



NORWALK HIGH SCHOOL AND P-TECH NORWALK CAMPUS

**January 4, 2023
Project Presentation**

K▲**ESTLE BOOS**
associates, inc

INTRODUCTIONS



Client



Owner's Project Manager

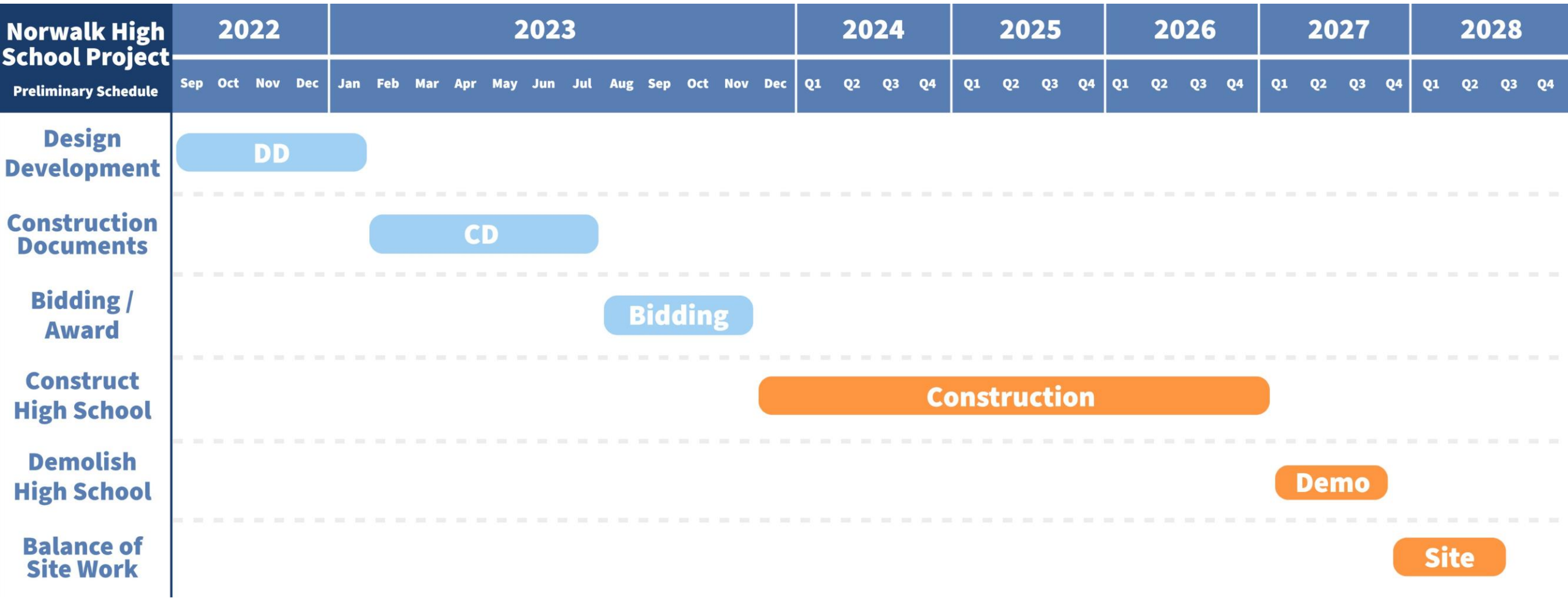


Architect



Construction Manager

PROJECT SCHEDULE



SITE PLAN



FIRST FLOOR PLAN

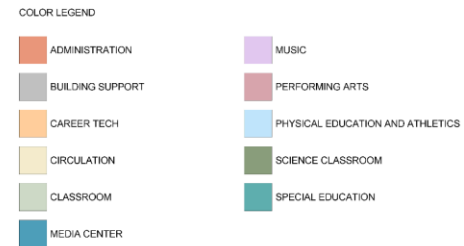


COLOR LEGEND

- ADMINISTRATION
- BUILDING SUPPORT
- CAREER TECH
- CIRCULATION
- CLASSROOM
- KITCHEN
- MUSIC

- PERFORMING ARTS
- PHYSICAL EDUCATION AND ATHLETICS
- POOL
- SCIENCE CLASSROOM
- SPECIAL EDUCATION
- STUDENT DINING

N P-TECH
N O R W A L K



THIRD FLOOR PLAN



N P-TECH
N O R W A L K



EXTERIOR IMAGES



EXTERIOR IMAGES



EXTERIOR IMAGES



EXTERIOR IMAGES



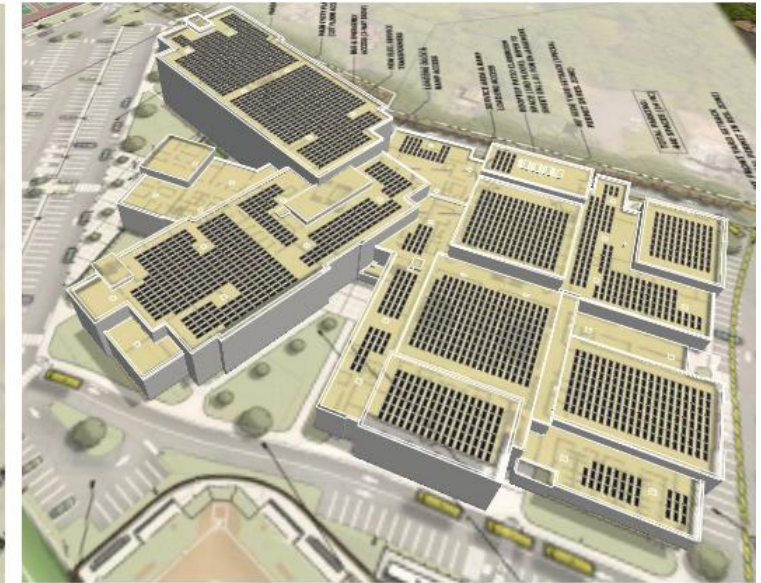
COMMUNITY FEEDBACK

Building Energy Code / CT High Performance Building / Green Building
The new NHS/P-TECH building is designed to meet Connecticut's current building energy code. This includes requirements for the building envelope, mechanical, power and electrical systems. The building will be constructed to meet the CT High Performance Building standards which is a LEED Silver equivalent. In an effort to incorporate Green Building technology as part of the new construction, the project will utilize a photovoltaic (PV) system on site to reduce energy consumption. The City of Norwalk has selected a solar developer who will design, install and maintain the PV system through a power purchase agreement (PPA). During design they will evaluate the use of both roof mounted and ground mounted carport PV panels.
General Classrooms
The new campus includes 56 NHS and 19 P-TECH general classrooms, while the existing campus includes 64 and 18 respectively. Please note, the new NHS campus includes an additional 2 computer science labs, 8 small group/seminar rooms, 4 project areas and 6 breakout spaces which are not included in the general classroom count. General classroom counts do not include spaces that will be provided for visual arts, music, performing arts, special education, ROTC, which totals # of additional classrooms (excludes Science classrooms). Classroom quantities in the design are based on a target utilization factor of 85% (existing campus approx. at 65%).
Science Classroom Labs
The new campus includes 12 NHS and 4 P-TECH science classroom labs, which is the same as the existing campus. NHS includes 3 labs per floor (4 floors), on each floor 2 labs are paired with a shared prep room while the other lab is separate per the interdisciplinary teaching model. P-TECH pairs two labs on the Second and Third floors with shared prep room space. The Connecticut School Construction Standards and Guidelines suggest 1,200 SF for new science classroom labs. This was included in the programming for the project and approved by Board of Education as part of the Educational Specifications.
Media Center / Digital Media Communication Academy
The new Media Center is centrally located at the heart of the school and includes reading and stack sections, conference rooms, workrooms offices and a commons area. The Digital Media Communication Academy (DMCA) is not part of the Educational Specifications for the project. During programming it was determined that the DMCA would be located off-site in the new Public Library building with CPTV. However, based on meetings with DMCA and administration, the design team has made adjustments to the plans to incorporate the requirements of the DMCA program as part of the project. This includes a multimedia room, design lab, podcasting/sound studio and AV room.

Athletics / Marching Band
The decision has been made to locate the new school within the existing Testa Field complex. As a result, many athletic programs will be displaced during construction from 2024 through 2027. The City/BOE has worked the NHS and Brien McMahon Athletic Directors, Norwalk Recreation & Parks and the NPS Transportation Coordinator to develop a plan that will maintain athletics throughout project. The plan will utilize existing athletic facilities within the City of Norwalk. This includes fields at Nathan Hale, West Rocks and Cranbury, as well as coordination with Brien McMahon and the Oak Hills Park. NPS Transportation is in contact with an outside vendor who will provide designated transportation services for NHS athletics. By using an outside vendor, the transportation service is not in conflict with NPS's current busing and transportation schedules. This will provide reliable and timely transportation to/from offsite locations. By distributing NHS athletics to alternate facilities within the community, some recreational sports will also be displaced. Norwalk Recreation & Parks has reviewed these impacts and is confident that they can coordinate a suitable alternate location or time to accommodate these sports. Note, this plan does not require the use of Andrew's field and will not disrupt marching band.
Safety / Security
The new school will be designed and constructed in accordance with recommendations from the School Safety Infrastructure Council (SSIC) and the School Security and Safety Plan Standards. The project team has met with Norwalk Fire and Police departments, and School Security for feedback on the current plans.
Technology/Future-Ready Programming
Designed to 21st century architectural and educational standards, the facility will offer the ultimate flexibility to evolve as the needs of students and educators also evolve.
Community Providers
It is understood that community providers are an important part of the current school. The current design includes a School-Based Health Center, conference rooms, etc. to support the active community providers.

ENERGY EFFICIENCY – solar roof panels

DOCUMENTS PROVIDED BY VEROGY



ROOF SYSTEM DETAILS

SYSTEM SIZE DC	1,133.60 kW
SYSTEM SIZE AC	850.00 kW
YEAR 1 PRODUCTION	1,298,251 kWh
MODULE POWER (W)	545 W
NUMBER OF MODULES	2,080
ARRAY TILT	10°
ARRAY AZIMUTH	7° & -18°

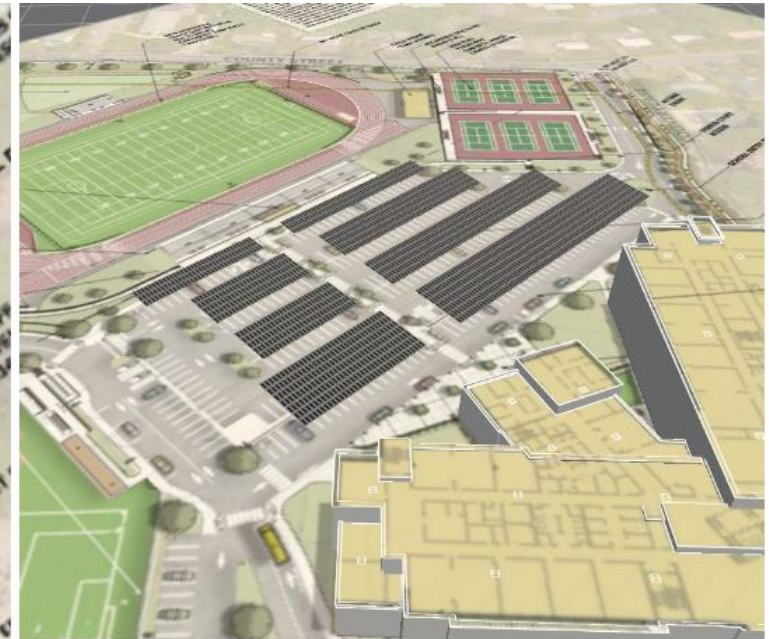
Annual Building Energy Usage – 3,976,407 kwh

Annual Roof System Output – 1,298,251 kwh

Roof System Percentage – 33%

ENERGY EFFICIENCY – solar carport panels

DOCUMENTS PROVIDED BY VEROGY



CARPORT SYSTEM DETAILS

SYSTEM SIZE DC	1,072.56 kW
SYSTEM SIZE AC	800.00 kW
YEAR 1 PRODUCTION	1,229,429 kWh
MODULE POWER (W)	545 W
NUMBER OF MODULES	1,968
ARRAY TILT	7°
ARRAY AZIMUTH	-39°

Annual Building Energy Usage – 3,976,407 kwh

Annual Roof System Output – 1,229,429 kwh

Carport System Percentage – 31%

Roof and Carport Systems Percentage – 64%

ENERGY EFFICIENCY – solar carport panels (reduction)

DOCUMENTS PROVIDED BY VEROGY



CARPORT SYSTEM DETAILS

SYSTEM SIZE DC	627.84 kW
SYSTEM SIZE AC	480.00 kW
YEAR 1 PRODUCTION	728,618 kWh
MODULE POWER (W)	545 W
NUMBER OF MODULES	1,152
ARRAY TILT	7°
ARRAY AZIMUTH	-39°

Annual Building Energy Usage – 3,976,407 kwh
Annual Roof System Output – 728,618 kwh
Carport System Percentage – 18%
Roof and Carport Systems Percentage – 51%

ENERGY EFFICIENCY – solar carport: design #1



ENERGY EFFICIENCY – solar carport: design #2



ENERGY EFFICIENCY – solar carport: design #3





THANK YOU!
QUESTIONS?