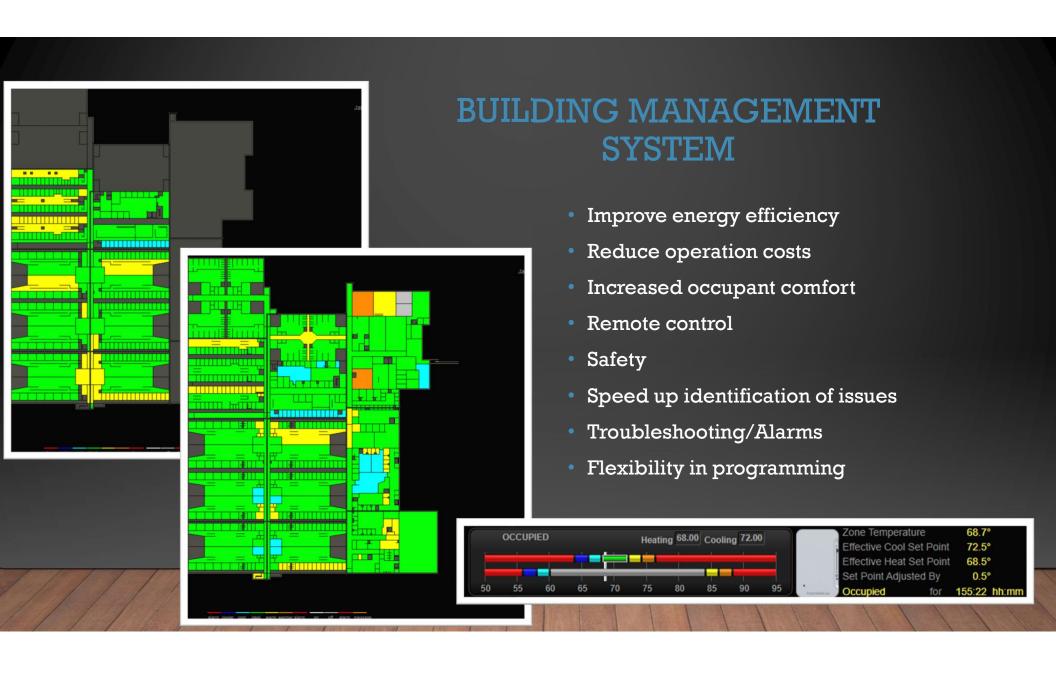
Juan

### GREENE COUNTY SHERIFF'S PLAZA

- 25 Acre campus on west Division south of the Airport
- Completed in June of 2022
- Sheriffs office ~60,000 square feet.
- Jail is ~270,000 square feet
- Jail has a capacity of just more than 1200 inmate beds
- Law Enforcement Training Academy ~25,000 Square feet.

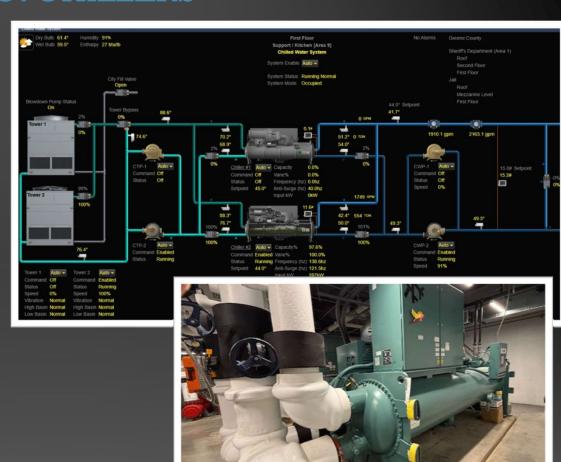






#### **HVAC: CHILLERS**

- Two 700 Ton magnetic bearing chillers that provide all the cooling for jail and sheriffs office
- Supply Chilled water ~43 degrees to the air handlers on the roof
- Capable of over 2000 gallons per minute flow rate.
- Have enough capacity to supply around
   280 average size houses with cooling



## **HVAC:COOLING TOWERS**

- Cooling towers release the heat to the atmosphere that is absorbed by the load of the building.
- Water cooled condenser for the chiller





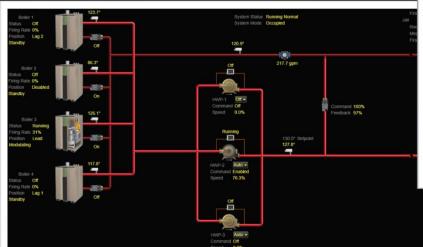


#### **HVAC: BOILERS**

- Four 6million BTU boilers provide the building with heating
- Boilers produce 140-180 degree water for heating and Dehumidification
- Building controls allow us to see all of the water temperatures in the system and alert us when there are issues with the boilers
- Average house furnace has an output of 80,000 100,000 BTU's

4 boilers give the building redundancy for maintenance/PM and

to keep downtime low



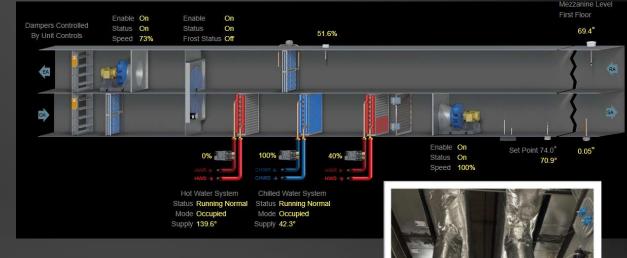


#### **HVAC: AIR HANDLING UNITS**

Units use the heated water from boilers and chilled water from chillers to supply conditioned air

Jail and Sheriffs office:

- 18 Energy Recovery Units
- 16 Dayroom Units
- 12 Rooftop Units
- 20 General exhaust fans
- 41 Smoke exhaust fans

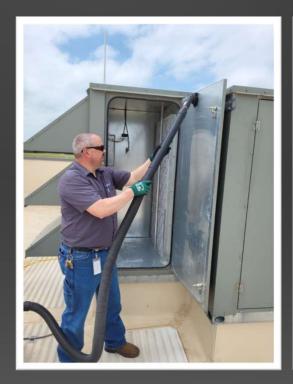


#### Safety Improvements

- All units that serve cells provide 100% outdoor air for heating and cooling
- All Units with recirculated air have UV bulbs to kill bacteria in the air before it goes back to the building
- The unit serving Medical has special HEPA filter to help further reduce risk of airborne pathogens

## PREVENTIVE MAINTENANCE

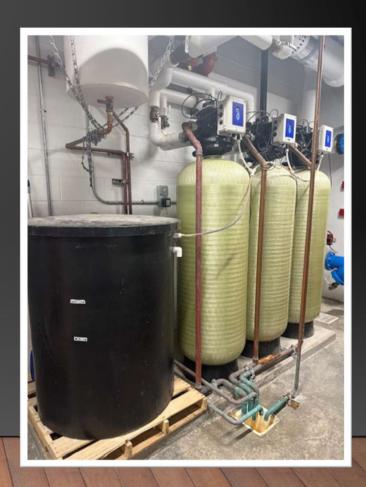
- Jail Stats
  - 510+ Filters
  - 200+ belts
  - 49 Air handling units
  - 5 Ice Machines
  - 150+ electric motors to grease
  - 18 Energy Recovery Wheels
  - 8 large Chilled/Hot Circulation pumps
  - Cooling tower cleaning 2X year





#### PREVENTIVE MAINTENANCE

- Water Testing is a vital part of keeping the HVAC systems operating properly
- Boilers need softened water to prevent damage from scale build up
- Water tower needs chemical treatment to prevent bio material from building up in the water
- Water testing is performed weekly in our closed loop chilled and hot water systems, cooling tower water, and hardness of the domestic water



# **PLUMBING**

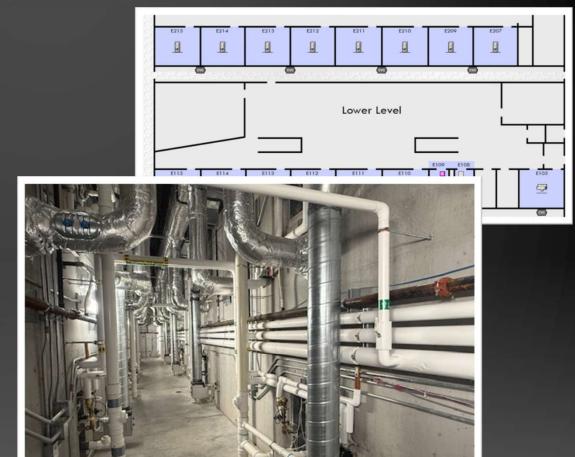
- Jail Plumbing stats
  - o 400 Inmate toilets
  - 110 Inmate showers
  - 10 domestic boilers
  - 3 Hot water heaters
  - 5 hot water storage tanks
  - o 6 mixing valves





#### **PLUMBING**

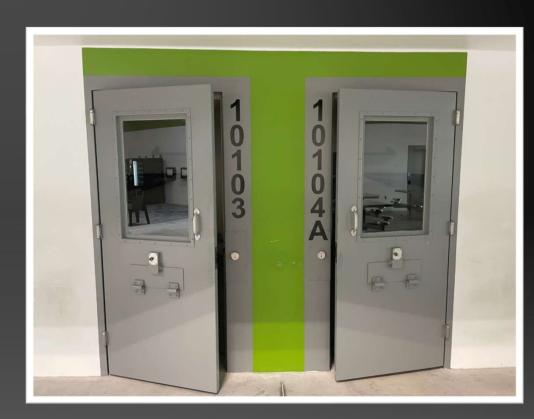
- Maintaining pumps and mixing valves
- Unclogging pipes
- Water Management System
  - Allows officers to control flow of water in the pods remotely
  - Controls when and how often inmates are allowed to use water
  - Helps to prevent cell flooding and identifying issues in plumbing
  - Helps prevent inmates flushing things that are not meant to be flushed
  - Water savings



#### LOCKS AND DOORS

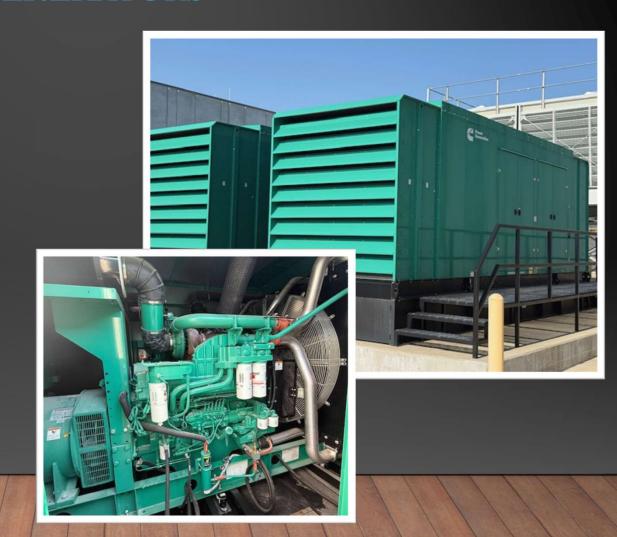
#### Jail Stats

- Detention Doors alone the jail has over 730 doors in the facility
- The doors are capable of being opened both with a key and by a motor in the lock
- Each cell door also has a chuck hole lock
- Most doors also have an intercom on both sides of the doors that communicate with control
- All screws in doors use tamper proof hardware and anti pick mechanisms
- Locks are designed to open even if 600 lbs of force is pushing on the latch

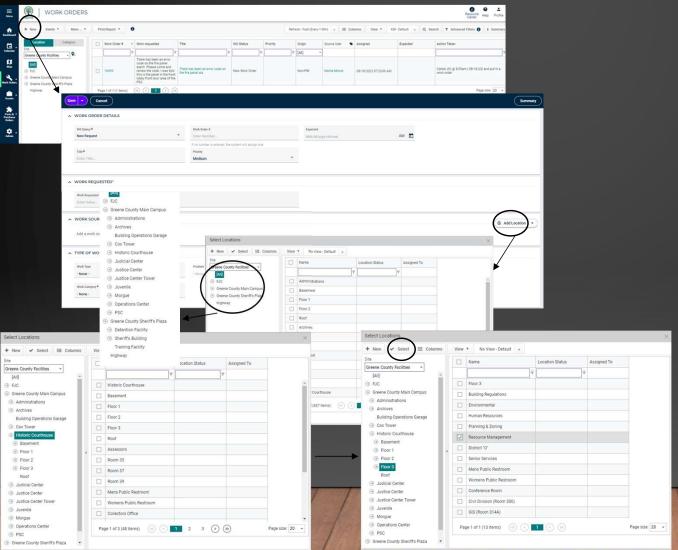


#### **GENERATORS**

- Jail has 2 1250 KvA desiel generators
- Each generator has a 2500 gallon tank for prolonged outages
- The generators are capable of serving the power needs of the whole jail
- Each generator produces 3 phase power at 480 volts
- Generator are connected to 4 transfer switches that can automatically shed the lower priority loads to keep the vital loads powered.
- Generators are tested weekly to ensure they are ready to be used when needed
- In the event of an outage the power can be switched to generators within 10 seconds



#### ASSET ESSENTIALS



• How to submit a work order:

Call/Email us!

We are in the office everyday from 7am-4pm. When calling in a work order, please let us know your location (building, floor, office number), the issue at hand, and if it's a project, the timeline in which it needs completed.

**Asset Essentials:** 

Many of you are already using Asset Essentials to enter work orders.
Updated contact lists can be submitted by Office Holders and Department Heads to Rebecca.

Asset Essentials is our work order system. We began using it in June of 2020. It allows us to more easily track how much we're putting into equipment (so we can more easily decide whether to replace or keep repairing), how long each work order takes (so we know how much additional staff we may need in the future), and it makes maintaining our PM's significantly easier and ensures they are getting done in a timely manner.



# COMPLETED PROJECTS

Newly renovated restrooms at HCH

• Treatment Court- We opened up the new treatment court in January. It is our largest courtroom and has the ability to hold up to 150 people.

• Historic Courthouse Bathrooms- Renovations on the 2<sup>nd</sup> and 3<sup>rd</sup> floor restrooms were just completed and opened to the public on 5/6. A women's restroom was added on 3<sup>rd</sup> floor and the 2<sup>nd</sup> floor women's restroom was relocated next to the men's.

Historic Courthouse Windows- All of the exterior windows at the Historic Courthouse were replaced last year. New doors on ground floor and first floor were also installed. This will hopefully help with drafts, leaks, etc that we have been experiencing.

Resource Management Remodel- New counters and carpet were installed.



Old sheriff's office being

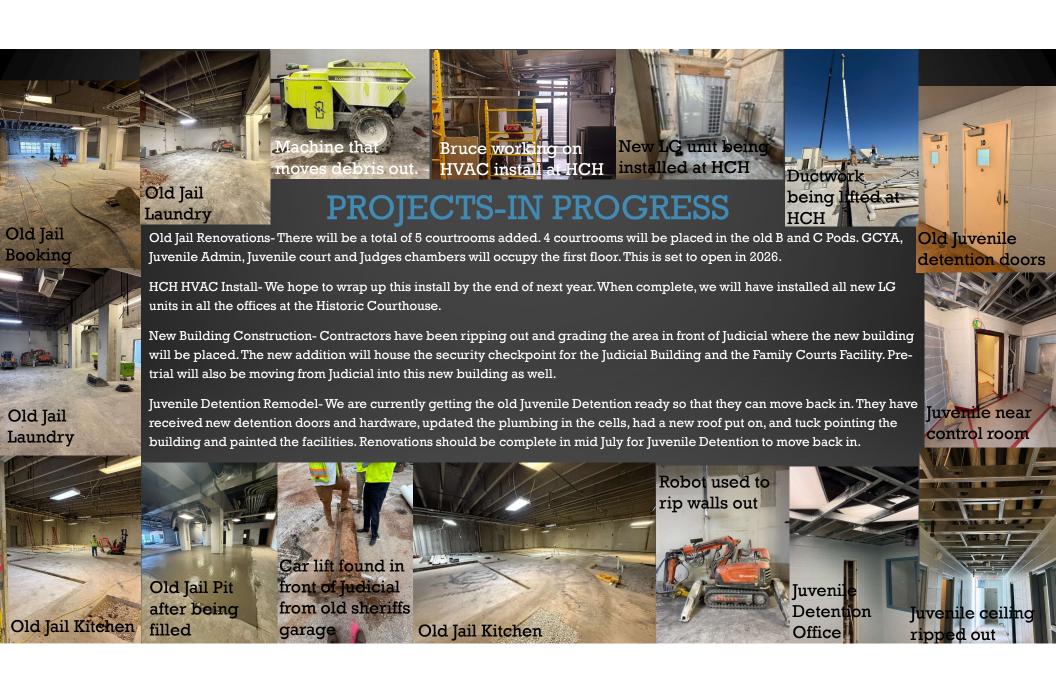
demolished for

courtroom.





Resource Management Remodel- New counters and carpet. Also, framed out skylight.





- Left to Right: Jeremy, Mike, Brent, and Leasa.
- Locations:
  - Leasa- 1<sup>st</sup> floor Sheriff's
  - Mike- 2<sup>nd</sup> floor Sheriff's
  - Brent-Warrants & Bonding, Master Control and Floater.
  - Jeremy- E&T, Medical & Mezzanine



#### **CUSTODIAL STAFF**

- We currently have 15 custodians that take care of our 14 buildings.
- They do everything from stocking paper products and vacuuming to stripping/waxing floors and cleaning carpets.
- We have now had our chemical dispensers installed for about a year and a half now in all custodial closets that have a mop sink. With our increasing staff here at Greene County and continuous growth, we are trying to find ways to reduce our costs but increase the effectiveness of the chemicals we use. They have definitely reduced chemical waste and decreased the amount of money we spend on chemicals.



- Main Campus Crew:
- Left to Right: Darla, Joe, Jessica, Destiny, Marlisa, Paul, Tray, Ben, and Erik. Not pictured: Ruth and Mandy.
- Locations:
  - HCH- Jessica (Ground & 1<sup>st</sup>), Paul (2<sup>nd</sup> & 3<sup>rd</sup>),
     Tray (stairs & floor care)
  - Juvenile- Destiny
  - Judicial- Ben (1<sup>st</sup>), Ruth (2<sup>nd</sup>), Marlisa (3<sup>rd</sup>),
     Erik (3<sup>rd</sup>)
  - Building Ops- Joe
  - Outbuildings- Joe (this includes Admin, Archives, FJC, Morgue, BOG and Election Center)
  - PSC- Mandy

- Building Operations took over the recycling program in May of 2022 after receiving a grant for it.
- Recycling has continuously grown since then. We recycle a variety of items including: cardboard, paper, plastic, aluminum cans, tin, steel, copper, brass, light bulbs, and even pallets.
- We will be replacing all the recycling bins in public areas with new ones.
- So far this year we have recycled 16.66 Tons
  (33,313 Lbs) of materials. This number does not
  include the pallets we recycle or the cardboard
  recycling at the new jail from April or May.
- Since 2022, we have kept a total of 161.24 Tons (322,487.4 Lbs) out of landfills. That's an average of 4.48 Tons per month.
- If anyone has any ideas for more recycling bins, please let Rebecca know and we'll do our best to accommodate.
- If you don't know where the recycle bins closest to you are, please reach out and ask! We'll be happy to direct you to the nearest ones.

#### RECYCLING

2025	Cardboard	Paper	Plastic	Alumin	um T	in							
Total Lbs	28869	3218	244		102	880		0		0			33313
Total Tons	14.4345	1.609	0.122	0.	051	0.44		0		0		16.6565	16.6565
	2024	Cardboard	Paper	Plastic	Aluminu	ım	Tin	Ste	el (	Copper			
	Total Lbs	97952.5	13083.5	884	59	4.5	1100		3227	52			116893.5
T	Total Tons	48.97625	6.54175	0.442	0.29	725	0.55	1.6	5135	0.026		58.44675	58.44675
		2023	Cardboard	Paper	Plastic	Alumi	num	Tin	Stee	Сорре	er Bra	ss Bulbs	
		Total Lbs	89075.6	13714	833.7	970	5	3100	2940	1383	3 55	3 800	112575.7
		Total Tons	44.5378	6.8572	0.41685	0.48	38	1.55	1.47	0.691	.5 0.27	65 0.4	56.28785
			2022	Cardbo	ard Paper	Plasti	ic Alum	ninum	Tin	Steel	Copper	Brass	
			Total Lbs	39931.	9 10557.7	660.8	3 24	8.04	5360	2420	510	24	59705.2
			Total Tons	19.9659	95 5.27885	0.330	4 0.1	1204	2.68	1.21	0.255	29.8	3406 <b>29.8526</b>

Fun Fact: It takes approximately 30 plastic bottles with caps to make 1 pound. That means in 2024 we recycled approximately 26,520 plastic bottles.

# THANK YOU! QUESTIONS?