



# Facilities and Operations Update

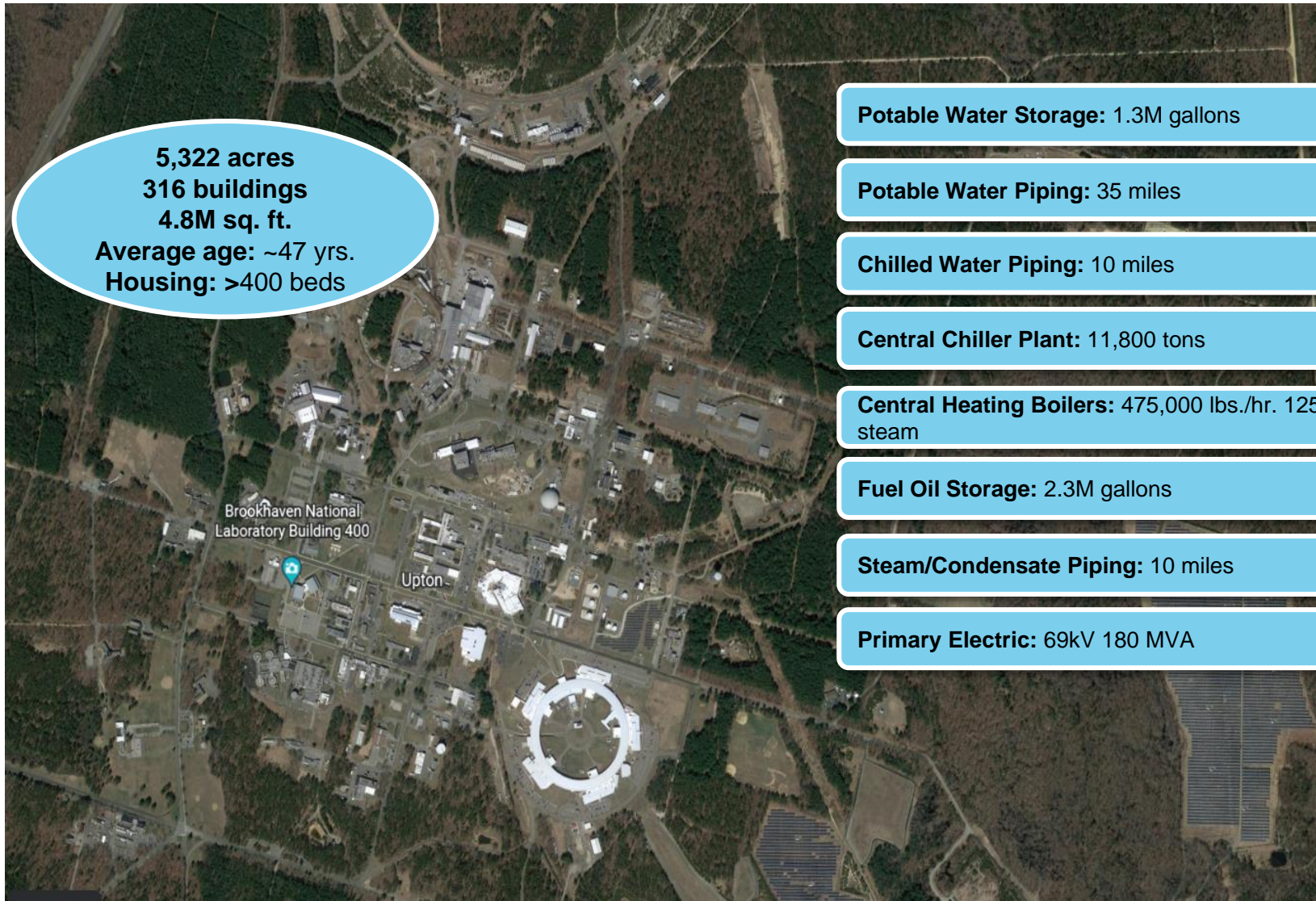
## RHIC & AGS User Meeting

June 14, 2024

Tom Daniels  
F&O ALD



# Our Stewardship Accountability



5,322 acres  
316 buildings  
4.8M sq. ft.  
Average age: ~47 yrs.  
Housing: >400 beds

Potable Water Storage: 1.3M gallons

Potable Water Piping: 35 miles

Chilled Water Piping: 10 miles

Central Chiller Plant: 11,800 tons

Central Heating Boilers: 475,000 lbs./hr. 125# steam

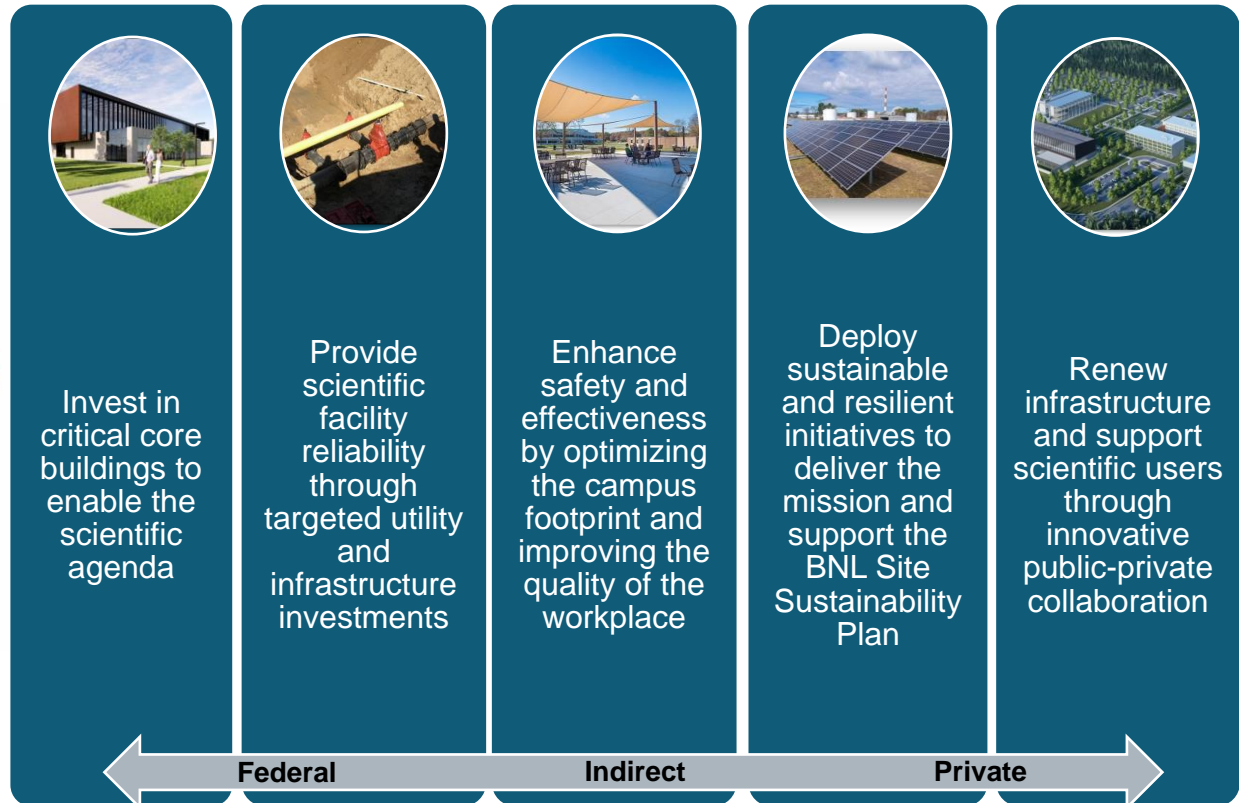
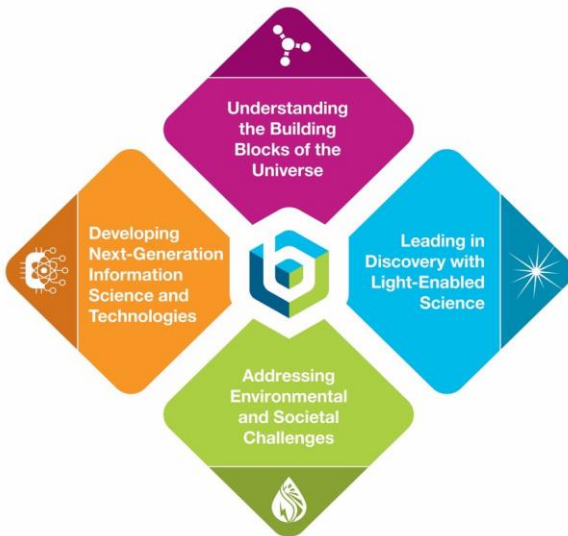
Fuel Oil Storage: 2.3M gallons

Steam/Condensate Piping: 10 miles

Primary Electric: 69kV 180 MVA

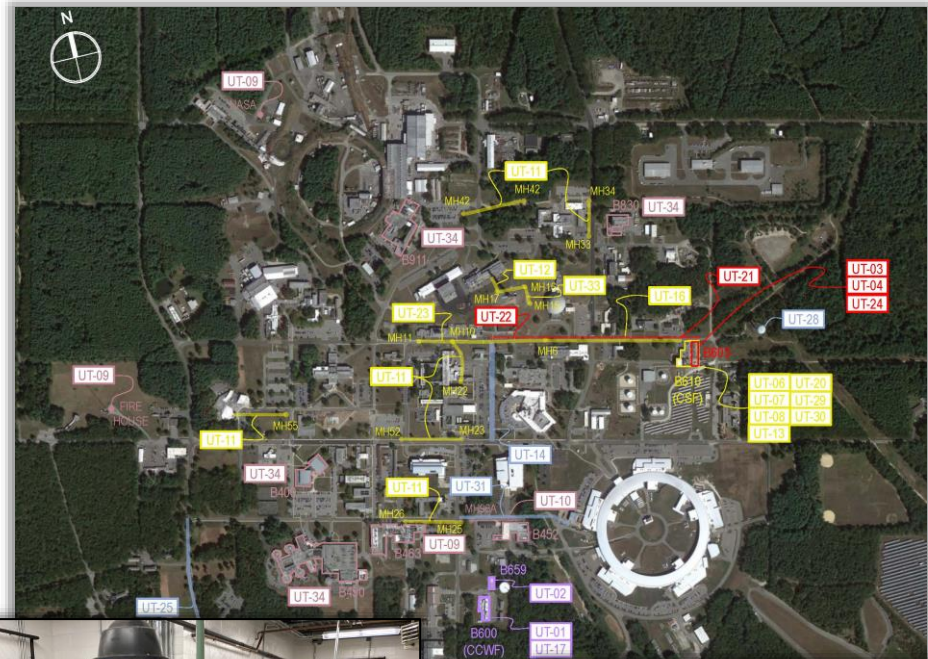
# Ten-year Campus Infrastructure Strategy

*Provide a revitalized campus that transforms the way our science is performed, supports BNL science initiatives, attracts and retains the best workforce, and enables our users to achieve their goals*



# CURP is addressing the most urgent utility issues

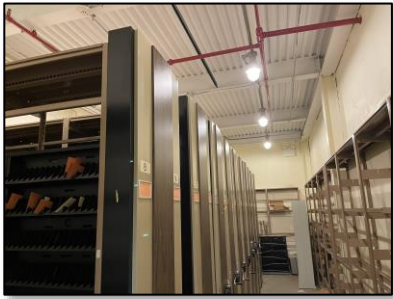
- CD-2/3 Approved December 2022
- TPC \$92.8M
- Scope: Improve service to all programs by rehabilitating the aging infrastructure of BNL's most critical, and urgent, utility subsystems (e.g., steam distribution, central plant chillers, potable water distribution piping, electrical distribution, sanitary system)
- Schedule: CD-4: 2/15/29



# CURP Status Update

WORK PACKAGE ID	DESCRIPTION	PRE DESIGN	50% DESIGN	90% DESIGN	100% DESIGN	IFC	NTP
UT-01	Replacement of Chiller CH-4 at CCWF	COMPLETE	COMPLETE	COMPLETE	COMPLETE	UNDER REVIEW	
UT-02	Chemical Injection System for Building B659	COMPLETE	COMPLETE	COMPLETE	COMPLETE	UNDER REVIEW	
UT-03	New 13.8kV Feeders from B603 to B600	COMPLETE	COMPLETE	COMPLETE	COMPLETE	UNDER REVIEW	
UT-04	Replace (28) 13.8 kV Magna Blast Breakers in Substation 603 (Bus 1 & 3)	COMPLETE	COMPLETE	IN-DEVELOPMENT			
UT-05	Replace Five Water Valves	COMPLETE	COMPLETE	COMPLETE	COMPLETE	COMPLETE	ISSUED
UT-06	Rebuild Manhole MH1	COMPLETE	COMPLETE	COMPLETE	COMPLETE	UNDER REVIEW	
UT-07	Replace Existing Bailey Infi-90 Control System	COMPLETE	COMPLETE	IN-DEVELOPMENT			
UT-08	Replace B-6 Economizer and Stack	COMPLETE	COMPLETE	IN-DEVELOPMENT			
UT-09	Replacement/Rehabilitation of Four Highest Priority Lift Stations	COMPLETE	COMPLETE	COMPLETE	IN-DEVELOPMENT		
UT-10	Reline 440LF of Sewer Pipe Section from B452 MH-96A to North of Building 452 (440LF/5610LF) And Replace 1 Manhole MH-96A	COMPLETE	COMPLETE	COMPLETE	COMPLETE	COMPLETE	ISSUED
UT-11	Replace Various Leaks	COMPLETE	COMPLETE	COMPLETE	COMPLETE	UNDER REVIEW	
UT-12	Replace Condensate Pipe Between MH17 to B801	COMPLETE	COMPLETE	COMPLETE	COMPLETE	UNDER REVIEW	
UT-13	Replace CEMS Data Acquisition System	COMPLETE	COMPLETE	UNDER REVIEW			
UT-14	Replace Water Main on Technology Street	COMPLETE	COMPLETE	COMPLETE	COMPLETE	UNDER REVIEW	
UT-15	Emergency Water System Interconnection to BNL	COMPLETE	COMPLETE	COMPLETE	IN-DEVELOPMENT		
UT-16	Replace Steam and Condensate Piping Between MH1-MH6	COMPLETE	COMPLETE	COMPLETE	COMPLETE	UNDER REVIEW	
UT-17	Replace CH-2 at CCWF	COMPLETE	COMPLETE	COMPLETE	COMPLETE	UNDER REVIEW	

# Applying SLI-GPP investment to critical priorities -



- **B510 Electrical Upgrade Phase II (\$5.15M):** Upgrade building electrical distribution equipment to decrease potential for hazards, decreasing arc flash incident energy and system damaging electrical faults and allowing for safe operation and maintenance.
- **HVAC I Upgrades (\$8.7M):** Addressing the most urgent mechanical needs in Mission Critical buildings replacing aged equipment, adjusting HVAC load capacities, updating system configurations and upgrading controls systems with energy efficient systems.
- **HVAC II Upgrades (\$9.3M):** Addressing the mechanical needs in Mission Critical buildings to enhance operational efficiency and reliability replacing aged equipment, adjusting HVAC load capacities, updating system configurations and upgrading controls systems with energy efficient systems.

# Science + User Support Center (SUSC) Project Overview





# Under Construction



# SUSC First Floor



# Main Lobby



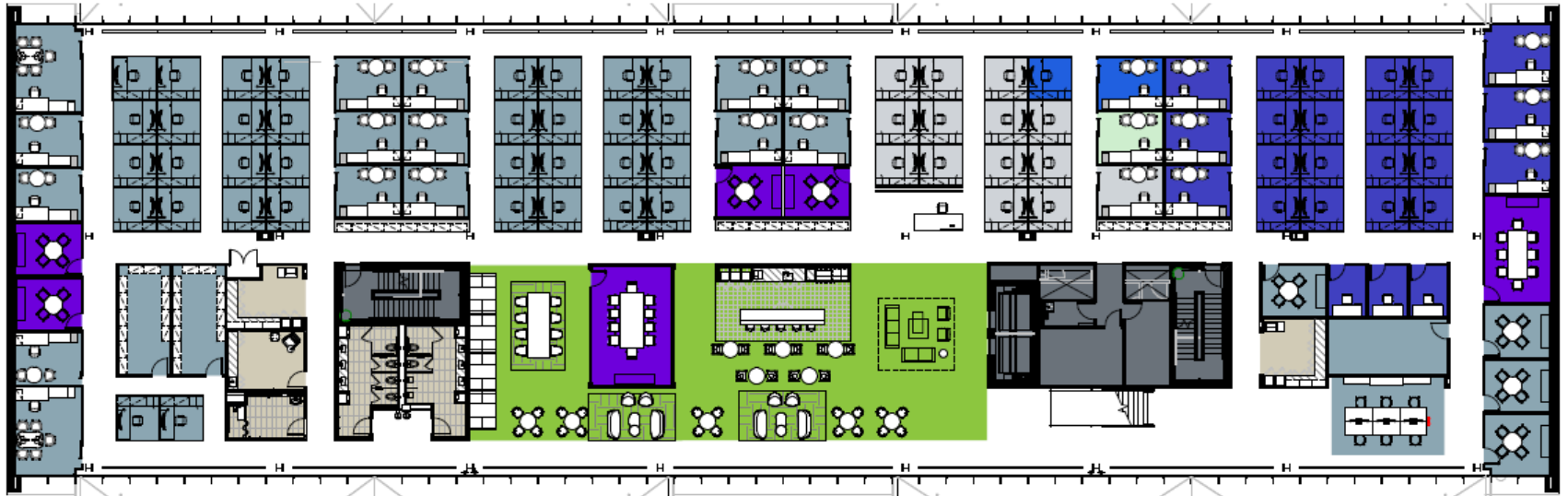
# Badging, Housing and GUV Center



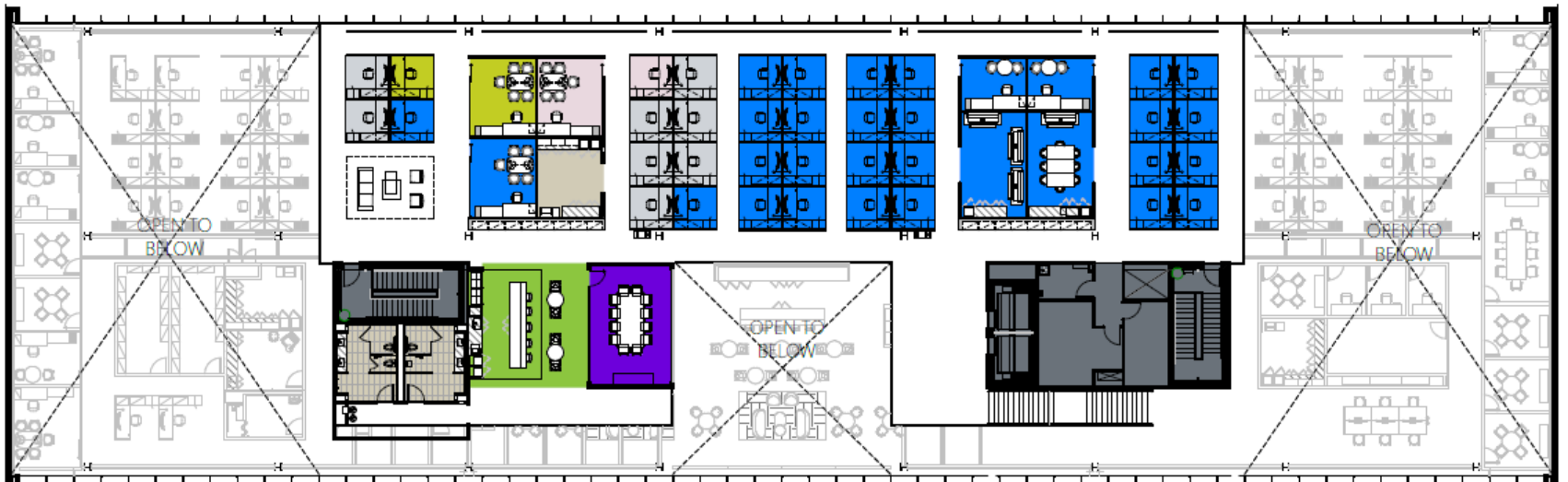
# Conference Assembly Area



# SUSC Second Floor



# SUSC Third Floor



# View from Mezzanine



# 2<sup>nd</sup> Floor Work Café





# Guest Services Overview

# Transportation and Fleet

**ADA Bus Approval:** An ADA bus order has been submitted to DOE for approval.

**Additional Shuttle Van Rental:** A 14-passenger shuttle van has been rented to handle the summer influx. The extra shuttle will shorten wait times and provide additional 8 am-4:30 pm service.

**Route Optimization:** Summer routes will be assessed to optimize the additional shuttle's impact. This data will guide future scheduling adjustments.

**New Shuttle App:** A customer-friendly app is in development to streamline onsite shuttle requests and automate data tracking.

**ChargePoint Stations:** Three new ChargePoint EV stations (6 ports) will be installed at B400, including one that is ADA accessible. There are 28 ports total, site-wide.



# Housing

**Fire Alert Units:** Five Lifetone HL fire alert units with auditory, visual, and tactile features are now available upon request for any on-site accommodation.

**Lobby Furniture Update:** New lobby furniture ordered for the Guest House and three dormitories.

**5G Upgrade:** Verizon 5G wireless upgrade for the apartment area will be completed by the end of June.

**DEIA Improvements:** Washer/dryer project enhances first-floor accessibility, moving towards inclusive accommodations. A two-bedroom apartment is being upgraded to accommodate guests with ADA needs.

**Online Request Portal:** An updated online portal for Housing requests is undergoing testing.

**QR Code Access:** A QR code has been created for key cards and tend cards to assist visitors in finding Guest Services information.

**Summer Housing Solutions:** SBU dorm units have been secured to alleviate summer housing shortages.



# Conference & Food Services

**Streamlined Planning:** Collaborative work with OII and Web Services will enhance conference planning and aims to move the process online.

**Furniture Refresh:** New Cafeteria and Berkner meeting room furniture is being selected.

**Food Vendors:** Artisan and Tend Coffee continue regular pop-up services in Berkner for the summer.

**New Proposal:** The Food Services proposal is currently under review.

**Additional Conference Spaces:** The Conference & Food Services team is preparing for the SUSC opening and the additional event spaces that will be available.

**Micro Marts:** There are three micro-marts providing food options 24/7 for the Laboratory. They are located at B400, B740, and B911.

**Vending Machines:** The current vendor will discontinue services and Food Services is currently working on securing a vendor for the future.



# QOL/BERA/Recreation

**ADA Upgrades:** Men's locker room shower at the gym is being updated for ADA compliance.

**Recreation Events:** Pickleball clinics, a Yankee Stadium bus trip, fireside chats, and softball and beach volleyball leagues are scheduled for the summer.

**Online Store:** A "soft" rollout of the BERA online store is underway.

**Outdoor Yoga:** Exploring outdoor yoga sessions once per week for the summer.

**BERA Garden Club/CDC:** F&O will partner with BERA Garden Club and the CDC in creating garden beds for the children to grow fresh vegetables and flowers.



# Upcoming Activities

- Update the Utilities Master Plan
- Update the Campus Master Plan
- Finalize “Future of Work Plan”
  - Space Planning to consolidate staff
- SUSC Transition to Operations
- DDO champions the Improve the User Experience Team
- Continue to exceed SLI expectations to ensure continued SLI/GPP support

# BNL Main Gate Booth



# Questions?

