

West Roxbury Education Complex: Transportation Analysis for John D. O'Bryant School

October 2023

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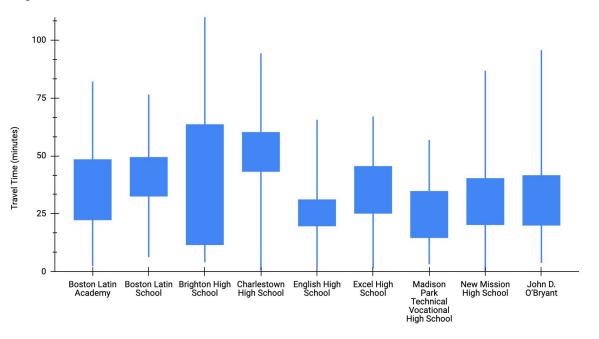
## Executive Summary BPS high school students travel throughout Boston

We compared median travel times to 9 citywide BPS high schools, including all 3 exam schools. This selection of high schools was chosen because their student bodies represent a large cross-section of Boston zip codes.

# Median travel time ranges from 24.7 to 51.7 minutes.

\*All analysis was done using current year school assignments

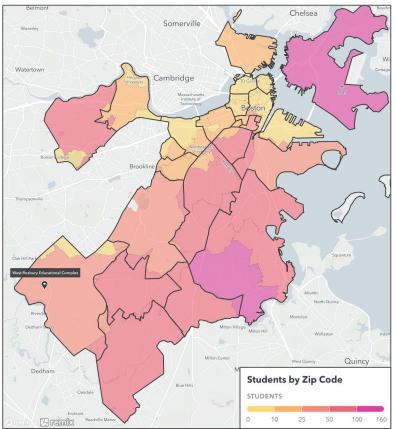
**High School Travel Time Distributions** 



## Students travel to current O'Bryant site from throughout Boston

The neighborhoods with the highest concentrations of O'Bryant students are:

- Dorchester: ~400 students
- Roxbury: ~200 students
- East Boston: ~110 students
- Roslindale: ~70
- Hyde Park: ~90 students

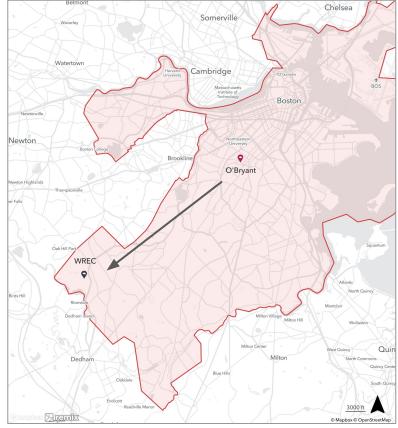


### Executive Summary

# BPS has proposed relocating the O'Bryant School to the renovated WREC

Total gut renovation to the West Roxbury Education Complex (WREC) will create a state-of-the-art STEM campus, but ensuring comparable commutes to school requires new transportation investments.

BPS has developed a system of **shuttle buses from key transit hubs across Boston directly to the WREC** to ensure safe, reliable and convenient travel to school for O'Bryant students from all neighborhoods.



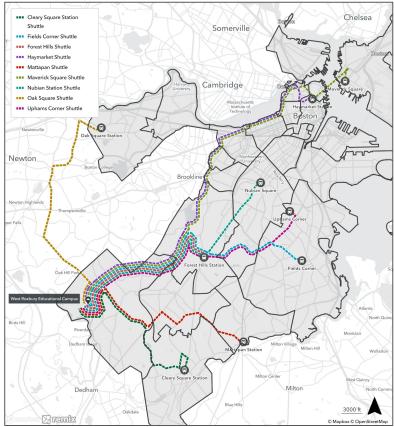
### **Executive Summary**

## BPS will introduce shuttle bus system to make travel to the WREC safe, reliable, and convenient

Based on initial analysis of O'Bryant student body, proposed shuttle bus hubs include:

- Cleary Square
- Fields Corner
- Forest Hills
- Haymarket
- Mattapan Station
- Maverick Square
- Nubian Station
- Oak Square
- Uphams Corner

Morning shuttles will begin arriving to the WREC by 7AM, and afternoon shuttles will depart hourly starting at 2PM.



# Shuttle bus system to the WREC is designed for O'Bryant student body

Shuttle buses to the WREC will be yellow school buses operated by BPS Transportation. Shuttles will drop students off directly at the front door of the WREC.

Shuttles will run at multiple times throughout the afternoon to allow students to participate in sports and other after-school activities.

BPS will also provide vans to be used at the school's discretion to provide **direct transportation to O'Bryant partner organizations every day.** 



## Shuttle bus system makes travel times comparable

Routes were mapped and travel times were calculated using **Remix transit planning software**:

- From students' homes to shuttle bus hubs, travel times are based on current MBTA schedules for a typical Monday, including time to walk to the bus or T station based on the actual street network
- From shuttle bus hubs to the WREC, travel times are based on real traffic conditions on weekdays in September, using Google Maps data



Including travel from students' homes to the shuttle bus hubs, **estimated median travel time for O'Bryant students to the WREC is 40.0 minutes**.



## **Executive Summary**

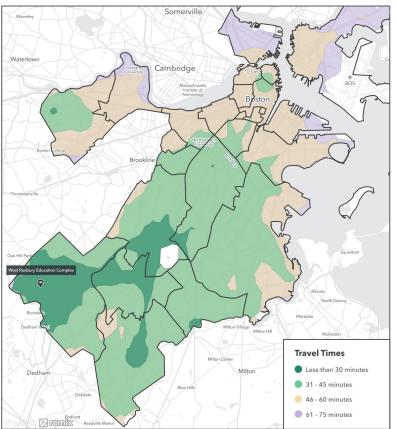
## **Travel Time Maps**

Shuttle Bus Routes

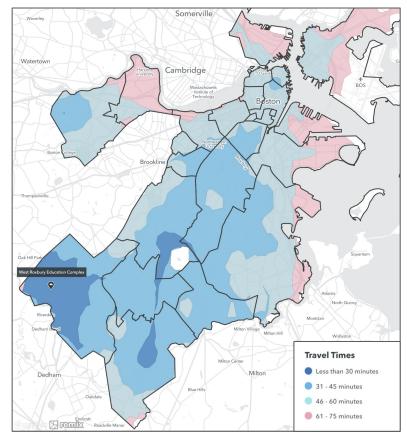
Commuter Rail

# Travel Time Maps Travel times with shuttles citywide

### AM



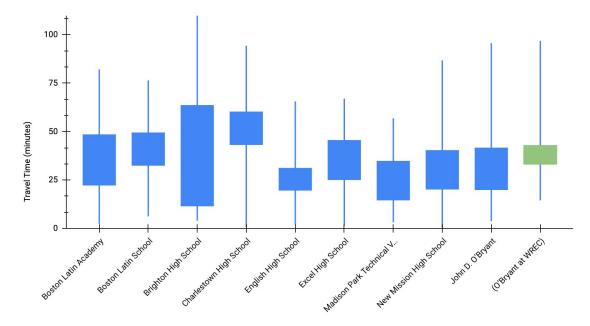
PM



Estimated median travel time from O'Bryant students' homes to the WREC is 40.0 minutes.

This includes travel from students' homes to shuttle hubs, and from hubs to campus. (It does not include transfer time.)

Across 9 other high schools (including the current O'Bryant site), median travel time ranges from 24.7 to 51.7 minutes. **High School Travel Time Distributions** 





## **Executive Summary**

Travel Time Maps

## **Shuttle Bus Routes**

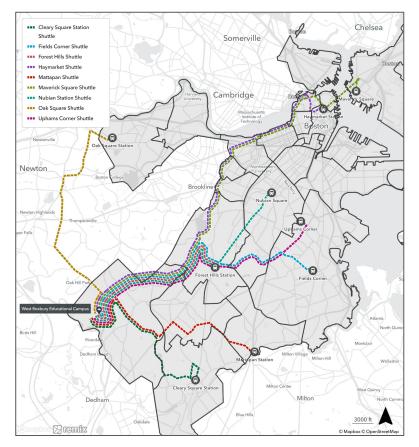
Commuter Rail

## **Shuttle Routes & Transit Hubs**

BPS is proposing **9 shuttle bus hubs** with direct shuttles to WREC

Morning shuttles will arrive by 7AM and afternoon shuttles will depart hourly starting at 2PM.

The proposed number of shuttles to/from each hub is based on the number of students living in that neighborhood.

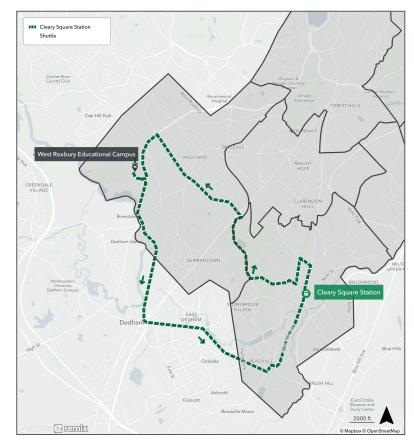


# Shuttle Maps Cleary Square Station

106 students live in this area.

	To WREC <sup>1</sup>	To O'Bryant <sup>2</sup>	Change
Travel Time (minutes)	17-22	39	19 min faster

Direction	Schedule
To WREC	6:20 AM 6:35 AM
From WREC	2:00 PM 3:00 PM

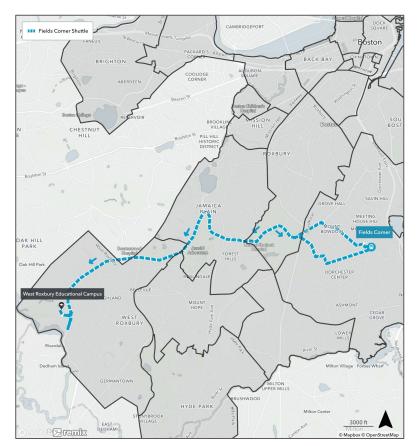


## Shuttle Maps Fields Corner

326 students live in this area.

	To WREC <sup>1</sup>	To O'Bryant <sup>2</sup>	Change
Travel Time (minutes)	28-30	31	2 min faster

Direction	Schedule
To WREC	6:05 AM 6:15 AM 6:25 AM
From WREC	2:00 PM 3:00 PM 4:00 PM 5:00 PM

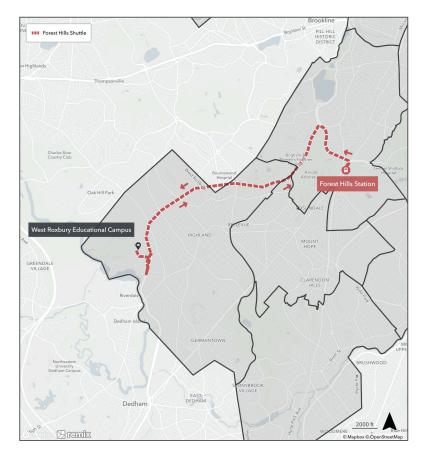


## **Forest Hills**

359 students live in this area (including students close to Forest Hills, Green Street, Stony Brook, or Jackson Square stations)

	To WREC <sup>1</sup>	To O'Bryant <sup>2</sup>	Change
Travel Time (minutes)	16-17	23	6 min faster

Direction	Schedule
To WREC	6:10 AM 6:20 AM 6:30 AM 6:40 AM
From WREC	2:00 PM 3:00 PM 4:00 PM 5:00 PM



## Haymarket

84 students live in this area.

	To WREC <sup>1</sup>	To O'Bryant <sup>2</sup>	Change
Travel Time (minutes)	38	27	11 more minutes

Direction	Schedule
To WREC	6:10 AM
From WREC	2:00 PM

COOLIDGE MID-CAMBRIDGE WELLINGTON-HARRINGTON Haymarket Shuttle LECHMERE Mt Auburn St EAST EAST Cambridge CAMBRIDGEPORT ON Boston BACK BAY 2N2 -COOLIDGE BROOK BOSTON HILL HILL PILL HILL DISTRI OXBURY JAMAICA PLAIN MOUNT MOUNT IDA FOREST lest Roxbury Educational Campus MOUNT 0 WEST Dedham Milton Villac -3000 © Mapbox © OpenStreetMa

PLAZA

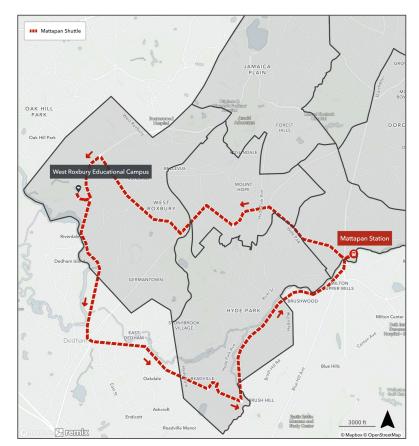
CAMBRIDGE

## **Mattapan Station**

93 students live in this area.

	To WREC <sup>1</sup>	To O'Bryant <sup>2</sup>	Change
Travel Time (minutes)	21 - 26	32	8 min faster

Direction	Schedule
To WREC	6:15 AM 6:30 AM
From WREC	2:00 PM 3:00 PM

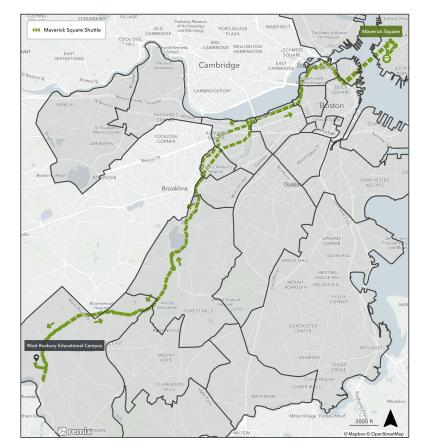


## **Maverick Square**

145 students live in this area.

	To WREC <sup>1</sup>	To O'Bryant <sup>2</sup>	Change
Travel Time (minutes)	48	39	9 more minutes

Direction	Schedule
To WREC	6:00 AM 6:15 AM
From WREC	2:00 PM 3:00 PM

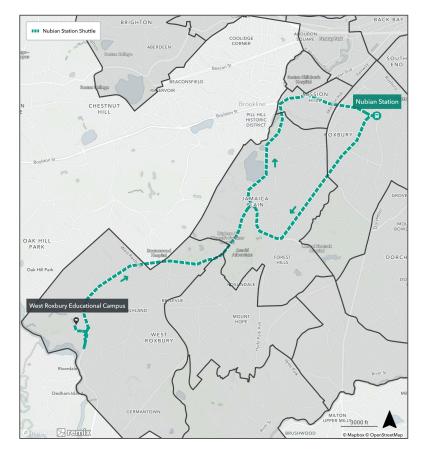


# Shuttle Maps **Nubian Station**

212 students live in this area.

	To WREC <sup>1</sup>	To O'Bryant <sup>2</sup>	Change
Travel Time (minutes)	26-28	3	24 more minutes

Direction	Schedule
To WREC	6:10 AM 6:25 AM
From WREC	2:00 PM 3:00 PM

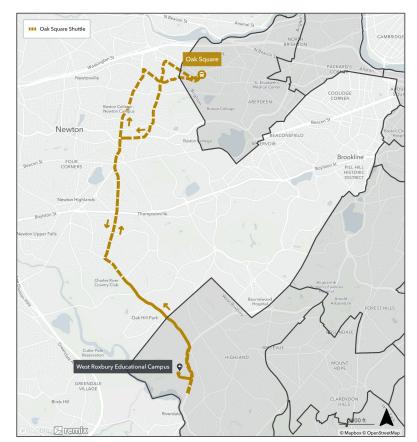


## **Oak Square**

93 students live in this area.

	To WREC <sup>1</sup>	To O'Bryant <sup>2</sup>	Change
Travel Time (minutes)	25 - 28	47	20 min faster

Direction	Schedule
To WREC	6:25 AM
From WREC	2:00 PM

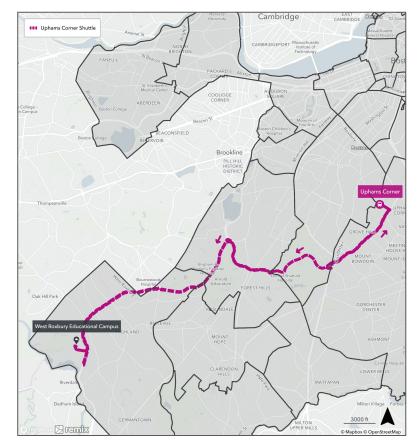


## **Uphams Corner**

165 students live in this area.

	To WREC <sup>1</sup>	To O'Bryant <sup>2</sup>	Change
Travel Time (minutes)	28 - 30	14	15 more minutes

Direction	Schedule
To WREC	6:00 AM 6:08 AM 6:16 AM 6:24 AM
From WREC	2:00 PM 3:00 PM 4:00 PM 5:00 PM





# Executive Summary Travel Time Maps Shuttle Bus Routes **Commuter Rail**

# Commuter Rail Needham Line map

- The Needham Line of the Commuter Rail runs through South Station, Back Bay, Ruggles, Forest Hills, Roslindale Village, Bellevue, Highland, and West Roxbury, before running past the WREC
- The City of Boston and BPS have begun conversations with MassDOT and the MBTA to discuss building a new station on the campus
- Construction of a new station would take 2-3 years, excluding time for planning and design



# Commuter Rail Needham Line stops and schedule

Needham Line Stop	Stop Times	Accessible Neighborhoods	# of Students SY22-23
South Station	6:50am 2:50pm	Downtown, Chinatown, Dorchester (parts, via Red Line)	469
Back Bay	6:55am 2:45pm	Back Bay, Charlestown (via Orange Line)	51
Ruggles	6:58am 2:42pm	South End, Fenway, Mission Hill, Roxbury (parts)	138
Forest Hills	7:03am 2:36pm	Jamaica Plain	51
Roslindale Village	7:06am 2:33pm	Roslindale	89
Bellevue	7:09am 2:30pm		
Highland	7:11am 2:28pm	West Roxbury	54
West Roxbury	7:13am 2:26pm		

- More than half of current O'Bryant students live in neighborhoods that are easily accessible from the Needham Line
- BPS students' M7 passes provide free access to the Commuter Rail

### Commuter Rail Potential location for new commuter rail station

