BROOKLINE HIGH SCHOOL EXPANSION

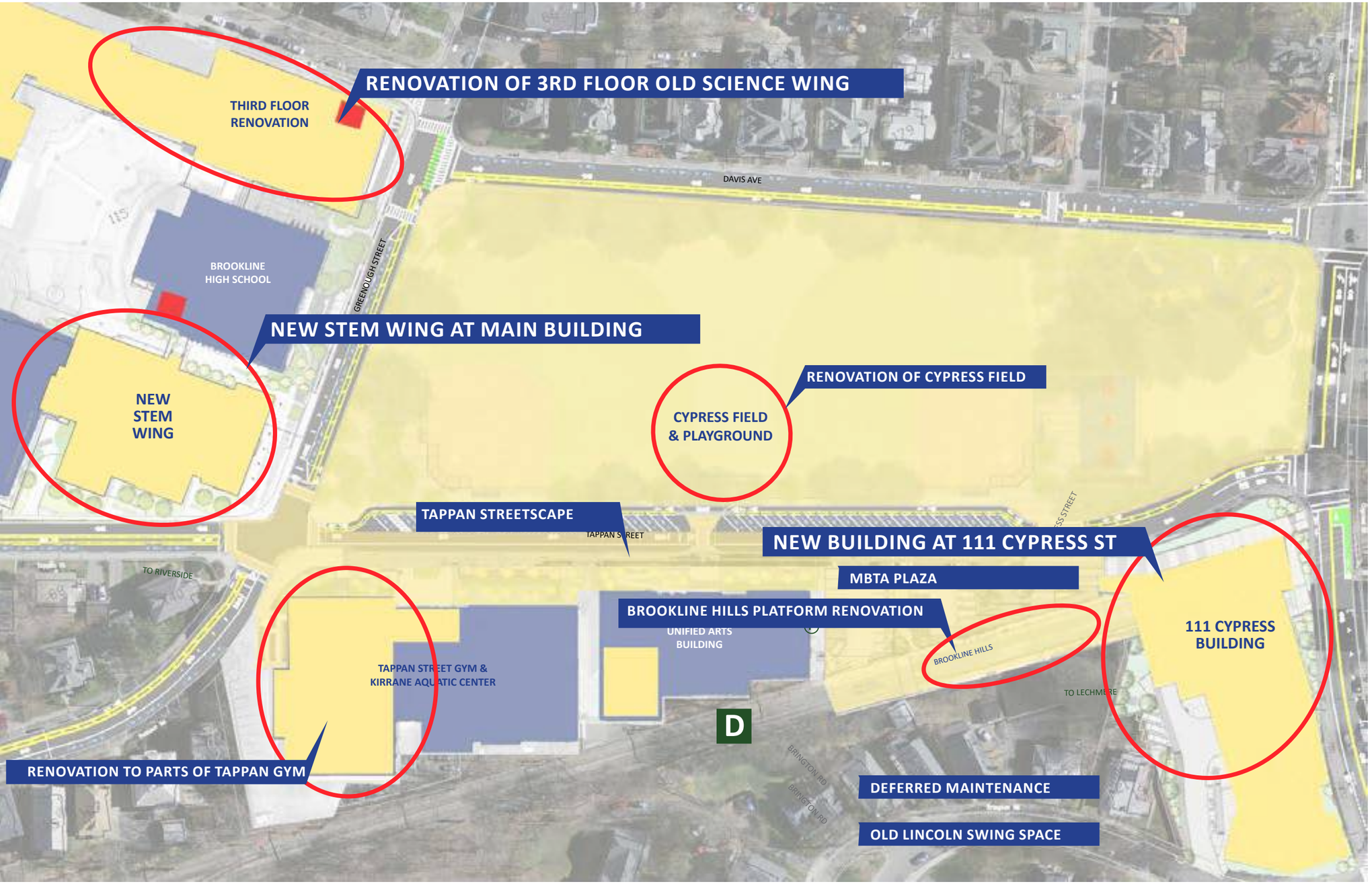
SCHOOL COMMITTEE MEETING
APRIL 30, 2020

AGENDA

- PROJECT OVERVIEW
- PROJECT GOALS AND IDEAS
- SCHEDULE
- COMMUNITY ENGAGEMENT
- DESIGN OVERVIEW
- CONSTRUCTION PROGRESS
- BUDGET

BROOKLINE HIGH SCHOOL EXPANSION

CURRENT PROJECT SCOPE (2020)



NEW CYPRESS BUILDING

BROOKLINE HILLS PLATFORM RENO.

NEW STEM WING

3RD FLOOR RENO. (OLD SCIENCE WING)

TAPPAN GYM RENOVATION

CYPRESS FIELD RENOVATION

DEFERRED MAINTENANCE

TAPPAN STREETSCAPE IMPROVEMENTS

MBTA PLAZA

OLD LINCOLN SWING SPACE

PROJECT TEAM ASSEMBLED

TOWN OF BROOKLINE

OWNERS PROJECT MANAGER
HILL INTERNATIONAL

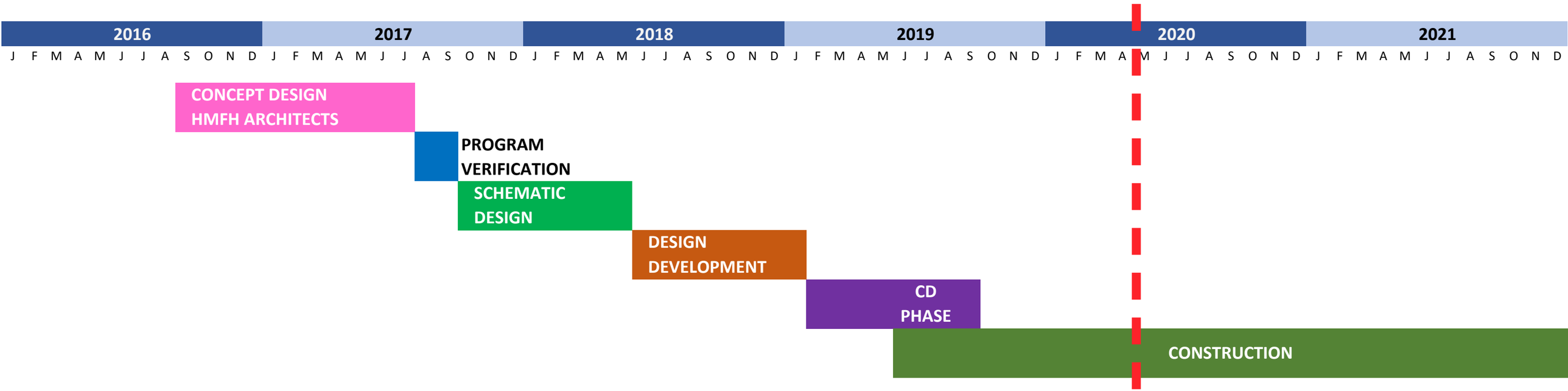
ARCHITECT
WILLIAM RAWN ASSOCIATES

CONSTRUCTION MANAGER
SKANSKA

MBTA PLATFORM ARCHITECT
AECOM

MBTA PLATFORM CM
SKANSKA CIVIL

PROJECT SCHEDULE



- SCHEMATIC DESIGN COMPLETE MAR 2018
- TOWN ELECTION MAY 2018
- TOWN VOTE JUN 2018
- DESIGN DEVELOPMENT COMPLETE JAN 2019
- MBTA MOA SIGNED: JUL 2018
- EARLY PACKAGES FOR BID BEGINS JAN 2019
- CONSTRUCTION DOCUMENTS FOR BID AUG 2019
- DEMOLITION BEGINS AUG 2019

REASONS FOR THE PROJECT

1. Increased Enrollment

- Enrollment at Brookline High School has increased from around 1,700 students seven years ago to 2,025 in the 2017-2018 academic year. The current BHS facilities cannot handle a student body of this size.

2. Outmoded Science Facilities

- A 21st century STEM (Science, Technology, Engineering & Math) education requires flexible, adaptable spaces.
- New designated places are needed to promote collaboration between teachers and students across various disciplines. STEM program will leverage UAB arts programming.

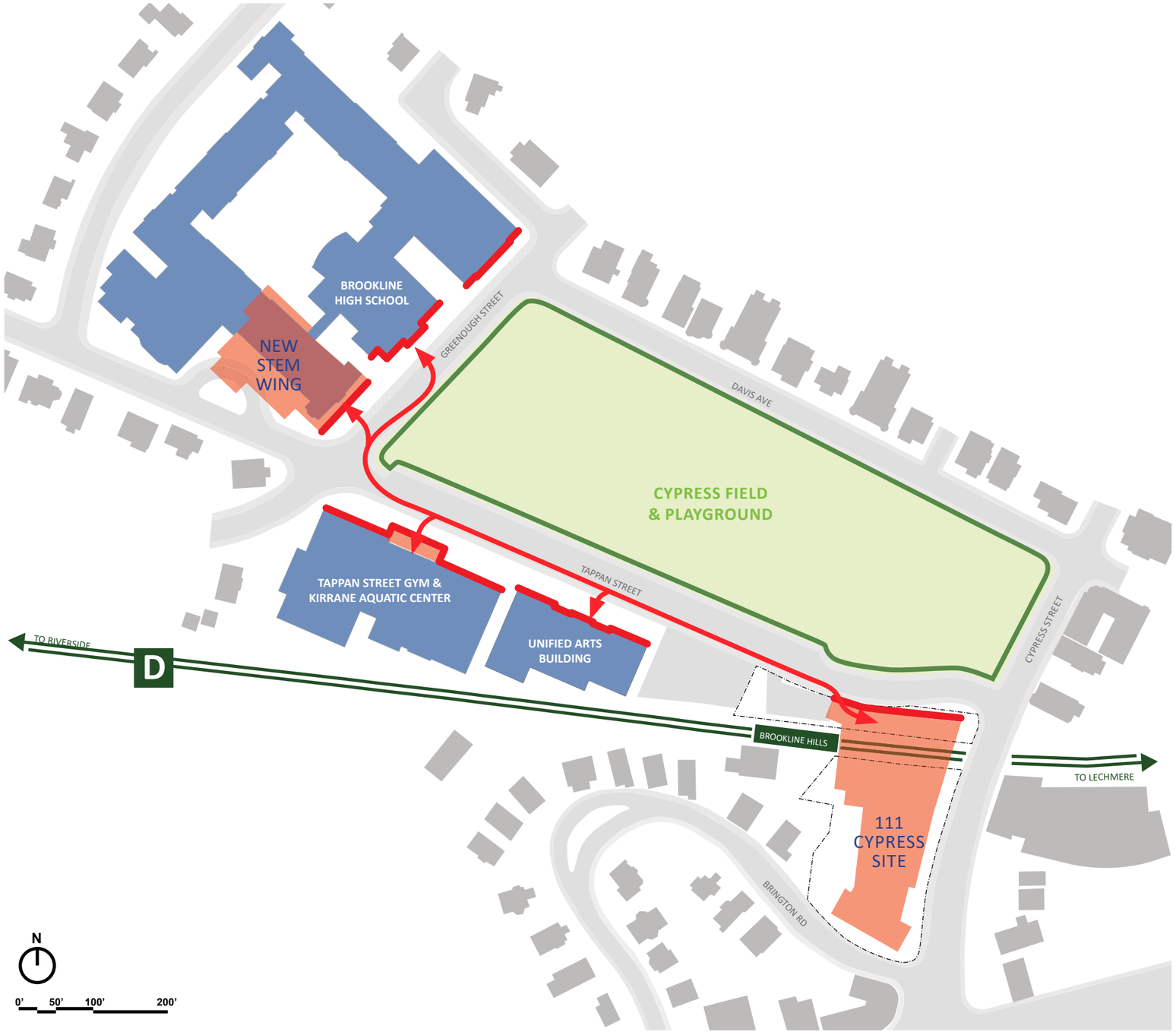
3. BHS Education Plan

- BHS has taken the opportunity to rethink how it can carry its tradition of excellence and innovation forward. Three key questions that propel the development of the Education Plan are:
  - How will BHS engage students more deeply?
  - How will BHS better serve all students?
  - How do we expand BHS and still maintain a cohesive, unified campus?

4. Facilities Maintenance & Upkeep

- BHS has recognized the project as an opportunity to improve and upgrade key elements of campus infrastructure.

GOAL: CREATE A UNIFIED CAMPUS



Bring 9th graders to rest of campus

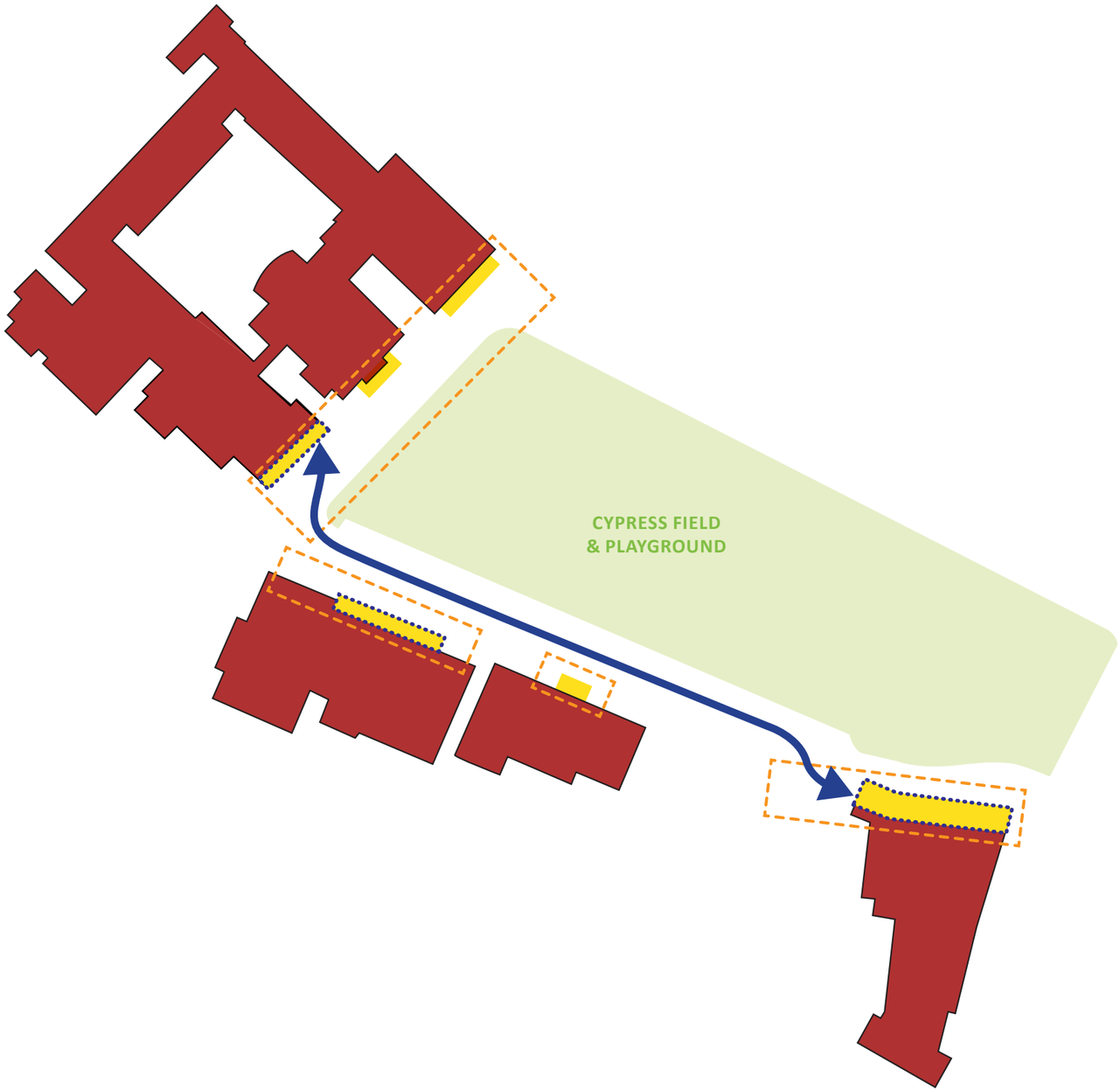
- World Languages (Main Building)
- Electives (Unified Arts Building /Main Building)
- Health & Fitness (Tappan)

Bring 10-12th graders to Cypress Building

- Optional courses:
  - Creative Writing
  - Social & Racial Justice
- Advanced Placement (AP) Physics
- Multi-use White Box Space
  - Drama, Dance, Music
  - Guest Speakers for other Classes
  - Interdisciplinary Work

NEW, WELCOMING "FRONT PORCHES" UNIFY BHS CAMPUS

FRONTING A CIVIC GREEN



Strengthen sense of civic institution around Cypress Field

- STEM Wing: Create gracious New Entry to Main Building campus
- Tappan Athletic Complex: Unite Gym and Pool with New Lobby
- 111 Cypress: Lean-in toward Cypress Field

STUDENTS HANGING OUT ON GREENOUGH STREET AFTER SCHOOL

COMMUNITY ENGAGEMENT
TEACHER AND PUBLIC FEEDBACK

MEETINGS WITH THE PUBLIC THROUGHOUT DESIGN

MEETINGS WITH FACULTY AND STUDENTS THROUGHOUT DESIGN

LISTENING - IDP SESSIONS

- **Four Intensive Design Process (IDP)** sessions at BHS, including more than 50 hours of discussions with faculty, staff, students, and athletics & recreation:

  - IDP 1: September 13 - 15, 2017
  3 days, 30 meetings, 21 groups

  - IDP 2: October 3, 2017
  1 day, 10 meetings, 10 groups

  - IDP 3: October 31, 2017
  1 day, 8 meetings, 10 groups

  - IDP 4: December 14 - 15, 2017
  2 days, 17 meetings, 21 groups

- **Brington Road Neighbors' Meeting:** December 20, 2017
- **Faculty & Student Open House at BHS:** February 15, 2018
- **Six BHS Expansion Advisory Building Committee Meetings** since September 2017, open to public

WRA & BHS Faculty during IDP session at BHS campus

WRA & Community Members at BHS Expansion Advisory Building Committee Meeting

BRINGTON ROAD NEIGHBORS' MEETING (DEC 20, 2017)

FACULTY & STUDENT OPEN HOUSE AT BHS (FEB 15, 2018)

WRA with BHS Faculty & Students during Open House Session at BHS campus

REVIEW OF STEM WING PLANS WITH BHS FACULTY (MAY 11, 2018)

FULL SCALE CHEM / BIO LAB MOCKUP (JUNE 21, 2018)

BHS OPEN HOUSE (FEBRUARY 2020)

BHS OPEN HOUSE (FEBRUARY 2020)

111 CYPRESS BUILDING (NOW 22 TAPPAN ST)

111 CYPRESS: RESPONDING TO EDUCATION PLAN

1. Create a Unified Campus

- Civic Presence on Cypress Field
- Main Door facing West toward rest of Campus
- 111 Cypress Building programmed primarily for 9th grade students, with several classrooms for specifically for upper class courses
- 9th Grade students will take classes in Unified Arts Building (UAB), Tappan Athletic Complex and Main Building

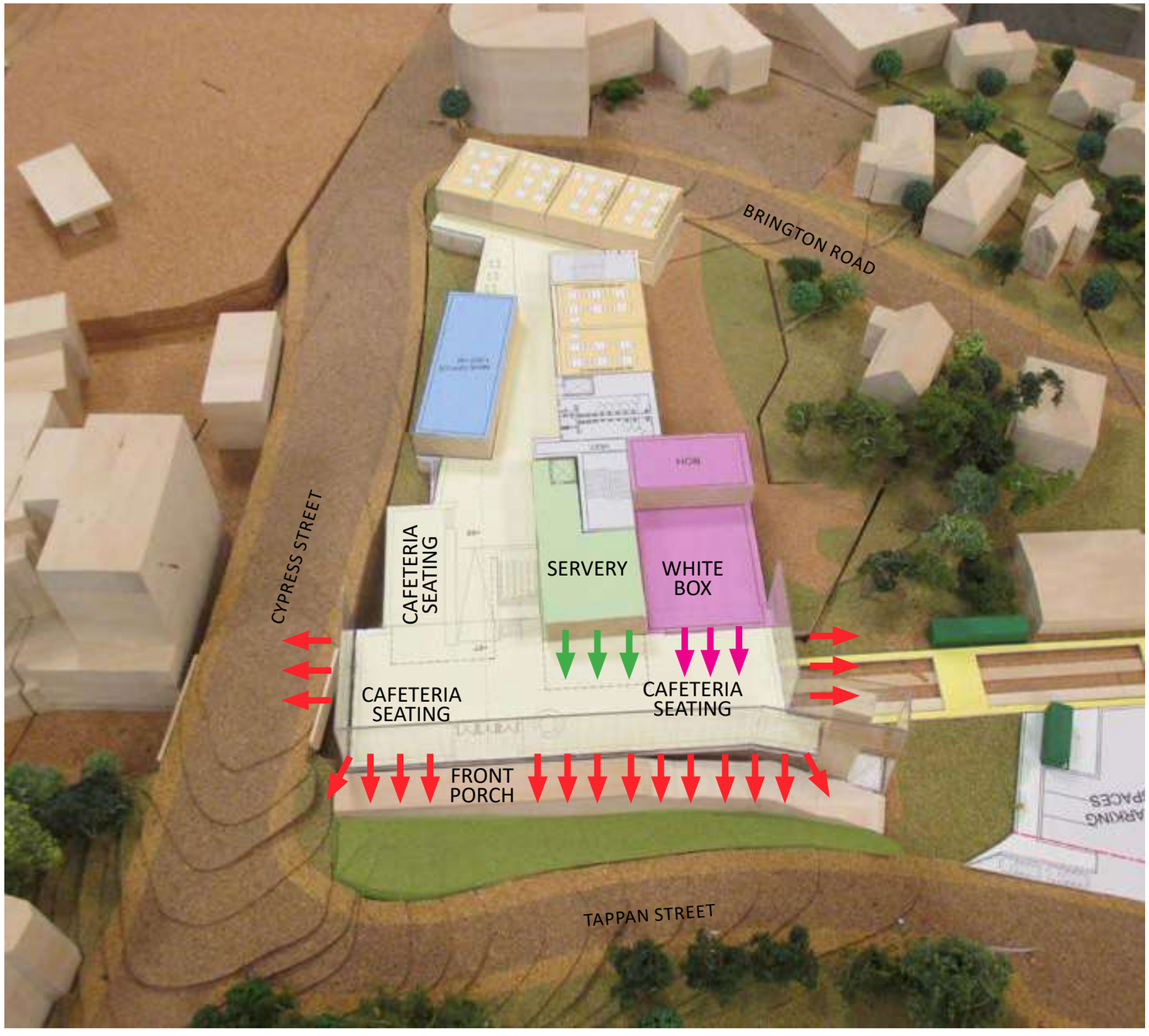
2. Engage Students Deeply

- Interdisciplinary “Quilt” organization: classrooms programmed as any discipline (Math, English, or Social Studies)
- Flexible classroom seating and teaching arrangements
- Integrated breakout spaces
- “Front Porch” on Tappan: a place like Greenough Street for after-school gathering
- See & Be Seen at Cafeteria

3. Serve All Students

- Adult presence on each floor
- Find your Niche: variety of places to gather, study in groups, seek help, get engaged- library, library porch, science collaboration zone, south stair

111 CYPRESS: MAJOR PUBLIC SPACES FRONTING CYPRESS FIELD (LEVEL 1)



LEVEL 1

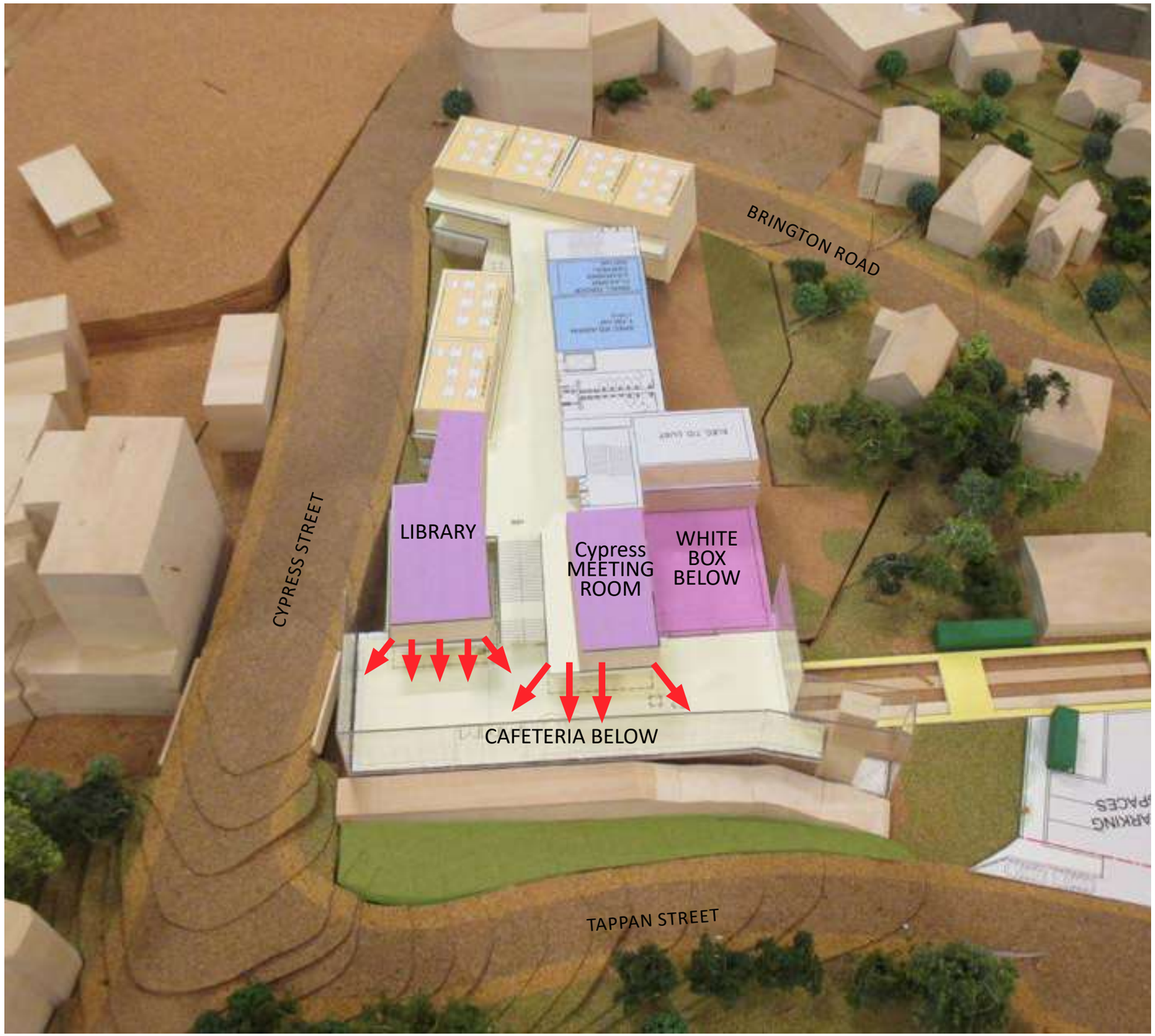
WHITE BOX - MULTIPLE USES

LECTURES / MEETINGS

CLASSES

PERFORMANCE

111 CYPRESS: MAJOR PUBLIC SPACES FRONTING CYPRESS FIELD (LEVEL 2)

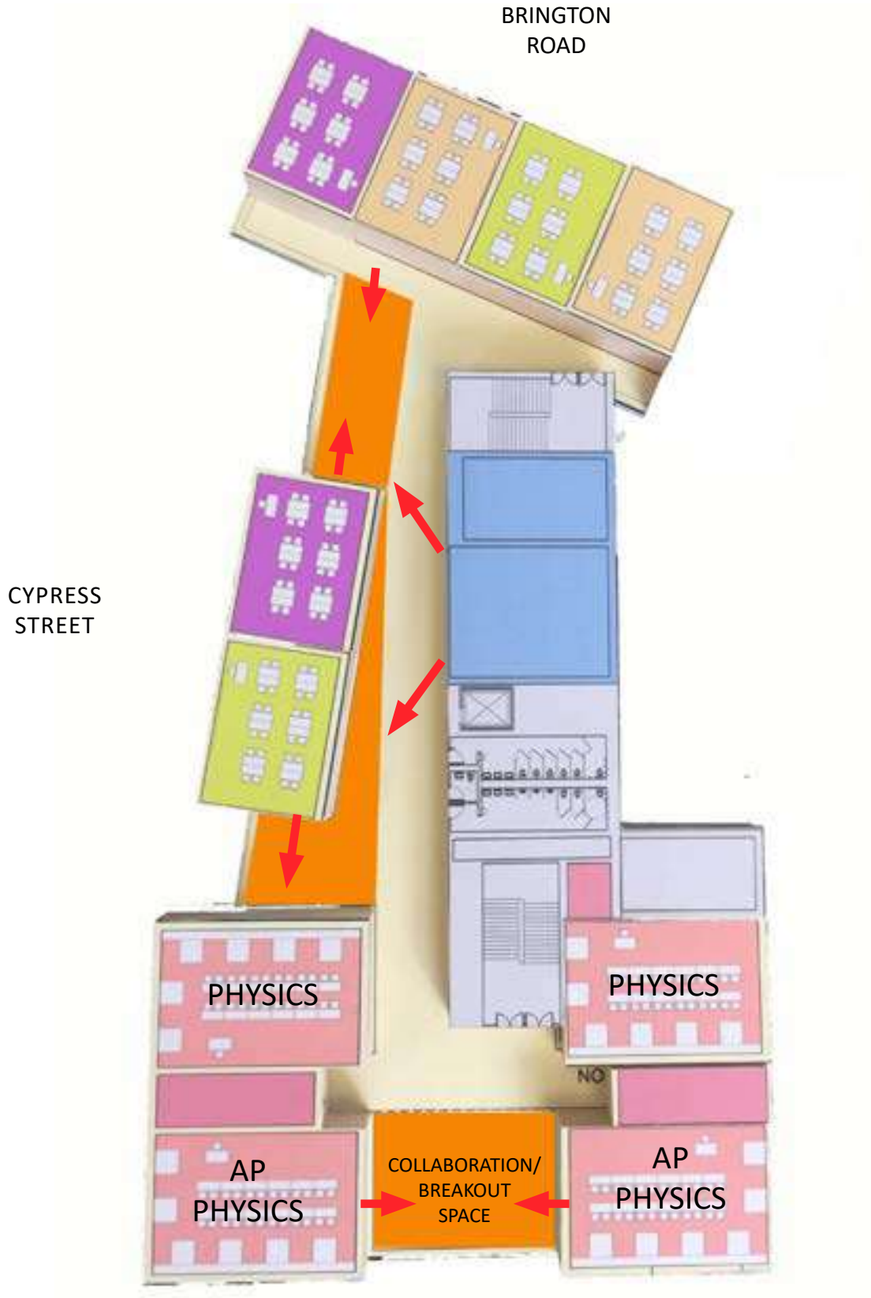


LEVEL 2

Library Porch Precedent: Concord Carlisle High School

Library Reading Room Precedent: Noble & Greenough Academic Inquiry Center (Under Construction)

111 CYPRESS: INTERDISCIPLINARY CLASSROOM ORGANIZATION



LEVEL 3

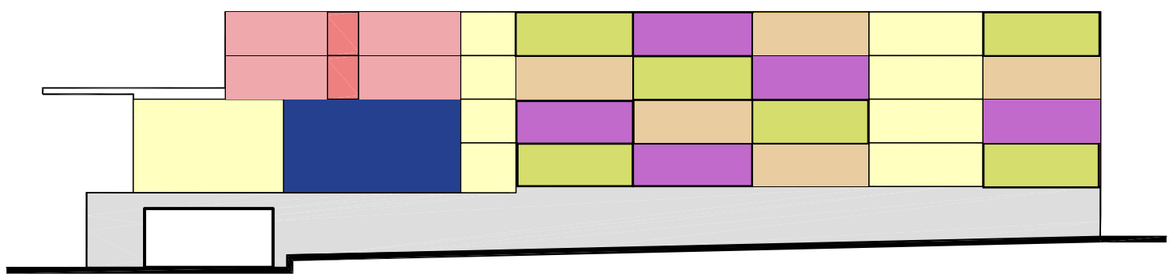
TAPPAN STREET

PURPOSE BUILT PROGRAM

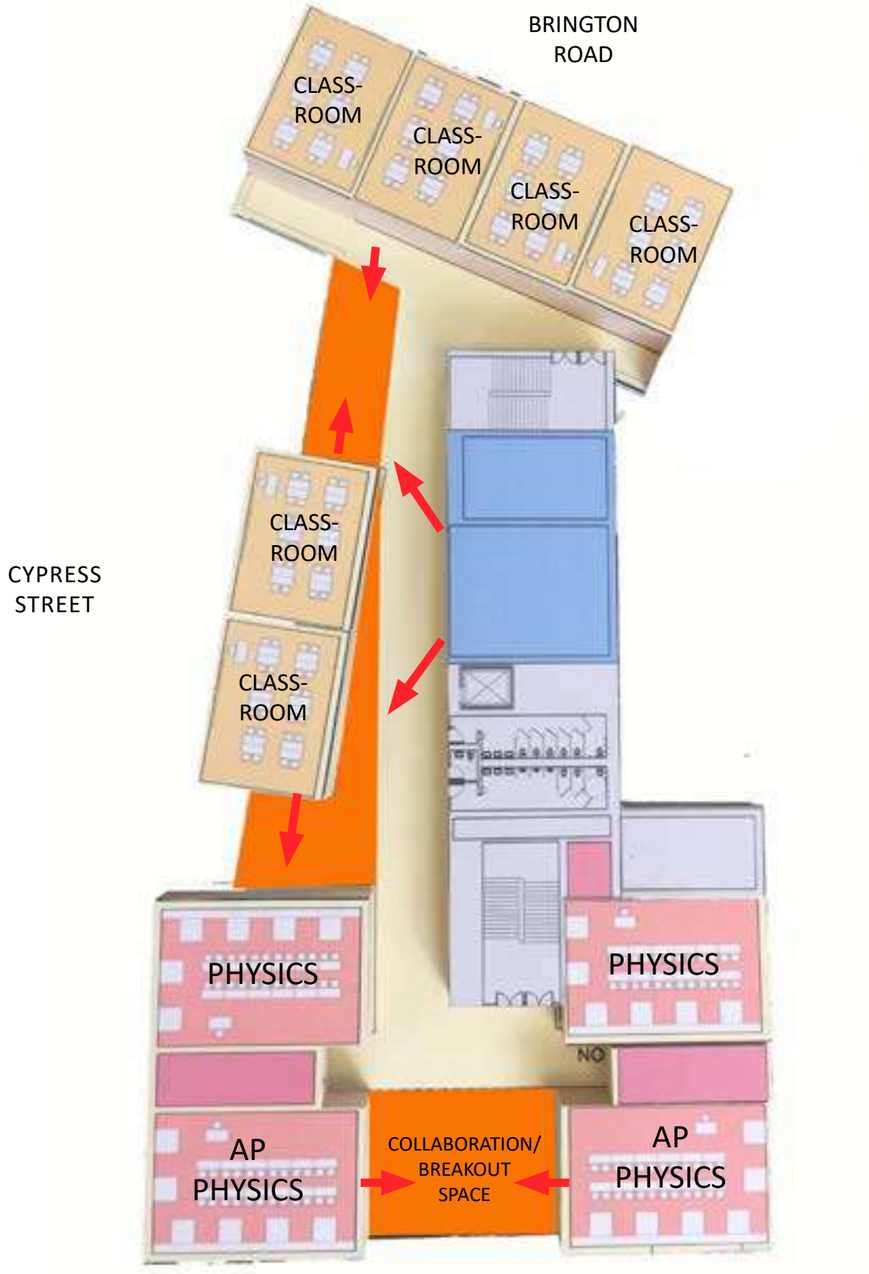
- PHYSICS
- GUIDANCE / SPEC ED.

FLEXIBLE USE PROGRAM

- MATH
- SOCIAL STUDIES
- ENGLISH
- COLLABORATION SPACE



111 CYPRESS: 3RD & 4TH FLOOR PLANS COLLABORATION / BREAKOUT SPACES



LEVEL 3

Collaboration Haven

Garage doors can connect Physics class/labs to the collaboration space

111 CYPRESS: A CIVIC PRESENCE

TAPPAN STREET “FRONT PORCH”

TAPPAN STREET “FRONT PORCH”

CAFETERIA

SOUTH COLLABORATION SPACE

PHYSICS COLLABORATION SPACE

CYPRESS STREET LANDSCAPE PLAN

CYPRESS BUILDING - SUSTAINABILITY

ENERGY CONSERVATION MEASURES

1. LEED CERTIFIABLE - LEED SILVER
2. PARTIAL COOLING IN LIEU OF FULL COOLING LOWERS OVERALL ENERGY USE FOR THE PROJECT.
3. REDUNDANT HEATING STRATEGY TO REDUCE ENERGY COSTS: PERIMETER FIN TUBE RADIATORS HEAT THE BUILDING AT NIGHT AND DURING UNOCCUPIED HOURS ALLOWING SHUT DOWN OF AIR HANDLING UNITS
4. IMPROVED WALL AND ROOF INSULATION PERFORMANCE
5. GLAZING SELECTION MAXIMIZES PASSIVE SOLAR HEAT GAIN REDUCING WINTERTIME HEATING LOADS
6. REDUCED INTERIOR LIGHTING THROUGH USE OF HIGH-EFFICIENCY LED LIGHT FIXTURES
7. HIGH EFFICIENCY VAV MECHANICAL UNITS WITH ENERGY RECOVERY CAPABILITY
8. HIGH EFFICIENCY CONDENSING BOILERS AND AIR-COOLED CHILLER
9. PV READY ROOF (SOUTHERN PORTION OF THE ROOF ALONG BRINGTON RD): $5,500 ANNUAL ENERGY SAVINGS ANTICIPATED
10. HIGHLY REFLECTIVE ROOF: REDUCES HEAT ISLAND EFFECT
11. OCCUPANCY SENSORS FOR LIGHTING AND VENTILATION
12. ABUNDANT NATURAL DAYLIGHTING COUPLED WITH DAYLIGHT SENSORS REDUCES ELECTRICAL ENERGY CONSUMPTION
13. OPERABLE WINDOWS FOR NATURAL VENTILATION: WINDOW SENSORS REDUCE MECHANICAL VENTILATION TO INTERIOR SPACES WHEN WINDOWS ARE OPEN.

STEM WING

STEM WING: RESPONDING TO EDUCATION PLAN

1. Create a Unified Campus

- New Entry to Main Building at corner of Tappan & Greenough
- Strong visual connection and accessibility to Quad
- Direct access to staircase connecting floors 1, 2, and 3, toward auditorium & library

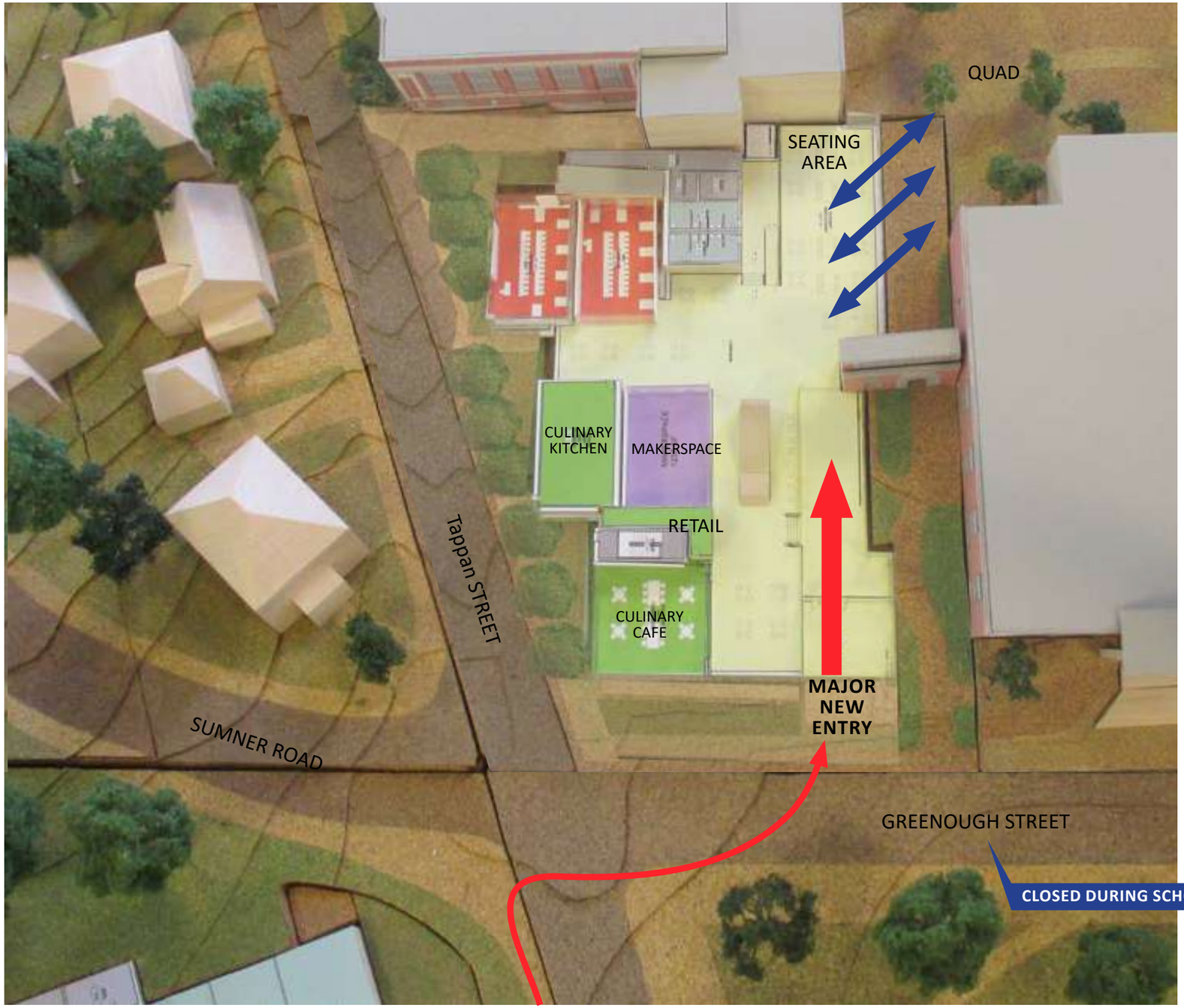
2. Engage Students Deeply

- Science Resource Center serves as academic hub
- Chemistry and Biology classrooms share floors to encourage collaboration; see classes you'll take in subsequent years
- Movable furniture to facilitate diverse learning environments
- Multiple classrooms share breakout spaces with view to the outdoors

3. Serve All Students

- New 20' wide accessible entry
- Places to gather, study in groups: expanded network of collaboration zones in Main Building - STEM wing will have places all students will want to use
- Multi-use cafe space can be used for classes, cafe, community meetings, and adult education programs

STEM WING: CREATE A MAJOR HIGH SCHOOL BUILDING ENTRANCE



LEVEL 1

A major building entrance sized to accommodate student preference for entry here:

- 20’ wide entry hallway
- Direct access to staircase connecting floors 2 & 3
- Accessible entrance

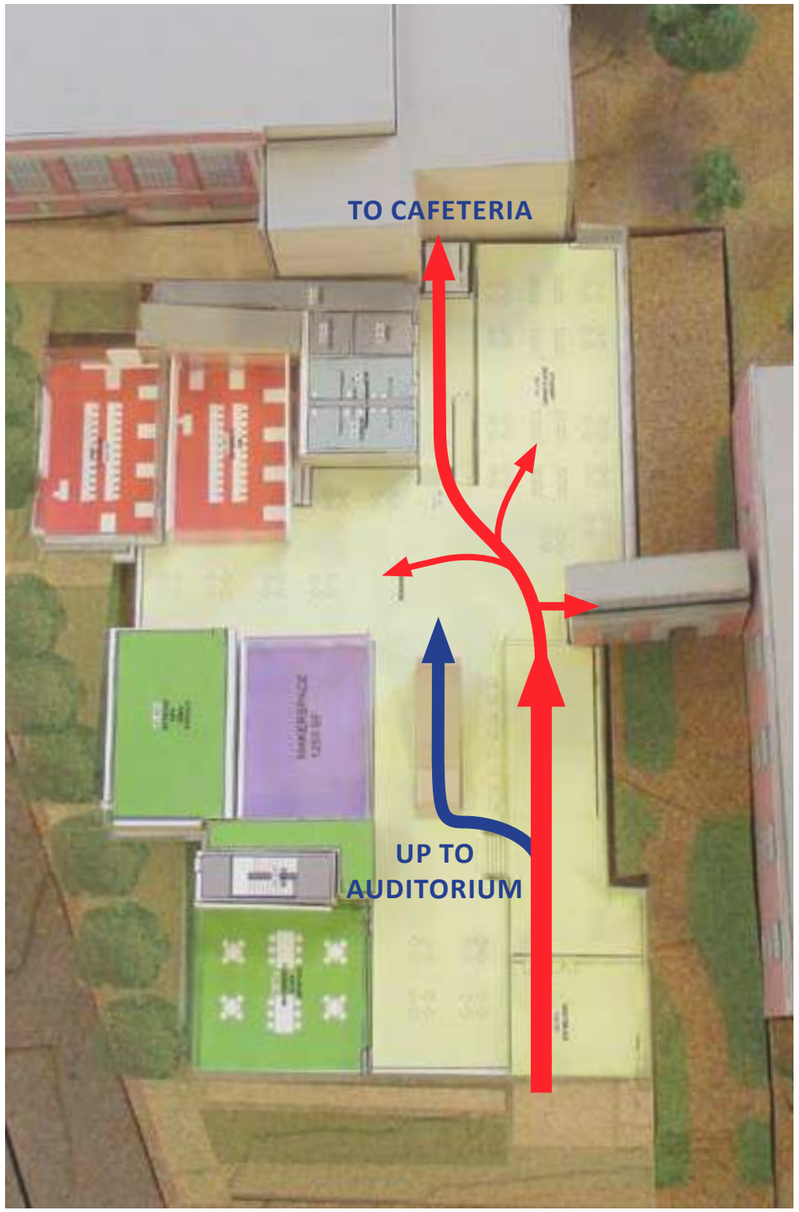
Connecting to the Quad

- New doorway to the Quad
- Abundant glazing for views to the Quad
- Gathering / seating area adjacent to the Quad

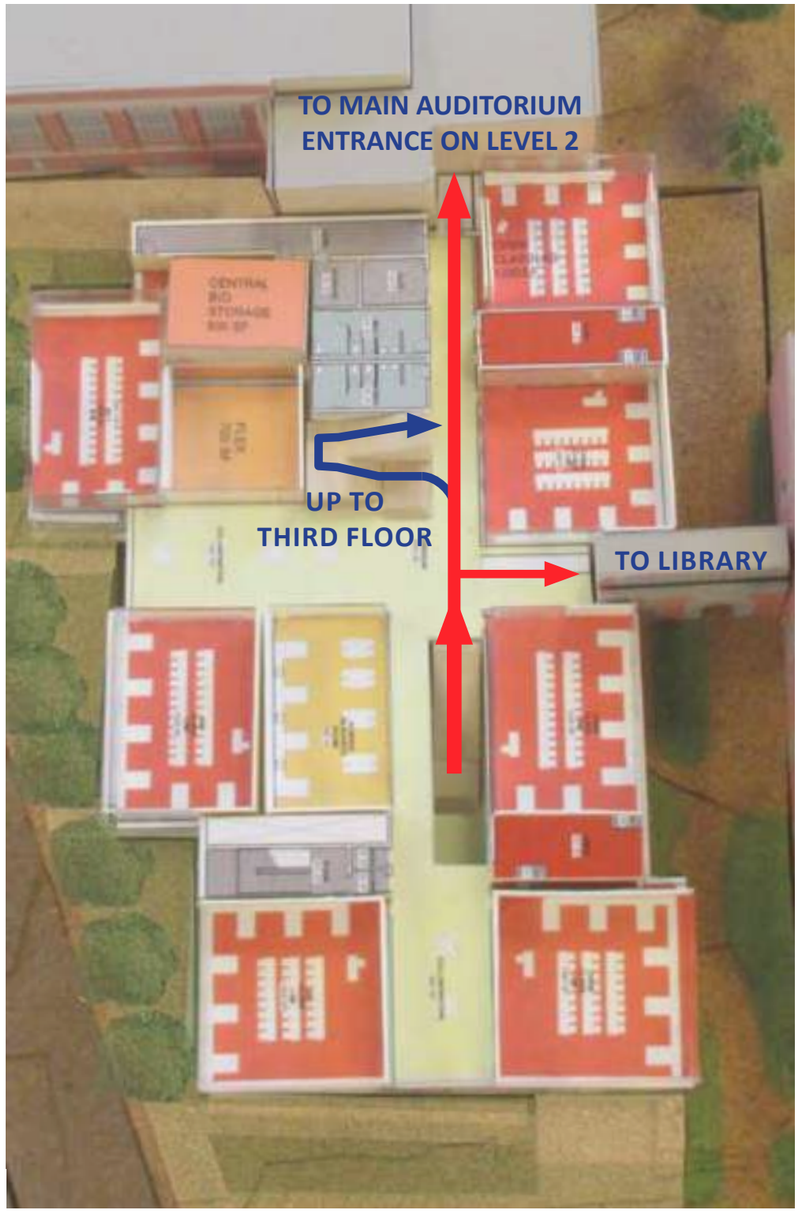
Expanding Cafeteria Seating

- Seating area facing the Quad expands cafeteria capacity at peak lunch hours

STEM WING: FACILITATE CIRCULATION THROUGH THE BUILDING



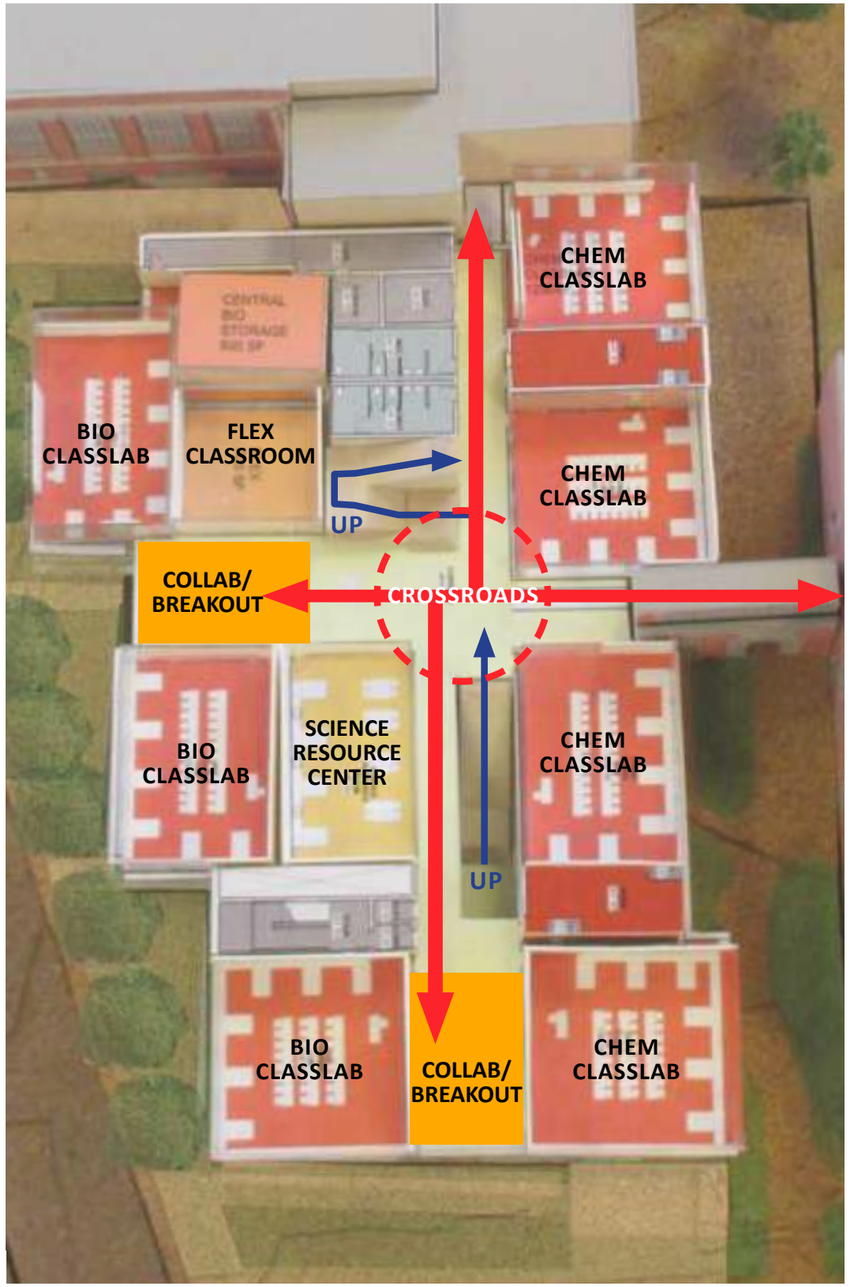
LEVEL 1



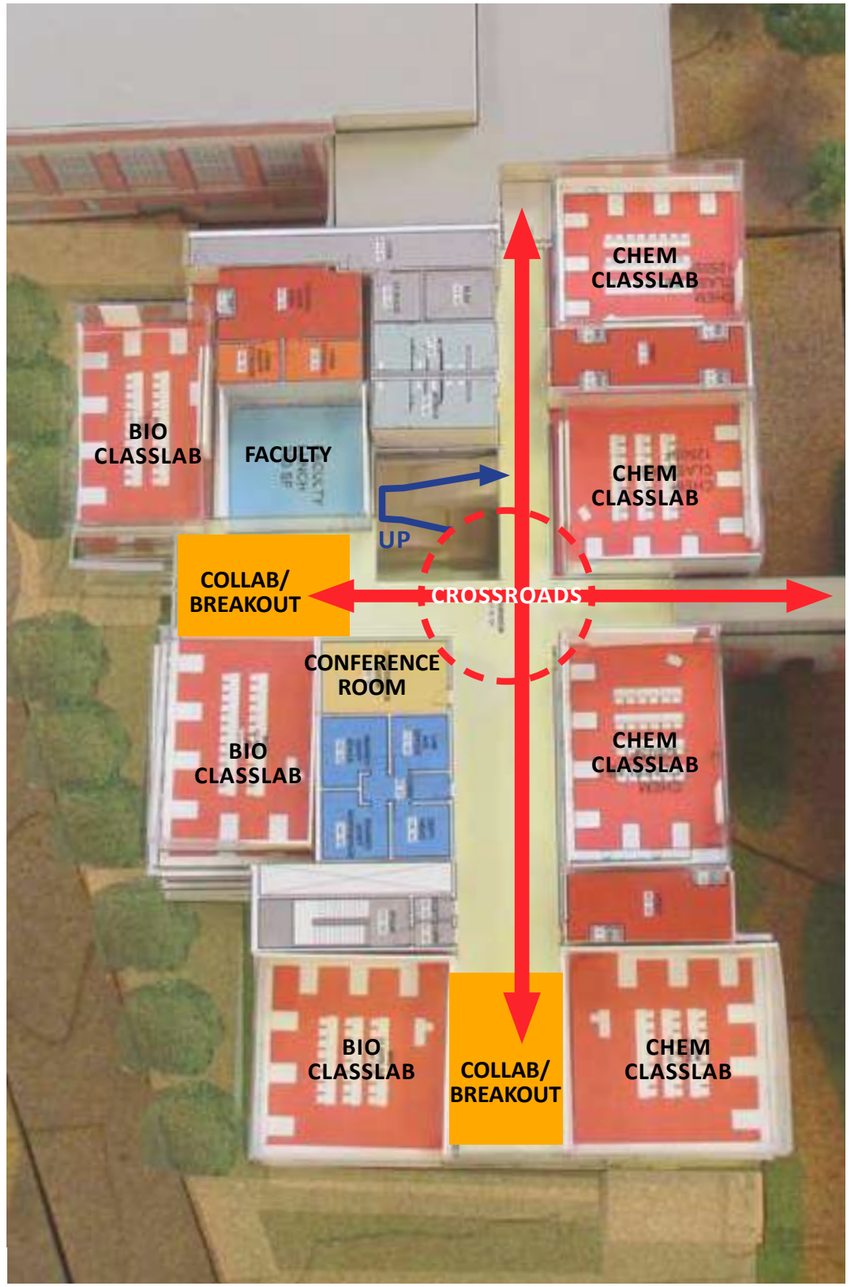
LEVEL 2

LEVEL 3

STEM WING: A NEW HUB FOR SCIENCE



LEVEL 2



LEVEL 3

Science Crossroads:

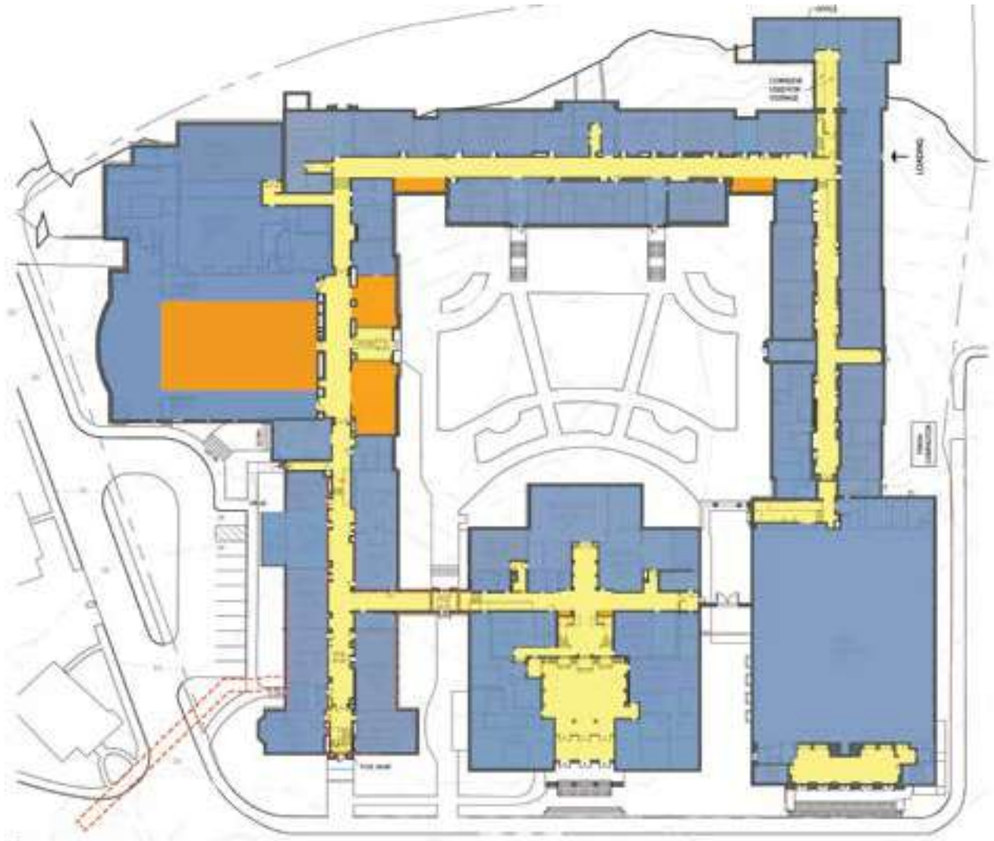
- Adjacent to Science Resource Center & Flex Classroom on Level 2
- Adjacent to Faculty Spaces on Level 3

Interdisciplinary:

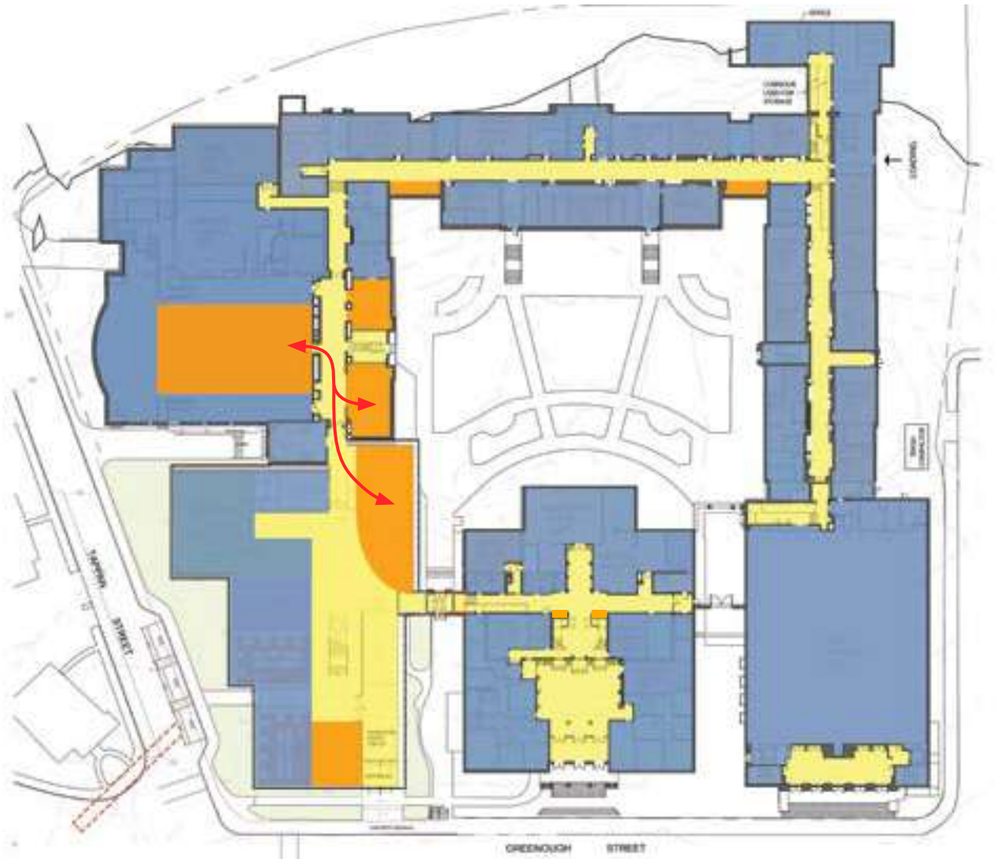
- Biology & Chemistry on each floor

STEM WING: EXPANDING A NETWORK OF CO-CURRICULAR GATHERING SPACES

EXISTING



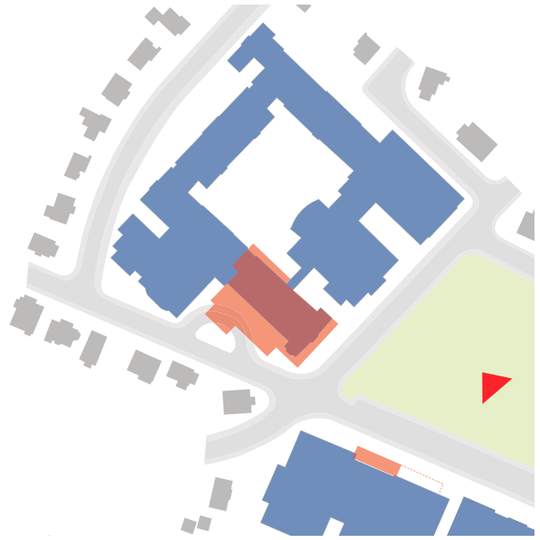
PROPOSED



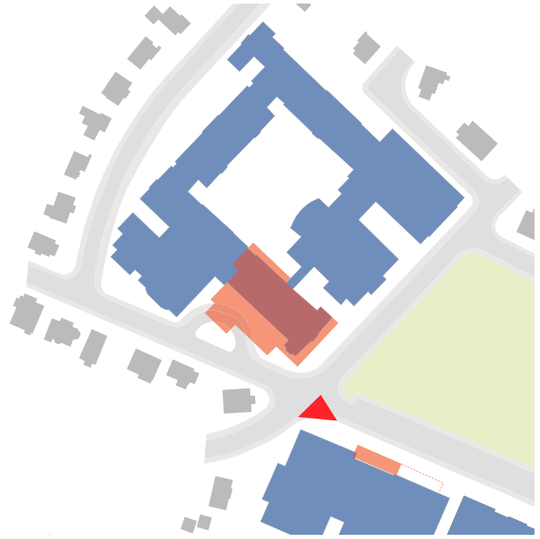
Collaboration & Breakout Space

- New seating on ground floor of the STEM wing facing the Quad expands cafeteria capacity at peak lunch hours
- New collaboration spaces expands a network of co-curricular gathering spaces

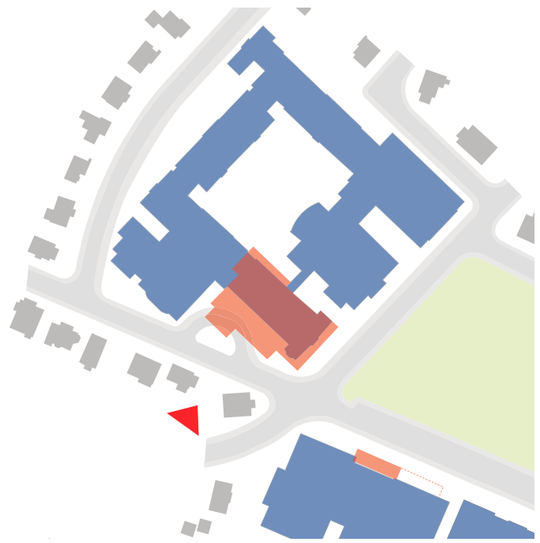
STEM WING: MODEL PHOTO



STEM WING: MODEL PHOTO



STEM WING: MODEL PHOTO



CULINARY ARTS CAFE

1ST LEVEL COLLABORATION

LEVEL 1 MAKER SPACE

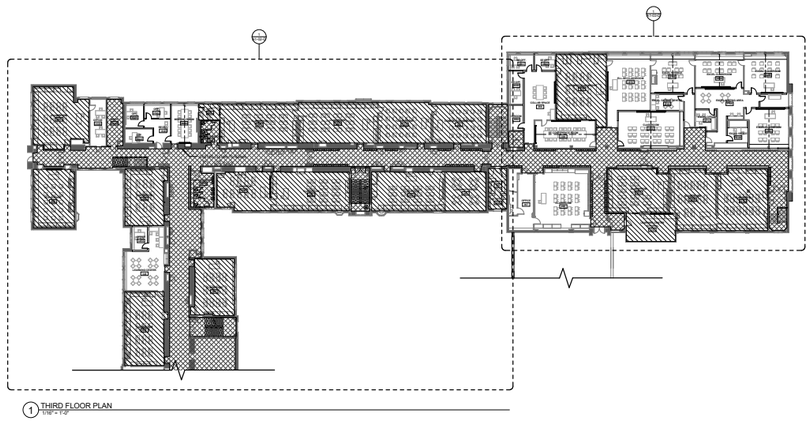
STEM WING - SUSTAINABILITY

ENERGY CONSERVATION MEASURES

1. LEED CERTIFIABLE – LEED SILVER
2. PARTIAL COOLING IN LIEU OF FULL COOLING LOWERS OVERALL ENERGY USE FOR THE PROJECT DURING SUMMER MONTHS.
3. REDUNDANT HEATING STRATEGY TO REDUCE ENERGY COSTS: PERIMETER FIN TUBE RADIATORS HEAT THE BUILDING AT NIGHT AND DURING UNOCCUPIED HOURS ALLOWING SHUT DOWN OF AIR HANDLING UNITS
4. IMPROVED WALL AND ROOF INSULATION PERFORMANCE
5. GLAZING SELECTION MAXIMIZES PASSIVE SOLAR HEAT GAIN REDUCING WINTERTIME HEATING LOADS
6. REDUCED INTERIOR LIGHTING THROUGH USE OF HIGH-EFFICIENCY LED LIGHT FIXTURES
7. HIGH EFFICIENCY 100% OUTSIDE AIR VAV ENERGY RECOVERY UNITS
8. HIGH EFFICIENCY BOILERS
9. HIGHLY REFLECTIVE ROOF: REDUCES HEAT ISLAND EFFECT
10. OCCUPANCY SENSORS FOR LIGHTING AND VENTILATION
11. ABUNDANT NATURAL DAYLIGHTING COUPLED WITH DAYLIGHT SENSORS REDUCES ELECTRICAL ENERGY CONSUMPTION
12. OPERABLE WINDOWS FOR NATURAL VENTILATION: WINDOW SENSORS REDUCE MECHANICAL VENTILATION TO INTERIOR SPACES WHEN WINDOWS ARE OPEN.

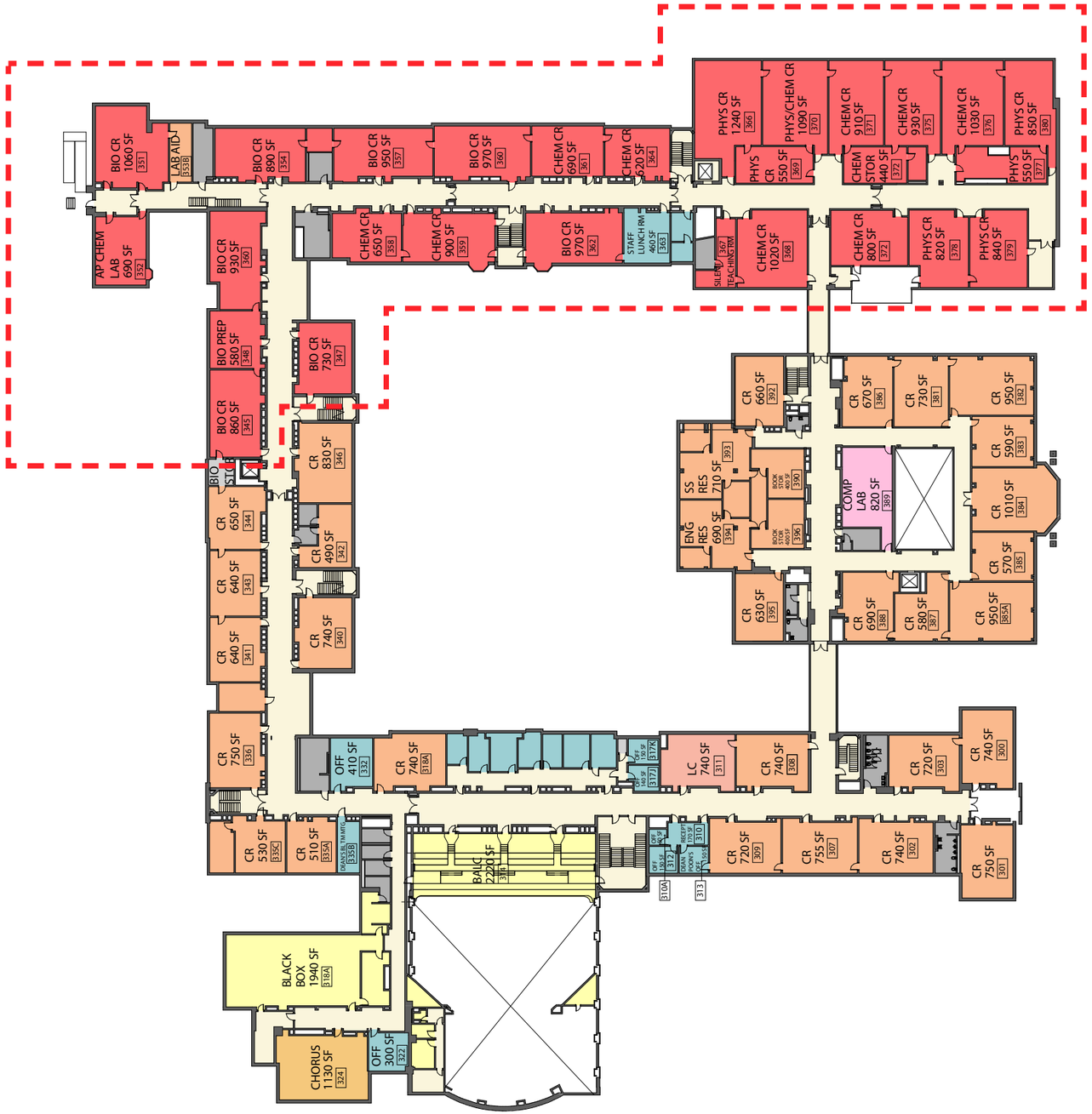
THIRD FLOOR RENOVATION

**SUBJECT TO BUDGET VOTE AT JUNE 2020 TOWN MEETING*

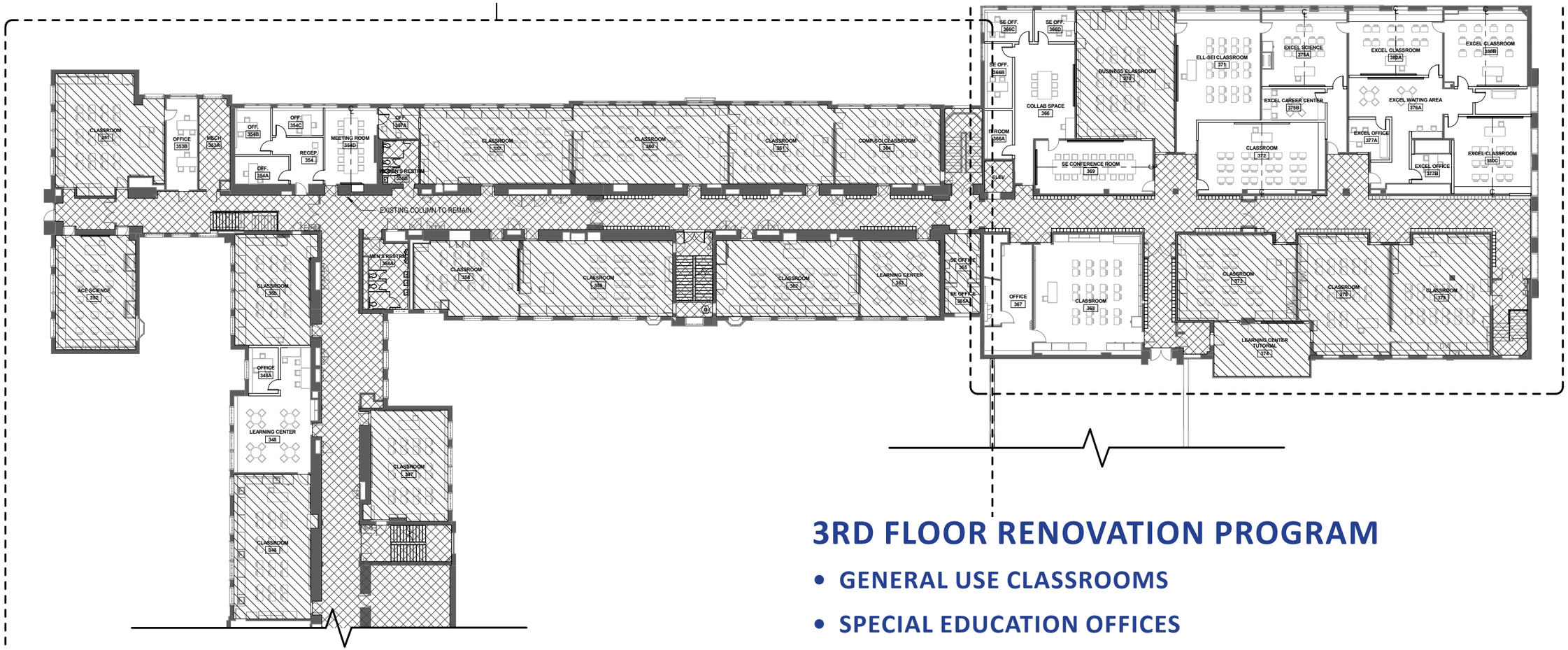


1 THIRD FLOOR PLAN
1/16" = 1'-0"

3RD FLOOR RENOVATION SCOPE



3RD FLOOR RENOVATION SCOPE



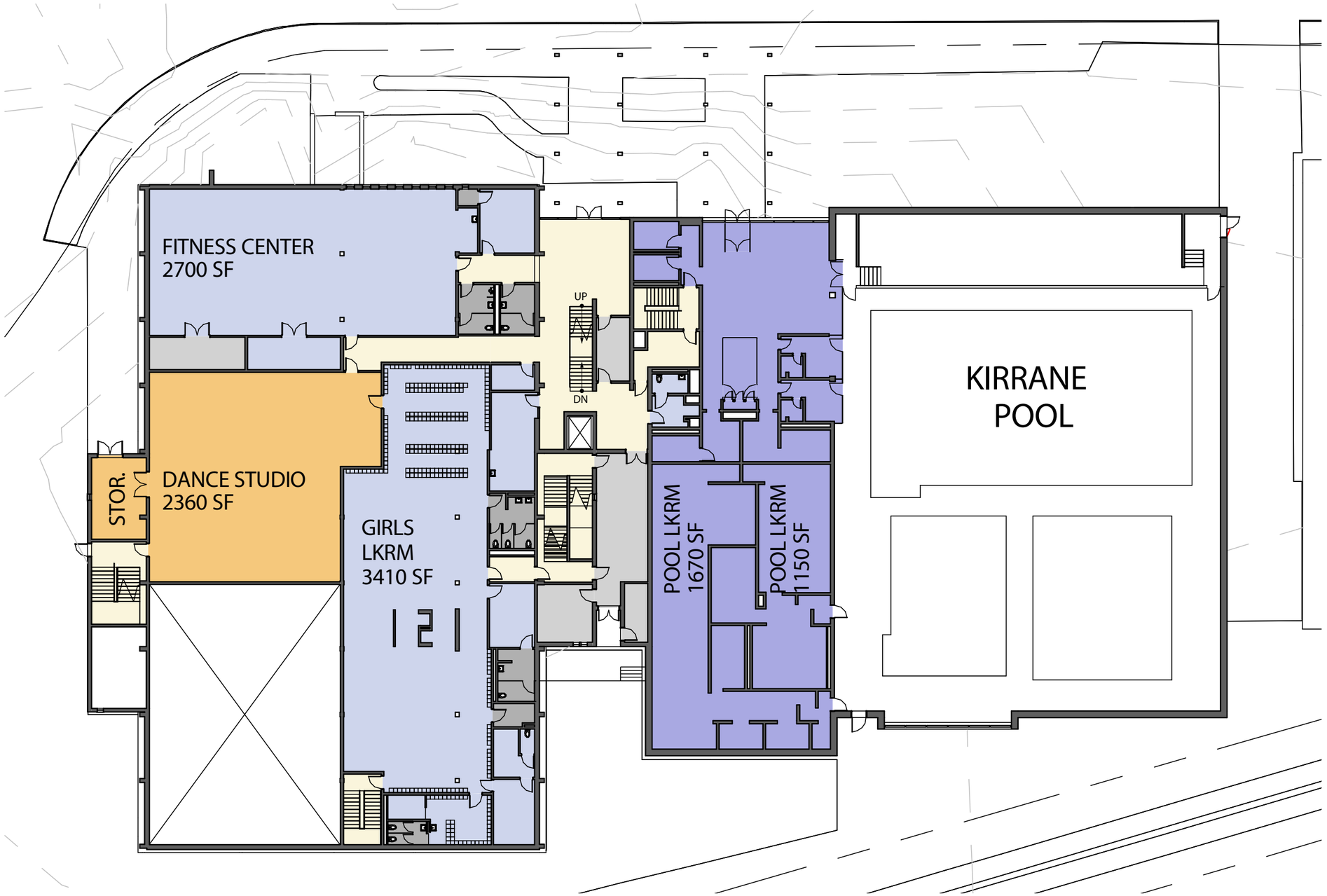
3RD FLOOR RENOVATION PROGRAM

- GENERAL USE CLASSROOMS
- SPECIAL EDUCATION OFFICES
- LEARNING CENTER
- ACE SCIENCE CLASSROOM
- EXCEL CLASSROOMS

TAPPAN RENOVATION

**SUBJECT TO BUDGET VOTE AT JUNE 2020 TOWN MEETING*

TAPPAN GYMNASIUM BUILDING: EXISTING CONDITIONS 1ST FLOOR



TAPPAN RENOVATION: 1ST FLOOR PLAN

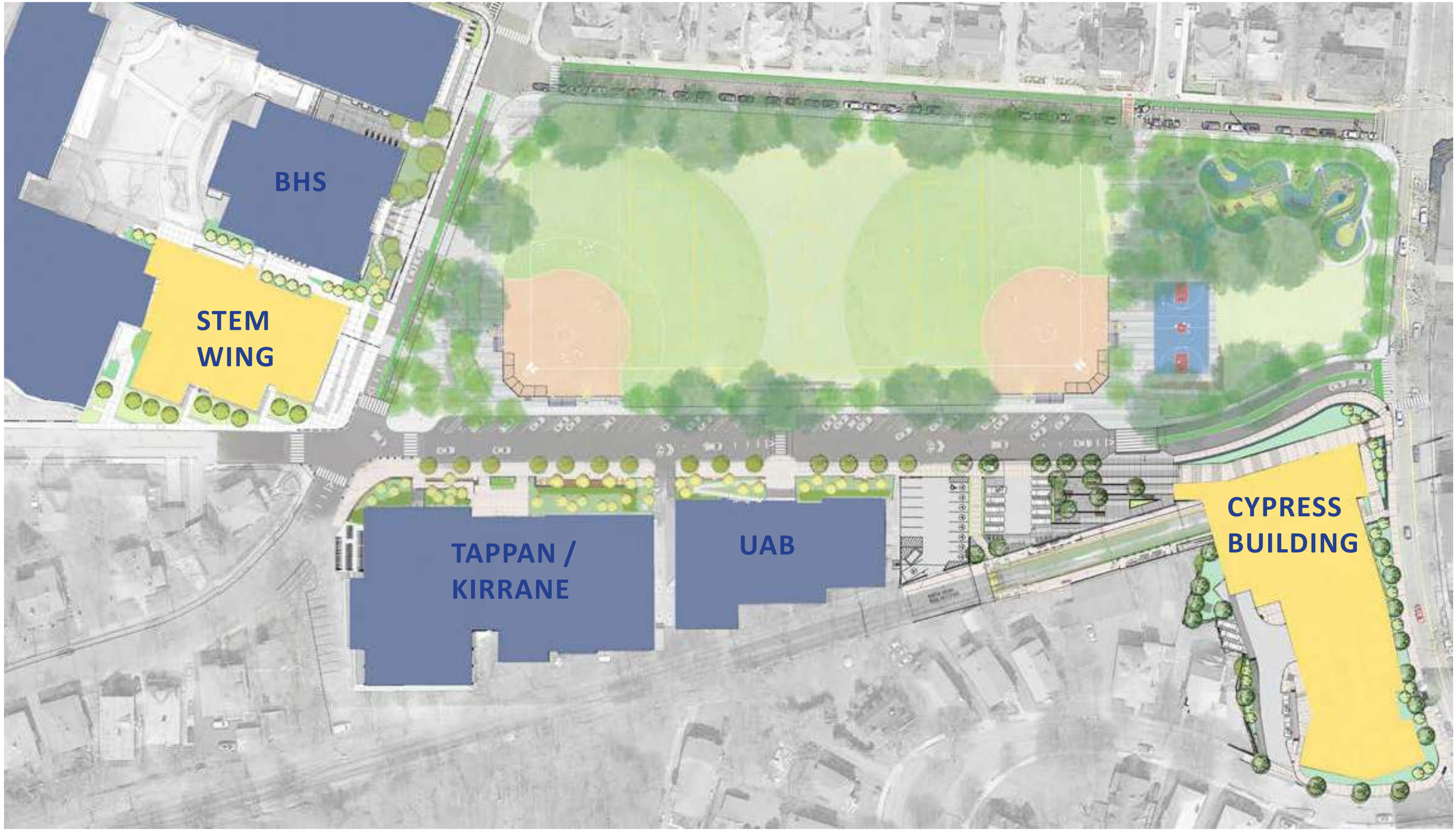
TAPPAN RENOVATION: LOWER LEVEL PLAN

1/8" = 1'-0"

TAPPAN STREETSCAPE

**SUBJECT TO BUDGET VOTE AT JUNE 2020 TOWN MEETING*

CAMPUS PLAN



PEDESTRIAN IMPROVEMENTS

KEY IMPROVEMENTS

1. WIDEN TAPPAN STREET SIDEWALK

A major pedestrian sidewalk links the new Cypress Building with the main high school building.

2. RAISE CROSSWALKS ALONG TAPPAN STREET

Raised crosswalks calm traffic and provide safer crossings at the UAB building and new Cypress Building.

3. DIRECT CONNECTION TO THE MBTA STATION

A direct pedestrian path links Davis Street to the Brookline Hills T station.

4. SEATING AND GATHERING ALONG TAPPAN

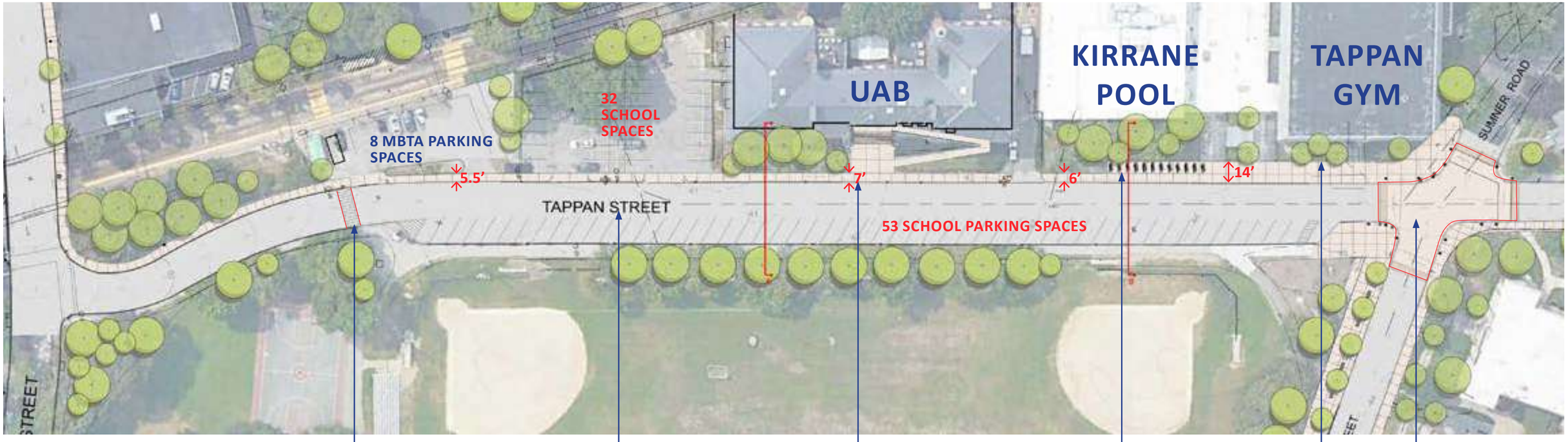
New seating areas at STEM, Tappan/Kirrane, UAB, and the MBTA plaza welcome pedestrians and provide gathering and waiting areas for students, staff, and the community.

5. CURB BULB OUTS ALONG TAPPAN STREET

New curb bulb outs slow traffic and define drop-off areas increasing pedestrian safety.

EXISTING CONDITION: AN INCONSISTENT & UNWELCOMING EXPERIENCE

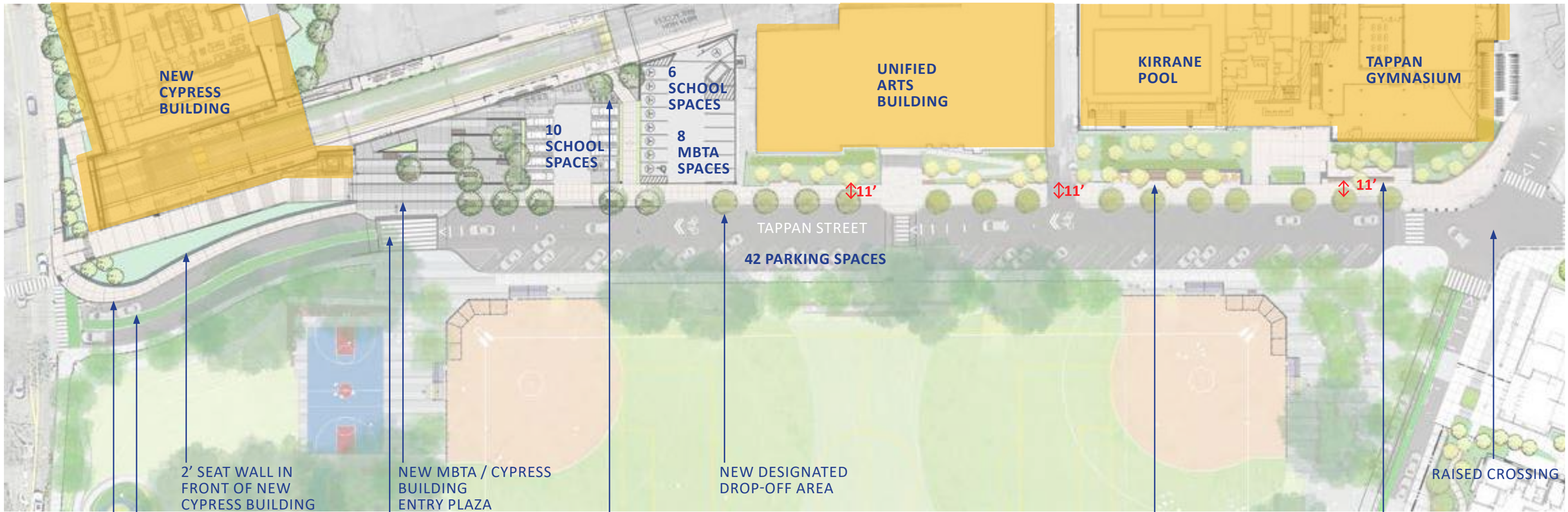
- Width of sidewalk is inconsistent along Tappan Street
- Current sidewalk width (6’ wide generally) will not be sufficient for traffic flow to & from new Cypress Building



1/64” = 1’-0”

CREATE A UNIFIED CAMPUS: A TRANSFORMED TAPPAN STREETSCAPE

- The sidewalk has been increased from 6’ to 11’ wide continuously, with an additional 4’ of planting and seating zone
- New trees along Tappan Street create continuity with Greenough facades
- Benches along Greenough Street popular with students; concept brought to Tappan Street



CYCLING IMPROVEMENTS

KEY IMPROVEMENTS

1. COMPLETE GREEN ROUTES AT BROOKLINE HIGH

Bike lanes on Davis, Greenough, and Tappan link Brookline's Green Routes around the Cypress Field

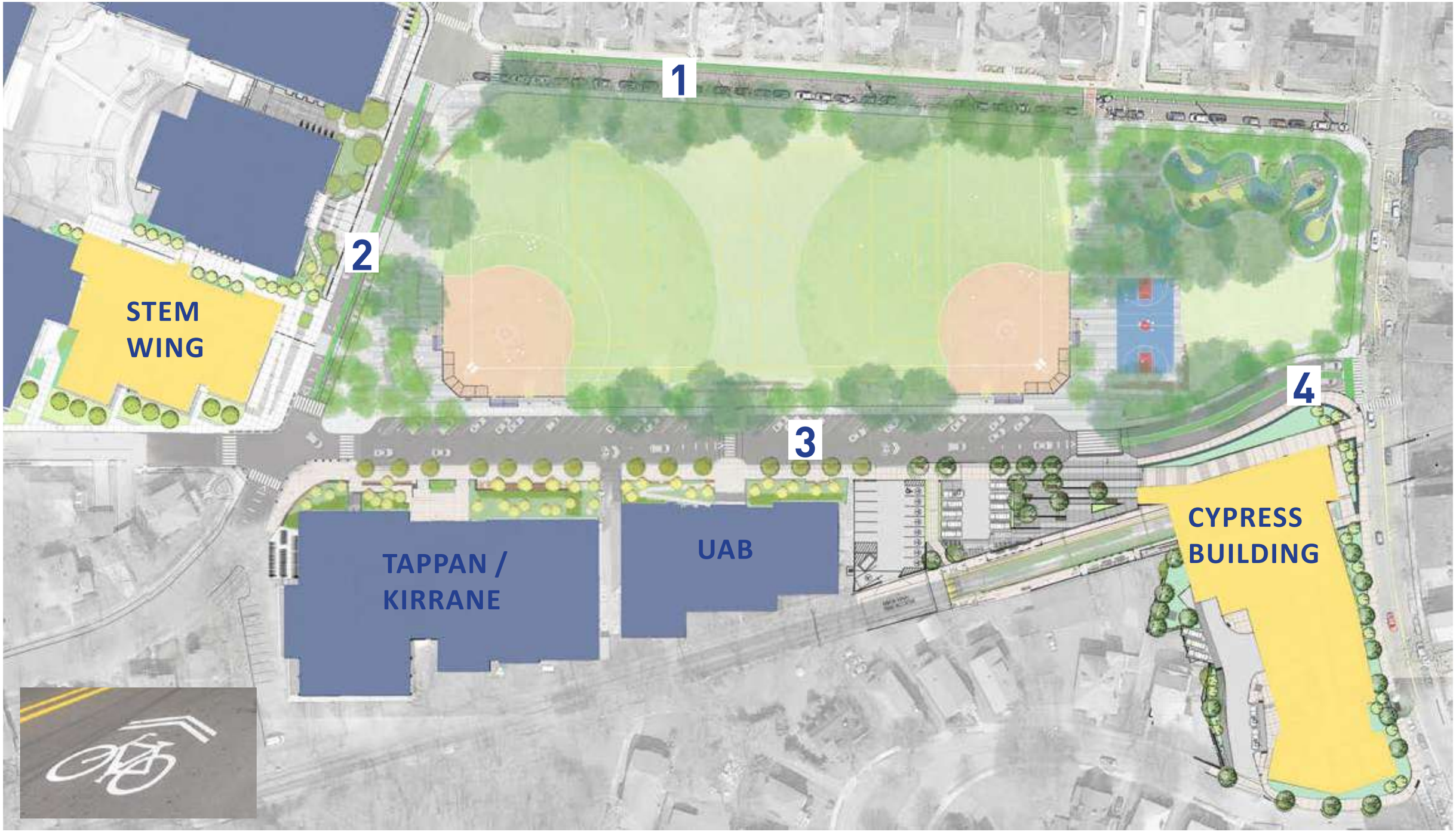
2. IMPROVE BIKE SAFETY ON BHS ROADWAYS FOR THE COMMUNITY

Bike lanes on Davis St, Greenough Street, and Tappan Street improve bicycle safety.

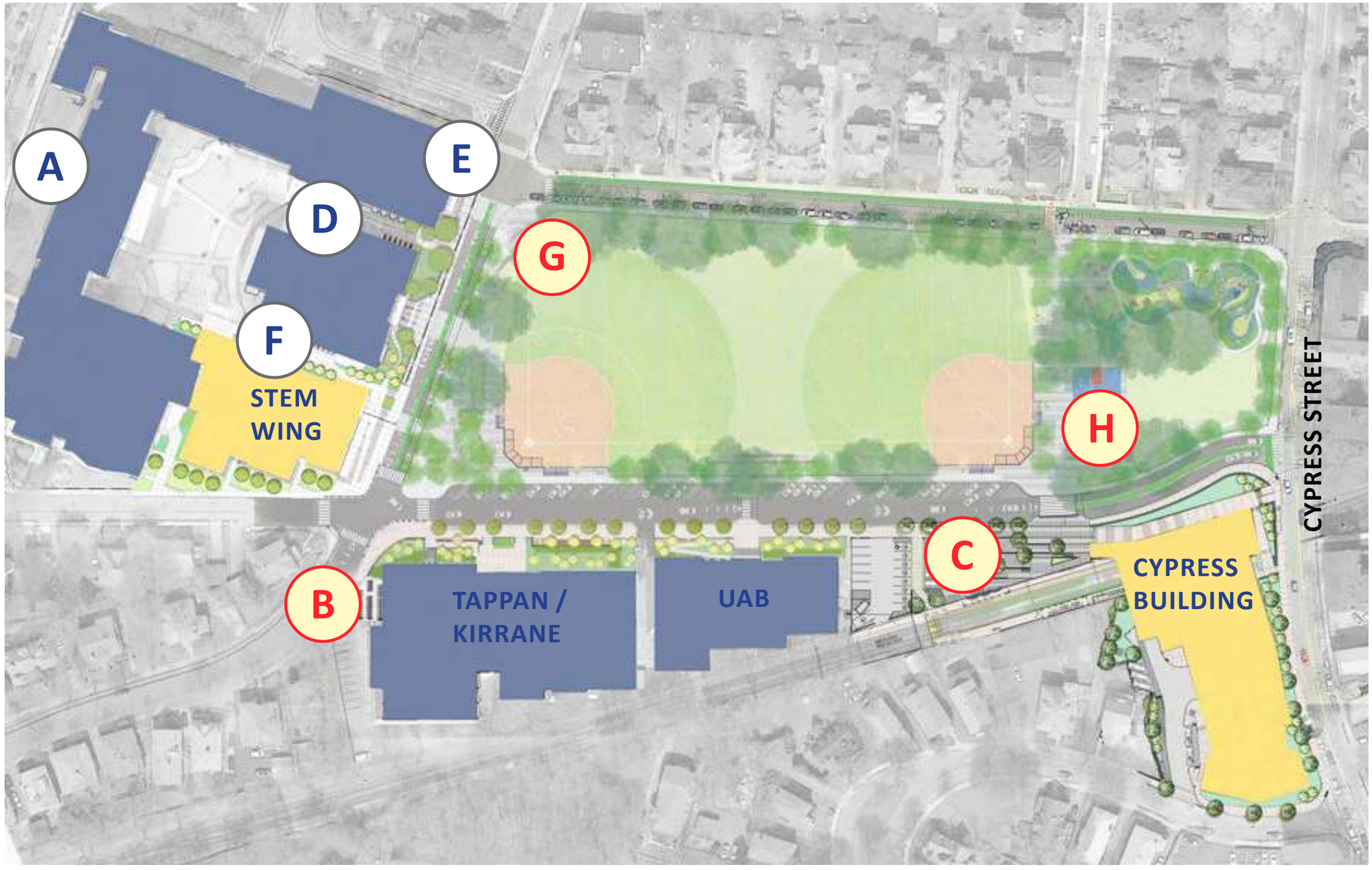
3. INCREASE BIKE PARKING CAPACITY BY 67%

89 bike parking spaces have been added to the BHS campus.

CYCLING IMPROVEMENTS: BIKE LANES



EXISTING BIKE PARKING AT BHS / MBTA PLAZA / CYPRESS FIELD



- A — 23 BIKES
- B — 72 BIKES
- C — 32 BIKES*
- D — 42 BIKES
- E — 21 BIKES
- F — 18 BIKES
- G — 10 BIKES
- H — 6 BIKES

TOTAL BIKE PARKING SPACES:

224

**32 BIKE PARKING SPACES + 15 BLUE BIKES*

G *YELLOW + RED SYMBOL INDICATES NEW BIKE PARKING*

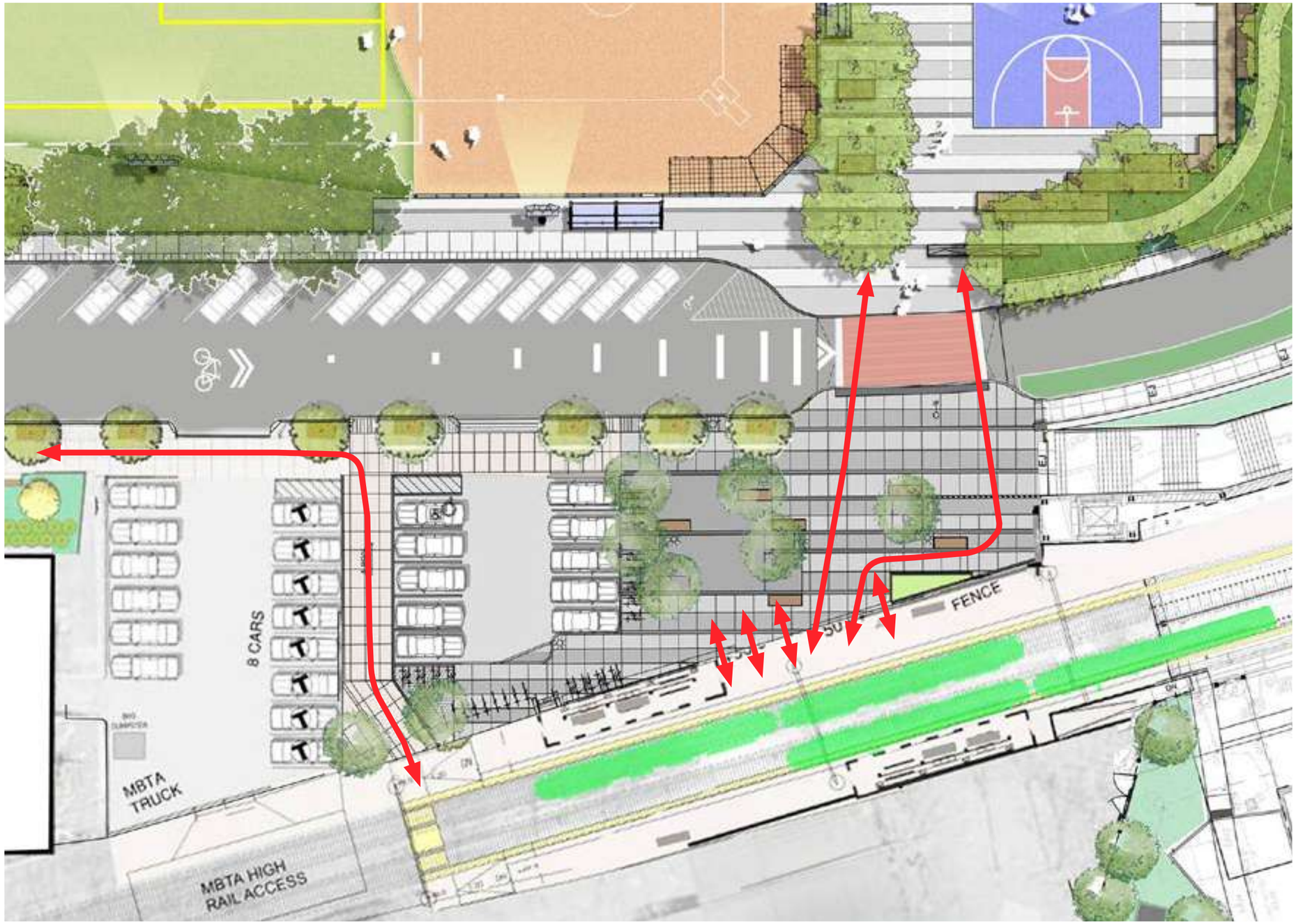
DEFERRED MAINTENANCE

**SUBJECT TO BUDGET VOTE AT JUNE 2020 TOWN MEETING*

- **MAIN H.S. BUILDING ELEVATOR REPLACEMENT (5 ELEVATORS)**
- **NEW BOILERS IN UAB**
- **FIRE PROTECTION UPGRADES**
- **FIRE ALARM REPLACEMENT* (NOW IN STEM PROJECT)**
- **HEAT EXCHANGER REPLACEMENT**
- **BELOW GRADE OIL TANK REMOVAL BETWEEN TAPPAN & UAB**
- **PUMPS VFD REPLACEMENT**

MBTA PLAZA & BROOKLINE HILLS PLATFORM

MBTA PLAZA AND BROOKLINE HILLS STATION RENOVATION



MBTA / CYPRESS BUILDING PLAZA EXISTING CONDITION

MBTA / CYPRESS BUILDING PLAZA DESIGN UPDATE

VIEW FROM TAPPAN ST CROSSWALK

MBTA / CYPRESS BUILDING PLAZA DESIGN UPDATE

AERIAL VIEW

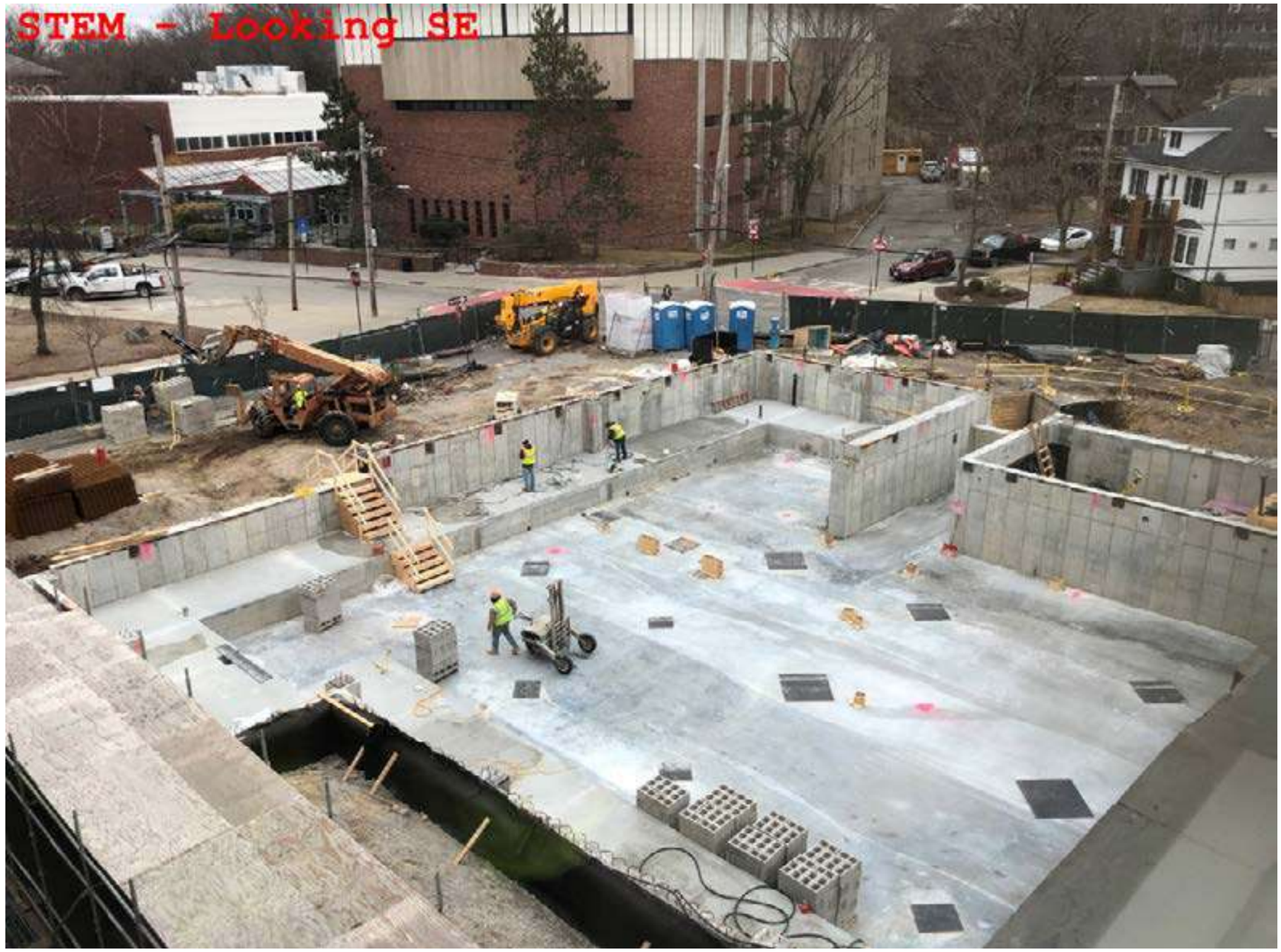
CONSTRUCTION PHOTOS - STEM WING

STEM CONSTRUCTION PROGRESS PHOTO - SEPTEMBER 2019

STEM ENABLING CONSTRUCTION PROGRESS PHOTO - SEPTEMBER 2019

STEM CONSTRUCTION PROGRESS PHOTO - JANUARY 2020

STEM CONSTRUCTION PROGRESS PHOTO - MARCH 2020



STEM CONSTRUCTION PROGRESS PHOTO - MARCH 2020

STEM CONSTRUCTION PROGRESS PHOTO - MARCH 2020

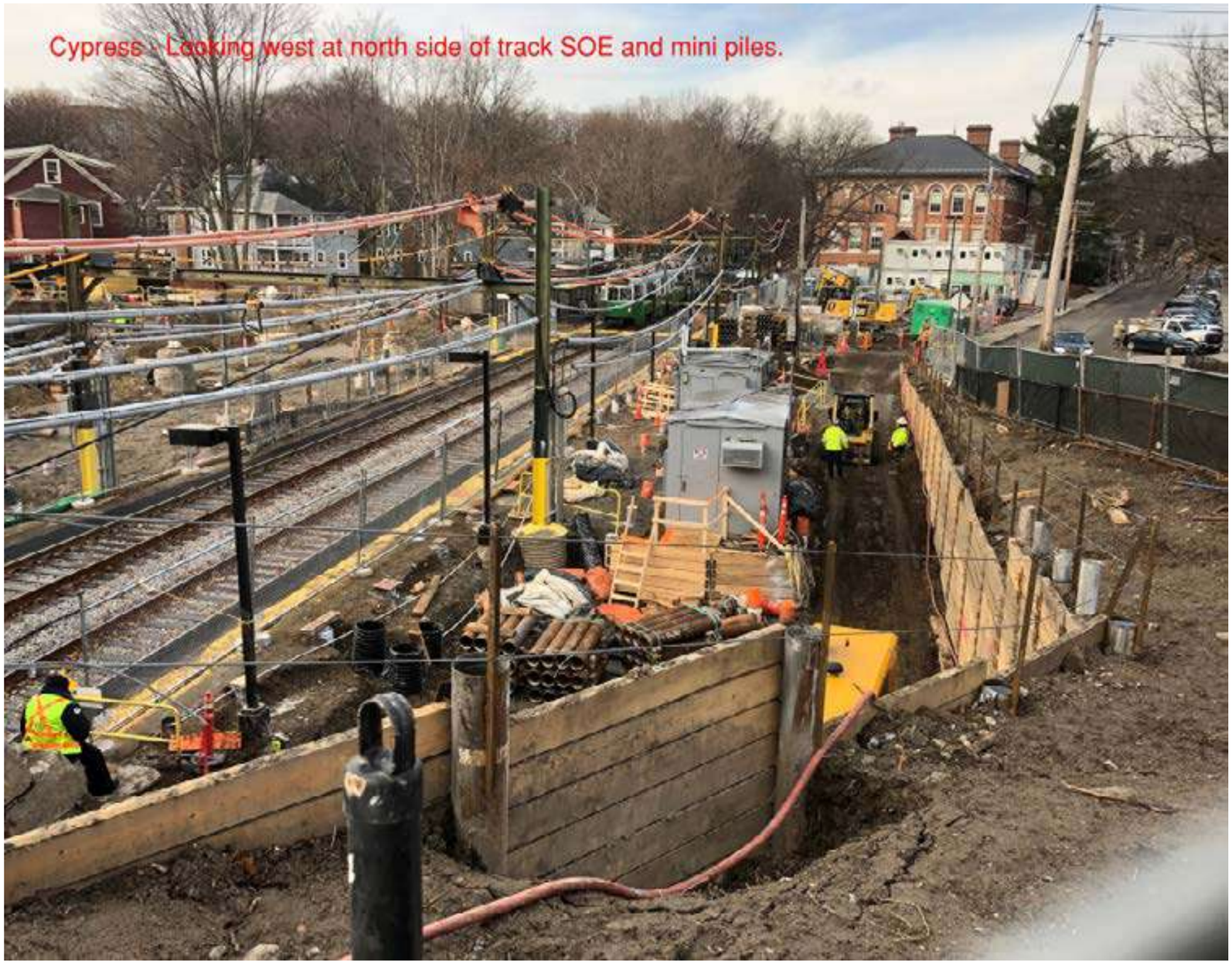
STEM CONSTRUCTION PROGRESS PHOTO - APRIL 2020

STEM CONSTRUCTION PROGRESS PHOTO - APRIL 2020

CONSTRUCTION PHOTOS - CYPRESS BUILDING

CYPRESS CONSTRUCTION PROGRESS PHOTO - SEPTEMBER 2019

CYPRESS CONSTRUCTION PROGRESS PHOTO - JANUARY 2020



CYPRESS CONSTRUCTION PROGRESS PHOTO - JANUARY 2020

CYPRESS CONSTRUCTION PROGRESS PHOTO - JANUARY 2020

CYPRESS / MBTA OCS CONSTRUCTION PROGRESS PHOTO - MARCH 2020

CYPRESS CONSTRUCTION PROGRESS PHOTO - MARCH 2020

CYPRESS CONSTRUCTION PROGRESS PHOTO - MARCH 2020

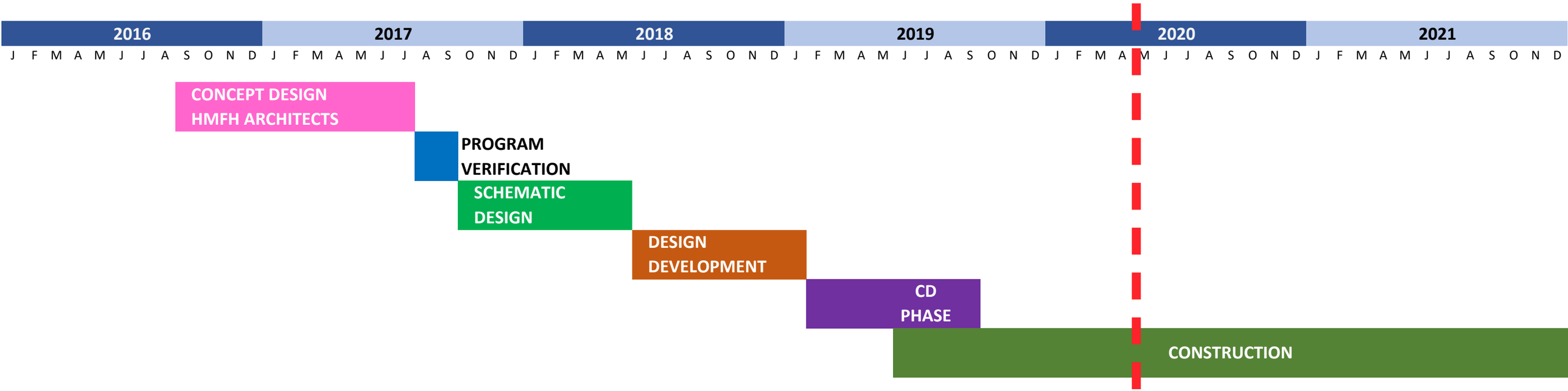
CYPRESS CONSTRUCTION PROGRESS PHOTO - MARCH 2020

CYPRESS CONSTRUCTION PROGRESS PHOTO - APRIL 2020

CYPRESS CONSTRUCTION PROGRESS PHOTO - APRIL 2020

CYPRESS CONSTRUCTION PROGRESS PHOTO - APRIL 2020

PROJECT SCHEDULE



SKANSKA

BROOKLINE HIGH SCHOOL EXPANSION PROJECT
3 MONTH LOOK AHEAD SCHEDULE

111 CYPRESS ST

May				June					July			
WEEK 1	WEEK 2	WEEK 3	WEEK 4	WEEK 1	WEEK 2	WEEK 3	WEEK 4	WEEK5	WEEK 1	WEEK 2	WEEK 3	WEEK 4
4-May	5/112020	18-May	25-May	1-Jun	8-Jun	15-Jun	22-Jun	29-Jun	5-Jul	12-Jul	19-Jul	26-Jul

SUBCONTRACT PROCUREMENT AND SUBMITTAL APPROVAL

MEP COORDINATION

CONSTRUCTABILITY FAÇADE MOCK UP DESIGN AND CONSTRUCTION

STRUCTURAL STEEL AND PRECAST ERECTION

CONCRETE FOUNDATIONS AND WALLS

WATERPROOFING

BACK FILL WALLS AND FOUNDATIONS

Stair 1

MISCELLANEOUS SITE UTILITIES

Impacts due to COVID not realized or fully understood are not reflected in the above information.

SKANSKA

BROOKLINE HIGH SCHOOL EXPANSION PROJECT
3 MONTH LOOK AHEAD SCHEDULE

STEM ADDITION

May				June					July			
WEEK 1	WEEK 2	WEEK 3	WEEK 4	WEEK 1	WEEK 2	WEEK 3	WEEK 4	WEEK5	WEEK 1	WEEK 2	WEEK 3	WEEK 4
4-May	5/112020	18-May	25-May	1-Jun	8-Jun	15-Jun	22-Jun	29-Jun	5-Jul	12-Jul	19-Jul	26-Jul

SUBCONTRACT PROCUREMENT AND SUBMITTAL APPROVAL

MEP COORDINATION

IN PLACE FAÇADE MOCK UP CONSTRUCTION

CONCRETE FOUNDATUIONS

STRUCTURAL STEEL AND PRECAST CONCRETE ERECTION

PREP & PLACE SLAB ON DECK

L1 SLAB ON DECK

MISC SITEWORK AND FOUNDATIONS

INSTALL STAIR 1

SKANSKA

BROOKLINE HIGH SCHOOL EXPANSION PROJECT
3 MONTH LOOK AHEAD SCHEDULE

MBTA WORK

May				June					July			
WEEK 1	WEEK 2	WEEK 3	WEEK 4	WEEK 1	WEEK 2	WEEK 3	WEEK 4	WEEK5	WEEK 1	WEEK 2	WEEK 3	WEEK 4
4-May	5/112020	18-May	25-May	1-Jun	8-Jun	15-Jun	22-Jun	29-Jun	5-Jul	12-Jul	19-Jul	26-Jul

PLATFORM: SUBCONTRACT PROCUREMENT AND SUBMITTAL APPROVAL

INSTALL DUCTBANKS AND REFEED BUNGALOWS

DEMO/RE-FEED EXIST MBTA PLATFORM SYS.

DEMO & ROUGH GRADE

BUDGET

ORIGINAL BUDGET APPROVED DURING 2018 TOWN MEETING

1. Hard Costs	$137.6 Million
New Cypress Street Building	
New STEM Building	
3rd Floor Renovation	
Deferred Maintenance	
Tappan Gym Renovations	
Construction Contingency	
2. Soft Costs	$23.6 Million
Professional Fees	
Commissioning Agent	
CM at Risk Preconstruction	
Utility Costs	
Testing Agents	
Moving Costs	
Project Contingency	
3. FF&E & Technology	$5.5 Million
Furniture	
Fixtures and Equipment	
A/V equipment	
IT and Telephone	
4. Real Estate Costs	$23.5 Million
Cypress Street Acquisition & Relocation	
MBTA Air Rights	
5. Other Costs	$9.6 Million
Campus Landscaping, Sidewalks and Student Safety	
Swing Space at Old Lincoln School	
Real Estate Contingencies	
6. Cypress Field	$5.8 Million
Total Preliminary Project Costs	**$205.6 Million**

BUDGET AND COST ESTIMATING HISTORY PRIOR TO 2018 TOWN VOTE

1. CONCEPT DESIGN COST ESTIMATE (HMFH)	SPRING 2017
2. SCHEMATIC DESIGN COST ESTIMATE (PM+C / WRA)	FEBRUARY 2018

BUDGET AND COST ESTIMATING HISTORY AFTER 2018 TOWN VOTE

1. PROJECT BUDGET (TOWN VOTE)	MAY 2018
2. CONSTRUCTION MANAGER HIRED	JUNE 2018
3. RECONCILED GOOD FAITH SD ESTIMATE	OCTOBER 2018
4. DESIGN DEVELOPMENT ESTIMATE	JANUARY 2019
5. 60% CONSTRUCTION COST ESTIMATE	MAY 2019
6. FIRST EARLY BID PACKAGE ISSUED	JANUARY 2019

CONTINUOUS DUAL ESTIMATING AND VALUE MANAGEMENT EFFORTS

1. DESIGN DEVELOPMENT ESTIMATE

HARD COSTS	$133.5 M
VALUE MANAGEMENT	- $3.2 M (47 Accepted VE items)
SOFT COSTS (INCLUDES $5.8 FOR CYPRESS FIELD)	$75.3 M
TOTAL:	**$205.6 M**

2. 60% CONSTRUCTION COST ESTIMATE

HARD COSTS	$136.2 M
VALUE MANAGEMENT	- $4.8 M (43 Accepted VE items)
SOFT COSTS (INCLUDES $5.8 FOR CYPRESS FIELD)	$74.2 M
TOTAL:	**$205.6 M**

3. CURRENT PROJECTED COST

GMP HARD COSTS (CYPRESS, STEM, ELEVATOR MODERNIZATION, MBTA (GMP UNDER REVIEW)	$145.6 M
ESTIMATED HARD COSTS (TAPPAN, 3RD FLOOR, DEFERRED MAINTENANCE, STREETSCAPE)	$22.6 M*
ESTIMATED HARD COST (CYPRESS FIELD)	$5.8 M*
SOFT COSTS	$63.8 M
TOTAL:	**$237.8 M****

** NOT BID YET*

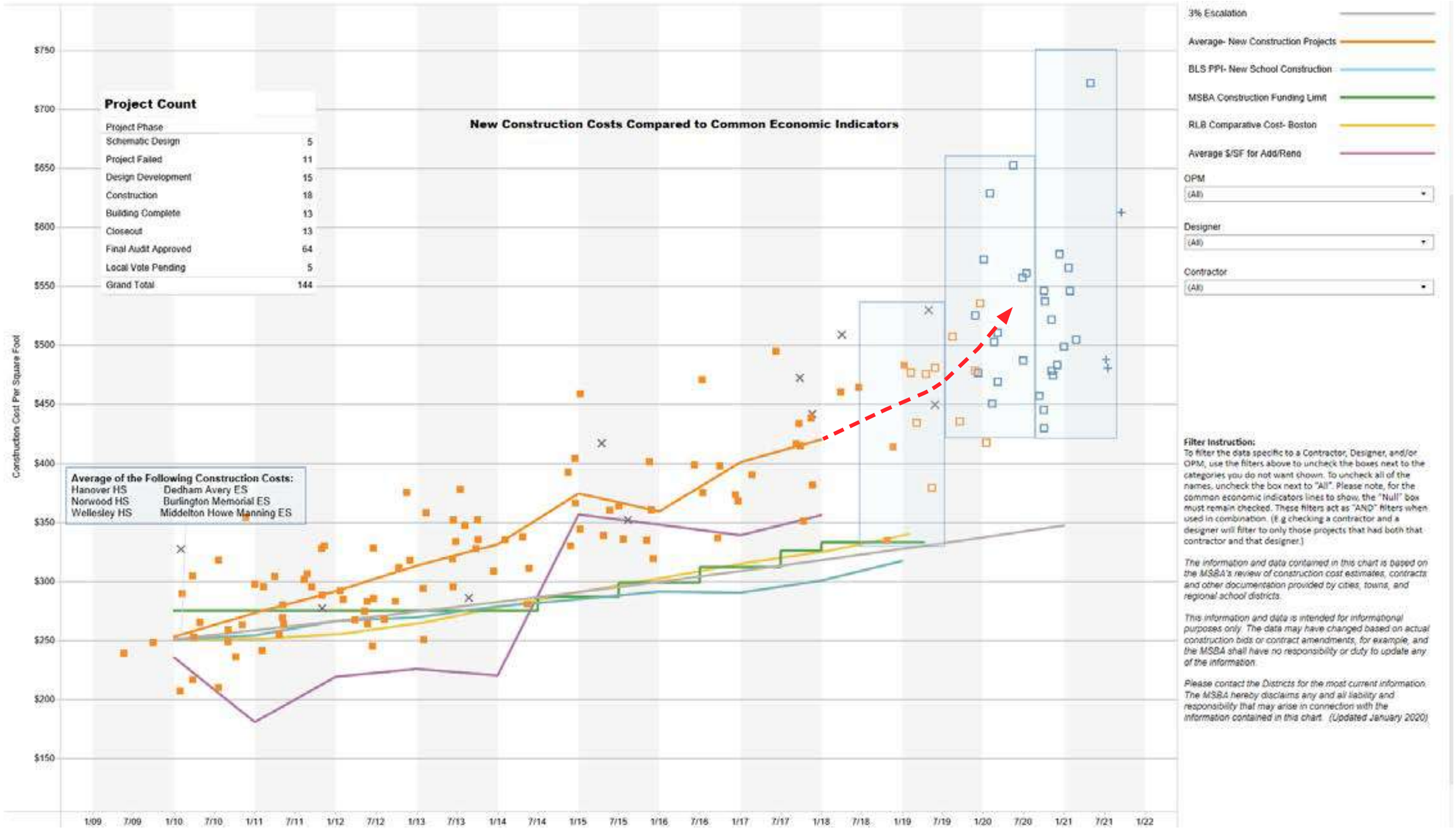
*** DOES NOT INCLUDE COST OR SCHEDULE IMPACTS ASSOCIATED WITH COVID-19 AND TEMPORARY SUSPENSION OF MBTA OPERATIONAL SUPPORT.*

WHAT CHANGED?

1. UNPRECEDENTED ESCALATION IN THE CONSTRUCTION MARKET
2. UNKNOWN CONDITIONS
3. STEM BASEMENT LEVEL (ADDED SCOPE, REDUCED RISK)
4. COMMUNITY MEETINGS - MBTA PLAZA (ADDED SCOPE)
5. WORK AROUND AND FOR THE MBTA (ADDED SCOPE)
   - BUILDING REQUIREMENTS
   - SITE ACCESS / DIVERSIONS
   - STATION DESIGN

MARKET

SOURCE: MSBA WEBSITE



Graph from MSBA Website : http://info.massschoolbuildings.org/TabPub/TableauCostData.aspx

MSBA PROJECT COMPARISONS

SCHOOL	NEW OR RENO/ADD	COST/SF	GMP
WALTHAM SR HIGH SCHOOL	NEW	$722	APR 2021
WESTBOROUGH ELEMENTARY	NEW	$652	MAY 2020
BOSTON ARTS ACADEMY	NEW	$652	JAN 2020
ARLINGTON HIGH SCHOOL	NEW	$577	DEC 2020
FRAMINGHAM FULLER MIDDLE SCHOOL	NEW	$573	JAN 2020
BROOKLINE HIGH SCHOOL EXPANSION	BLENDED (70% NEW / 30% RENO)	$570	MAR 2020
BELMONT HIGH SCHOOL	NEW	$521	MAR 2020
WEYMOUTH MARIA WESTON M.S.	NEW	$510	SEP 2020
NAUSET HIGH SCHOOL	RENO/ADD	$489	MAY 2021

WHERE ARE WE NOW

	Project Budget	Projected Costs	Variance over/(under)
Hard Costs	$137.6 Million	$161.6 Million	$24 Million
New Cypress Street Building			
New STEM Building			
3rd Floor Renovation *			
Deferred Maintenance*			
Tappan Gym Renovations *			
Construction Contingency			
Soft Costs	$23.6 Million	$23.3 Million	($0.3) Million
Professional Fees			
Commissioning Agent			
CM at Risk Preconstruction			
Utility Costs			
Testing Agents			
Moving Costs			
Project Contingency			
FF&E & Technology	$5.5 Million	$4.8 Million	($0.7) Million
Furniture			
Fixtures and Equipment			
A/V equipment			
IT and Telephone			
Real Estate Costs	$23.5 Million	$38.9 Million	$15.4 Million
Cypress Street Acquisition & Relocation			
MBTA Air Rights & Station Improvements			
Real Estate Contingencies			
Other Costs	$9.6 Million	$3.4 Million	($6.2) Million
Campus Landscaping, Sidewalks and Student Safety *			
Swing Space at Old Lincoln School			
Cypress Field *	$5.8 Million	$5.8 Million *	N/A
Total Project Costs	**$205.6 Million**	**$237.8 Million** **	**$32.2 Million**

** NOT BID YET*

***NOT INCLUDED - UNKNOWN COVID 19 IMPACTS: MBTA TEMPORARILY SUSPENDING STAFF SUPPORT FOR PROJECT DIVERSION FOR 3 WEEKS*

CHOICES TO BE MADE

- **INCREASE FUNDING THROUGH TOWN MEETING**

- **PURSUE MBTA COST SHARING**

- **ALREADY REMOVED SCOPES OF WORK**

  REDUCED TAPPAN RENOVATION

  REDUCED 3RD FLOOR RENOVATION

- **REMOVE SCOPES OF WORK**

  TAPPAN RENOVATION

  3RD FLOOR RENOVATION

  DEFERRED MAINTENANCE

  CYPRESS FIELD

END