



ARROWSTREET

SQUANTUM SCHOOL

SCHOOL COMMITTEE MEETING

QUINCY, MA
13 NOVEMBER 2024

PREPARED FOR
CITY OF QUINCY / MAYOR THOMAS P. KOCH
QUINCY PUBLIC SCHOOLS / KEVIN W. MULVEY, SUPERINTENDENT

PROJECT TEAM



Massachusetts School Building Authority

Funding Affordable, Sustainable, and Efficient Schools in Partnership with Local Communities



OWNER'S PROJECT MANAGER



ARROWSTREET

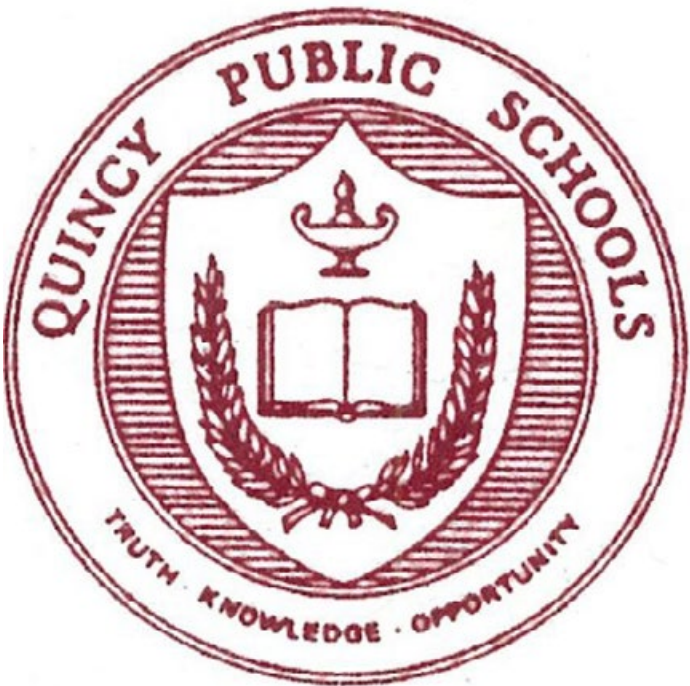
ARCHITECTURE & DESIGN

ARCHITECT



GRANITE CITY
— P A R T N E R S —

UTILITIES CONSTRUCTION MANAGER



LEE KENNEDY
Let's build on big thinking.

CONSTRUCTION MANAGER

QUINCY SUCCESS WITH THE MSBA
NEW SCHOOL PROJECTS - MSBA CORE BUILDING PROGRAM



CENTRAL MIDDLE SCHOOL / 2013



SOUTH-WEST MIDDLE SCHOOL / 2019



QUINCY HIGH SCHOOL / 2010

QUINCY SUCCESS WITH THE MSBA
SCHOOL REPAIR PROJECTS - MSBA ACCELERATED REPAIR PROGRAM



MERRYMOUNT
DOORS / WINDOWS / ROOF / BOILERS

BEECHWOOD
DOORS / WINDOWS / ROOF / BOILERS

NQHS
DOORS / WINDOWS / ROOF
INCLUDED HANDICAP BATHROOM UPGRADE

WOLLASTON
DOORS / WINDOWS / BOILERS
INCLUDED HANDICAP BATHROOM UPGRADE
MSBA ROOF PROJECT - NEXT YEAR

PARKER
DOORS / WINDOWS
MSBA BOILER PROJECT - NEXT YEAR

ATHERTON HOUGH
BOILERS

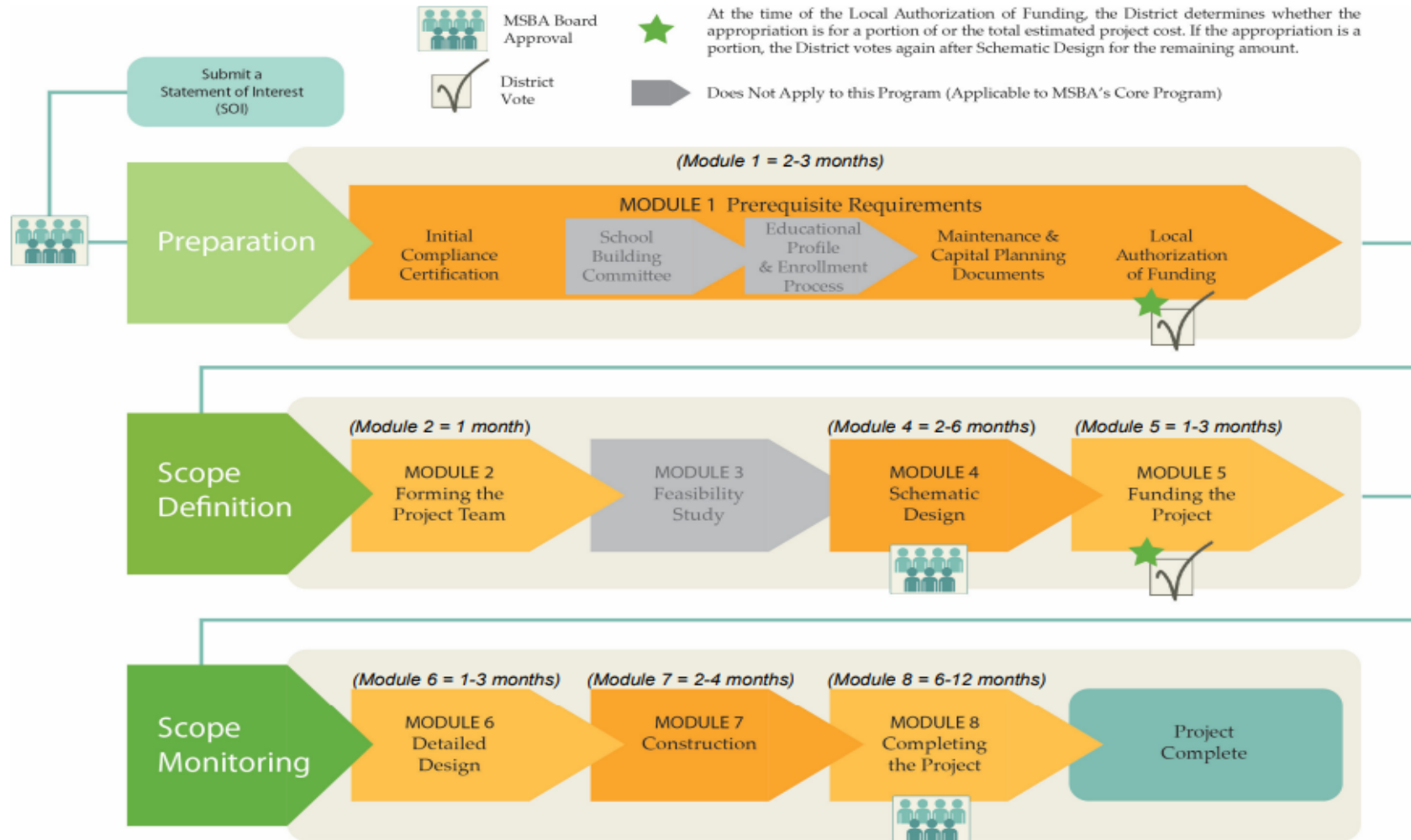
LINCOLN-HANCOCK
DOORS / WINDOWS





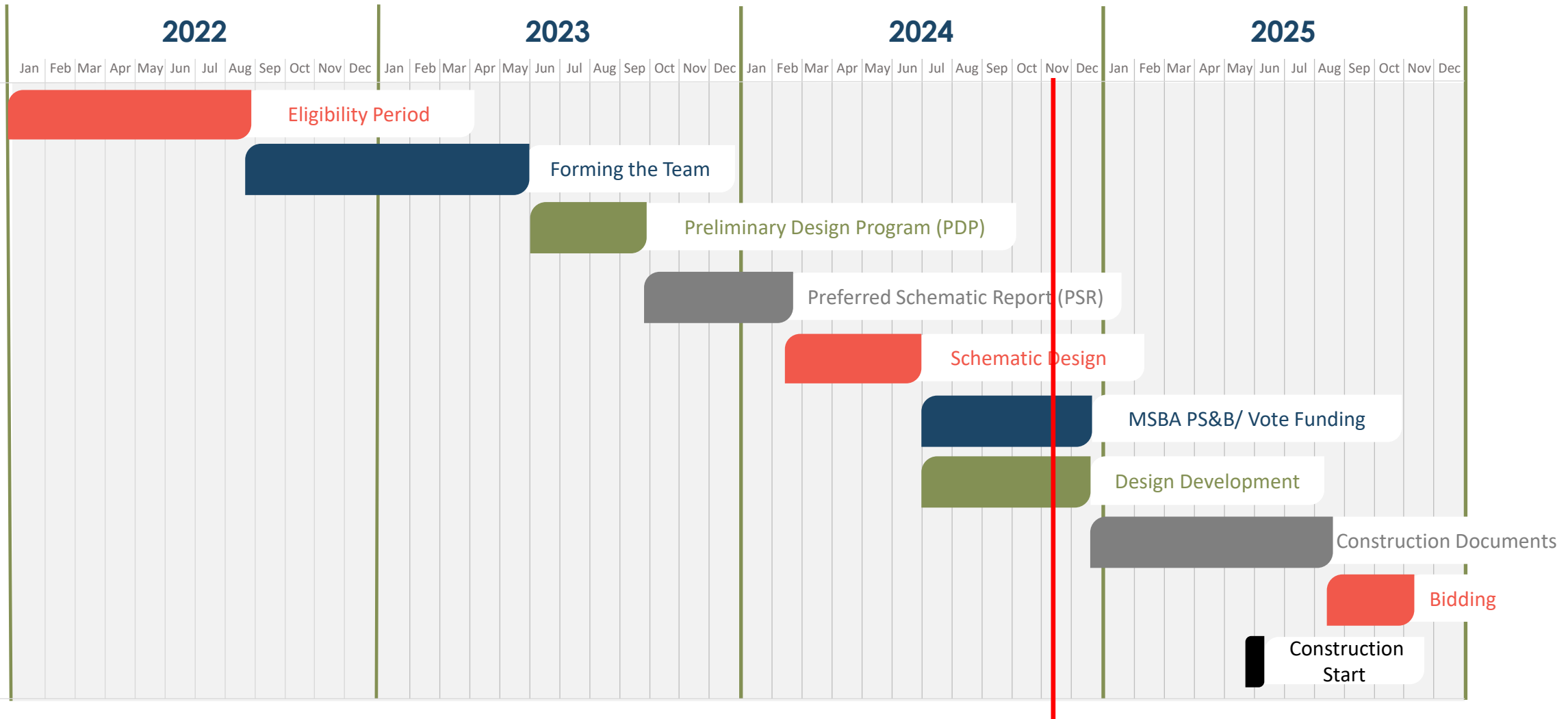
MSBA Process

Modules

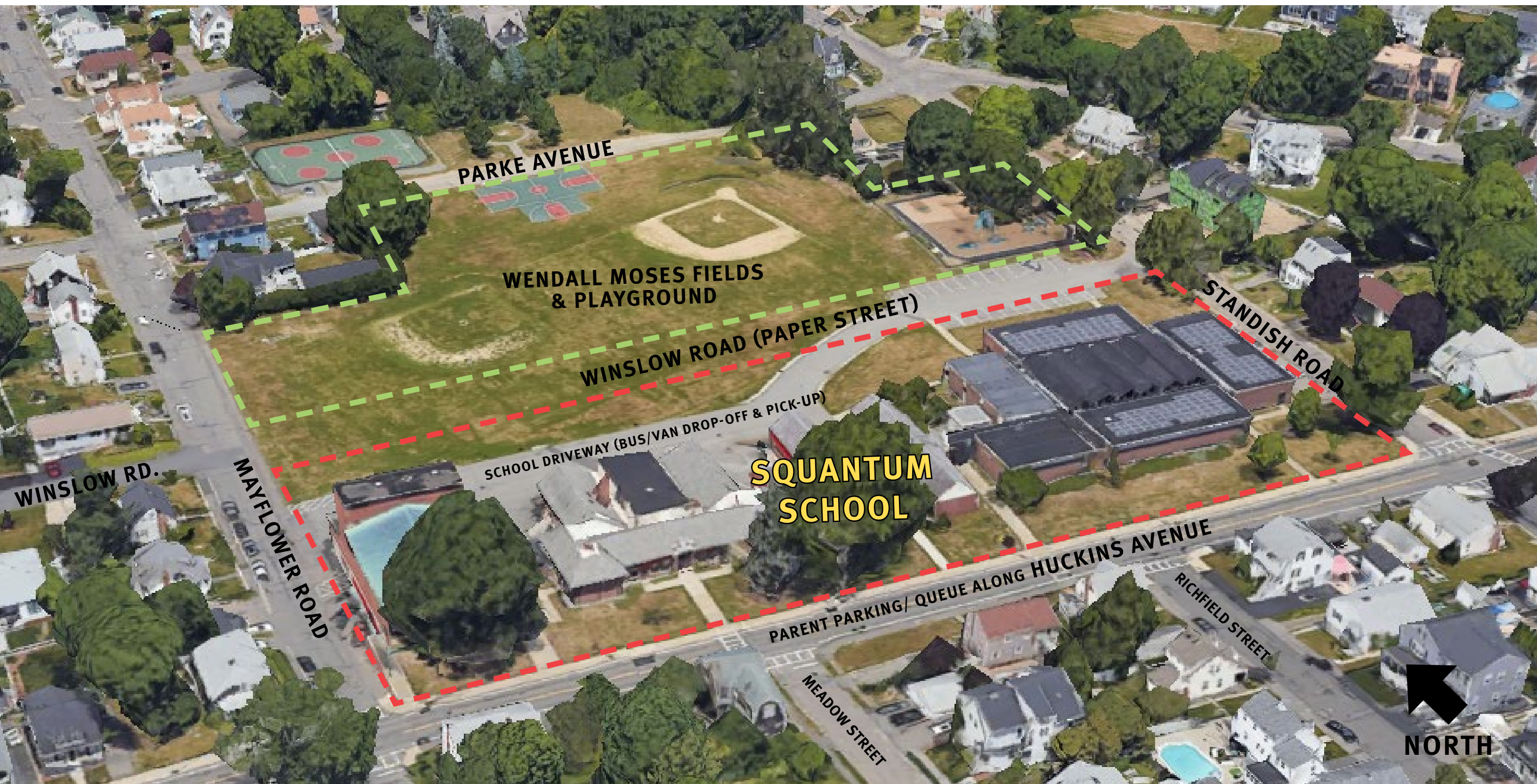




Project Timeline



EXISTING SITE AND PROPERTY BOUNDARIES



SITE PLAN



FLOOR PLAN
FIRST FLOOR

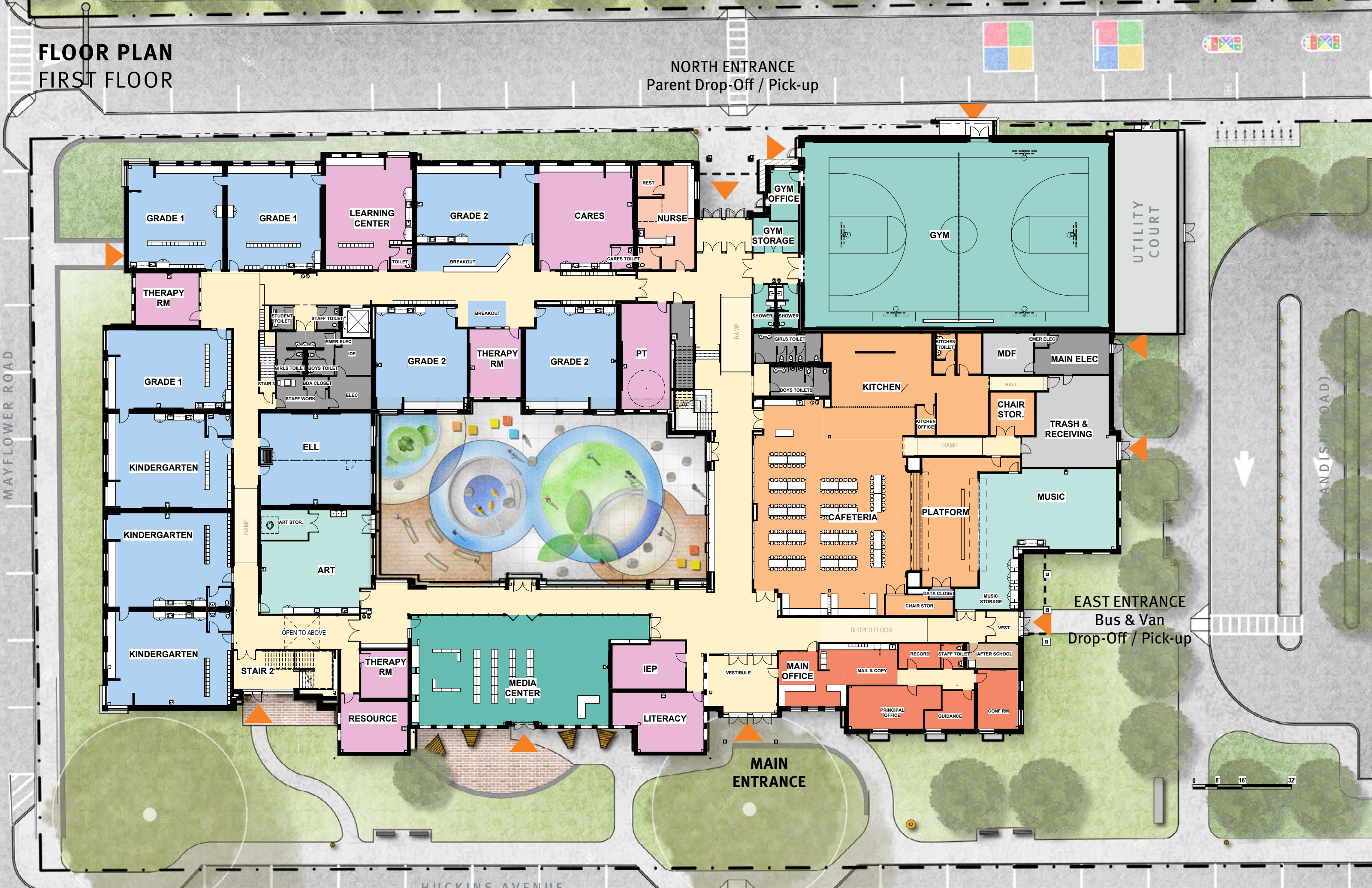
NORTH ENTRANCE
Parent Drop-Off / Pick-up

MAYFLOWER ROAD

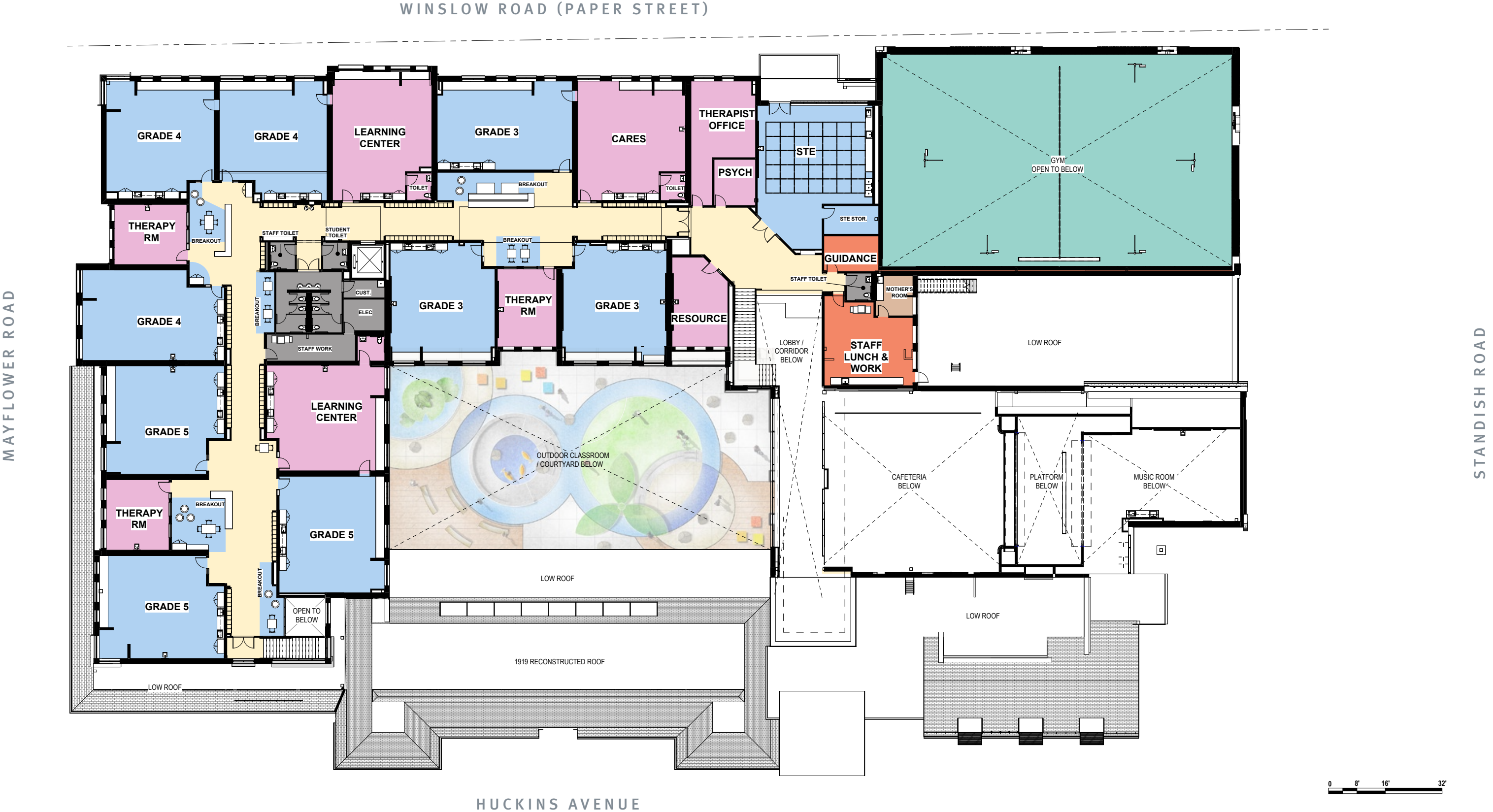
(STANDISH ROAD)

HUCKINS AVENUE

0 8' 16' 32'



FLOOR PLAN
SECOND FLOOR



FLOOR PLAN
BASEMENT FLOOR





EXTERIOR DESIGN STUDIES
SOUTH FACADE / HUCKINS AVENUE



EXTERIOR DESIGN STUDIES
SOUTHEAST CORNER



EXTERIOR DESIGN STUDIES
NORTHWEST CORNER / WINSLOW RD. & MAYFLOWER RD.



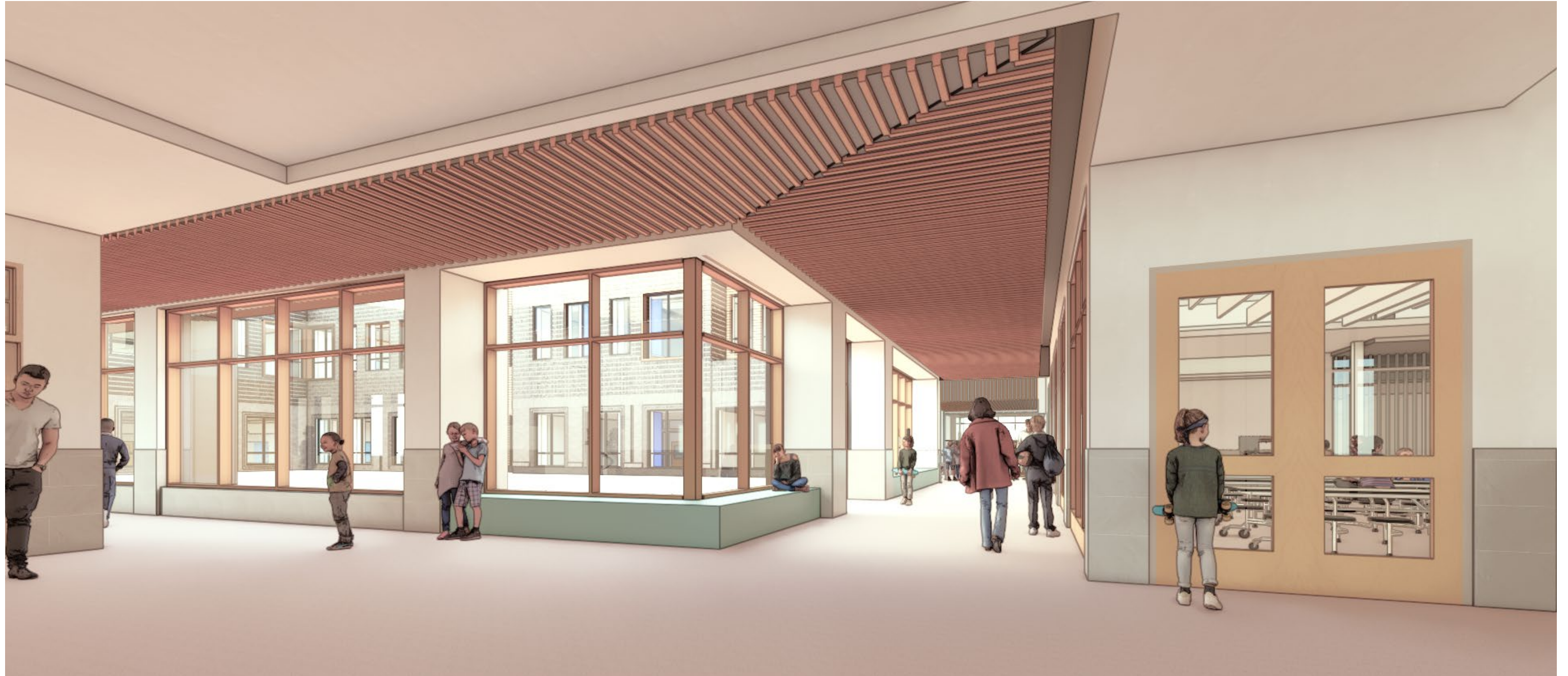
EXTERIOR DESIGN STUDIES
SOUTHWEST CORNER / MAYFLOWER RD. & HUCKINS AVE.

GYM DESIGN (FROM AUGUST)



INTERIOR STUDIES

MAIN LOBBY & MAIN STREET HALLWAY



INTERIOR STUDIES

MAIN STAIRS & MAIN STREET HALLWAY



INTERIOR MEDIA CENTER



INTERIOR DAYLIGHT STUDY

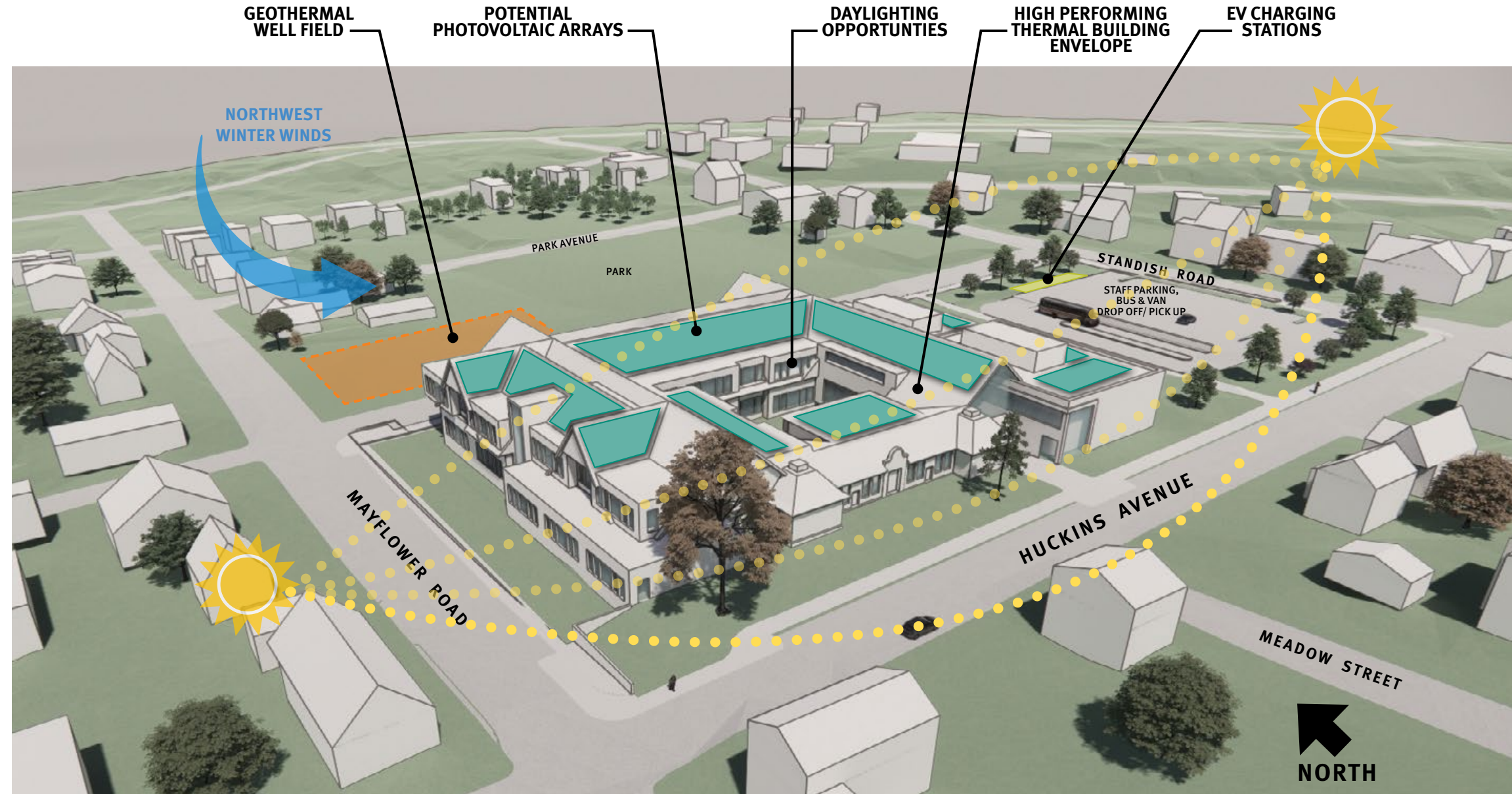
CAFETERIA VIEW 2



GYM INTERIOR



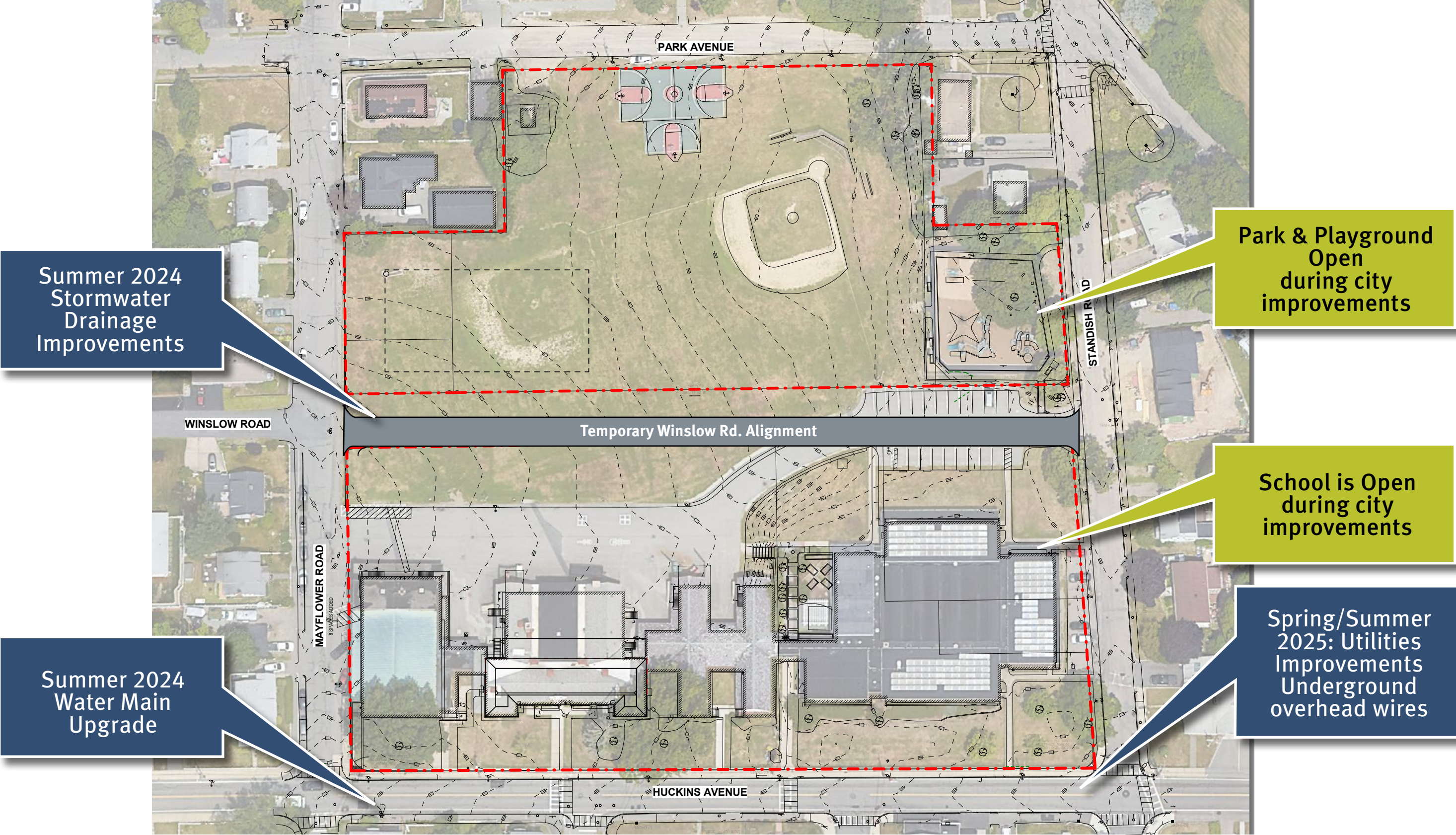
SUSTAINABILITY



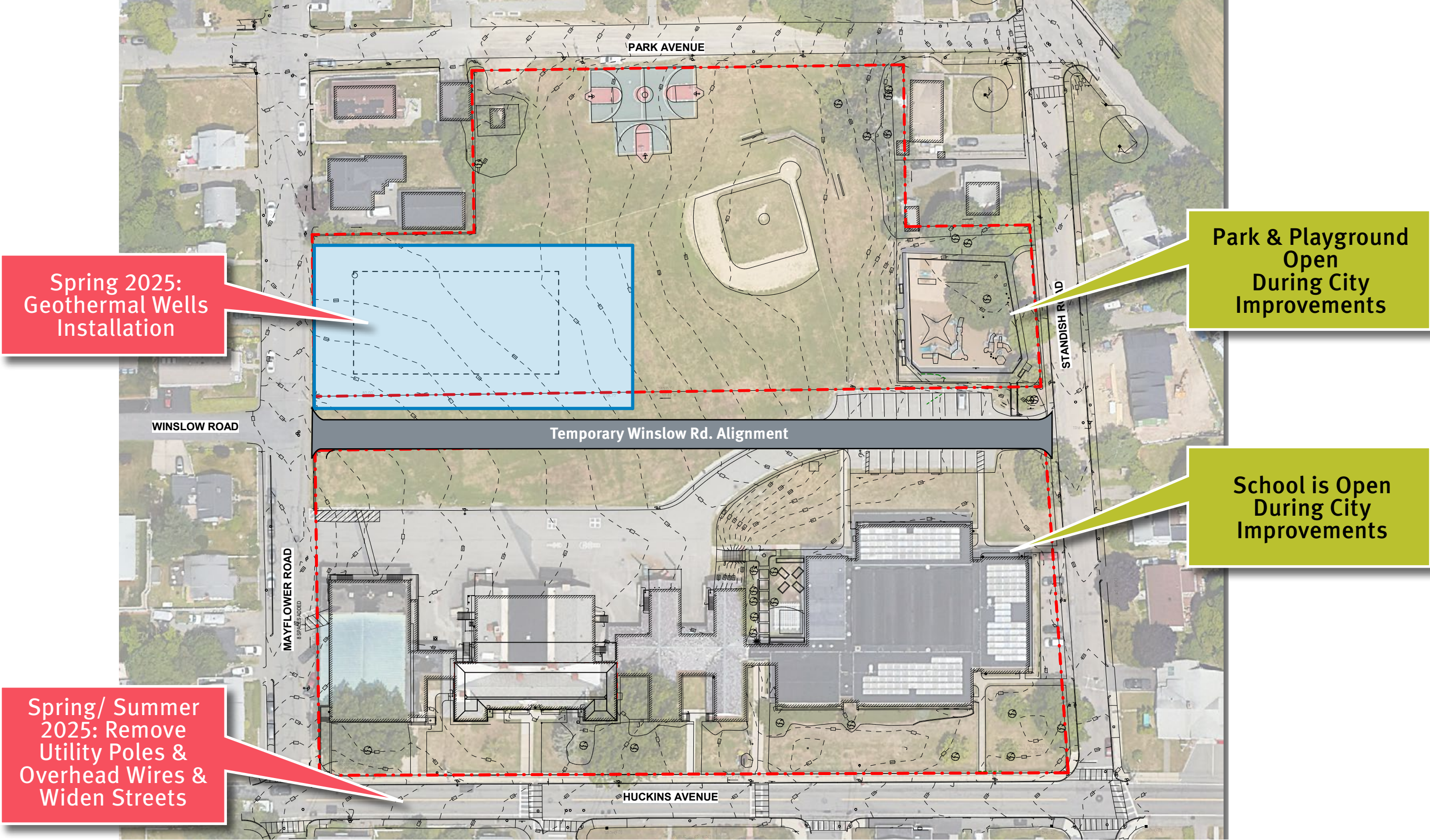
- Net Zero Energy
- All Electric
- Geothermal/Groundsource Heat Pump System
- Solar Photovoltaic Arrays
- EV Charging Stations
- LEED Gold Certification

- Green Schools Program
- Goals were identified for the project:
 - Equity and Universal Design
 - Healthy indoor environment
 - Connection with nature
 - Low energy use building
- MassSave and Federal Incentives

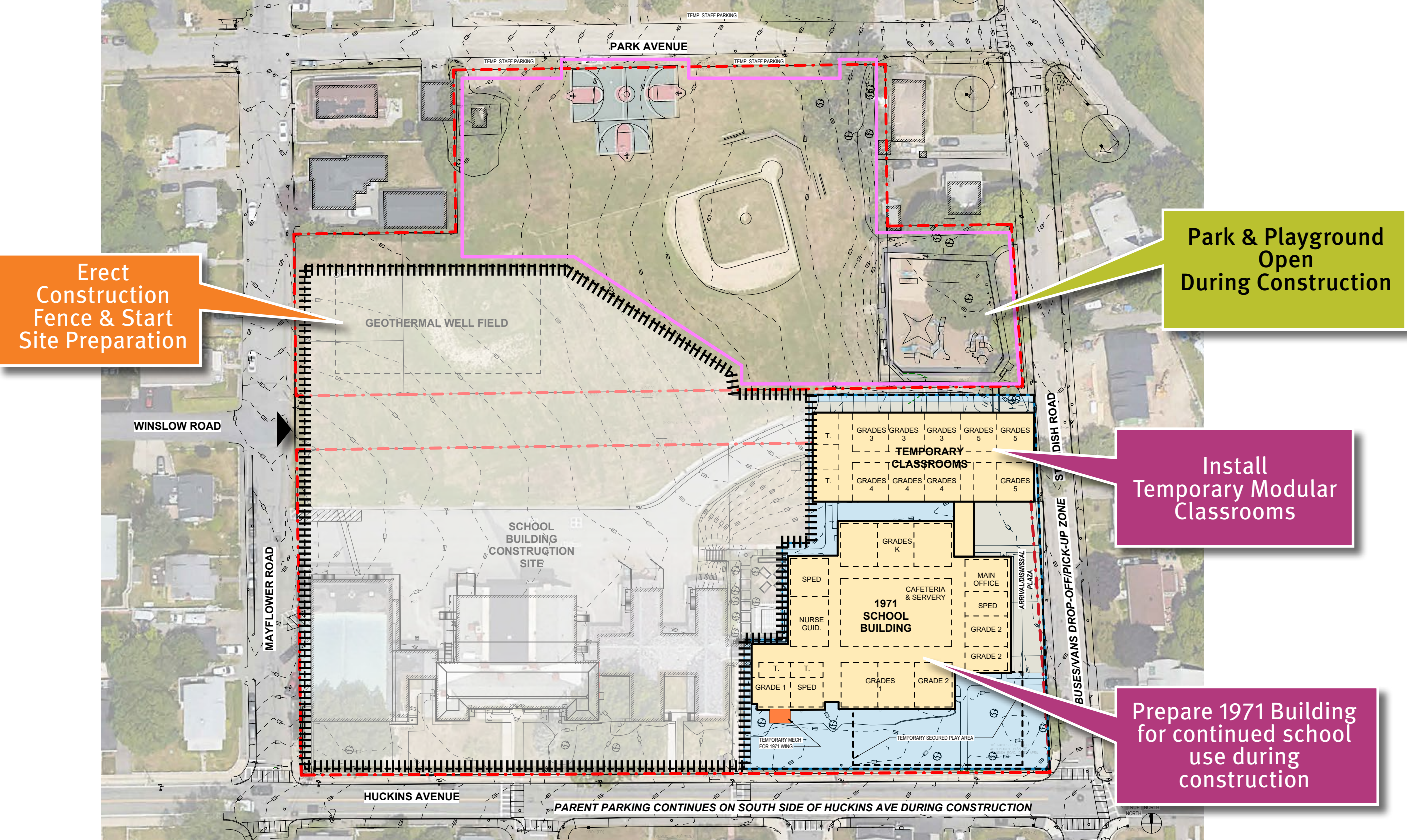
CITY IMPROVEMENTS



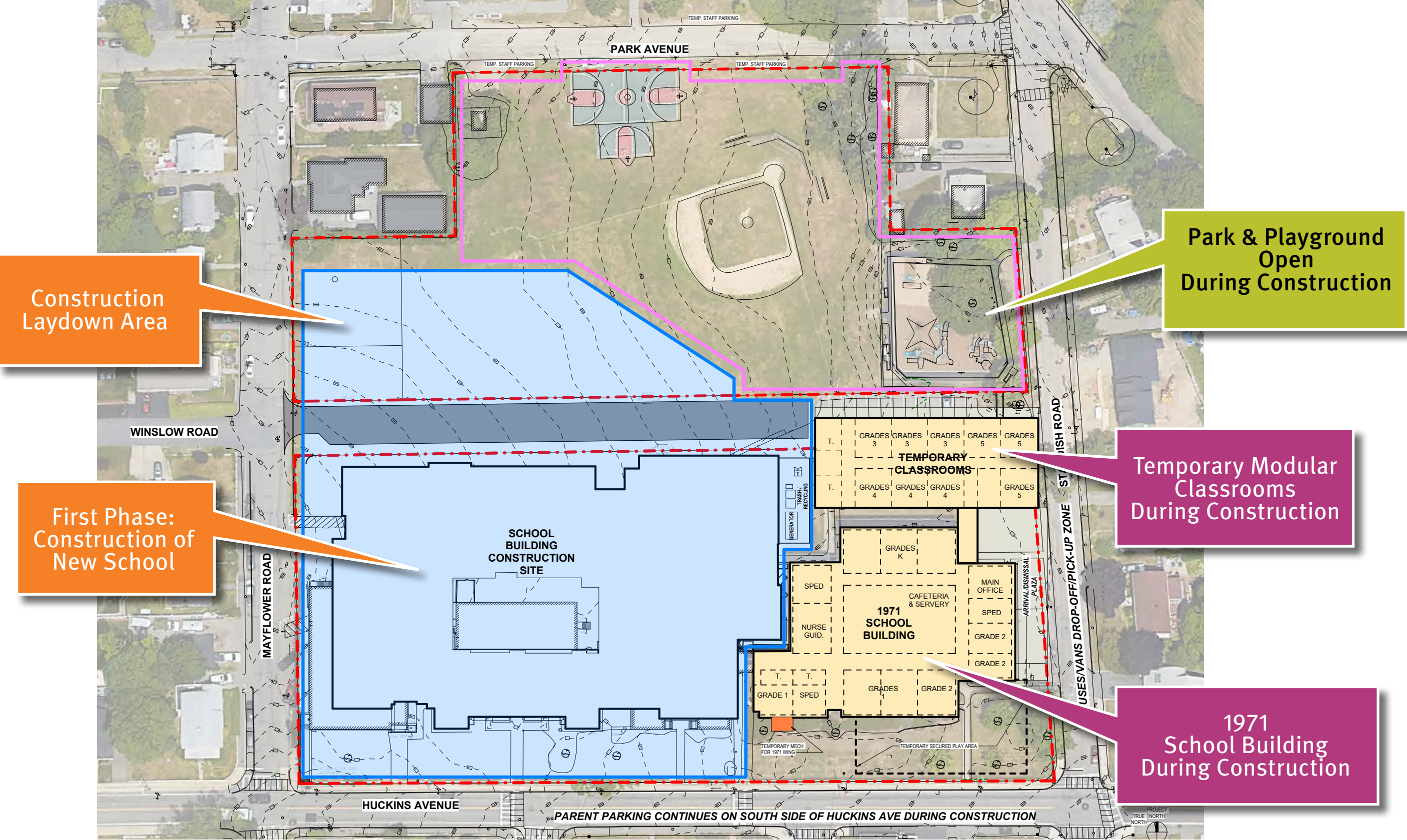
EARLY CONSTRUCTION WORK



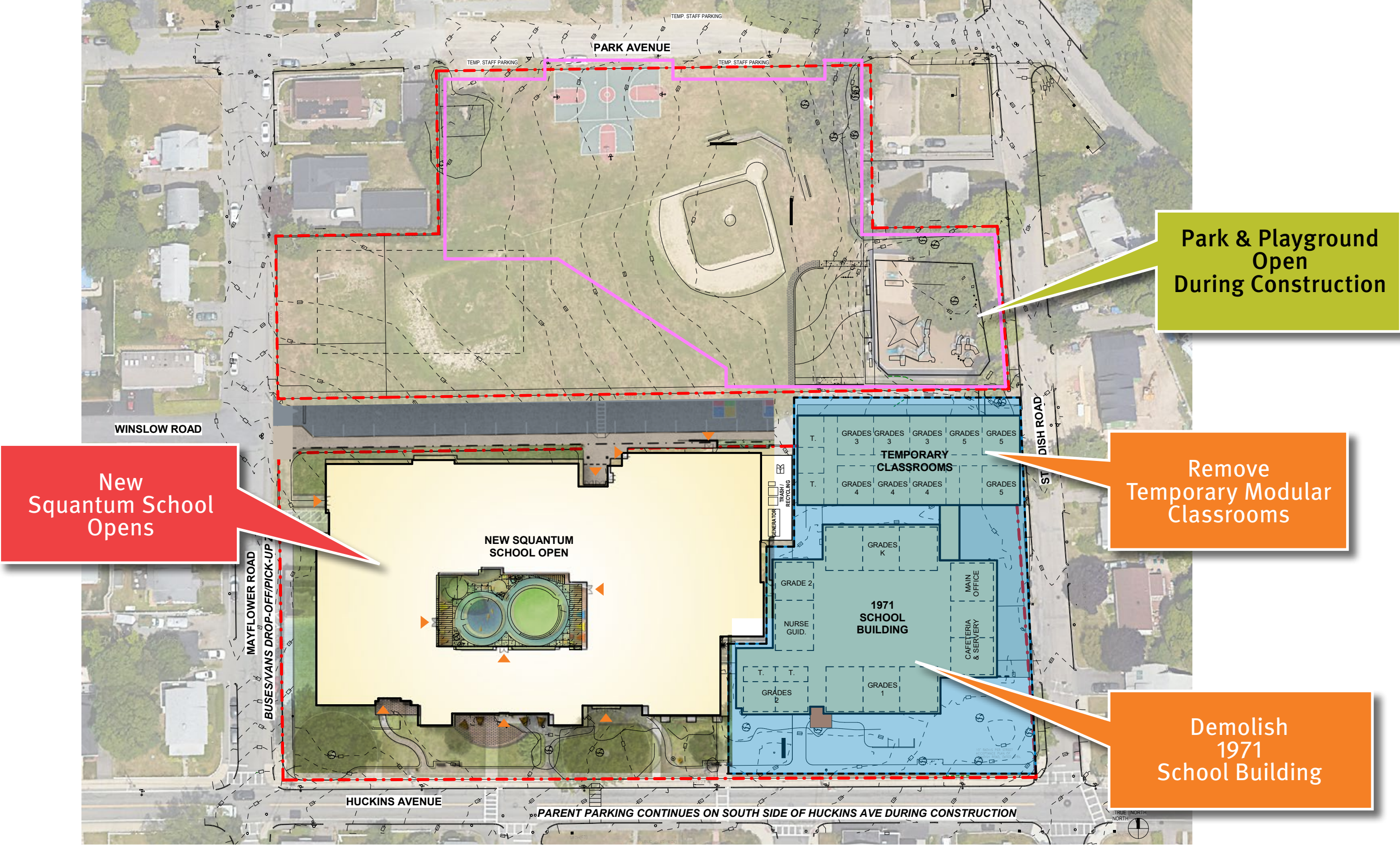
PHASED CONSTRUCTION: SUMMER 2025



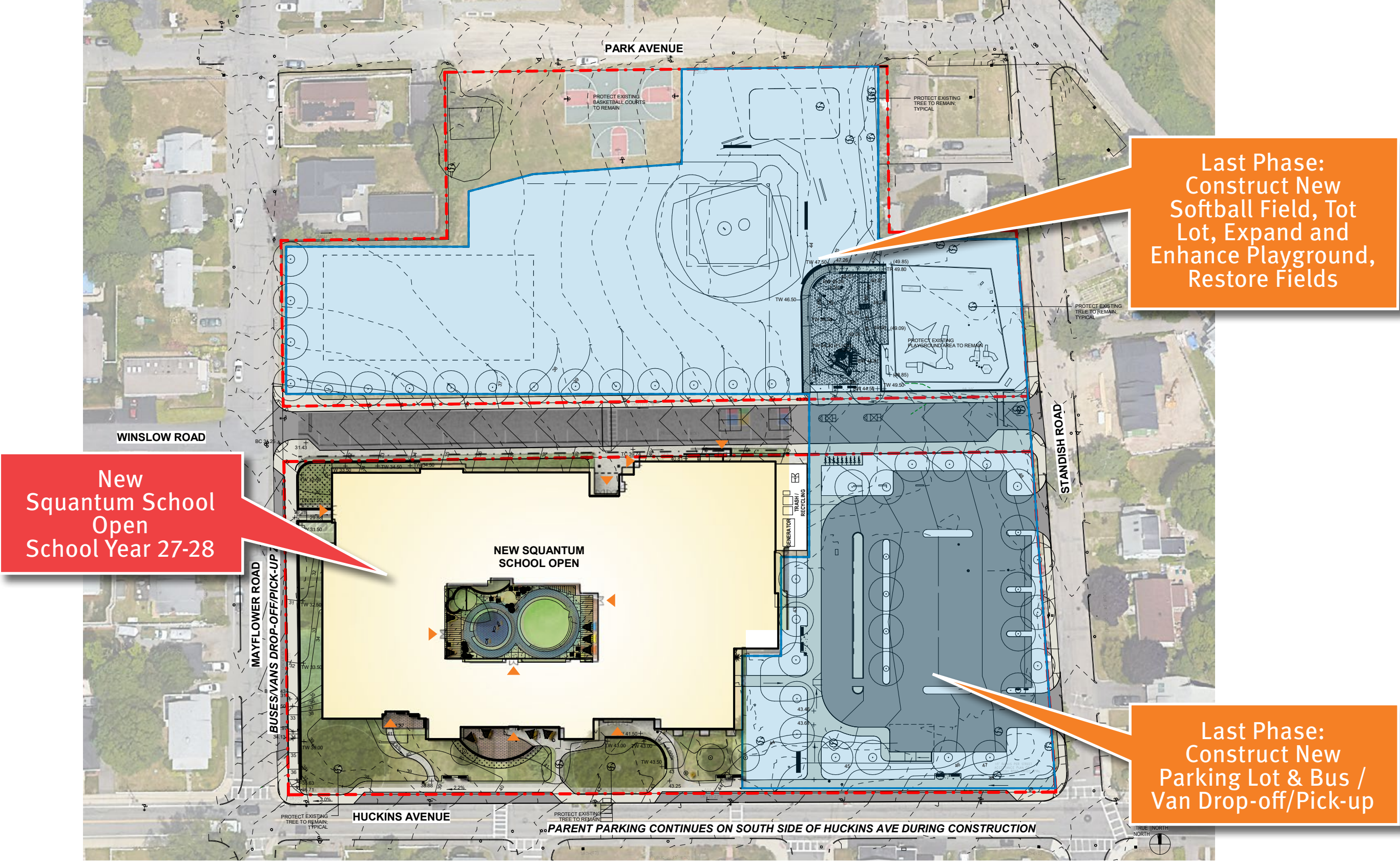
PHASED CONSTRUCTION: SUMMER 2025 TO SUMMER 2027



PHASED CONSTRUCTION: FALL 2027



PHASED CONSTRUCTION: FALL 2027 TO SPRING 2028





Budget Overview

Feasibility Study	\$	1,511,036
Project Management	\$	2,872,900
Other Administrative	\$	90,000
Architecture / Engineering	\$	8,695,800
Pre-Construction	\$	225,000
Construction	\$	81,196,053
Other Project Costs	\$	6,017,098
Furnishings and Equipment	\$	3,150,779
Construction Contingency	\$	4,059,803
Owner's Contingency	\$	894,363
	\$	108,712,832

[illegible]



MSBA Total Project Budget

Reimbursement Rate

Base Reimbursement Rate	60.40%
Inventive Points – Maintenance	1.53%
Inventive Points – Reno / Reuse	0.31%
Inventive Points – Energy Efficiency	3.00%
Inventive Points – Indoor Air Quality	1.00%
Total Reimbursement Rate	66.24%



MSBA Total Project Budget

Reimbursement Exclusions

- OPM and Designer fees associated with excluded scope
- OPM and Designer fees beyond MSBA funding limits – 20% cap
- Costs associated with ACM floor and ceiling abatement
- Construction costs for building & sitework beyond MSBA funding limits
- Scope associated with ineligible building area
- Costs associated with swing space and temporary modular
- Costs associated with moving
- Cost exceeding \$1,200 per student allowance for FF&E
- Cost exceeding \$1,200 per student allowance for technology
- Cost associated with commissioning of ineligible building area
- Owner and Construction contingency costs beyond MSBA cap (1% & 2%)



MSBA Total Project Budget

Effective Reimbursement Rate

Total Project Budget	\$108,712,832
Total Scope Exlusions	(\$45,860,680)
Maximum Total Grant	\$38,346,953
Total Local Share	\$70,365,879
Effective Reimbursement Rate	35.27%



MSBA Total Project Budget

Other Potential Funding Sources

	Technology	Cost	Rate ¹	Estimated Value
Sec 48 Alternative Energy Investment Tax Credit	Solar, Wind	\$1,400,000	25.5%	\$357,000
	Ground Source Heat Pump	\$9,210,485	25.5%	\$2,348,674
Mass Save	Path 1			\$1,055,822
MA EVIP Public Access ²	EV charging	\$42,000	100%	\$42,000
Potential Total				\$3,803,496

1. Assumed using tax-exempt bonds

2. Assumes supplying EVSE for 10% of parking count



THANK YOU!

Quantum School
Project Website:
QR Code



<https://quantumschool.com>