



ARROWSTREET

LINCOLN-ELIOT ELEMENTARY SCHOOL

SCHOOL BUILDING COMMITTEE &
DESIGN REVIEW COMMITTEE MEETING

NEWTON, MA
8 FEBRUARY 2022

PREPARED FOR



David Fleishman,
Superintendent



Ruthanne Fuller,
Mayor



AGENDA /

1 DESIGN UPDATES

- » SITE / LANDSCAPE CONCEPT
- » BUILDING DESIGN

2 SUSTAINABILITY GOAL SETTING

- » INTRODUCTION
- » GOAL SETTING
 - » Energy & Carbon
 - » Resilience
 - » Wellness
- » SCHEDULE

DESIGN UPDATES SITE & LANDSCAPE

1/11/22 VOTE ON PREFERRED OPTION: A COMBINATION OF OPTIONS 1v3 AND 2.B

DEMOLISH THE CONVENT



OPTION 1



OPTION 1 v2



OPTION 1 v3



OPTION 1.B

DEMOLISH THE CONVENT & CHAPEL



OPTION 2



OPTION 2.B



OPTION 2.C



OPTION 2.D

DEMOLISH THE CONVENT, CHAPEL & AUDITORIUM/CAFETERIA/STORAGE



OPTION 3



OPTION 3.B



OPTION 3.C



OPTION 3.C v2

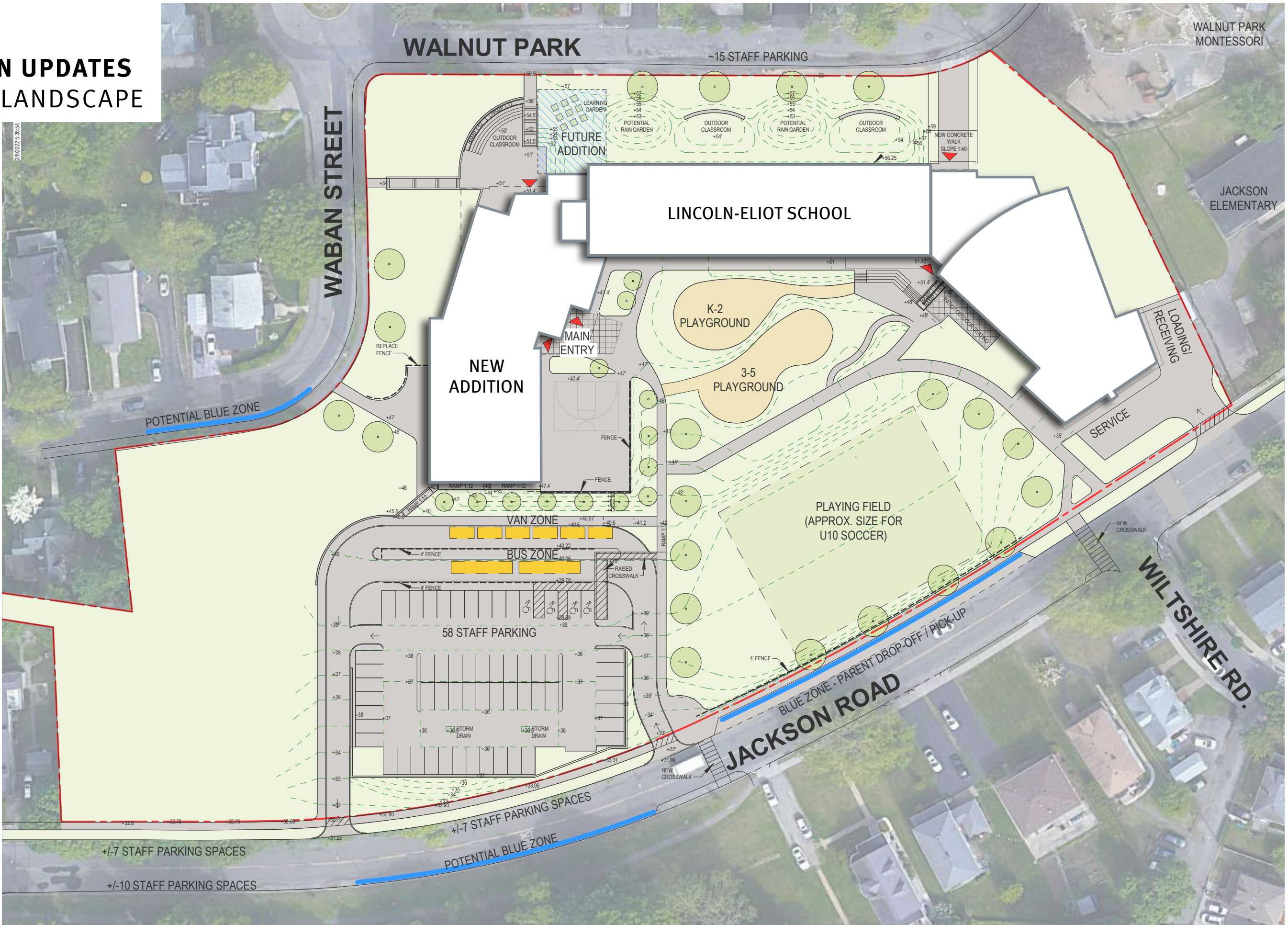


OPTION 3.D

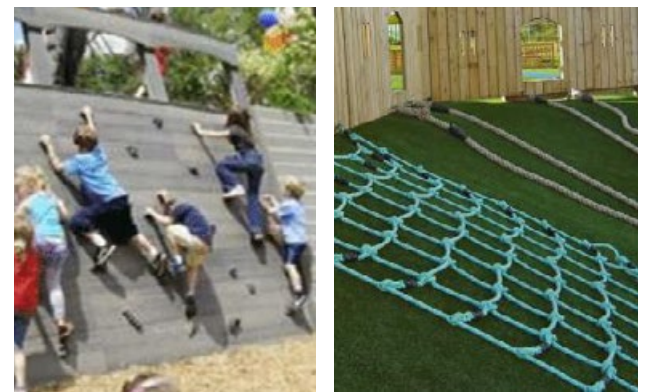


OPTION 3.D v2

DESIGN UPDATES
SITE / LANDSCAPE







LINCOLN-ELIOT ELEMENTARY SCHOOL

N.T.S. . ILLUSTRATIVE IMAGERY PREPARED FOR TEAM COORDINATION . NOT FOR CONSTRUCTION

CONCEPT PLAN | WEST

NORTH





LINCOLN-ELIOT ELEMENTARY SCHOOL

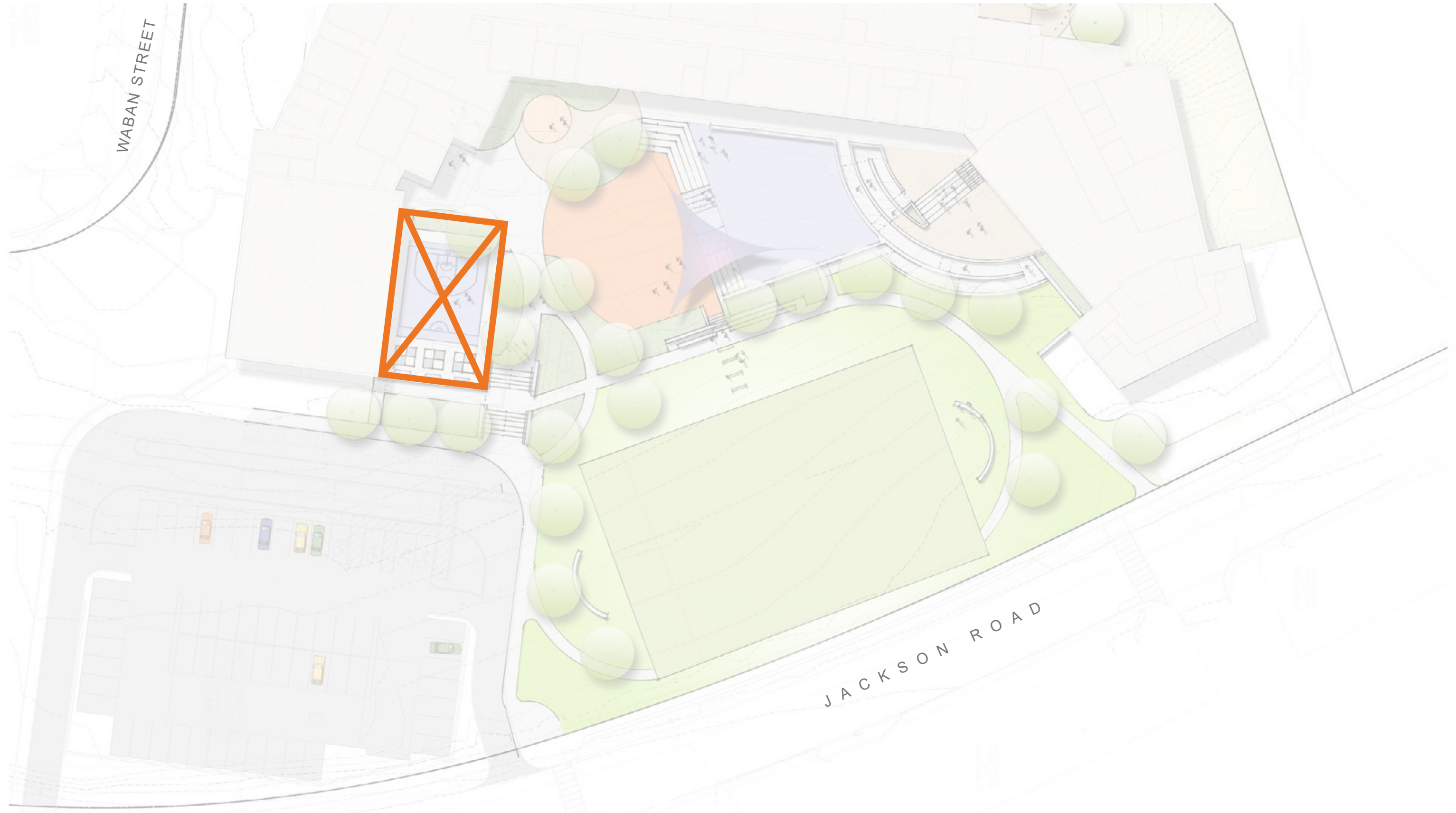
N.T.S. . ILLUSTRATIVE IMAGERY PREPARED FOR TEAM COORDINATION . NOT FOR CONSTRUCTION

ACCESSIBILITY

NORTH

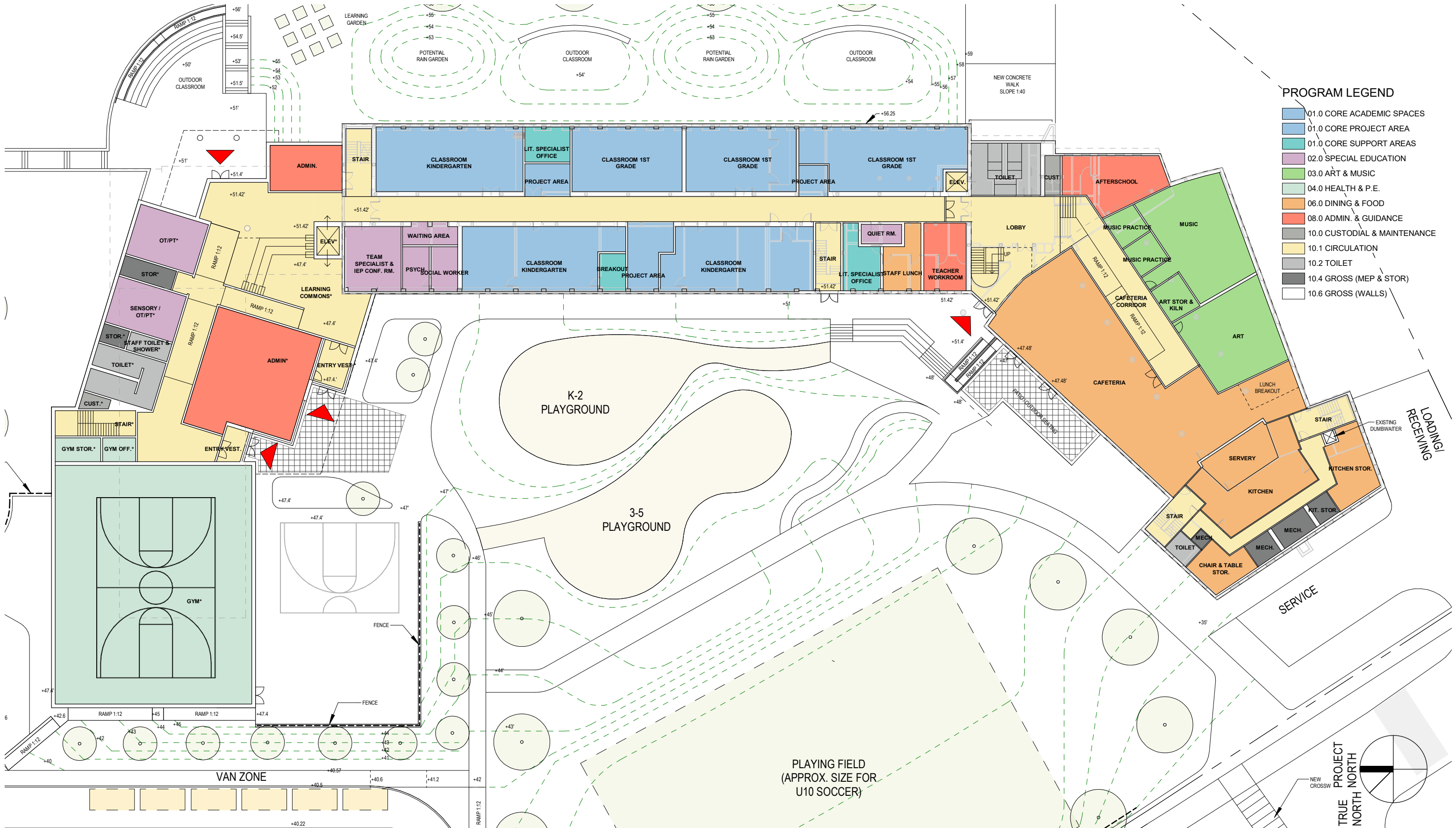
Lincoln-Eliot
Newton . Massachusetts
February 2022



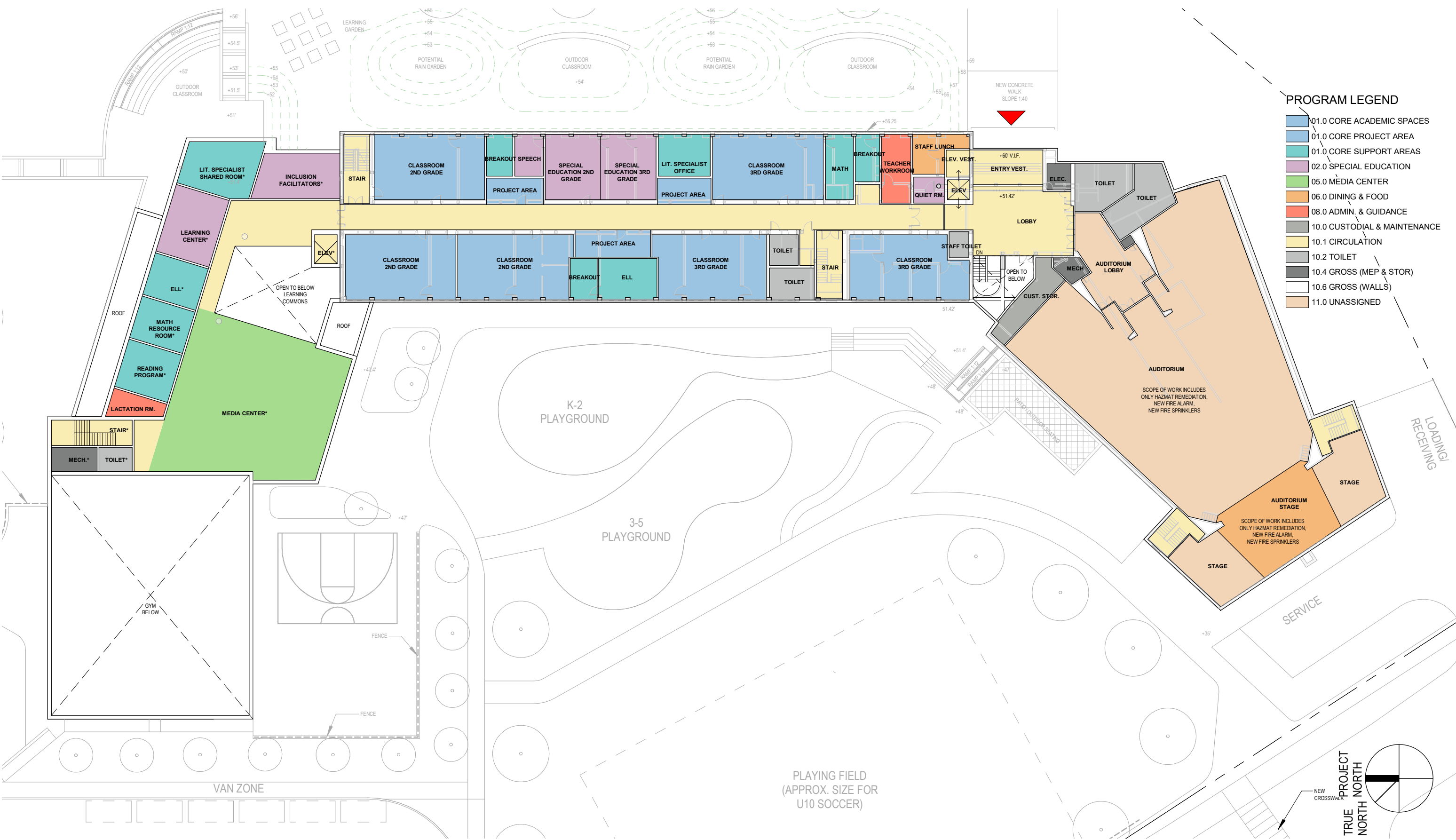


DESIGN UPDATES BUILDING

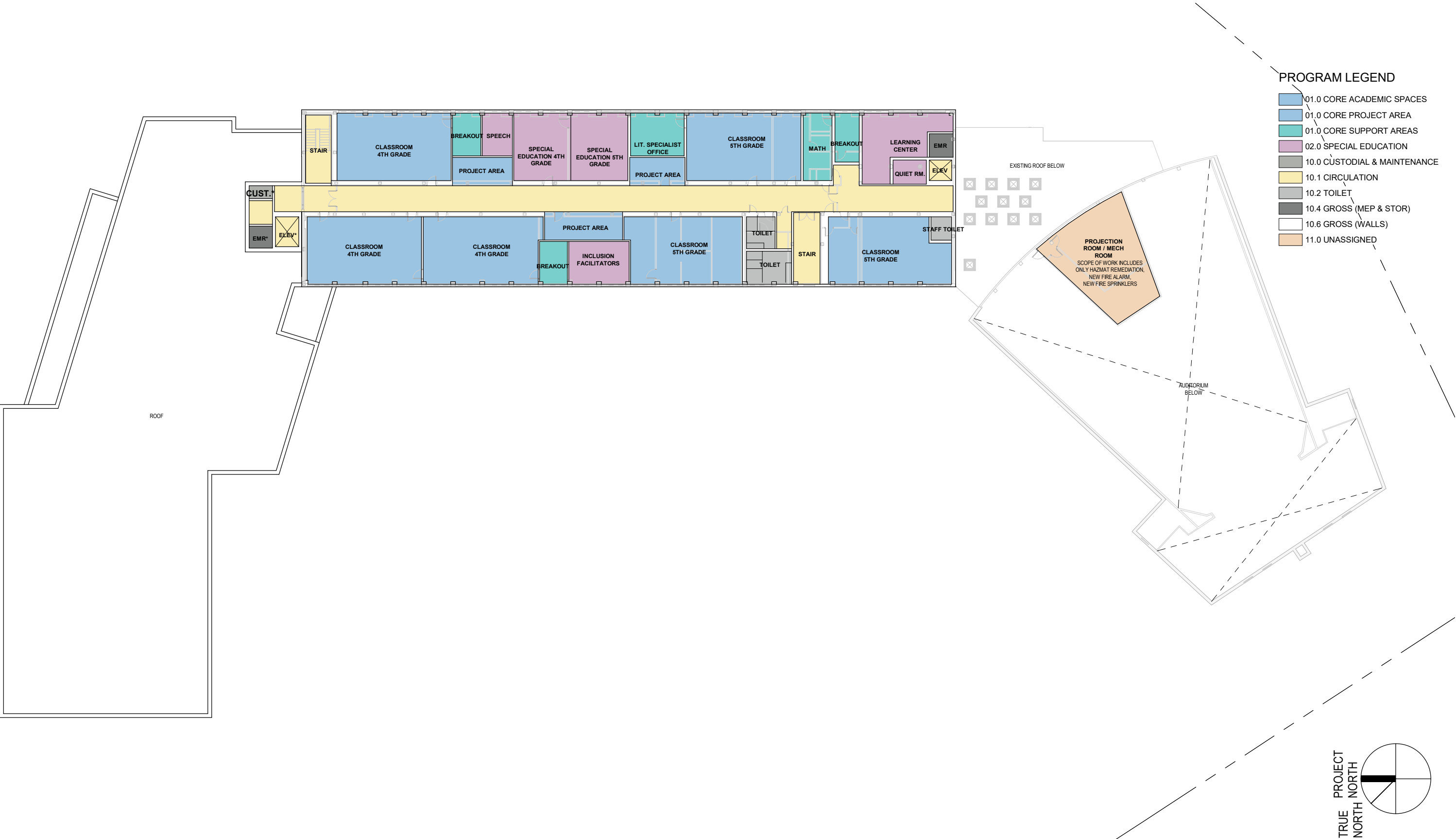
DESIGN UPDATES / DRAFT FIRST FLOOR PLAN



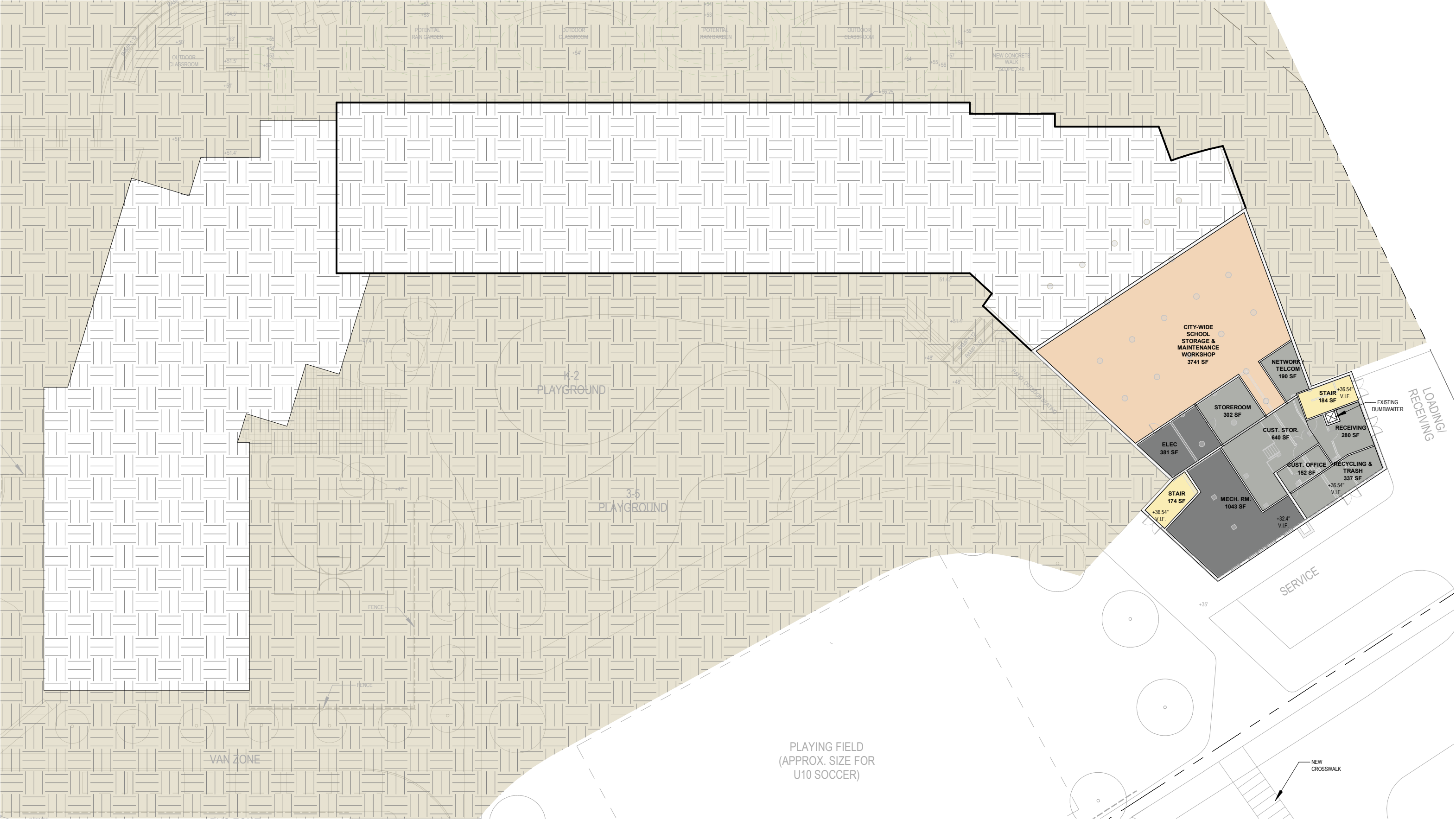
DESIGN UPDATES / DRAFT SECOND FLOOR PLAN



DESIGN UPDATES / DRAFT THIRD FLOOR PLAN



DESIGN UPDATES / DRAFT BASEMENT FLOOR PLAN



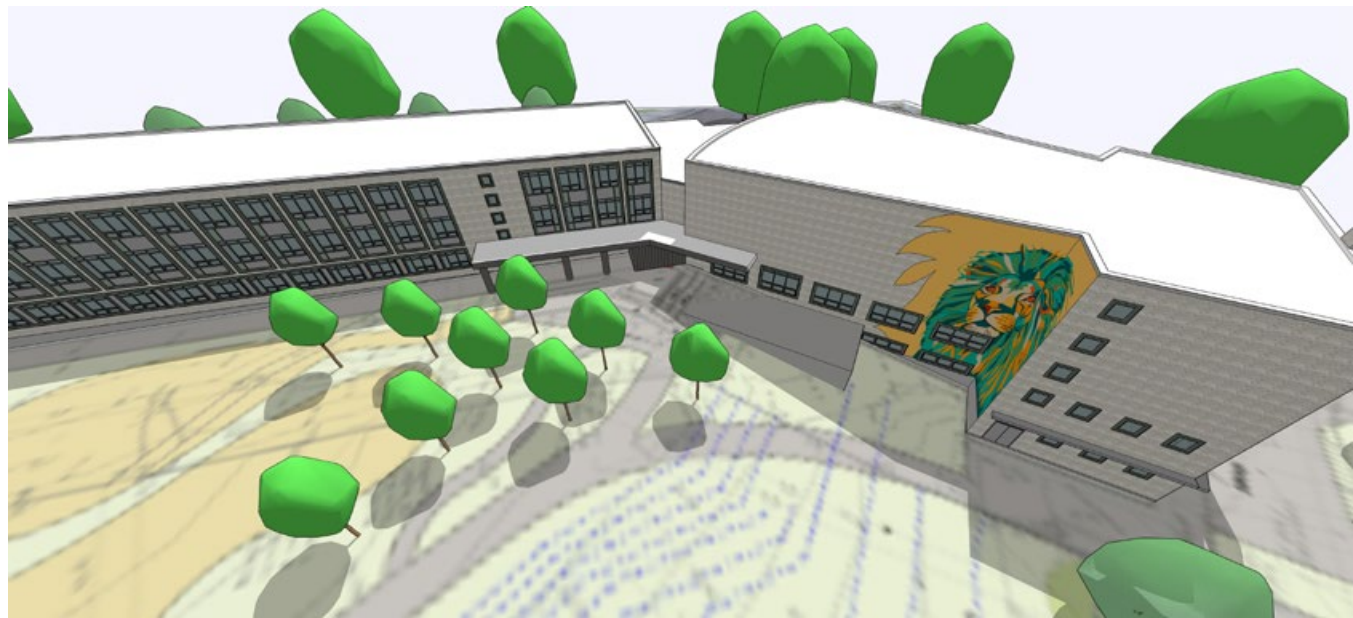
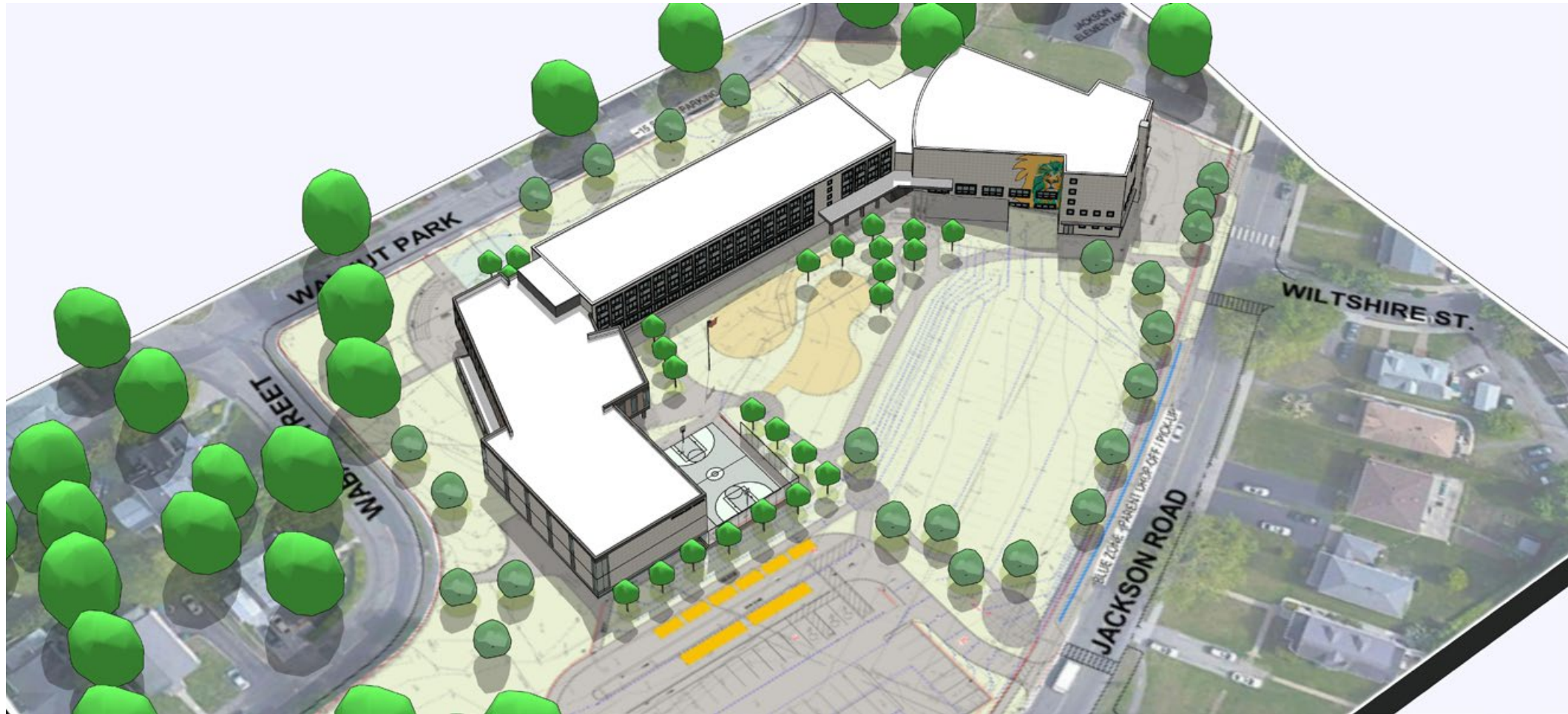
3D RENDERINGS
BUILDING EXTERIOR



3D RENDERINGS
BUILDING EXTERIOR



3D RENDERINGS
BUILDING EXTERIOR



SUSTAINABILITY

EQUITY, DIVERSITY, INCLUSION



SUSTAINABILITY



WELLNESS



RESILIENCE

BUILDING PERFORMANCE
10 MEASURES OF DESIGN

Integration

- integrated process
- central design concept
- beauty & delight

Equitable Community

- community engagement
- universal design
- alternative transportation

Ecology

- native plantings
- biodiversity
- dark skies
- site acoustics

Water

- reduce potable use
- water quality
- net zero

Economy

- life cycle cost analysis
- right sizing
- incentives

Energy

- load reduction
- efficiency
- net zero
- renewables

Wellness

- indoor environment
- biophilia
- active design
- food access

Resources

- embodied carbon
- waste diversion/reduction
- material life cycle

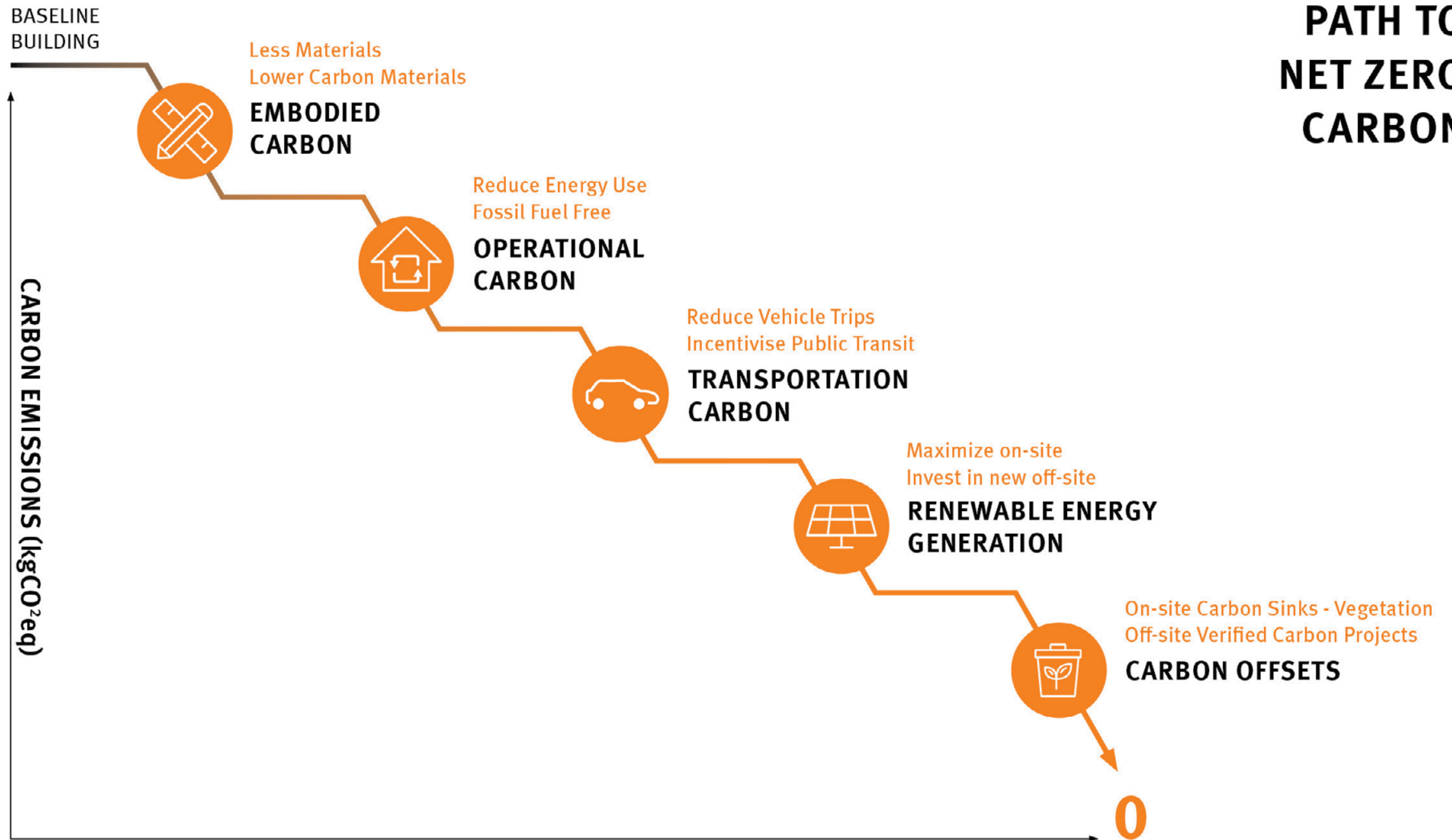
Change

- resilience
- future adaptability
- passive survivability

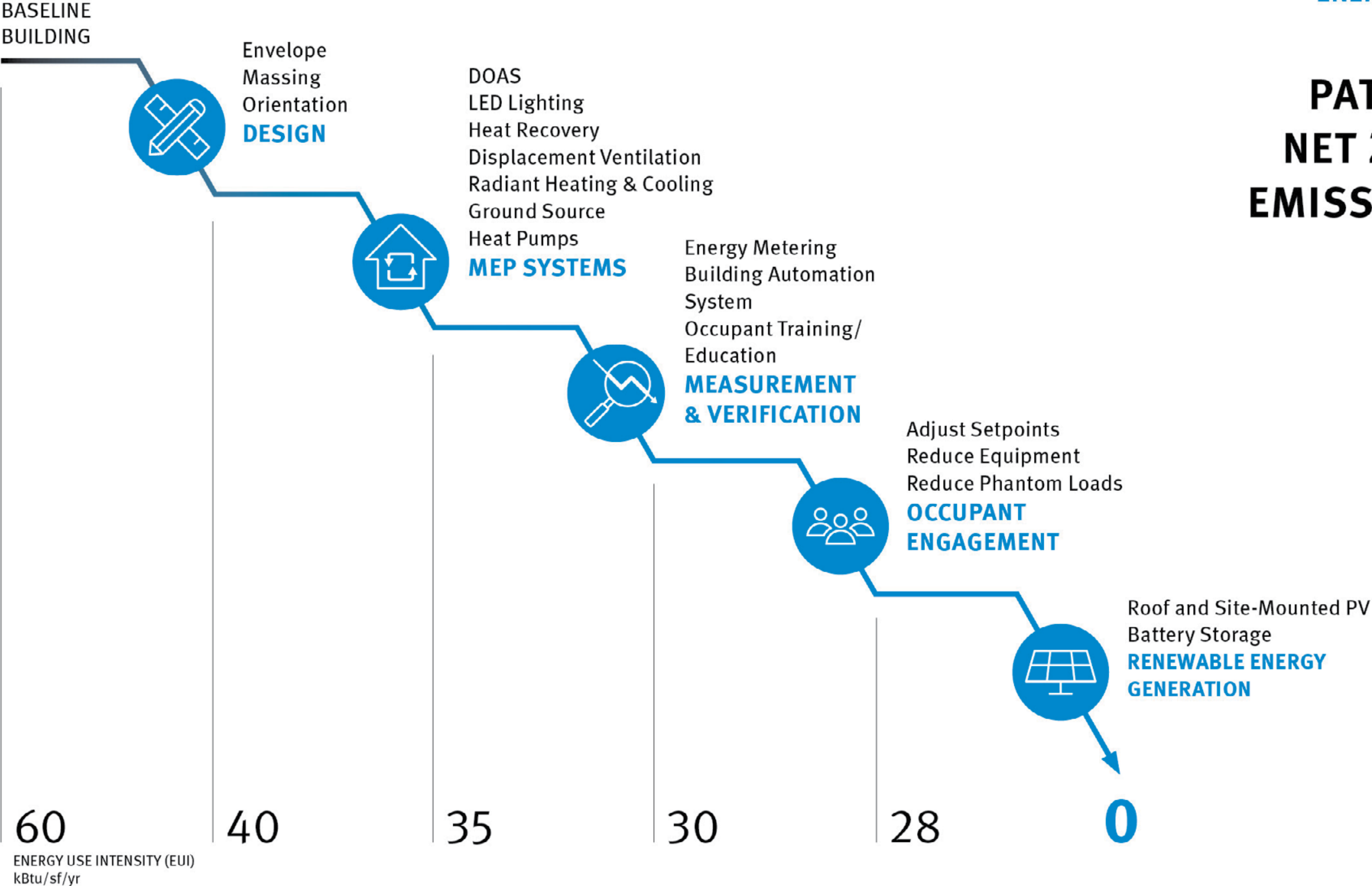
Discovery

- measurement & verification
- post occ evaluation
- teaching tool

PATH TO NET ZERO CARBON



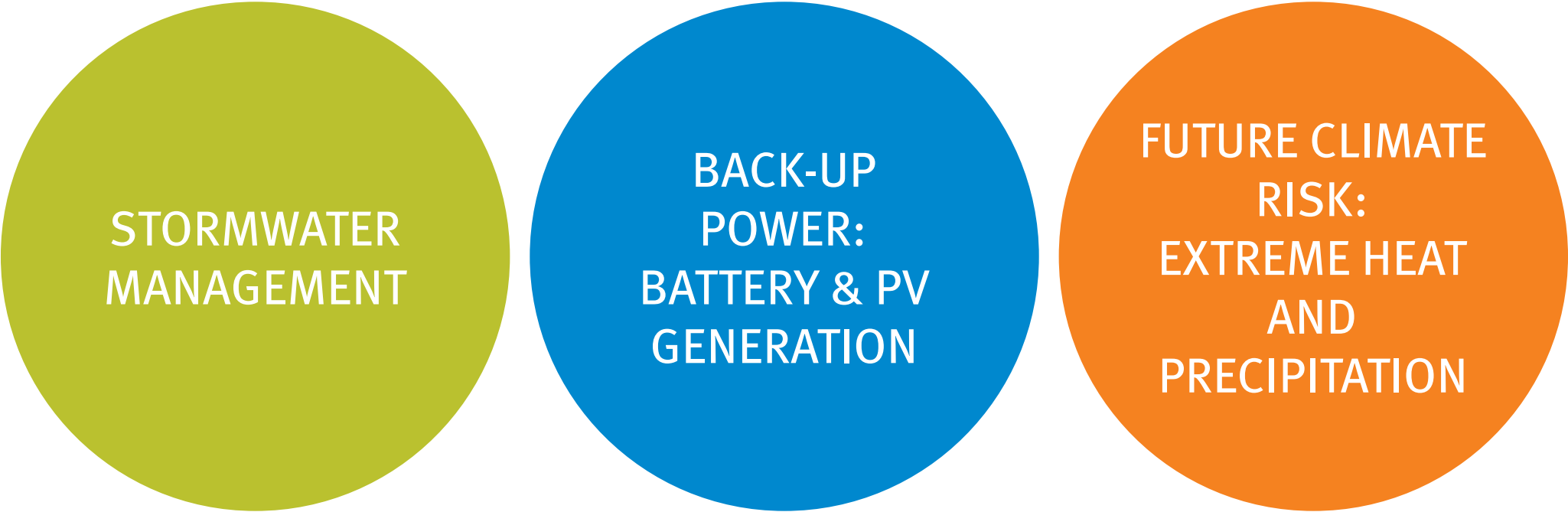
PATH TO NET ZERO EMISSIONS



COMPONENTS OF WELLNESS



COMPONENTS OF RESILIENCE



GOAL SETTING

GOALS OF A SUSTAINABLE BUILT ENVIRONMENT:

- Minimize the use of energy, water, and other resources.
- Maximize the use of renewable sources to provide electricity and heat.
- Maximize building longevity through rigorous design processes and quality-controlled construction.
- Minimize environmental impacts of construction materials and methods.
- Institute building operations and maintenance practices to minimize environmental impacts, achieve optimal performance and maximize occupant health and well-being.

GOAL SETTING

ENERGY & CARBON

- MECHANICAL SYSTEMS (EVALUATE ALL ELECTRIC OPTIONS)
 - EMBODIED CARBON
 - RENEWABLES
- VENTILATION SYSTEMS
- ENVELOPE AT EXISTING BUILDING AND NEW ADDITION

RESILIENCE

- BIODIVERSITY
- EXTERIOR SHADE (I.E. TREES, PV CANOPY, SHADE SAILS)
 - LOW FLOW FIXTURES
- STORMWATER INFILTRATION
 - BATTERY STORAGE
 - IRRIGATION
- RAINWATER REUSE

WELLNESS

- ACTIVE DESIGN (OUTDOOR CLASSROOMS, SCHOOL GARDEN, WALKING PATHS)
- BIOPHILIA (STRONG CONNECTION BETWEEN SITE AND INTERIOR)
- INDOOR AND SITE ACOUSTICS
 - DAYLIGHT & VIEWS
- AVOIDANCE OF CHEMICALS OF CONCERN
 - LOW EMITTING PRODUCTS
- DISPLACEMENT VENTILATION
- WASTE, RECYCLE, COMPOST

SCHEDULE

TASKS FOR ASSESSING THE GOALS

ENERGY & CARBON

NOW:

- LCCA FOR MECHANICAL & VENTILATION SYSTEMS
 - NET ZERO ASSESSMENT
 - EMBODIED CARBON ASSESSMENT
 - EXISTING ENVELOPE STUDY
 - PASSIVEHOUSE NARRATIVE
-

BY THE END OF SD:

- INCLUDE ADD ALTERNATES TO BE PRICED

RESILIENCE

NOW:

- PERFORM INDOOR WATER ASSESSMENT
 - UNDERSTAND DISTRICT LEVEL FLOODING RISKS
 - R.O.I. ON WATER REUSE
-

WELLNESS

BY THE END OF SD:

- IDENTIFY KEY SITE ELEMENTS AND GOALS
- SET ACOUSTICAL AND/OR DAYLIGHTING METRICS

DESIGN UPDATES
SITE / LANDSCAPE

