### Yale NewHaven **Health**

Yale New Haven Hospital



# Yale University School of Medicine



# 2024 Medical Area Overall Parking Plan (MAOPP)

December 16, 2024

The Honorable Tyisha Walker-Myers, President New Haven Board of Alders 165 Church Street New Haven, CT 06510

Laura Brown
Executive Director
City Plan Department
165 Church Street, 5th Floor
New Haven, CT 06510

Re: 2024 Medical Area Overall Parking Plan

Dear President Walker-Myers and Ms. Brown,

Yale NewHaven Health Yale New Haven Hospital

Enclosed herewith please find the 2024 Medical Area Overall Parking Plan (the "MAOPP") annual update submittal on behalf of Yale New Haven Hospital ("YNHH"), Yale School of Medicine ("YSM") and Connecticut Mental Health Center ("CMHC" and, collectively, the "Institutions"). The enclosed update of the MAOPP is being submitted consistent with the requirements of the Board of Zoning Appeals 2006 special exception as to the MAOPP, that certain Development Agreement between the City of New Haven ("City") and YNHH dated June 6, 2006, that certain Order of the New Haven Board of Alders Regarding Formal Approval by the Board of Alders of the MAOPP, which was passed on August 7, 2017 (the "Order"), and prior submissions of MAOPP updates.

Pursuant to the Order, since no OPP amendment has been requested or approved during the 2023 calendar year, the Institutions hereby request a resolution from the Board of Alders certifying that no OPP amendment is required by this submission of the MAOPP. A draft resolution is enclosed.

The enclosed annual update of the MAOPP includes the following information:

- A map indicating the area and facilities covered within the Medical Area;
- "Section A" which contains the Monthly Day-Shift Space, Permit and User Matrix information:
- "Section B" which contains the YNHH and YSM shuttle routes and maps:
- "Section C" which includes Parking Demand by Shift for the Institutions;
- "Section D" which consists of the YNHH Transportation Demand Management ("<u>TDM</u>") brochure and the YSM TDM overview; and
- "Section E" which consists of the Institutions' TDM program summaries and enrollment figures

As you know, the City's Zoning Ordinance (the "Ordinance") has for many years allowed religious, educational, and medical institutions and hospitals to meet the Ordinance's parking requirements through an overall parking plan. The purpose of a parking plan is to allow institutions with campuses to maintain a centralized parking supply with parking lots and garages in multiple locations that are available to serve buildings anywhere on the campus, and not subject to the standard requirement of the Ordinance that off-street parking be provided within 300 or 1,000 feet of each

building. This recognizes, among other things, the inefficiency and lack of feasibility of providing separate parking at each individual building in a developed urban setting such as New Haven, the fluidity of a walkable and bicycle friendly campus environment and the provision of transportation options by participating institutions.

In the context of the MAOPP, it should be noted that each of the three Institutions are separate and distinct from one another and that other third- party organizations also operate within the borders of the MAOPP. Additionally, as distinct organizations – funded and managed by separate entities – each Institution maintains control over its own parking facilities and provides permits for its own faculty, staff, and students independently.

The Institutions have, at all times, complied with applicable City requirements with respect to the MAOPP, including the terms of the Order. Since the August 7, 2017 approval of the MAOPP by the Board of Alders there have been no changes to the MAOPP which would require an amendment.

Finally, we note that the Institutions have repeatedly been recognized for their comprehensive commitments to transportation and parking related matters, including earning numerous prestigious awards for their past and ongoing initiatives in these areas. More information about these awards and accolades is included in Exhibit 1.

Please feel free to contact me if you require additional information or have any questions.

Sincerely,

Rodney Slaughter CAPP, CPP

Director

Parking, Transportation & TDM

#### **Enclosures**

cc: Board of Alders

Mildred Melendez, Board of Zoning Appeals
Leslie Radcliff, City Plan Commission
Robert Hutchison, Yale New Haven Hospital
Robert Reed, Yale New Haven Hospital
Dean Caruso, Yale New Haven Hospital
John Knuff, Yale New Haven Hospital
Michael Holmes, Yale New Haven Hospital
Stephen Brown, Yale University
Alexandra Daum, Yale University
Robert Ferretti, Yale University
Aaron Mensh, Yale University
Karen King, Yale University
Robert Cole, Connecticut Mental Health Center

RESOLUTION OF THE BOARD OF ALDERS CERTIFYING THAT NO AMENDMENT TO THE MEDICAL AREA OVERALL PARKING PLAN IS REQUIRED IN CONNECTION WITH THE SUBMISSION OF THE 2017 ANNUAL UPDATE TO THE MEDICAL AREA OVERALL PARKING PLAN

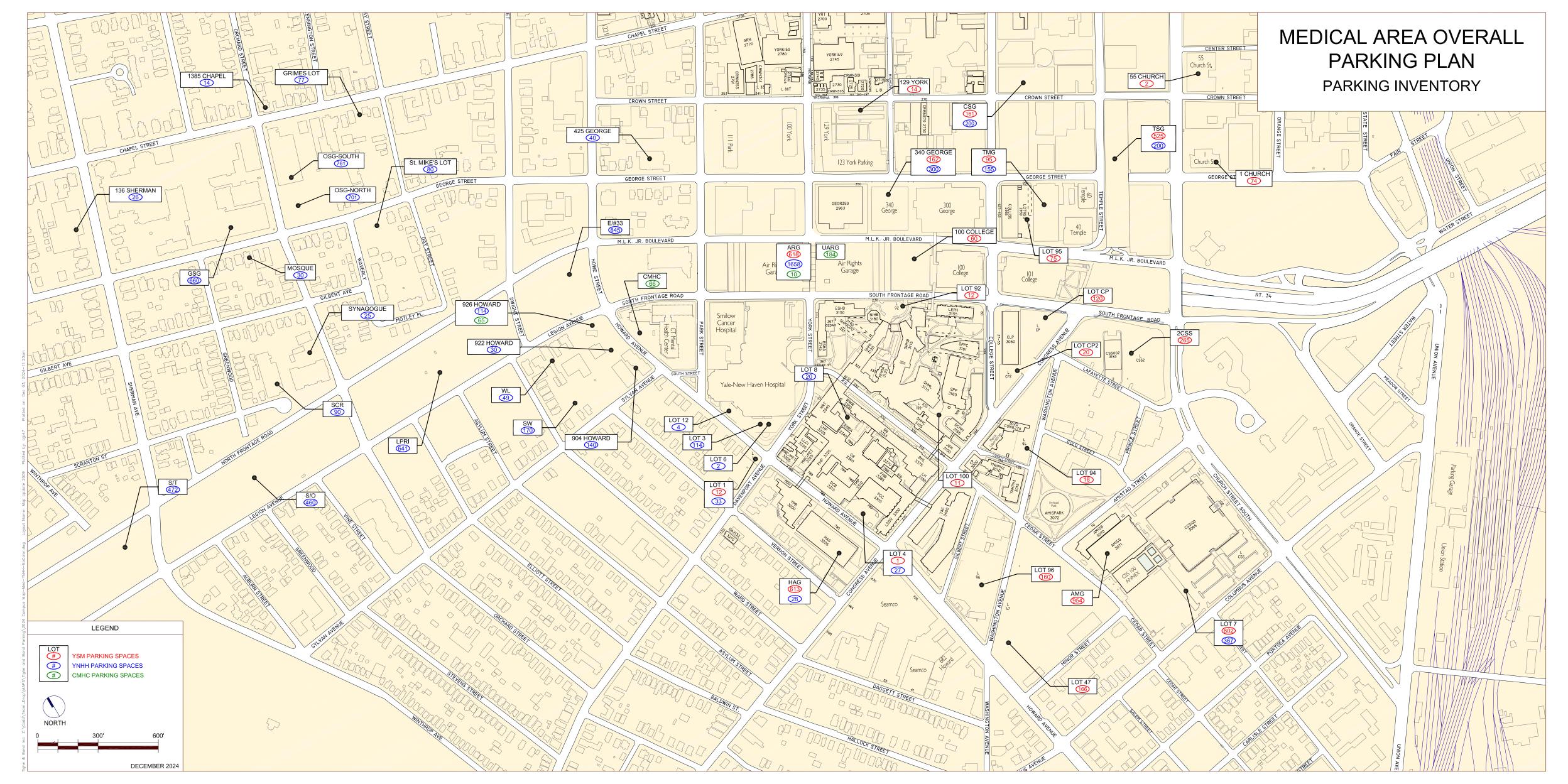
WHEREAS, by communication dated December 16, 2024, from Rodney Slaughter CAPP, CPP, Director, Parking and Transportation for Yale New Haven Hospital, Yale New Haven Hospital ("YNHH"), Yale School of Medicine ("YSM") and Connecticut Mental Health Center ("CMHC" and, collectively, the "Institutions") have submitted an update to the Medical Area Overall Parking Plan ("MAOPP") as required by and pursuant to the Order of the New Haven Board of Alders Regarding Formal Approval by the Board of Alders of the MAOPP, which was passed on August 7, 2017 (the "Order");

WHEREAS, no amendment has been requested or approved during the 2023 calendar year with regard to the MAOPP;

WHEREAS, since no amendment has been approved in the 2024 calendar year, the Order indicates that the Institutions are to submit an update to the MAOPP, which has been accomplished by the above-referenced communication; and

WHEREAS, the Institutions request that the Board of Alders approve a resolution by unanimous consent certifying that no amendment to the MAOPP is required by the submission of the annual update of the MAOPP;

NOW, THEREFORE, BE IT RESOLVED that the Board of Alders hereby determines and certifies that no amendment to the MAOPP is required by the submission of the 2024 annual update of the MAOPP and the MAOPP is hereby approved.



#### Section A MONTHLY DAY-SHIFT PERMIT AND USER MATRIX

				YNHH YSM			СМНС		TOTALS					
								YSM						
Lot ID	Name	Location						Res.	Leased					
				YNHH	Leased			Trans.	to				Total	Total
			Spaces	Permits	to YSM	Spaces	Permits*	Parking	YNHH	Surplus	Spaces	Permits	Spaces	Permits
#1	Davenport/Howard	99 Davenport Avenue	33	0	0	12	8	0	0	4	0	0	45	8
#3	Children's Hospital Garage	10 York Street	114	144	37	0	0	0	0	0	0	0	114	181
#4	Primary Care Center	769 Howard Avenue	27	27	0	1	1	0	0	0	0	0	28	28
#6	Emergency Department	10 York Street	2	0	0	0	0	0	0	0	0	0	2	0
#7	100 Church Street South	100 Church Street South	367	320	0	602	351	0	0	251	0	0	969	671
#8	Hunter Building	5 York Street	20	20	0	0	0	0	0	0	0	0	20	20
#12	YNHH Pediatric Emergency	853 Howard Avenue	4	0	0	0	0	0	0	0	0	0	4	0
#47	Washington/Howard	Washington/Howard	0	0	0	166	121	0	58	0	0	0	166	179
#92	Child Study Center	230 South Frontage Road	0	0	0	12	13	0	0	0	0	0	12	13
#94	Behind 270 Congress	Behind 270 Congress	0	0	0	18	8	0	0	10	0	0	18	8
#95	135 College St.	135 College Street	0	0	0	75	54	0	0	21	0	0	75	54
#96	Washington/Gilbert	Washington/Gilbert	0	0	0	160	137	0	0	23	0	0	160	137
#100	SHM C Wing	333 Cedar Street	0	0	0	11	7	0	0	4	0	0	11	7
1 Church	One Church Street	One Church Street	0	0	0	74	24	0	0	50	0	0	74	24
2 CSS	2 Church Street South	2 Church Street South	0	0	0	265	231	36	0	0	0	0	265	231
55 Church	55 Church Street	55 Church Street	0	0	0	2	2	0	0	0	0	0	2	2
129 York	129 York	129 York Street	0	0	0	14	7	0	0	7	0	0	14	7
100 College	100 College Street	100 College Street	0	0	0	60	72	0	0	0	0	0	60	72
136 Sherman	136 Sherman Ave	136 Sherman Ave	26	26	0	0	0	0	0	0	0	0	26	26
340 George	340 George	340 George Street	300	300	0	162	181	0	0	0	0	0	462	481
425 George	425 George Street	425 George Street	40	0	0	0	0	0	0	0	0	0	40	0
904 Howard	904 Howard Avenue	904 Howard Avenue	140	140	0	0	0	0	0	0	0	0	140	140
922 Howard	922 Howard Avenue	922 Howard Avenue	30	30	0	0	0	0	0	0	0	0	30	30
926 Howard	926 Howard Avenue	926 Howard Avenue	114	70	63	0	0	0	0	0	65	65	179	198
1385 Chapel	Chapel & Orchard Streets	1385 Chapel Street	14	14	0	0	0	0	0	0	0	0	14	14
AMG	Amistad Garage	10 Amistad Street	0	0	0	954	1241	0	0	0	0	0	954	1241
ARG	Air Rights Garage	60 York Street	1658	1414	0	618	614	0	0	4	10	1	2286	2029
CMHC	Around CMHC (Lots A & C)	South Frontage/Howard	0	0	0	0	0	0	0	0	66	66	66	66
СР	College Plaza I	Congress/South Frontage	0	0	0	120	110	0	0	10	0	0	120	110
CP2	College Plaza II	College/Congress	0	0	0	20	0	16	0	4	0	0	20	0
CSG	Crown Street Garage	213 Crown Street	200	200	0	161	63	0	0	98	0	0	361	263
E / #33	2 Howe Street Garage	2 Howe Street	845	817	0	0	0	0	0	0	0	0	845	817
Grimes Lot	Grimes Lot	1342 Chapel & 573 George	77	67	0	0	0	0	0	0	0	0	77	67
GSG	George Street Garage	629 George Street	660	548	44	0	0	0	0	0	0	0	660	592
HAG	Howard Avenue Garage	Howard/Congress	28	28	0	613	572	200	28	0	0	0	641	628
Mosque	Mosque	624 George Street	30	30	0	0	0	0	0	0	0	0	30	30
OSG North	Orchard Street Garage N. (2)	578 George Street	701	0	0	0	0	0	0	0	0	0	701	0
OSG South	Orchard Street Garage S. (3)	578 George Street	761	570	76	0	0	0	0	0	0	0	761	646
SCR	Scranton Garage	200 Orchard Street	90	80	0	0	0	0	0	0	0	0	90	80
S/O	Sherman/Orchard	467 Legion Avenue	460	455	0	0	0	0	0	0	0	0	460	455
S/T	Sherman/Tyler (1)	60 N. Frontage Road	472	301	2	0	0	0	0	0	0	0	472	303
St. Mike's Lot	St. Mike's Lot	554 George Street	80	80	0	0	0	0	0	0	0	0	80	80
SW	Sylvan/Ward	21 Sylvan Avenue	170	137	0	0	0	0	0	0	0	0	170	137
Synagogue	Synagogue	232 Orchard Street	25	25	0	0	0	0	0	0	0	0	25	25
TMG	Temple Medical Garage	230 George Street	155	155	0	95	39	0	0	56	0	0	250	194
TSG	Temple Street Garage	1 Temple Street	200	200	0	525	300	0	0	225	0	0	725	500
UARG	Under ARG	60 York Street	0	0	0	0	0	0	0	0	184	263	184	263
WL	Ward/Legion	34, 46, 72, 80 Legion Avenue	49	0	0	0	0	0	0	0	0	0	49	0
LPRI	LPRI Garage	Legion Avenue	641	641	0	0	0	0	0	0	0	0	641	641
	TOTALS		8533	6839	222	4740	4156	252	86	767	325	395	13598	11698

YNHH	Forecasted future loss of parking	ng facilities\spaces	Ì							
S/T	Sherman/Tyler (1)	60 N. Frontage Road	-472						-472	

#### NOTES:

#### YNHH Notes & Numbers submitted by the Director of Parking & Transportation Rodney Slaughter CAPP, CPP, October 2024

YNHH (1) Sherman Tyler Lot anticipated to close in TBD loss of 472 spaces, parking contruction workers for the SRC expansion project

YNHH (2) Ochrad Street North garage set to open 12/2024

YNHH (3) Orchard Street South garage opened October 2023
YSM YSM numbers and notes submitted by Yale Univer

#### YSM numbers and notes submitted by Yale University Associate Director of Parking Robert Ferretti, October 2024

An additional 2000 spaces are available at Quigley Field and West Campus park and ride (Yale University)

Given Yale's significant benefit program, employees may be out for personal days, vacation, sick days, or working from home. Additionally, due to the status of faculty (e.g., emeritus, lecturer) and their class meeting schedules, and the status of staff (e.g., casual, part-time) and their work schedules, Permits are based on 80% of actual permits issued. This is also driven by a recorded average peak utilization of only 70% (allowing for a buffer) that is a result of new technology enabling this measurement as well as remote/hybrid work patterns.

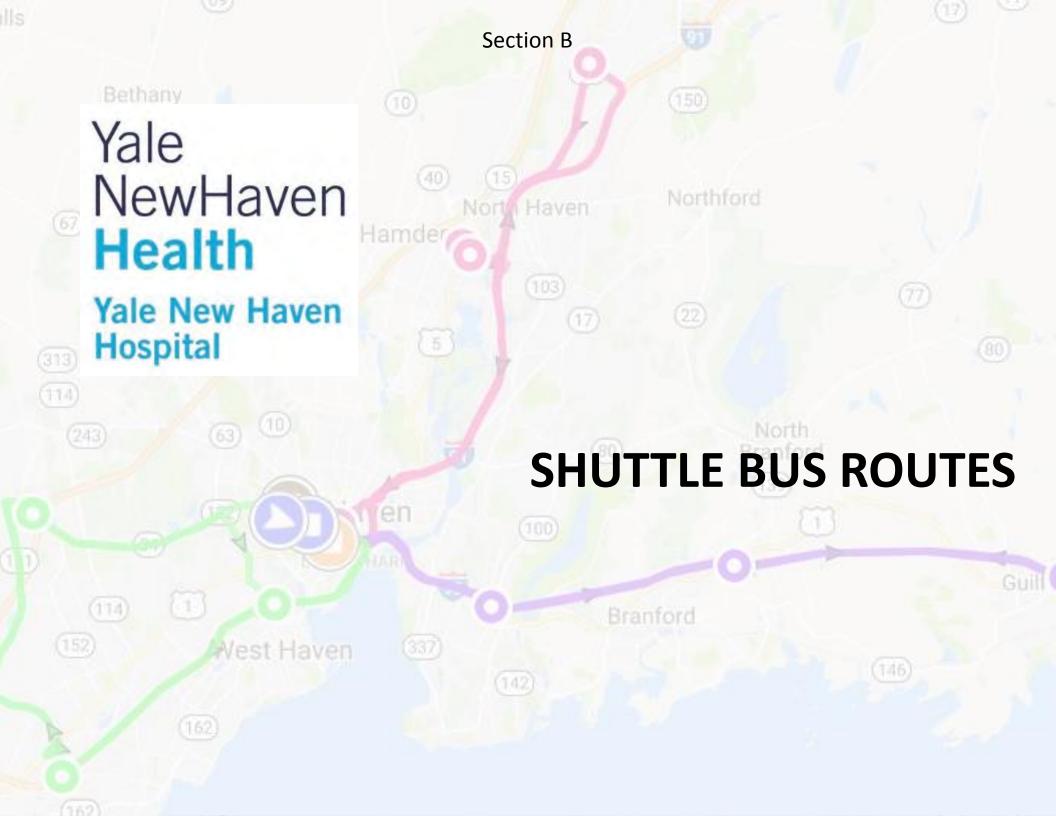
#### CMHC numbers submitted by Robert Cole, October 2024

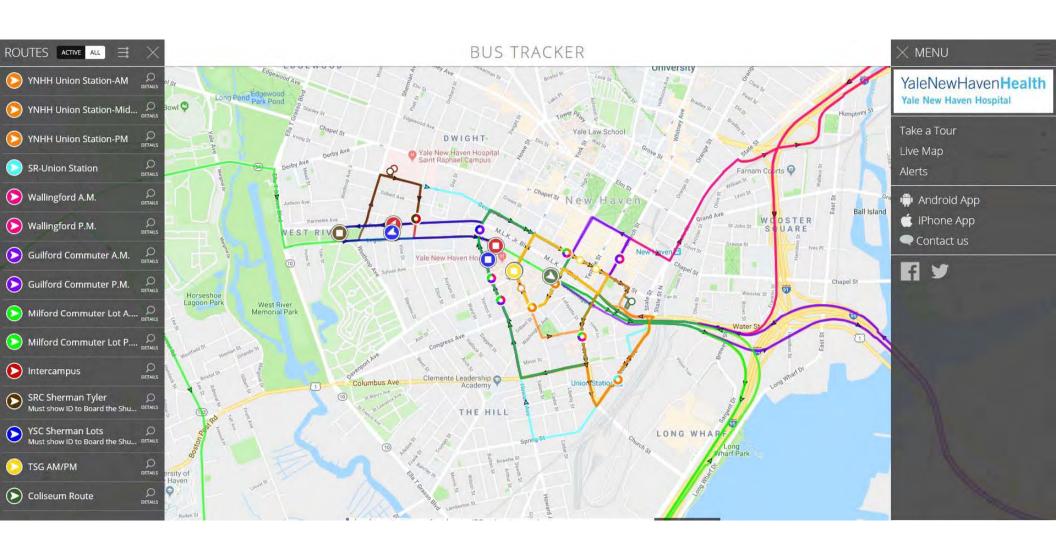
36 CMHC spaces were taken out of use when Lot C, behind the main building, was repurposed to house 3 doublewide modular office units to accommodate displaced CMHC staff because of a major construction project involving installation of a fire suppression in the UARG as well as on 926 Howard Avenue, where there was sufficient excess capacity. system, asbestos abatement, and replacement of ceilings, lighting and flooring. Displaced parking was absorbed

#### Yale New Haven Hospital Bus System

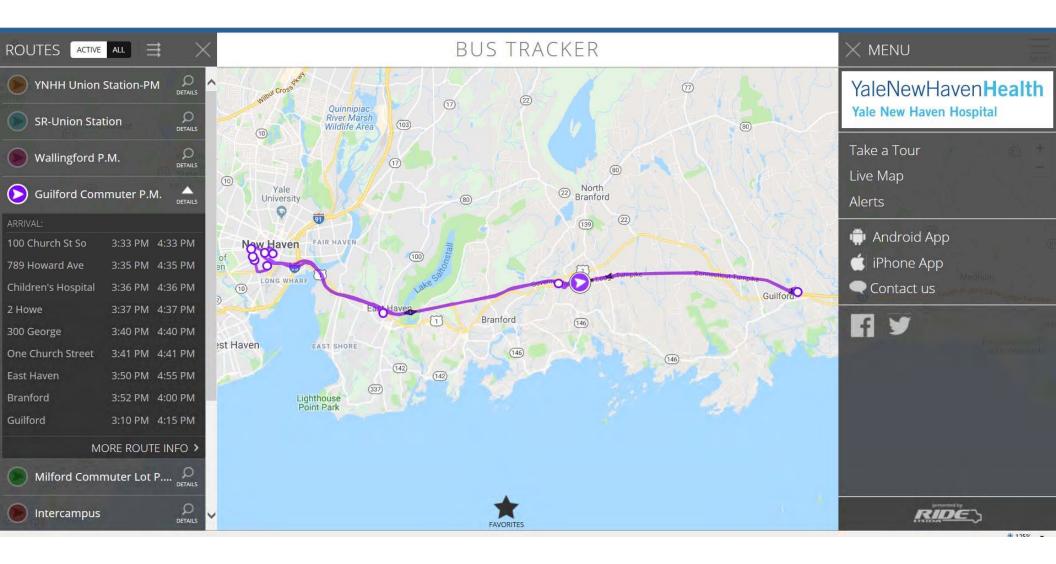
#### YNHH bus systems updated items for 2024.

- All buses fitted to operate by Compressed Natural Gas to reduce emissions (Replacing Bio-diesel fuels).
- All YNHH bus routes have posted bus stop schedules.
- Buses are equipped with easier to clean and sanitize upholstery.
- All buses during an 8 hour shift have the touch-points repeatedly sanitized by the driver and logged to conform to YNHH protocols.
- After each 8 hour shift every bus is taken out of service and sanitized (deep cleaned) touchpoints, seats, widows, and floors. The deep cleaning is also logged to ensure adherence to the YNHH protocols established.

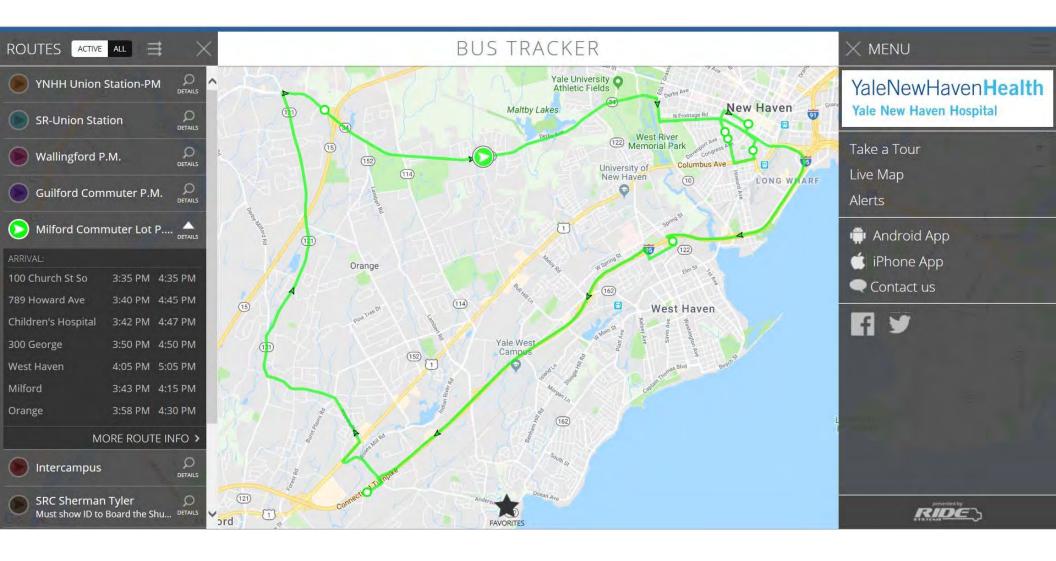




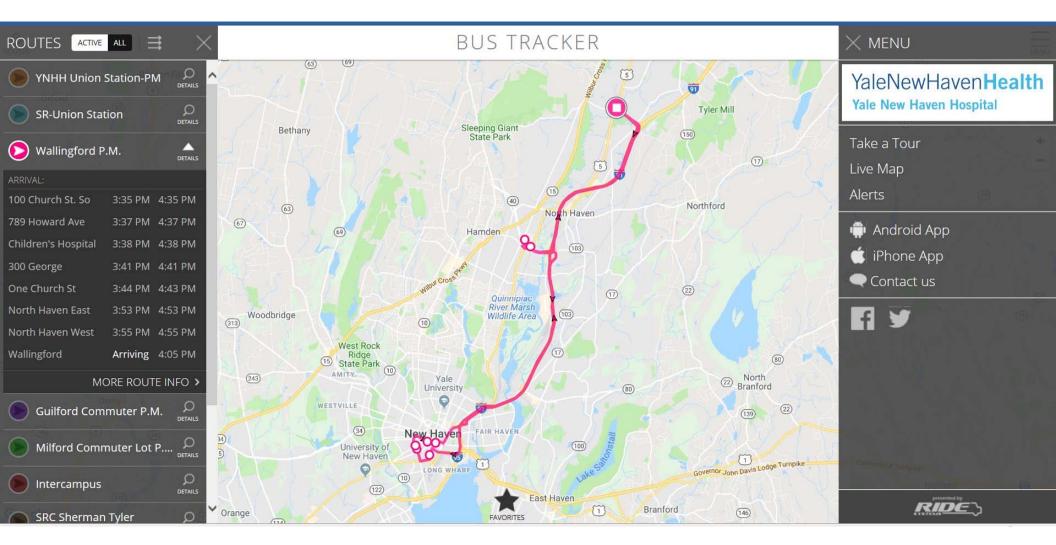
#### **Guilford Commuter Route**



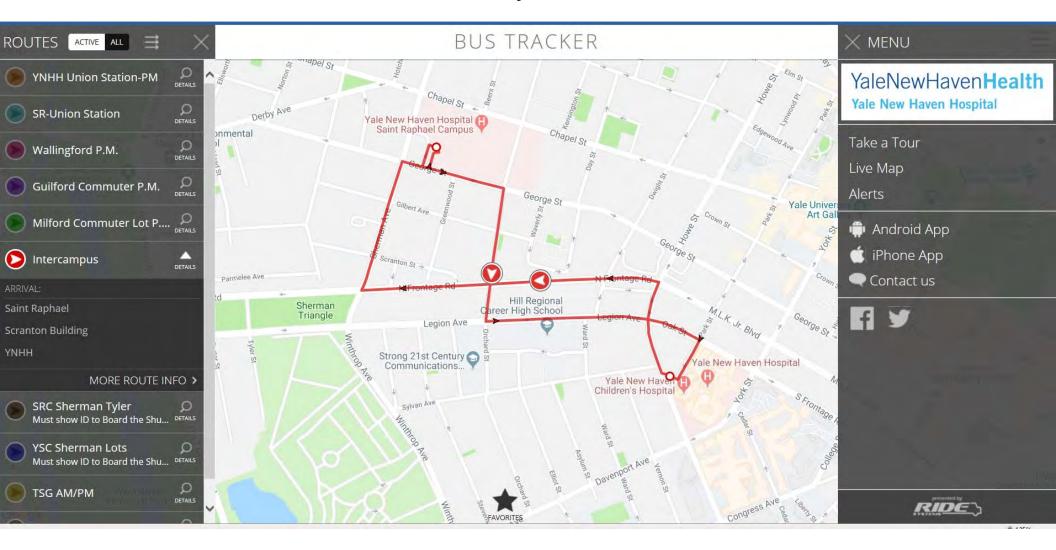
#### Milford Commuter Route



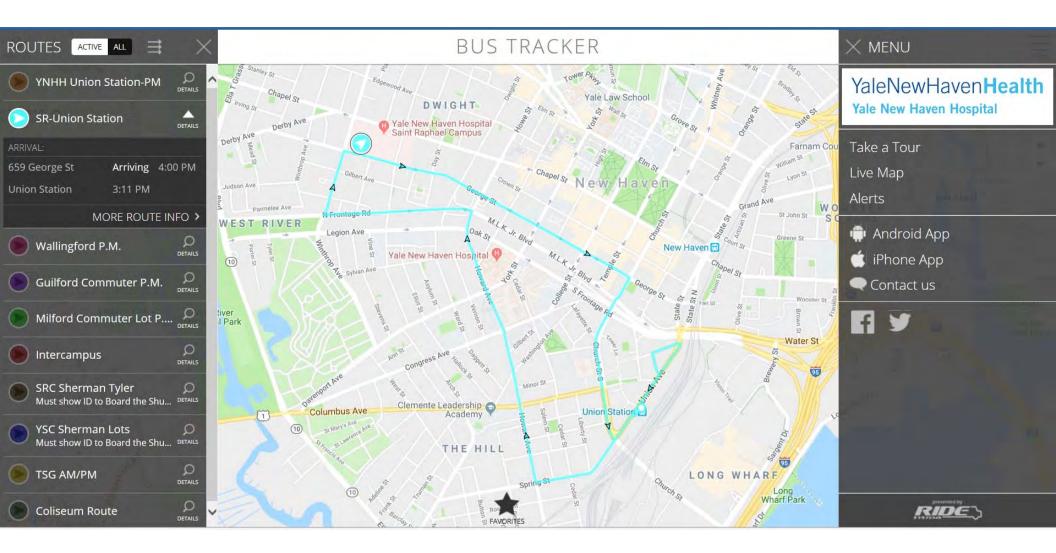
#### Wallingford Commuter Route



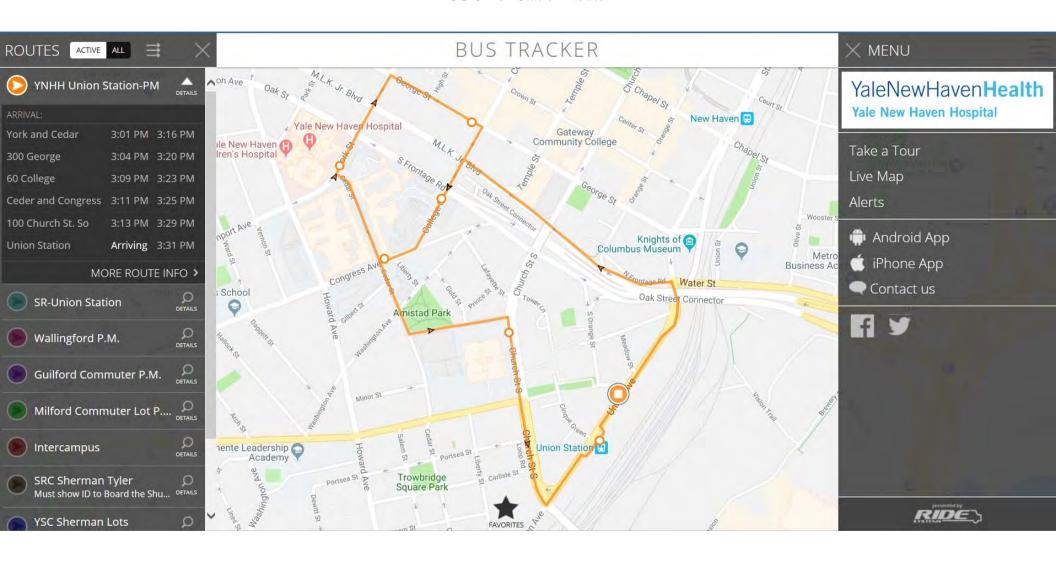
#### Intercampus Route



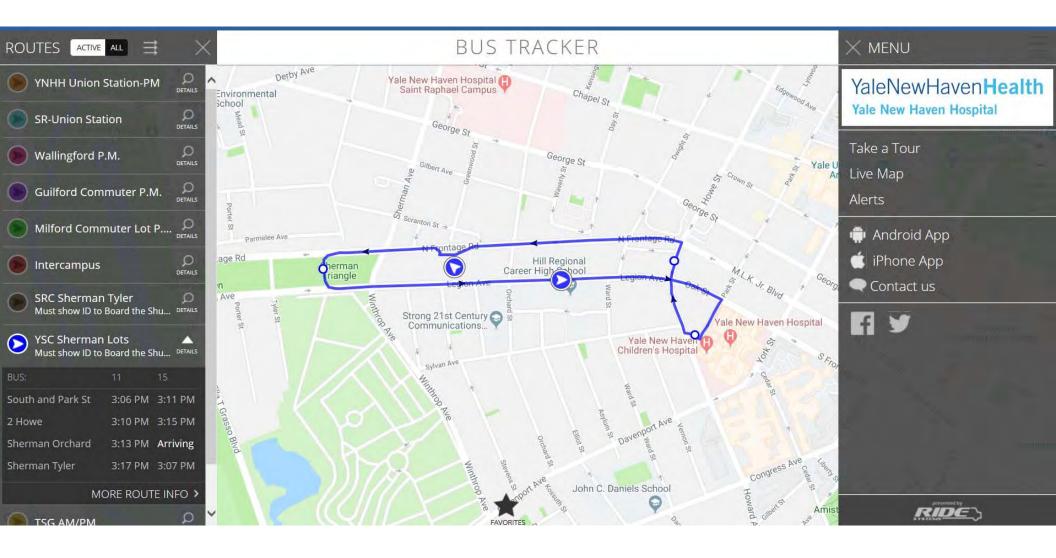
#### SRC Union Station Route



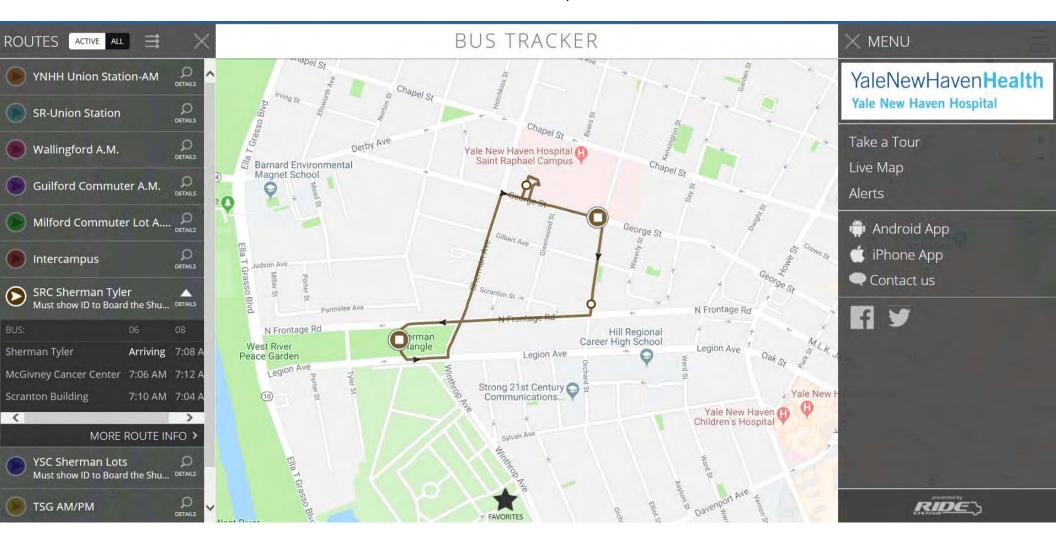
#### YSC Union Station Route



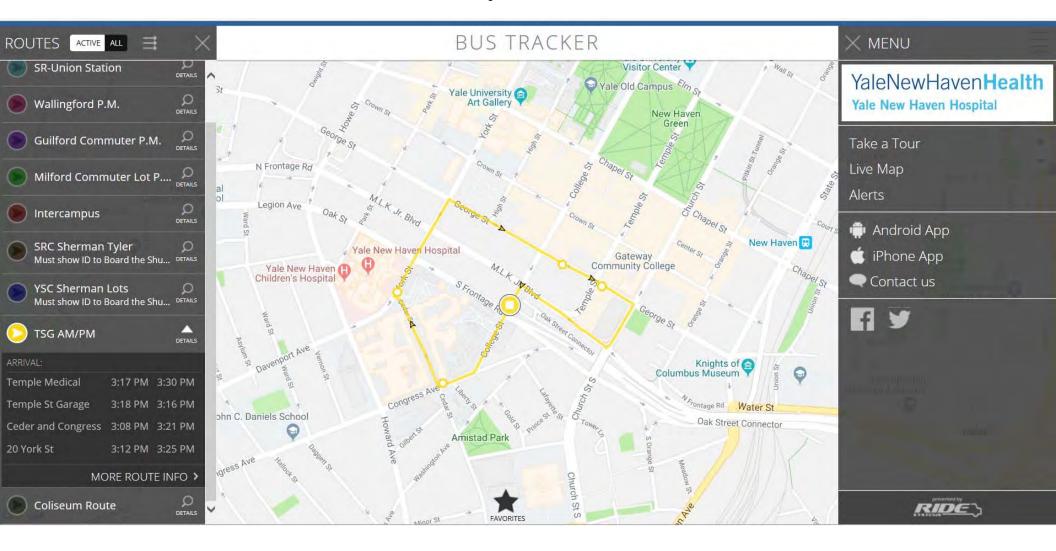
#### YSC Sherman Lots Route



#### SRC Sherman Tyler Route



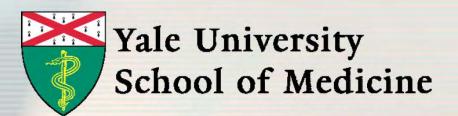
**Temple Street Routs** 





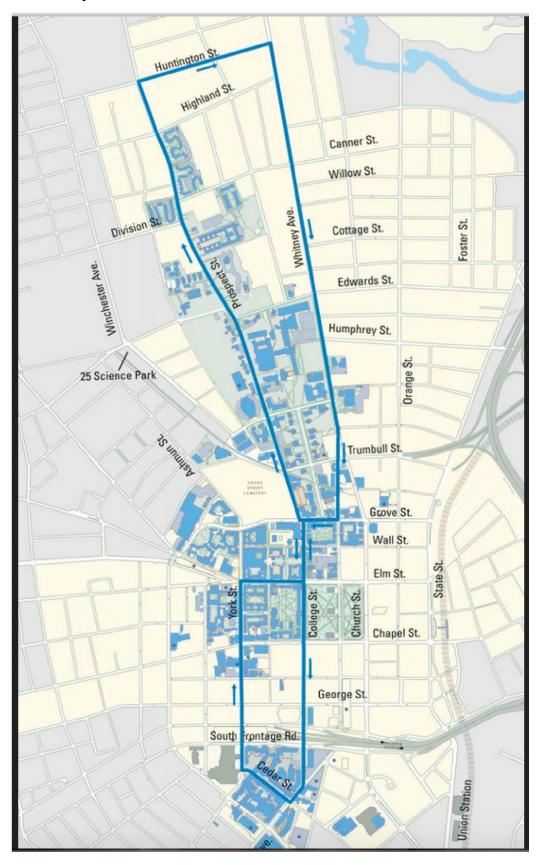
## YALE UNIVERSITY

SHUTTLE ROUTES

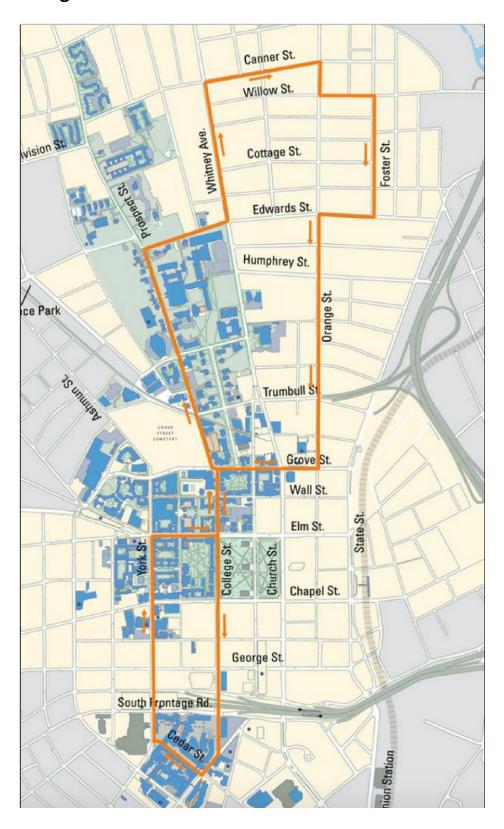




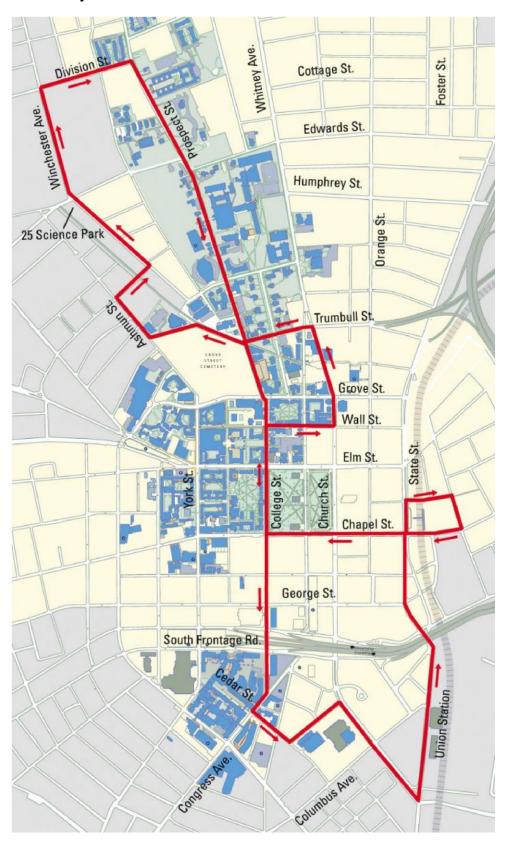
#### Yale Shuttle Routes- 2024 Blue Day



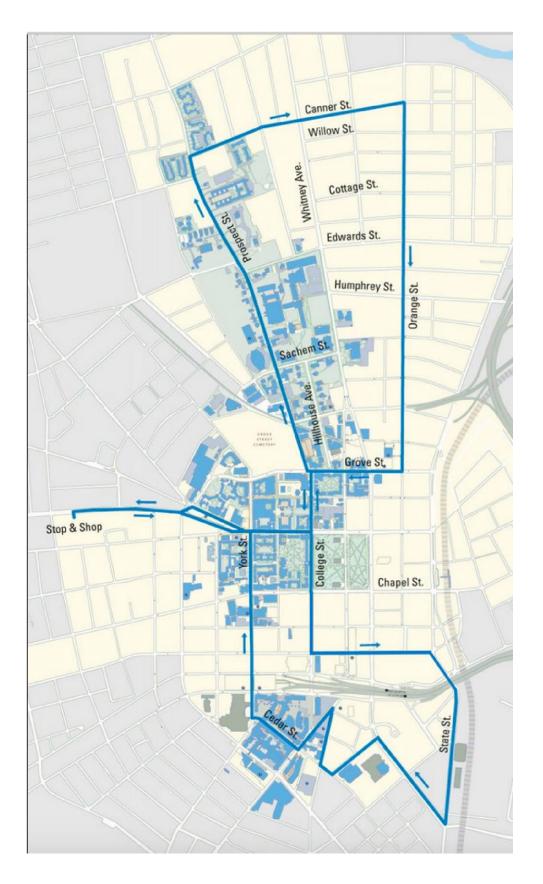
#### Yale Shuttle Routes- 2024 Orange Line



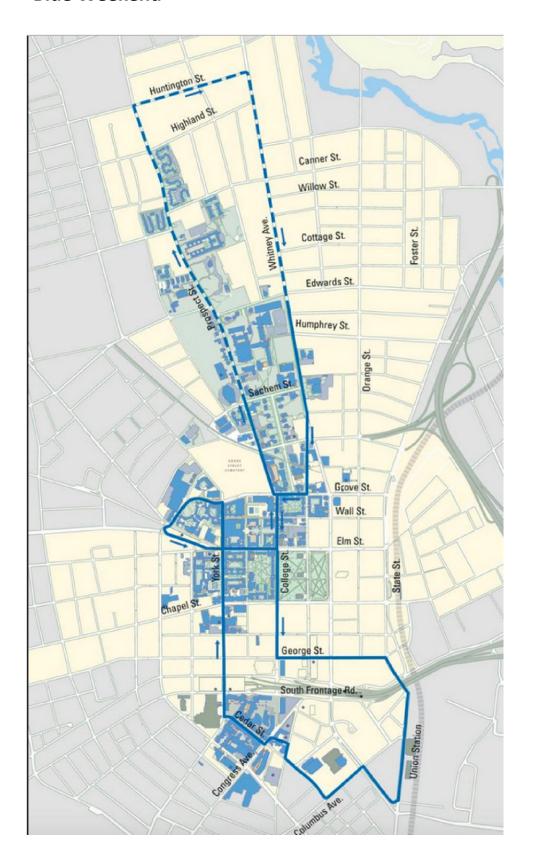
#### Yale Shuttle Routes- 2024 Red Day



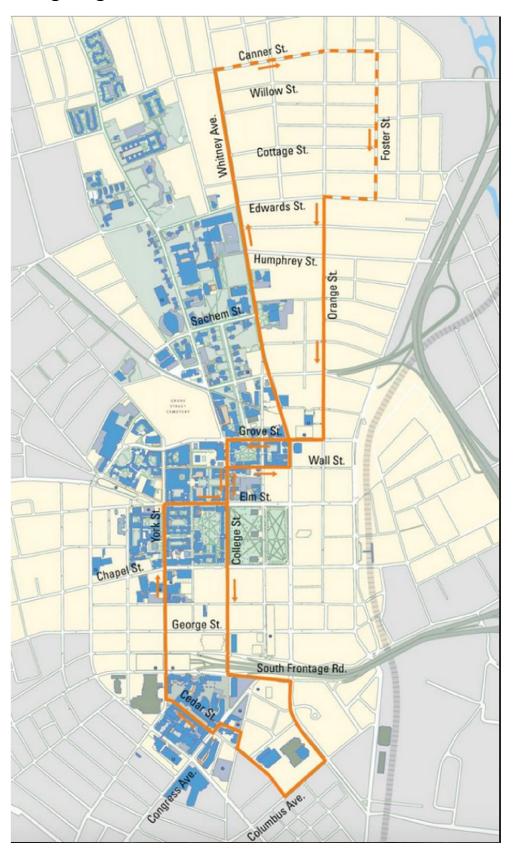
#### Yale Shuttle Routes- 2024 Blue Night



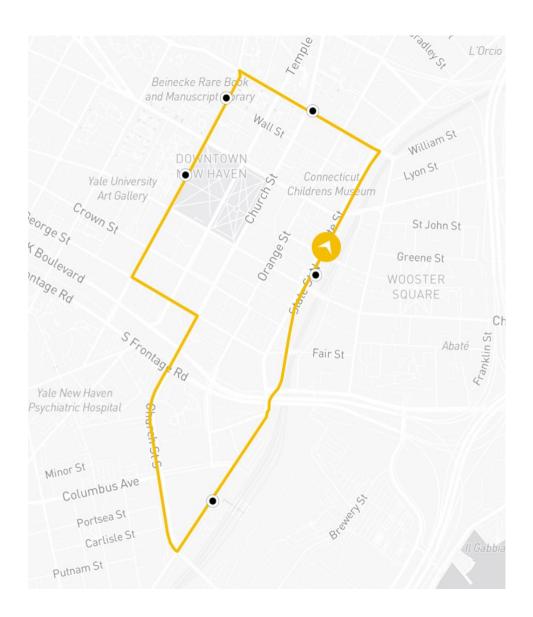
#### Yale Shuttle Routes 2024 Blue Weekend



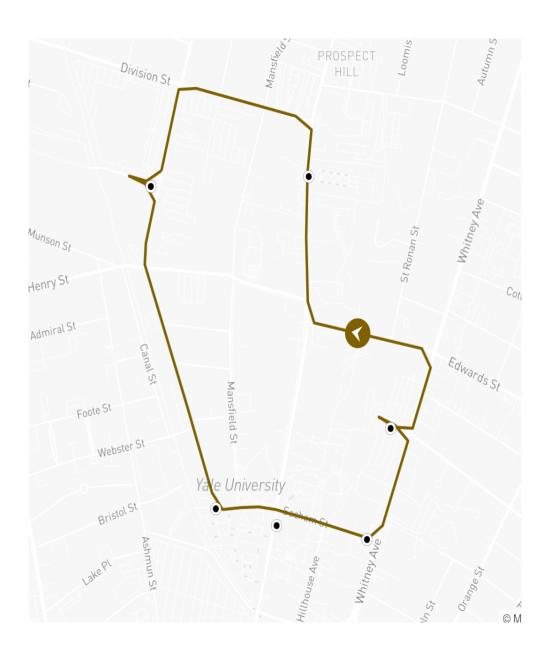
#### Yale Shuttle Routes- 2024 Orange Night



#### Yale Shuttle Routes- 2024 Yellow Day



#### Yale Shuttle Routes- 2024 Brown Day



#### Yale Shuttle Routes- 2024

#### Additional Routes:

#### **Green & Purple Line Support West Campus 2024**



Weekend Grocery Line (No Map Available)

#### Yale Shuttle Routes- 2024

Additional Routes:

Green & Purple Line Support West Campus (No Map Available)

Weekend Grocery Line (No Map Available)

Section C
Demand by Shift 2024

CATEGORIES	YNHH	YSM	СМНС	TOTALS	
Employees Day-Shift Permits	6,839	4156	393	11388	
YSM Staff Day-Shift Leasing from YNHH	222	0	0	222	
YNHH Staff Day-Shift Leasing from YSM	0	86	0	86	
Employees Evenings-Shift Permits	3001	0	20	3021	
Employees Night-Shift Permits	1905	0	20	1925	

#### NOTES:

YNHH Numbers based on total permits issued in the YNHH system Submitted by YNHH Director of Parking and Transportation, Rodney Slaughter, CAPP, CPP, October 2024 YSM numbers submitted by Yale University's Parking and Transit Department, October 2024 CMHC Numbers & notes submitted By Robert Cole, October 2024

#### Section D

#### **2024 Transportation Demand Management Summary**

Yale New Haven Hospital is committed to finding alternative transportation options for all Staff as well as patients and visitors.

Since 2011 YNHH has developed and continues to improve what is recognized as a national award winning program that has received the gold medal award "Best Workplaces for Commuters" by the National Center for Transit Research for each of the 13 thirteen years. This achievement is extremely difficult in a healthcare setting where staff are working twenty four hours per day, seven days per week.

#### **Programs**

- Provide free of charge monthly CT Transit bus passes to all employees to elect to use the bus service to work.
- \$100 per month credit for YNHH train users
- "Share a Parking Space Program", group with other staff members to agree to share a parking space instead of a single space for each individual.

YNHH continues to find new programs and solutions to reduce the use of single occupancy vehicles. Along with the attached brochure YNHH continues efforts throughout the year to educate staff on transportation alternatives through information kiosks, partnerships with CT *rides*, and GoNewHavenGO, as well as presenting TDM information to all new staff at every New Hire Orientation.

YNHH has been so successful with their Transportation Demand Management program that YNHH was named "Best of the Best".







#### Yale University Transportation Demand Management Summary October 2024

Yale University is recognized as one of the Best Workplaces for Commuters by the National Center for Transit Research for offering transportation options and benefits to employees to encourage sustainable commuting. The Yale Office of Sustainability works with campus and community partners to decrease the percentage of Yale commuters using single-occupancy vehicles to get to campus, and to recognize the associated environmental, social, and economic impacts.

Yale's objectives and goals include enhancing and supporting system for alternative and active transportation as well as advancing transportation choices that improve human health and environmental vitality. Over one-third of Yale employees live in the City of New Haven, and increasingly choose to walk, bike, or ride the Yale Shuttle to work. Yale has partnered with the city and other local employers to promote expanded transit infrastructure and offers programs that encourage walking, biking and using transit. Yale Transit has enhanced services over the past year by creating two new service routes that provide better connectivity to New Haven's train stations and non-central parking garages; launching a new mobile site that displays real-time bus locations; and updating the Yale Transit webpage for an improved user experience. Yale's benefits provide all employees with access to CTrides, which offers tailored consulting services, advanced analytical tools, and customized solutions to promote sustainable commuting practices.

This report will highlight the different opportunities and programming Yale offers to support these modes of mobility. Through benchmarking with platforms such as AASHE STARS, Best Workplaces for Commuters and Bike Friendly University, Yale is focused on transportation as it relates to decarbonization, community well-being, workplace policies, and broader urban planning impacts.

#### **Biking**

Yale has over 3,900 individual bike parking spaces (indoor and outdoor) in 452 locations on campus, and regularly monitors usage and adjusts parking spaces as needed. The University also offers bike locker rentals and 10 shower facilities and 12 bike repair stations for use by students, faculty, and staff. A map of bike infrastructure is available on Yale's YourYale website for employees. Nearly 700 Yale community members have registered their bicycles.

Yale students run a bikeshare program through Yale College, open to its undergraduate population. The university is in active discussion around how to best support the New Haven Parking Authority's new Ride New Haven program. As of October 2024, 105 of the 850 accounts were affiliated with Yale email addresses.



In 2023, Yale was awarded Silver-level Bicycle Friendly University status, by the League of American Bicyclists for providing a more bikeable campus for students, staff, and visitors. Yale is one of two certified universities in the state.

#### **Public Transportation**

Yale offers several benefits to employees who commute to work via public bus or train. Employees can purchase transit passes online and have them mailed directly to their home, with pre-tax savings applied to a monthly cost of up to \$315. In FY24, Yale employees purchased over 2,000 commuter pass elections (58% rail, 35% bus, 8% other). These usage rates have been increasing over the past few years, following a significant dip in utilization during the Covid-19 pandemic. Registered transit users and carpoolers receive up to three free parking stays per month to use on days when a car is necessary and qualify for a guaranteed ride home during emergencies.

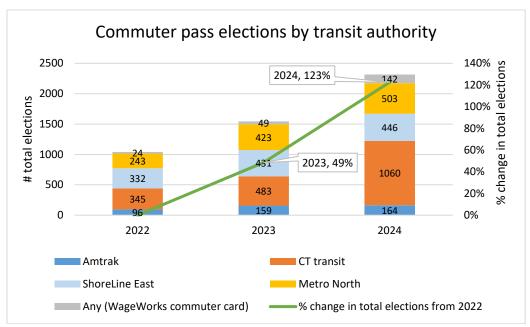


Figure 1. Commuter pass elections by transit authority from 2022 to 2024, and percent increase from 2022 to 2023 was 49%, from 2022 to 2024 percent increase was 123%. Total number of elections for 2022 was 1,040, 2023 was 1,545, and for 2024, 2,315.

#### Carpooling

Over 1,600 Yale affiliates are registered with Agile Mile (previously *NuRide*), the nation's largest rewards program for commuters who do not use a personal vehicle to get to work. Since the program's inception in 2011, over 200,000 carpool trips have been registered with *Agile Mile* by the Yale community. The program also allows employees to form carpooling groups based on their start and end locations. Over 150 employees are enrolled to receive parking benefits (discounted parking rates and up to six free parking stays per month) for carpooling to campus.

#### Car Sharing

The University has partnered with Zipcar since 2007 to offer its students and employees discounted annual memberships to join the car sharing program. Zipcar has installed 21 cars across campus. Through this service, over 4,000 trips were made this year by Yale members. On average each month,

students, faculty, and staff made over 350 reservations, over 4,500 hours, 32,000 miles. There were over 350 accounts created this year, and over 2,300 active memberships in the Yale community.

#### Electric Vehicle Charging Stations (EVCS)

Yale offers several charging options for electric vehicle (EV) drivers. As part of our commitment to offer secondary plug-in charging option, and in support of sustainability initiatives, we have partnered with ChargePoint to install EVCS around campus, including 39 units and 78 ports. There are EVCS locations on campus, and <a href="mailto:throughout New Haven">throughout New Haven</a> and over 300 Yale employees are enrolled in energy efficient vehicle parking.

#### Shuttle and Park & Ride

The Yale Shuttle typically has over 750,000 rider trips annually, with extensive service throughout the Central/Science Hill campus and between the Central/Science Hill and Medical School campuses. All shuttle service routes returned to being supported, however, the number of shuttles (at peak times, from 7-9 a.m. and 4-6 p.m.) remain constrained by driver shortages. Yale community members are encouraged to consider alternative schedules or modes of transportation, as needed.

This free service for Yale students, faculty, and staff runs year-round except on University holidays. Two shuttle routes connect West Campus with the Central and Medical School campuses, allowing West Campus to serve as a Park & Ride location for Yale commuters. The Veterans Hospital shuttle serves Quigley Field (a satellite parking lot in West Haven), the VA Hospital, Yale New Haven Hospital, and the Yale Medical School campus. This shuttle provides a free service to all users of these facilities. Yale employees are also permitted to park at Yale's West Campus and take a shuttle to downtown.



# All YNHH TDM participants who chose alternative transportation methods receive the following benefits:

- 24 free parks per year at a YNHH parking facility to use at their discretion (automatically applied to their Photo ID)
- Guaranteed ride home
- Discounted access to ZipCar
- Participation in the NuRide rewards program
- Retain parking seniority within the system

## Other advantages to alternate commuting

- Save Gas & Money
- Reduce mileage & expense on your vehicle
- No sitting in stressful rush hour traffic
- Avoid road closures or construction delays

#### **Motorcycle Parking:**

Designated Parking located at Several locations

#### **Contact Information:**

YSC Parking Office
Phone (203) 688-2623
YSCparkingoffice@ynhh.org

SRC Parking Office
Phone (203) 789-5958
SRCparkingoffice@ynhh.org

YNHH Bus Information
Phone (203) 688-RIDE (7433)
Available 24/7

Bus Route Information or live Tracking: www.ynhhbus.org

Download Ridesystems App for your smart phone.



Follow traffic and YNHH bus route information on Twitter

@ynhhshuttle



# Transportation Demand Management Program



YaleNewHaven**Health** 

Yale New Haven Hospital



#### **Train Service:**

Shore Line East, Metro-North, Hartford \ New Haven Line, and Amtrak.

 YNHH Bus transportation to and from the train station to both YSC & SRC, with bus stops throughout the Medical area.

YNHH pays up to \$100 per month towards the purchase of this transportation option



#### **Bus Service:**

#### **CTTransit Bus Service**

YNHH employees receive <u>FREE</u>
 Monthly CT Bus Passes. There is
 no cost to the employee for this
 service.



#### **Carpooling:**

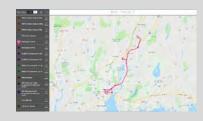
#### **Available at many locations**

- Designated reserved parking space
- No cost for parking 3+ people

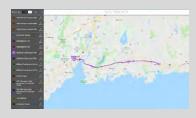
#### **Park & Ride Commuter Lots:**

Three Routes Available - FREE TO STAFF

- Wallingford Route
  - Wallingford
  - North Haven East
  - North Haven Wes
  - Multiple stops around YNHH



- Guilford Route
  - Guilford
  - Branford
  - East Haven
  - Multiple stops around YNHH



- Milford Route
  - Milford
  - Orange
  - West Haven
  - Multiple stops around YNHH



#### **Bike\Walk to Work:**

#### Available at all facilities

- Secure and covered bicycle storage is provided.
- Showers and changing rooms provided.



#### **Telework:**

Work from home many departments are offering this option to staff, all benefits of the TDM program apply to telework employees as well.

Detailed YNHH bus routes \schedules\times including live tracking:

www.ynhhbus.org

Please ask if there are any programs that could work for you.



#### **Section E**

**Transportation Demand Management - 2024** 

Transportation Demand Wanagement - 2024							
Program	Description	Usage Indicator	YNHH	Yale	СМНС	TOTALS	
Campus Shuttle Bus Service	Shuttle Bus program for staff	Annual Shuttle Bus Ridership	501,239	765,978	0	1,267,217	
Bikeshare	Campus Bikeshare Program	Annual Trips Taken	0	N/A	0	#VALUE!	
Zip Car	Car-sharing program	Employee enrollment	5	384	2	391	
Free Parking Stays	Free Parking stays for TDM participants	Employee enrollment	2,902	154	0	3,056	
Walk to Work	Walk to work	Employee enrollment	401	1,322	12	1,735	
Agile Mile / CTrides	Ride-sharing program with incentives	Employee enrollment	56	1,607	2	1,665	
Bike to work	Ride bikes to work	Employee enrollment	275	722	30	1,027	
Transit Check / Deduct-a-Ride/Mass Transit subsidy	Pre-tax payment option for mass transit, mass transit subsidies/discounts (bus/rail)	Employee enrollment	151	366	0	517	
Park and Ride Commuter Lots & Commuter Shuttle	Free commuter shuttle to park in state-operated commuter parking lots	Employee enrollment	221	175	0	396	
Car Pooling	Car-Pool program	Employee enrollment	97	328	0	425	
Telecommuting (YNHH 1)	Work from home electronically	Employee enrollment	1,902	3,761	0	5,663	
Motorcycle Program	Motorcycle permit program	Employee enrollment	24	N/A	0	#VALUE!	
Energy Efficient Vehicles Parking	Energy Efficient Vehicles Parking	Employee enrollment	65	337	0	402	
Van Pools	Van-Pool program	Employee enrollment	0	0	5	5	
Guaranteed Ride Home	Guaranteed ride home for TDM participants	Annual Rides Provided	16	1	6	23	
Electric Vehicle Charging Stations	Charging stations for Electric Vehicles	Open	62	39 units/78 ports	0	140	

YNHH numbers & notes submitted by the Director of Parking & Transportation Rodney Slaughter CAPP, CPP, October 2024

YNHH has experinced increased employee participation in the full and part-time telecommute program.

All bus drivers between each route operated during their shift are provided supplies to disinfect all common touch points. YNHH has upgraed their entire bus fleet with new buses that operate using Compressed Natural Gas to reduce emissions. Gauranteed Ride Home Program provided by YNHH

YSM Numbers & notes submitted by George Longyear, October 2024

YSM Campus Shuttle Service includes Yale University central campus shuttle volume.

#### Exhibit 1

Yale New Haven Hospital
Yale University
Awards and Acknowledgements

## Yale New Haven Hospital

New Haven, CT

is designated a **BEST Workplace for Commuters** by the Center for Urban Transportation Research at the University of South Florida for meeting the National Standard of Excellence for outstanding commuter benefits.

Achieving the National Standard of Excellence





To view this email as a web page, go here.



#### On Science Hill, a Greener Fuel Powers a Groundbreaking Transformation

With its rumbling trucks and hard-hatted workers, the construction site transforming Upper Science Hill resembles any other, with one key difference: there are no plumes of black exhaust pumping out of the machines. That's because the construction equipment is running on R-99 fuel, a cleaner burning alternative to diesel that is made from waste cooking oil.

**READ THE STORY** 





#### See Our Progress

Yale's newly released 2023 Transportation Survey Report highlights areas of progress—including new data on bicycle infrastructure—as well as opportunities for improvement.

READ THE REPORT

#### **Take Action**

Pedal to the office this Friday, May 17 for Yale Bike to Work Day. Enjoy complimentary breakfast with fellow bike commuters along the Farmington Canal Trail.

**BIKE TO WORK** 

### **Upcoming Events**

#### Climate Jobs in the Federal Government — May 16

Yale School of the Environment hosts a session to learn about public service jobs that work to address climate change. 5:30 to 8:30 p.m.

#### Yale Bike to Work Breakfast — May 17

Pedal to the office and enjoy complimentary breakfast with fellow bike commuters, courtesy of the Yale Office of Sustainability. 7 to 9 a.m.

#### Yale Innovation Summit 2024 — May 29 & 30

Yale Ventures hosts Connecticut's largest entrepreneurial event, convening innovators, investors, and industry for panels, speakers, and networking in the arts, biotech, climate, health, and tech.

#### Release of 2024 Environmental Performance Index Results — June 3

Yale Center for Environmental Law & Policy will release a global scorecard of national sustainability performance, which is produced every two years by Yale and Columbia University. 9 to 10 a.m.

YALE CALENDAR OF EVENTS

#### What's New



#### Yale Recognizes Staff and Students with Awards for Earth Day

Recipients of the **2024 Sustainability Awards** include students who jumpstarted shareware and bikeshare programs at Berkeley College and a staff group working to reduce energy use in Yale museums and collections spaces.



#### Video: Creating Bird-Friendly Buildings—on Campus and Beyond

The **Yale Bird-Friendly Building Initiative** aims to accelerate the adoption of bird-friendly design to reduce deadly collisions. In a new video, the project's leaders explain progress made in the first two years—and the work that remains to be done.



## Harnessing the Power of Observability May Increase Climate-Friendly Behavior

A team of researchers, including **Yale School of the Environment's Kenneth Gillingham**, has found that providing information to others about personal efforts to promote sustainability could increase the adoption of proenvironment behavior.



#### Sustainability Champion of the Month

**Brenda Naegel**, the director of recognition and engagement at the Office of Public Affairs and Communication, has spent two decades planting the seeds of change at Yale—and those efforts are bearing fruit to create a more sustainable campus.



Yale

Yale Office of Sustainability <u>sustainability@yale.edu</u>. Copyright © 2024 Yale University • All rights reserved









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## Yale Sustainability

HOME > NEWS > ON SCIENCE HILL, A GREENER FUEL POWERS A GROUNDBREAKING TRANSFORMATION

## On Science Hill, a Greener Fuel Powers a Gransformation



iiordano III, project executive at Giordano Construction; Bryan D'Orlando, associate director of construction project management struction project manager in the Yale Office of Facilities

May 13, 2024

n Science Hill, there is a real-world lesson in renewable energy taking place—one that's

A fleet of bulldozers, excavators, and dump trucks have been working for months to be the largest facilities project in Yale's modern history: the Upper Science Hill Deventone expansive series of new and renovated buildings will serve as a hub for Yale's work applied physics, advanced instrumentation development, and other emerging scientific fields.

With its trucks and hard-hats, the Science Hill job site resembles any other, with one key differe pumping out of the machines. That's because the construction equipment is running on R-99 fu that is made from waste cooking oils.

Sometimes referred to as "renewable diesel" or "green diesel," R-99 can be used directly in place it. Yale's construction contractors are using R-99 on Science Hill as part of the university's multi campus emissions to zero (https://sustainability.yale.edu/news/climate-targets-mind-yale-gets-zero-carl

Though not yet in wide use, R-99 has shown potential as a greener alternative to standard diese <a href="https://afdc.energy.gov/files/u/publication/renewable\_diesel\_ups.pdf">https://afdc.energy.gov/files/u/publication/renewable\_diesel\_ups.pdf</a>), UPS delivery trucks tested with in tailpipe CO<sub>2</sub> emissions and a 4.1% reduction in nitrogen oxides compared with conventional conventional converges Board (<a href="https://ww2.arb.ca.gov/resources/documents/lcfs-pathway-certified-carbon-intensities">https://ww2.arb.ca.gov/resources/documents/lcfs-pathway-certified-carbon-intensities</a> intensity—defined as the amount carbon dioxide released to produce a kilowatt hour of electric with petroleum diesel.

"We are always striving to think innovatively when it comes to instituting sustainability into ou the use of R-99 fuel helped this cause," says Shellie Anello, a Yale Office of Facilities construction Science Hill Development.

#### **Overcoming Obstacles**

The search for a greener fuel source began before ground was broken on the Upper Science Hill contractor overseeing the site preparation work, Giordano Construction, initially sought out ze equipment. But the company soon learned the technology isn't yet a match for a job of this scale

"We found battery-powered excavators that are 1.5 tons, the really little ones, but the battery livincent Giordano III, project executive at Giordano Construction. "We run 25- to 40-ton machin suit our needs."

Recharging the batteries would have posed another challenge: the most common method is to of the benefit of using battery power in the first place.

That led Giordano and the Yale Facilities team to R-99. Though the fuel is not widely distributed local supplier, East River Energy in Guilford, Connecticut. The feed stock for the fuel comes from restaurants and refined at a facility in Albany, New York.

Before they could deploy R-99 on the job site, however, they had to overcome some ingrained sk warranty requirements for the construction equipment, the fuel had to undergo a series of test. Newington, Connecticut.

"The construction industry is very cautious," explains Giordano. "These machines are expensive new fuel into them."



Shellie Anello, Vincent Giordano III, Bryan D'Orlando, and Rolff Knobel of Turner Construction

#### 'As long as there are restaurants, we'll have a steady supply

The Yale project team is pleased with the performance of the R-99 fuel so far and see a host of the R-99 fuel see a host of the R-99 fuel

R-99 performs well to negative 10 degrees Fahrenheit. Lastly, it is a form of locally sourced, rene product.

"As long as there are restaurants, we'll have a steady supply," Giordano says.

One of the biggest tangible benefits is improved *indoor* air quality, especially in the Class of 195. Prospect St., which sits adjacent to the current construction site.

"Typically, major construction equipment runs off of diesel fuel, which produces undesired diese director of construction project management in the Yale Office of Facilities. "With the use of R-fume exhaust getting into the adjacent air intake."

The current work on Science Hill is to make way for a new Chemical Safety Building, a facility to using R-99 on this phase alone will save an estimated 60,000 gallons of petroleum diesel from b

Taken together, the benefits have made R-99 well worth the slightly greater expense, currently off-road diesel. "That is a slight added cost for a potentially much greater benefit in the continu D'Orlando.

If R-99 has a downside, D'Orlando says, it's that the supply chain is presently limited. "The dema Connecticut more broadly, is not great," he says. "Establishing a more robust supplier network h more flexibility with its delivery cadences."

R-99 is also powering some of the construction equipment at Yale Golf Course as part of a restor Construction anticipates needing 30,000 gallons of fuel to power their machines over the life of in  $CO_2$  emissions compared to using conventional diesel fuel.

The Upper Science Hill Development team, meanwhile, plans to continue using R-99 in future Sc commence shortly—and to share information about the fuel with colleagues for potential use o

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Yale Office of Sustainability 203.436.3571 sustainability@yale.edu



### Yale Sustainability

HOME > NEWS > YALE PRINTING & PUBLISHING GOES GREEN WITH ELECTRIC CARGO VAN

# Yale Printing & Publishing Goes Green with Electric Cargo Van



May 28, 2024

Story contributed by Yale Printing & Publishing Services

Yale University has committed to reaching net zero emissions by 2035. When Yale Prin Publishing Services (YPPS) needed a new cargo van, we wanted to contribute to that g Although we knew little about electric vehicles, we wanted to investigate whether it w

work for us. We had a *lot* of questions. Would the range meet our needs? How convenient is it to charge? How does the load capacity impact energy usage? After doing some research, we decided we wanted to make this investment and contribute to reducing our (and Yale's) carbon footprint. To date, the results have been more positive than we could have imagined. The Ford E-Transit has already had a big impact on our operation and reduced our carbon emissions.

We use the van for copier moves and deliveries without fail. We have driven 1,352 miles so far and used 567.69 kWh of electricity. The equivalent mileage driven with a gasoline engine would have used 97 gallons of gasoline. By not using 97 gallons of gasoline, we have reduced our greenhouse gas emissions by 1,900 pounds of carbon dioxide equialent ( $CO_2e$ ). If we use those numbers to project five years out, we will save 8.6 metric tons of  $CO_2e$ —the equivalent of what 143 tree seedlings can sequester by growing for 10 years.

In addition to being the right choice for the planet, the purchase has also benefitted our operations and bottom line. The cost to charge the van so far is \$170.31. The equivalent amount of gasoline would have cost roughly \$3,007—which means we have saved \$2,837 in fueling costs. We no longer need to pay for oil changes, and electric vehicles receive free parking in the city of New Haven, which is another welcome savings. As one of the first departments to purchase an electric cargo van, we have become a reference for other departments that are considering making the switch to an electric vehicle. Our positive experience will impact those decisions. YPPS is proud to be helping Yale reach its sustainability goals and will add more electric vehicles in the future.



Yale Office of Sustainability 203.436.3571 sustainability@yale.edu

## Yale

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