



Feasibility Study Overview

In April 2014 the Joint Building Committee was formed to oversee a Feasibility Study exploring the new construction, renovation or rebuild of the Dover High School (DHS) and the Career Tech Center (CTC).

In December 2014 HMFH Architects, Inc. was hired to undertake the Feasibility Study.



Dover High School & Regional Career Technical Center

- Laura Wernick FAIA, REFP, LEED AP—HMFH Architects
- Tina Stanislaski AIA, LEED AP—HMFH Architects
- Bobby Williams AIA, LEED AP—HMFH Architects
- Rich Roberts PE—Foley, Buhl, Roberts Structural Engineers
- Carlos DeSousa PE—Garcia Galuska DeSousa Engineers
- Dom Puniello PE—Garcia Galuska DeSousa Engineers
- Chris Garcia PE—Garcia Galuska DeSousa Engineers
- Erin Lambert PE—Nobis Engineering



Feasibility Study Components

- Existing Conditions Report
- Visioning Study
- Educational Space Program
- Options Investigation
- Options Analysis



Existing Conditions Report

- Accessibility
- Architectural Components
- Building Systems
 - Structural
 - Mechanical
 - Electrical
 - Plumbing
 - Fire Protection
- Educational Challenges



Accessibility



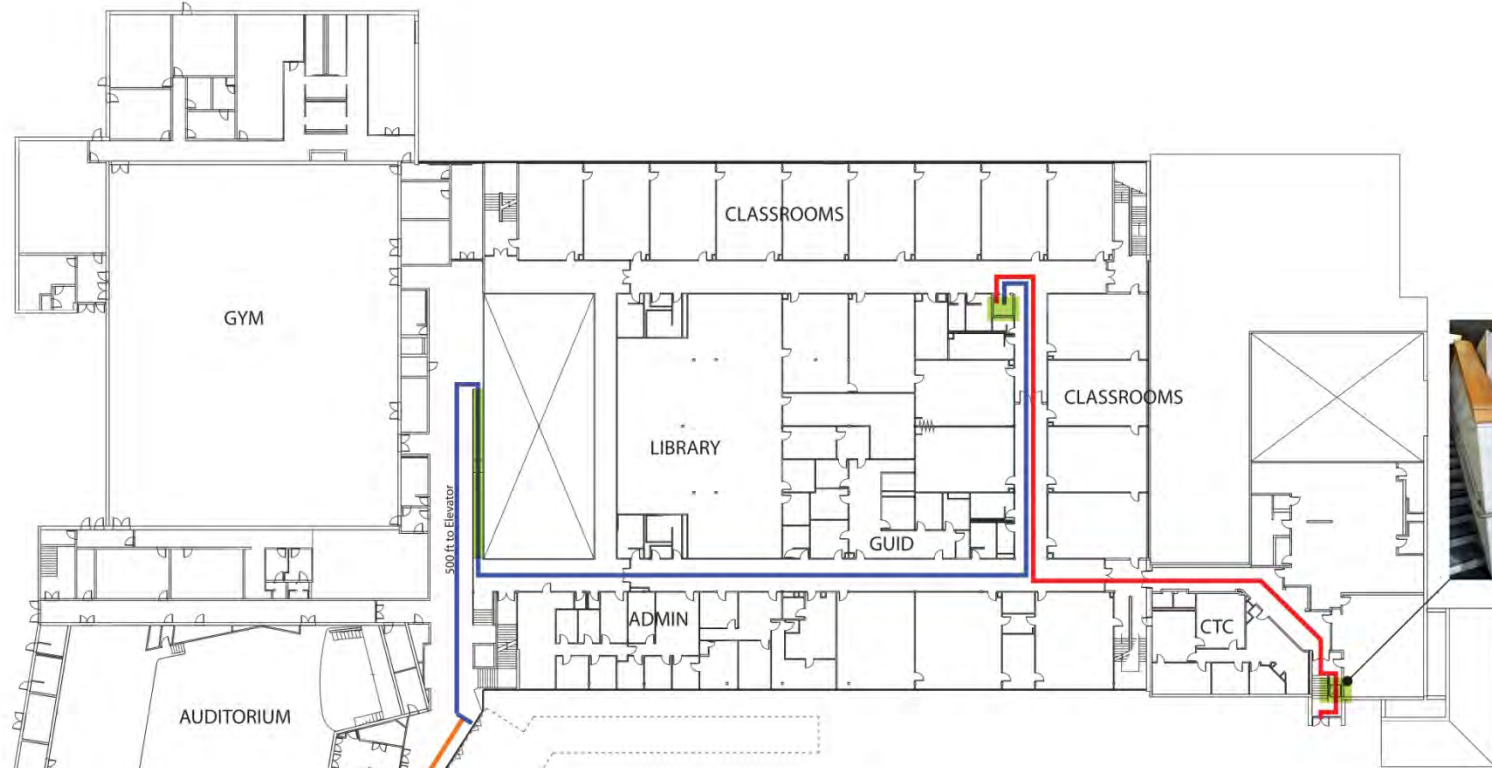
HMFH Architects, Inc.



Door
30

Career Technical
Center

Student Drop Off / Pick Up
and Visitor's Entrance.
Please ring bell to enter.



TRAVEL DISTANCES

- Main Entrance to Elevator - 500 ft
- Main Entrance to World Language Chair Lift - 190 ft
- CTC Entrance to Elevator - 190 ft

Scenario 1 -
 Enter DHS at Main Entrance, first class is Music, then lunch in Cafeteria, next class is World Language, then back to Main Entrance to Leave

Accessible Route - 2700 ft
 Non Accessible Route - 760 ft



Main Level



Architectural Components



- Exterior Systems
- Floors
- Ceilings
- Walls
- Stairs





308

308

202

203

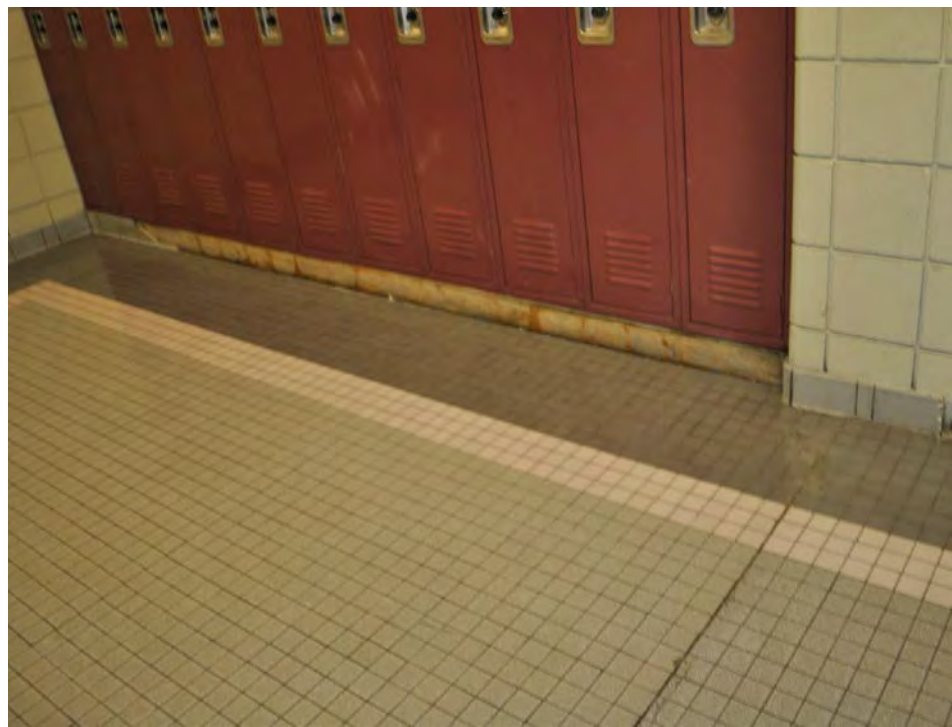
123

121

124





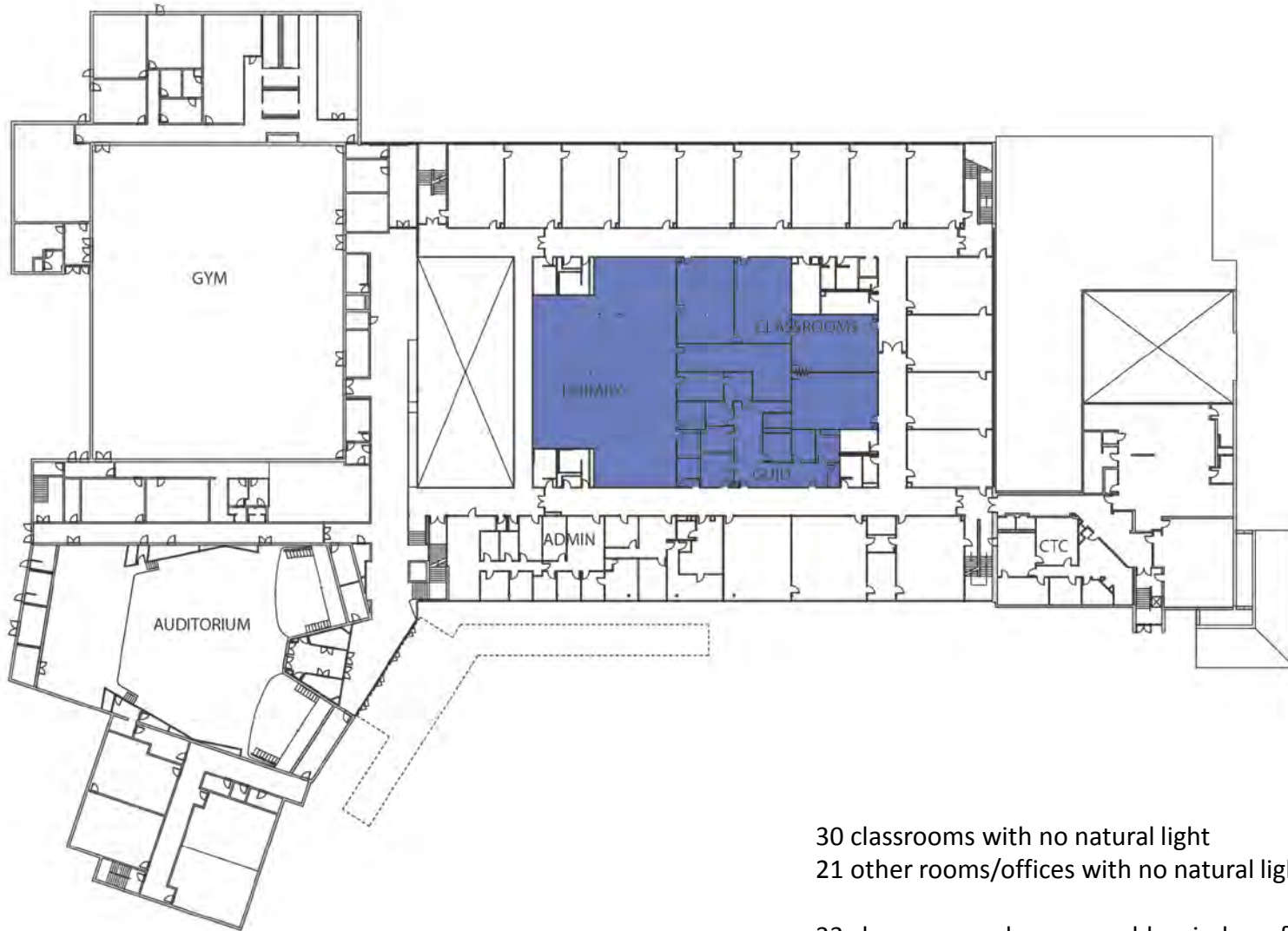






Educational Challenges

HMFH Architects, Inc.



30 classrooms with no natural light
21 other rooms/offices with no natural light

33 classrooms rely on operable windows for ventilation

Main Level



2nd Level



Lower Level



Welcome

Mon Aug 2
11:00 AM
11:30 AM
12:00 PM
12:30 PM
1:00 PM
1:30 PM
2:00 PM
2:30 PM
3:00 PM
3:30 PM
4:00 PM
4:30 PM
5:00 PM
5:30 PM
6:00 PM
6:30 PM
7:00 PM
7:30 PM
8:00 PM
8:30 PM
9:00 PM
9:30 PM
10:00 PM
10:30 PM
11:00 PM

CP Math
Math 1
Math 2
Math 3
Math 4
Math 5
Math 6
Math 7
Math 8
Math 9
Math 10
Math 11
Math 12

CP Math
Math 1
Math 2
Math 3
Math 4
Math 5
Math 6
Math 7
Math 8
Math 9
Math 10
Math 11
Math 12

Two Year Degree Schedule
Block 1 7:00 - 11:00
Block 2 11:00 - 1:00
Block 3 1:00 - 3:00
Block 4 3:00 - 5:00
Block 5 5:00 - 7:00
Block 6 7:00 - 9:00







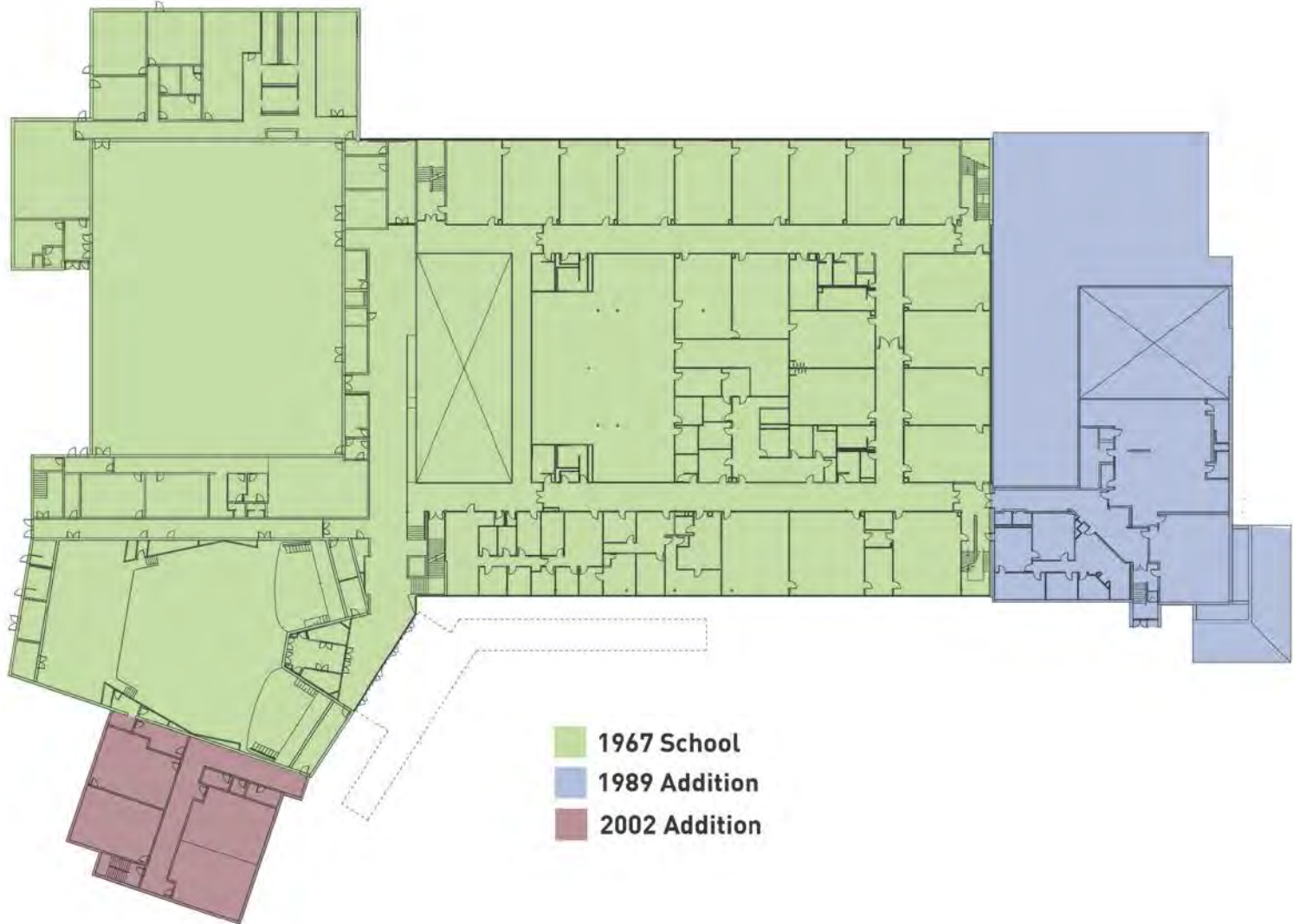






Structural Systems

HMFH Architects, Inc.





Systems

- Structural
- Mechanical
- Electrical
- Plumbing
- Fire Protection



Mechanical Systems

What can potentially be reused?

- 1967 high school boiler plant

Main Issues

- Mechanical ventilation only provided to interior classroom
- Poor indoor air quality
- Inadequate temperature controls
- Can't use the middle portion of some classrooms
- Temperatures in excess of 96 degrees have been reached





Electrical System

What can potentially be reused?

- 2002 addition

Main Issues

- Exit signs and emergency lighting are battery type, no emergency generator
- Electrical service is not sufficient in size for present code requirements
- Fire alarm system should be updated to meet voice evacuation requirements
- Poor technology Infrastructure

Plumbing Fixtures

What can potentially be reused?

- Piping Infrastructure

Main Issues

- Fixtures are non ADA compliant
- Manually operated and don't shut off
- All fixtures are inefficient, and should be replaced with low flow models
- Science classroom infrastructure should be replaced including, emergency showers & eye wash, venting, and acid neutralization





Fire Protection Systems

What can potentially be reused?

- Piping infrastructure

Main Issues

- Replacement of sprinkler heads, shut off control valves, drain valves, and stand pipes for the stage are needed





Site Assessment

Bituminous Asphalt Paving, Curbing, & Sidewalks

- Generally in poor condition
- Reached the end of life expectancy
- Exception, Dover Alternative Program site conditions are good

Landscaping - Well established and healthy

ADA Non-Compliance

- Short on number of parking spaces
- Poor signage
- Missing access aisle striping
- No Accessible Pathways in Parking lots



Visioning Session Overview

- 45 teachers, administrators, students, parents, community members, and board members
- Lead by Educational Consultant Frank Locker
- Conducted over 6 sessions
- Composed of two parts, the Educational Vision and the Facility Concept



Visioning Session Findings

- Educational Vision
- Instructional Models
- Facility Concepts

Educational Vision

- Student centered
- Prepare students for success in 21st Century
- Foster relationships, collaborative
- Integrate CTE and Academic as much as practical
- Staff professional development
- Flexible (Future Proof)

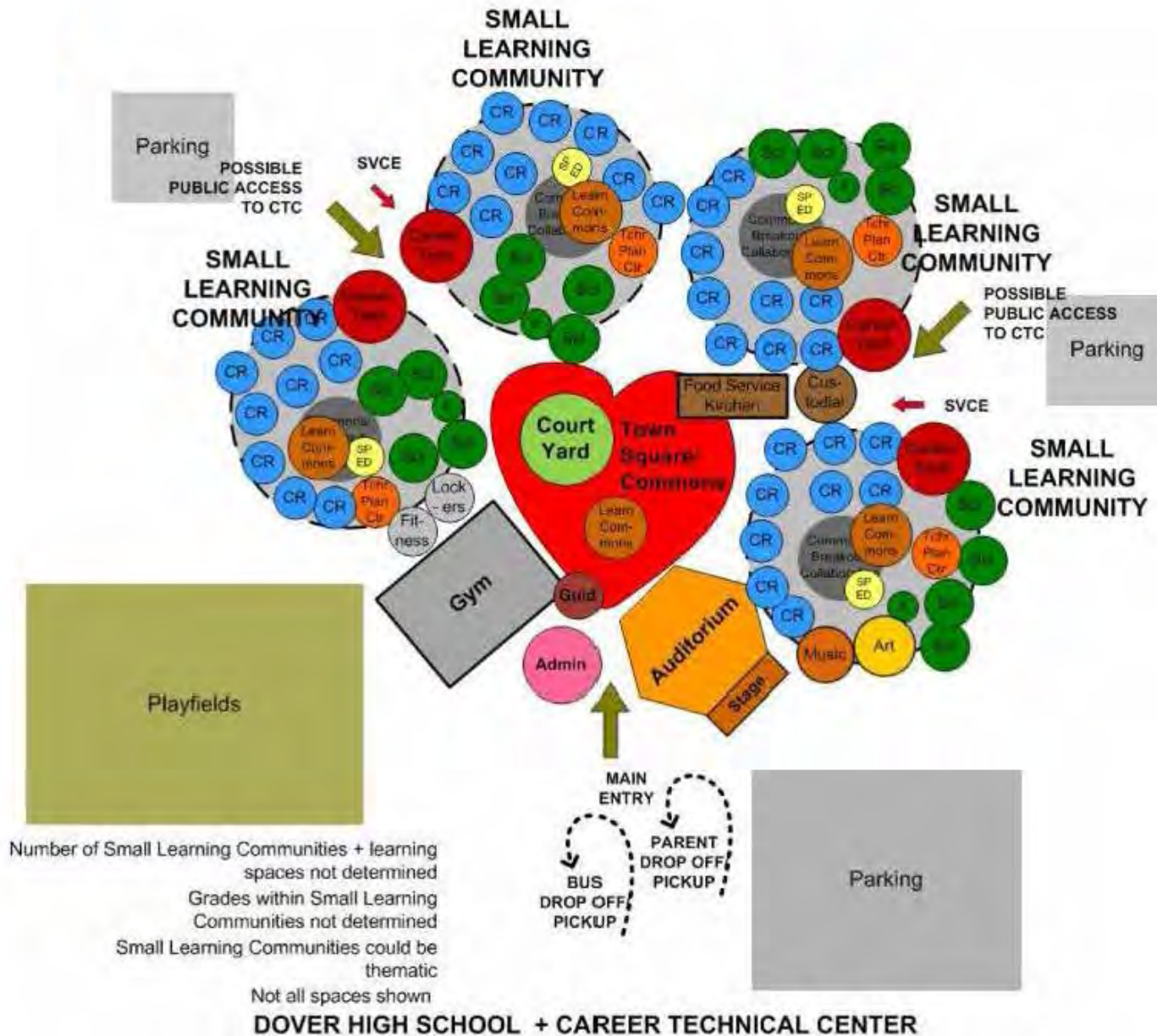
Instructional Models

- Employ Project Based Learning/Opportunities for making things
- Interdisciplinary Learning
- Foster communication, collaboration, critical thinking
- Small group learning opportunities
- Technology integration

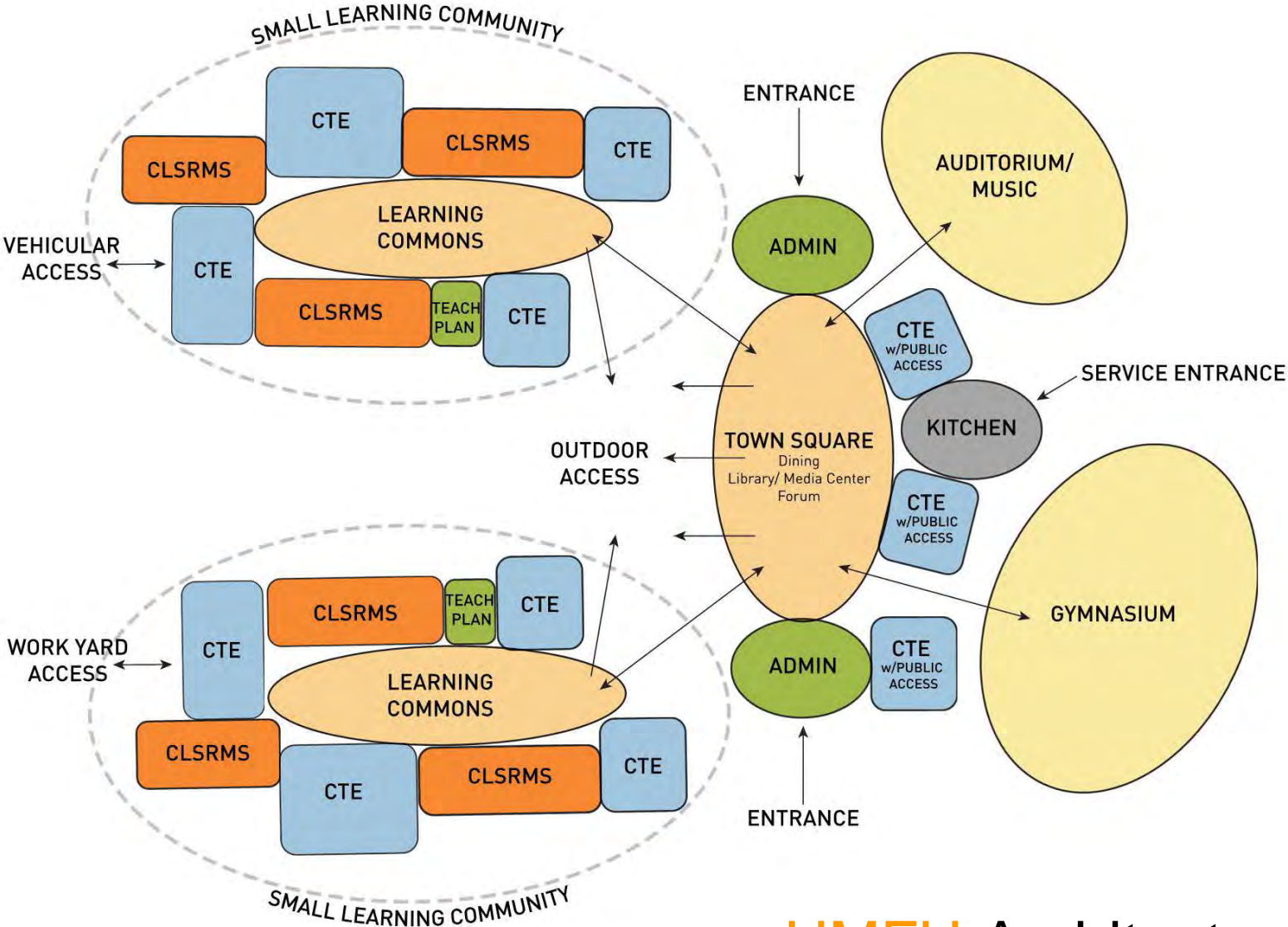
Facility Concepts

- Small Learning Communities
 - Interdisciplinary or Thematic
- CTC to be more visible and integrated
- Traditional Library becomes Learning Commons
- Centrally located common space— Town Square concept

Facilities Organization Concept



Concept Diagram





Next Steps

Building Options Investigation

- Base Rehabilitation
 - Renovating the existing school to meet today's building and accessibility codes.
 - All new systems and finishes
 - No educational upgrades
- New Addition with Partial Renovation
 - Potentially Renovating Gymnasium, Auditorium, 2002 & 1989 additions
- All New Construction
 - Located on various areas of the current campus



Next Steps

Building Options Analysis

- Determine pros and cons of all options:
 -
- Determine costs of all options
- Present and Review with the community
- Wrap up feasibility study with recommendations by mid June



Contact Information

Joint Building Committee (JBC) members:

Robert (Bob) Carrier, JBC Chair, Deputy Mayor
Jason Gagnon, City Councilor
Mark Geuther, City citizen representative
Amanda Russell, School Board member
Sarah Greenshields, School Board member
Matthew Severson, School citizen representative

r.carrier@dover.nh.gov
j.gagnon@dover.nh.gov
m.geuther@dover.nh.gov
a.russell@dover.k12.nh.us
s.greenshields@dover.k12.nh.us
m.severson@dover.k12.nh.us

Advisory JBC members:

Dr. Elaine Arbour, Superintendent
Karen Taylor, Business Administrator
Peter Driscoll, DHS Principal
Louise Paradis, CTE Director
Jeffrey White, Facilities Director

e.arbour@dover.k12.nh.us
k.m.taylor@dover.k12.nh.us
p.driscoll@dover.k12.nh.us
l.paradis@dover.k12.nh.us
j.white@dover.k12.nh.us

Feasibility Study Architects:

HMFH Architects, Inc.

www.hmfh.com

For more information, please visit:

<http://www.dover.k12.nh.us/dhsctcbuilding>

HMFH Architects, Inc.