
CR
Crabtree, Rohrbaugh & Associates
PEQUEA VALLEY
SCHOOL DISTRICT
COMMITTEE MEETING
DECEMBER 3RD, 2019

AGENDA

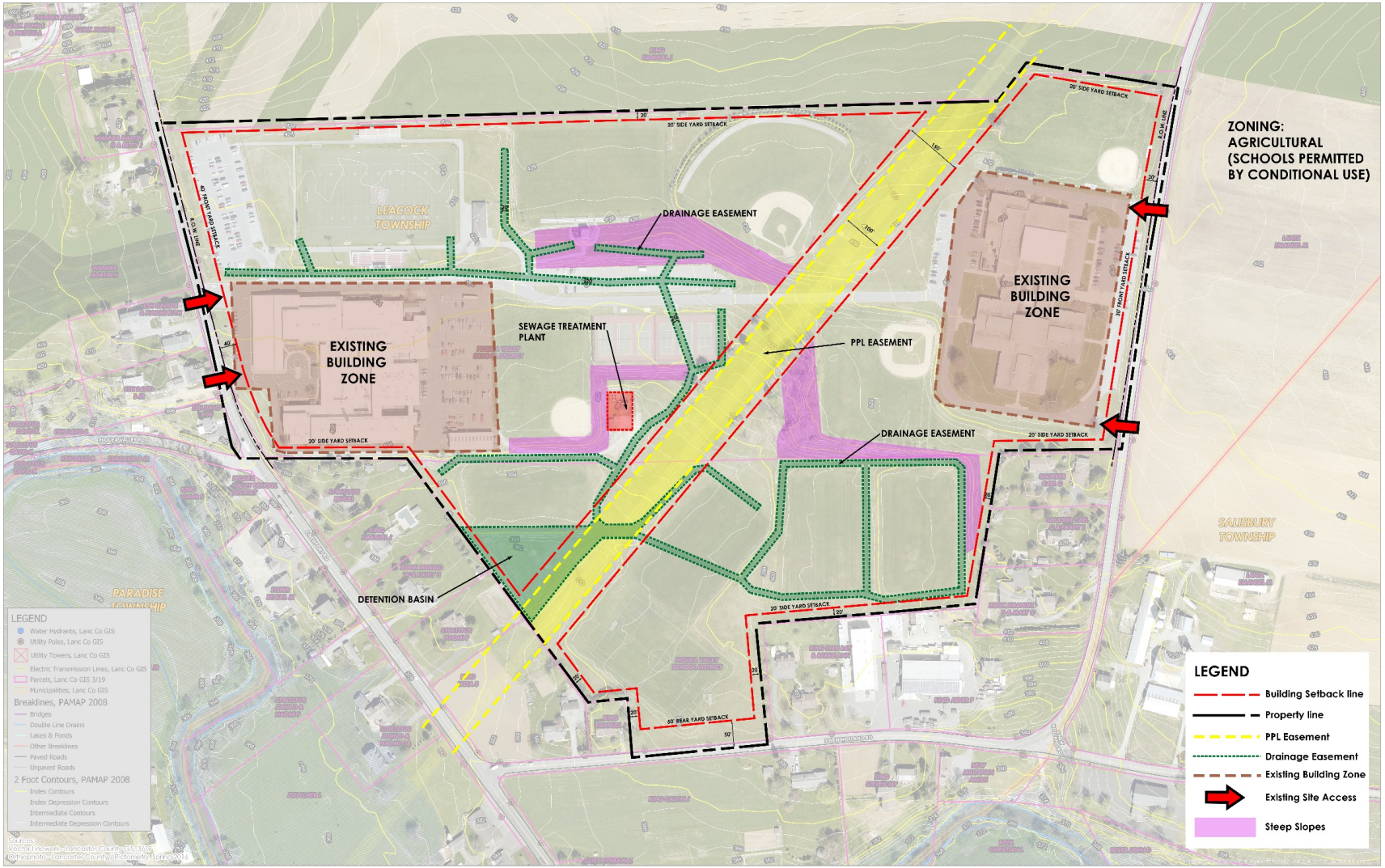
- CIVIL REVIEW AND RECOMMENDATIONS
- FACILITIES ASSESSMENT
- COST TO MAINTAIN EXISTING FACILITIES
- PROPOSED CONSTRUCTION OPTIONS

PROPOSED SCHEDULE

Board Retreat	**September 3th DAO 4:30 PM – 5:30 PM** • Review study schedule • Floor plans & current use • Program discussion • Site discussion & analysis • Building condition assessment
Visual Listening	**September 10th TBD 10 AM – 12 PM** • Programing Workshop • Enrollment & Utilization
Curriculum / Program Meeting	**September 11th 10 AM – 12 PM** • Programing Workshop • Enrollment & Utilization
Administrative Team Meeting	**September 24th DAO 10AM – 12 AM** • Review costs to upgrade facilities • Enrollment & Utilization • Preliminary Options • Review October 1st Board Presentation Content
Board Committee	**October 1st @ 7 PM** • Review costs to upgrade facilities • Enrollment & Utilization • Preliminary Options
Administrative Team Meeting	**October 18th DAO 8 AM -10 PM** • Detailed facilities assessment review
Administrative Team Meeting	**October 29th DAO 10 AM -12 PM** • Updated Schedule • Program Review • Review November 5th Board presentation content
Board Committee	**November 5th @ 7PM** • Administrative Update to Board (CRA will not attend)
Administrative Team Meeting	**November 20th DAO 10 AM -12 PM** • Option Review and Refinement • Schedule • Review December 3 Board presentation content
Board Committee	**December 3rd @ 7 PM** • Civil Review and Recommendations • Facilities Assessment • Cost to Maintain Existing Facilities; 2 – 10 year plan • Proposed Construction Options
Administrative Team Meeting	**December 17th DAO 10 AM -12 PM** • Option Review and Program Refinement • Schedule & Phasing • Probable Cost Review
Board Committee	**January 2ND @ 7 PM** • Option Review and Refinement • Probable cost of options • Probable cost of operation • Schedule & Phasing

AGENDA

- CIVIL REVIEW AND RECOMMENDATIONS
- FACILITIES ASSESSMENT
- COST TO MAINTAIN EXISTING FACILITIES
- PROPOSED CONSTRUCTION OPTIONS



Pequea Valley SD Master Planning: SITE ANALYSIS PLAN

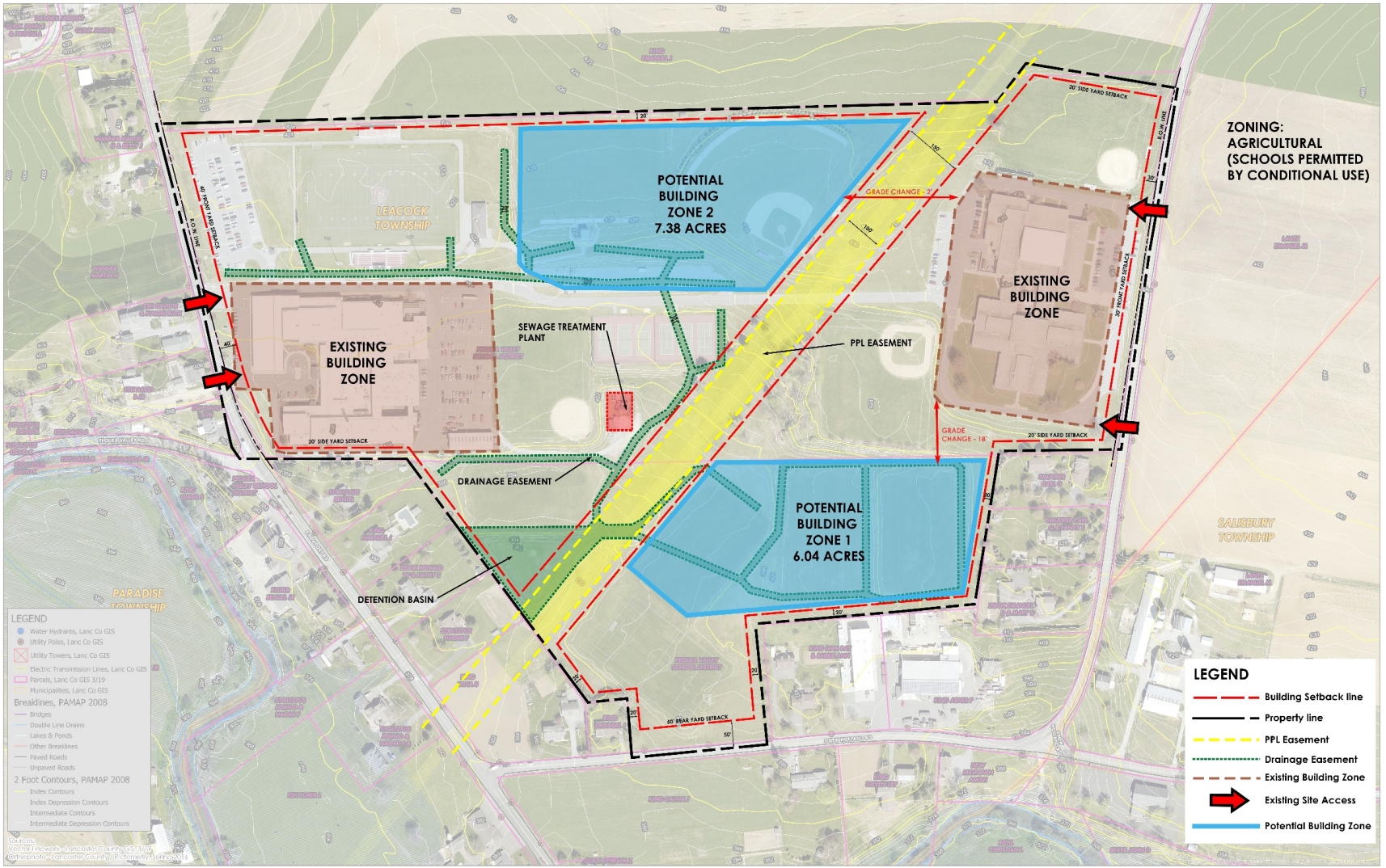
166 S New Holland Rd, Kinzers 17535, Leacock Township, Lancaster County - 9/3/2019

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DERCK & EDSON

RECOMMENDATIONS:

- CRACKS IN ASPHALT PAVING – CONSIDER OVERLAYING
- REPAIR CONCRETE WALKS / CURBS WHERE NEEDED
- CONSIDER CHANGING SITE CIRCULATION TO ALLOW BETTER STACKING FOR BUSES



Pequea Valley SD Master Planning: POTENTIAL BUILDABLE ZONES

166 S New Holland Rd, Kinzers 17535, Leacock Township, Lancaster County - 9/3/2019

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DERCK & EDSON

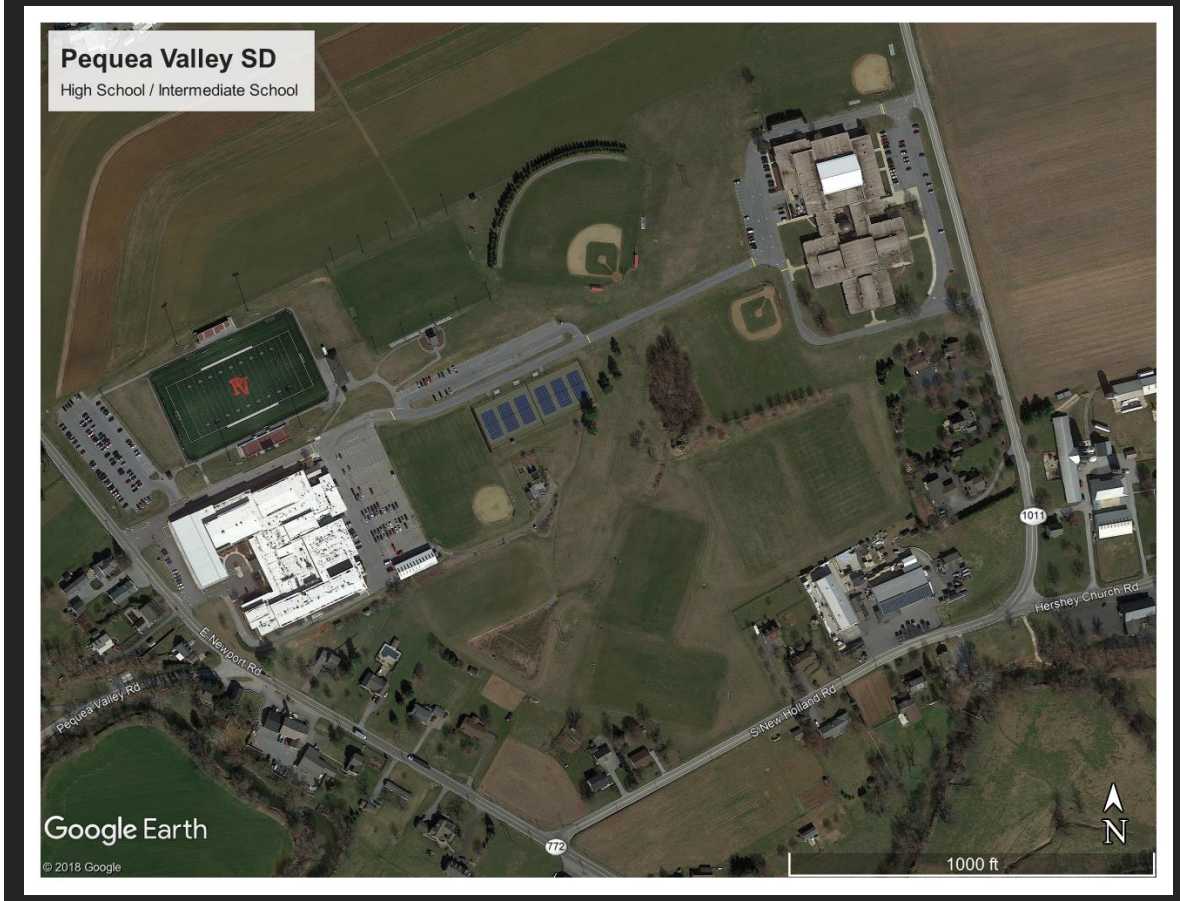
ZONE 1

- 6.04 ACRES
- 18’ GRADE CHANGE AT EAST EDGE
- 24’ GRADE CHANGE AT MIDDLE

ZONE 2

- 7.38 ACRES
- 2’ GRADE CHANGE AT EAST EDGE
- IMPROVED DRAINAGE OVER ZONE 1
- IMPROVED VISABILITY OVER ZONE 1

PUBLIC UTILITY CONNECTION



PUBLIC SEWER

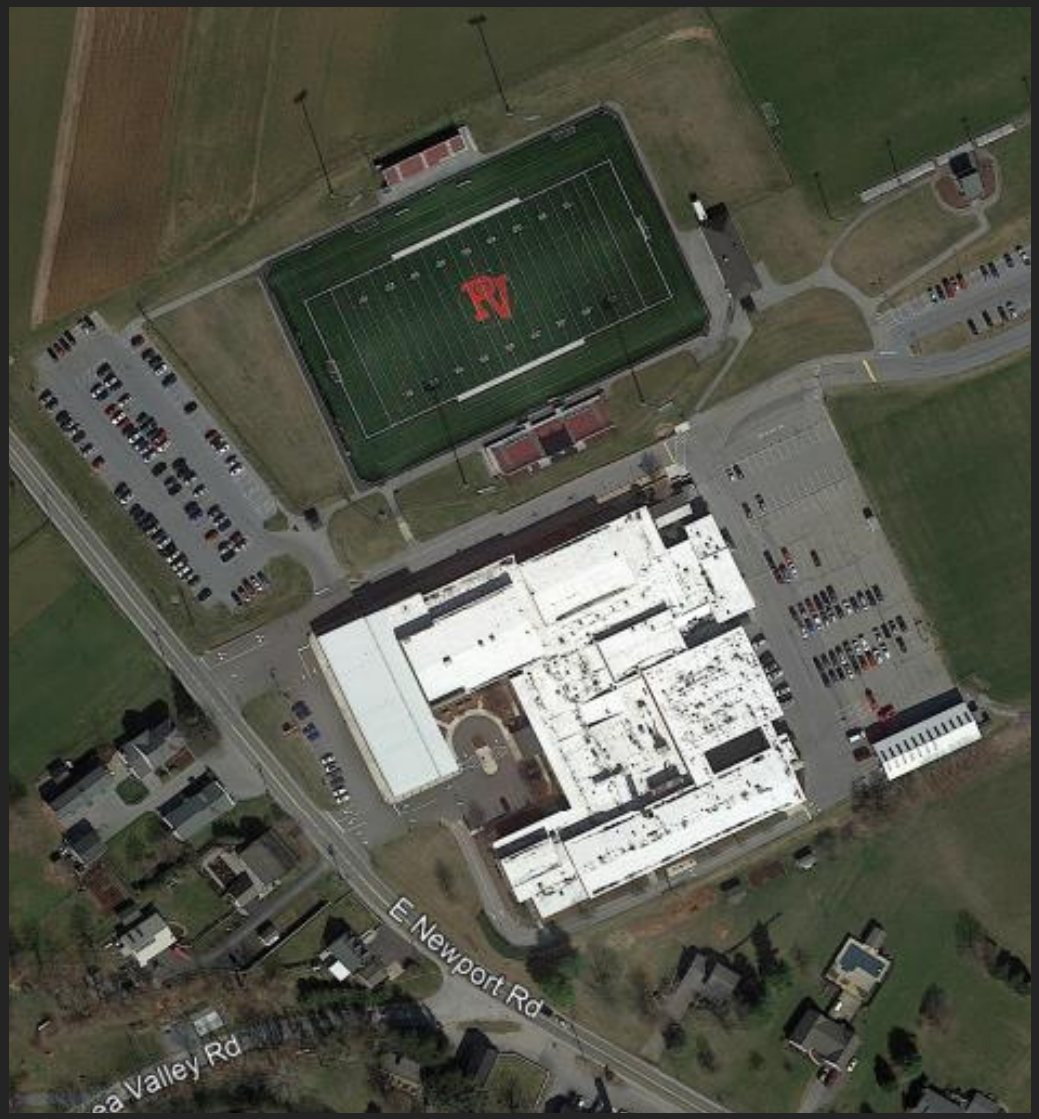
- Connection is possible
- Removes the need to treat onsite
- Cost could be shared with other businesses / residence
- 2013 estimate was $800k
  - Account for 6 years inflation

PUBLIC WATER

- Connection is located at sewer
- Not recommended due to low circulation causing stagnation
- Recommend on-site treatment system

AGENDA

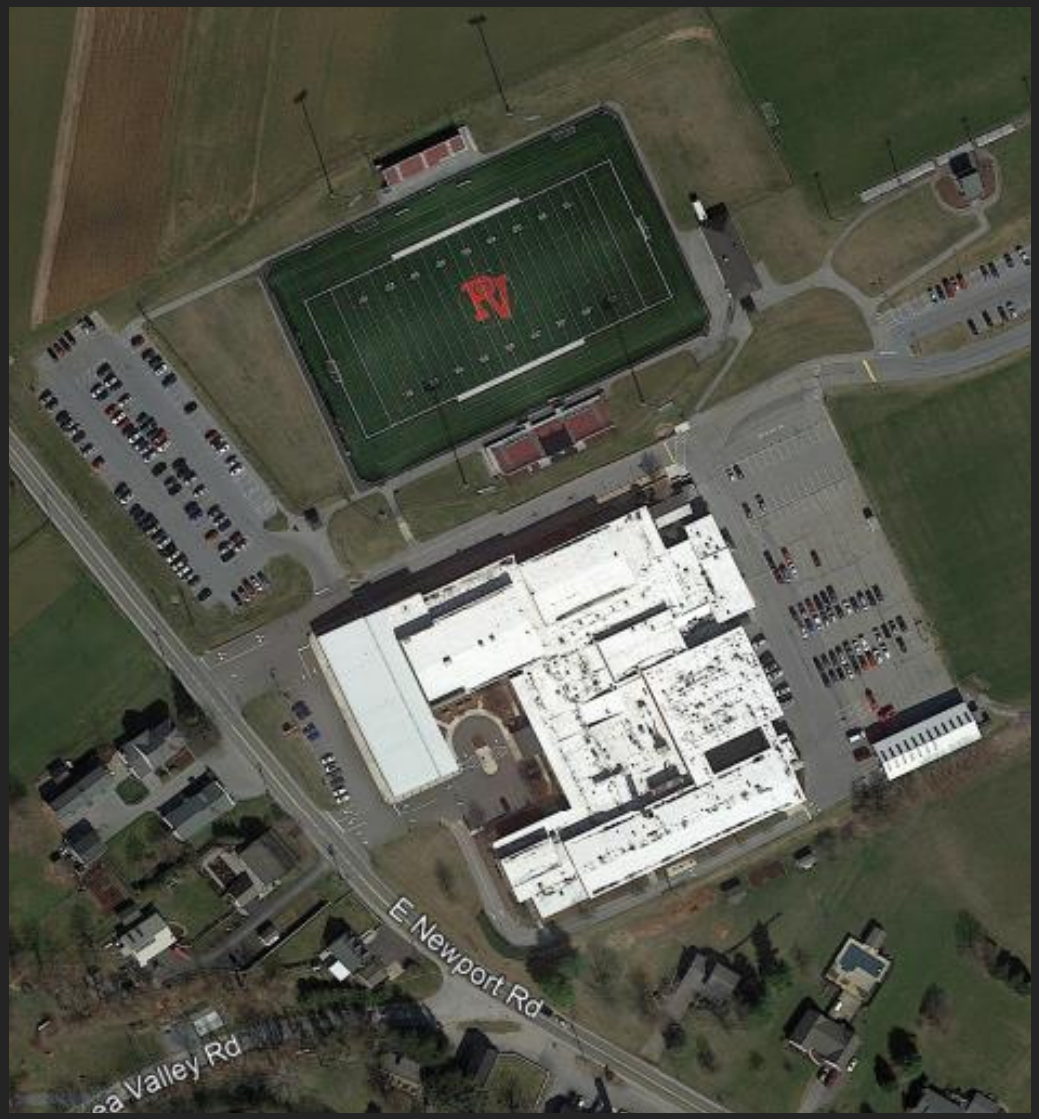
- CIVIL REVIEW AND RECOMMENDATIONS
- FACILITIES ASSESSMENT
- COST TO MAINTAIN EXISTING FACILITIES
- PROPOSED CONSTRUCTION OPTIONS



FACILITY ASSESSMENT

PV HIGH SCHOOL

1. Old aluminum windows in need of replacement
2. Complete roof replacement and insulation upgrade
3. Gym is heated only/becomes a problem with large groups
4. No secure vestibule
5. Secure lockdown
6. Restroom / Locker accessibility
7. Upgrade Video Camera System
8. No common spaces
9. Limiting educational programs
    1. CORE Academy
    2. AG program
    3. IS student access



FACILITY ASSESSMENT

PV HIGH SCHOOL - MEP

1. Aging systems – 21+ years
    1. Hot water heating system
    2. Boiler / burners / circ. pumps
    3. Oil storage (steel)
    4. Cooling systems (R-22 Refrig.)
    5. Piping system operable parts
    6. 4-pipe ducted system (25+ yrs)
    7. Well failure (internal location)
2. No humidity control
3. Electrical system upgrades
4. Emergency power system upgrade
5. LED lighting – building & site
6. Fire alarm system upgrades (code)
7. CO2 detection in at risk areas



FACILITY ASSESSMENT

PV INTERMEDIATE SCHOOL

1. Complete roof replacement and insulation upgrade
2. No secure vestibule
3. Secure lockdown
4. Bright Horizons not secured from IS facilities
5. Restroom / Locker accessibility
6. Upgrade Video Camera System
7. No common spaces
8. Finishes replaced associated with MEP upgrades & maintenance
9. Limiting programs
    1. IS student access
    2. DAO’s in multiple locations



FACILITY ASSESSMENT

PV INTERMEDIATE SCHOOL - MEP

1. Aging systems – 23+ years
    1. Hot water heating system
    2. Boiler / burners / circ. pumps
    3. Oil storage (steel)
    4. Cooling systems (R-22 Refrig.)
    5. Piping system operable parts
    6. 4-pipe ducted system
    7. No AC in gym, lockers, toilets, kitchen, shops, and corridors
2. Dust collection / Kitchen Hoods
3. Domestic water system complete replacement
4. Electrical system upgrades
5. Replace communication system
6. LED lighting – building & site
7. Fire alarm system upgrades (code)
8. No humidity control
9. CO2 detection in at risk areas

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Pequea Valley School District
District Wide Feasibility Study Updates
Updated: 12/03/2019

Intermediate School

OPTION MATRIX		ESTIMATED TOTAL PROJECT COSTS		BUILDING AREA SUMMARY						
	PROJECT OPTION	RANGE		EXISTING SF	DEMOLITION	LIGHT RENO.	HEAVY RENO.	PROPOSED SF	AREA OF NO WORK	TOTAL SF
	Facility Conditions (2-10 years)	**$ 14,895,826**	**$ 17,078,409**	**96,200**	**0**	**89,500**	**6,700**	**0**	**0**	**96,200**
	Comprehensive Renovations / Additions	**TBD**	**TBD**	96,200	0	40,550	52,650	12,800	0	106,000
	Limited Renovations / Demolition Option 1	**TBD**	**TBD**	96,200	52,000	9,200	35,000	0	0	44,200
	Limited Renovations / Demolition Option 2	**TBD**	**TBD**	96,200	77,900	9,200	9,100	0	0	18,300

Pequea Valley School District

District Wide Feasibility Study Updates

Updated: 12/03/2019

Intermediate School

OPTION MATRIX	ESTIMATED TOTAL PROJECT COSTS		
PROJECT OPTION	RANGE		EXISTING SF
Facility Conditions (2-10 years)	$ 14,895,826	$ 17,078,409	96,200

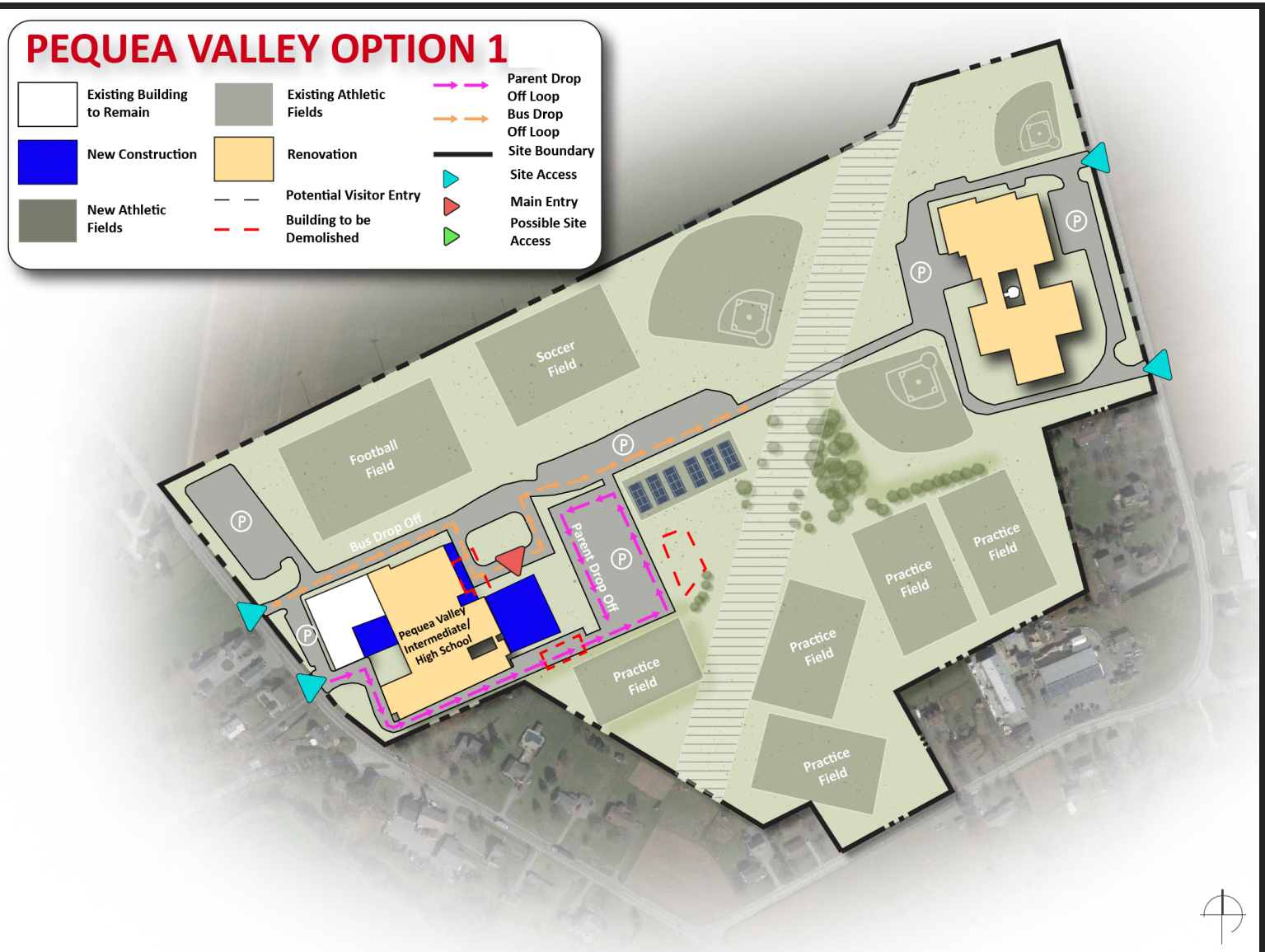
High School - Renovation / Addition Options

OPTION MATRIX	ESTIMATED TOTAL PROJECT COSTS		
PROJECT OPTION	RANGE		EXISTING SF
Facility Conditions (2-10 years)	$ 22,883,688	$ 25,437,010	145,900

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PEQUEA VALLEY OPTION 1



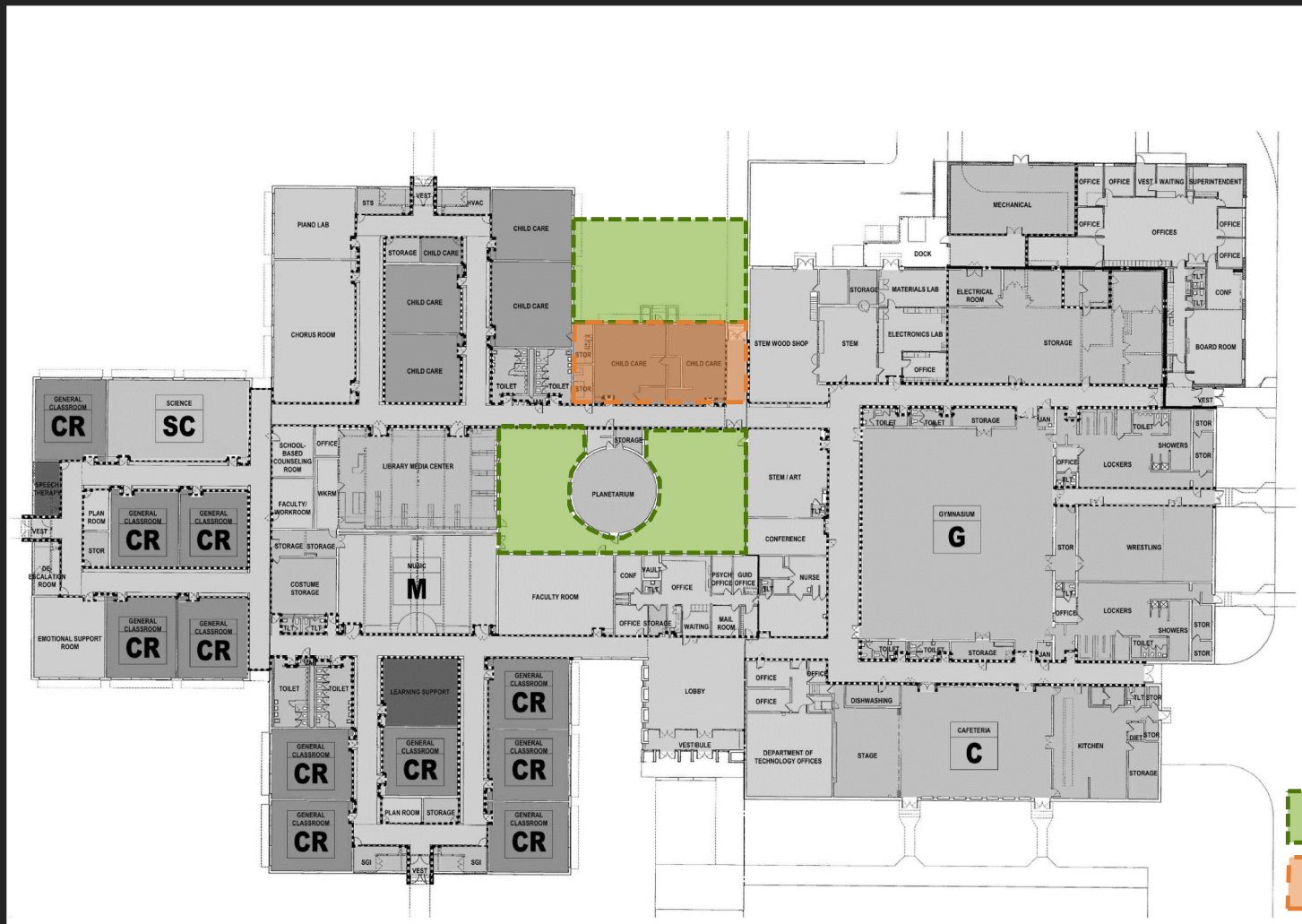
PRO'S

- MINIMAL SITE IMPACT
- NEW STEAM / AG & WOOD SHOP WING
- H.S. SEPERATED BUS / PARKING

CON'S

- PHASED CONSTRUCTION
- SMALL BUS LOOP
- ADDITION INTERUPTS SEWER TREATMENT

EXISTING I.S. FLOOR PLAN



EXISTING CAPACITY

NAME OF SPACE	QTY	CAPACITY	TOTAL
GENERAL CLASSROOM (660+ SF)	11	25	275
SCIENCE CLASSROOM (660+ SF)	-	25	-
SCIENCE LAB	1	20	20
PLANETARIUM W/ CLASSROOM	1	20	20
ALTERNATIVE ED ROOM	-	20	-
BUSINESS CLASSROOM (660+ SF)	-	25	-
BUSINESS LAB	-	20	-
COMPUTER LAB	-	20	-
TV INSTRUCTIONAL STUDIO	-	20	-
ART CLASSROOM	1	20	20
MUSIC CLASSROOM	1	25	25
BAND ROOM	1	25	25
ORCHESTRA ROOM	-	25	-
CHORAL ROOM	1	25	25
FAMILY / CONSUMER SCIENCE	-	20	-
INDUSTRIAL ARTS / SHOP (1,800+ SF)	1	20	20
TECH ED (1,800+ SF)	-	20	-
VO-AG SHOP W/ CLASSROOM	-	20	-
DRIVER'S ED (660+ SF)	-	20	-
GYMNASIUM (6,500 - 7,500 SF)	1	66	66
AUXILIARY GYMNASIUM (2,500 SF)	-	33	-
NATATORIUM	-	-	-
TOTAL CAPACITY			496
TARGET CAPACITY (85%)			421

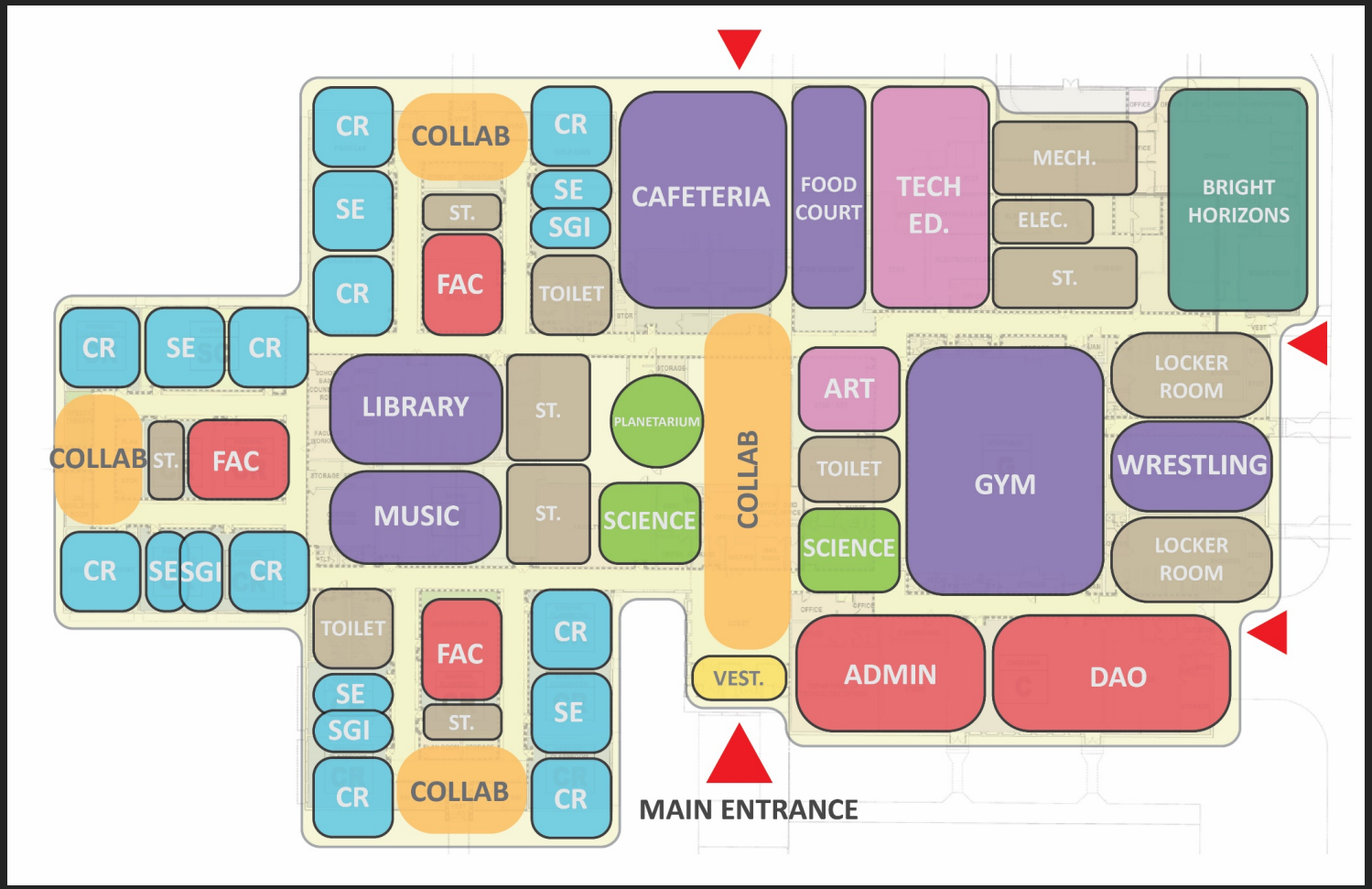
BUILDING AREA

FLOOR	AREA
FIRST	~95,160 SF
TOTAL AREA	~95,160 SF

- GENERAL CLASSROOM
- SPECIALS CLASSROOM
- LEARNING SUPPORT / SPECIAL EDUCATION
- SCIENCE CLASSROOM
- SMALL GROUP INSTRUCTION
- CAFETERIA / GYMNASIUM / LIBRARY / AUDITORIUM
- ADMINISTRATION / FACULTY
- CIRCULATION
- STORAGE / MECHANICAL / TOILET
- AVAILABLE SPACE
- CHILD CARE (OUTSIDE OPERATOR)

NEW CONSTRUCTION

DEMOLITION



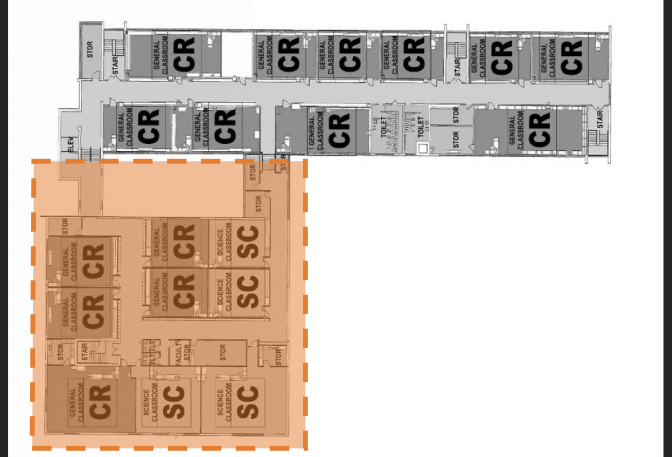
OPTION 1 – INTERMEDIATE SCHOOL

- CREATE COLLABORATIVE SPACES
- CREATE VISUAL CONNECTION THROUGHOUT THE BUILDING
- NO INTERNAL CLASSROOMS
- UPGRADED BUILDING SYSTEMS

EXISTING H.S. FLOOR PLAN



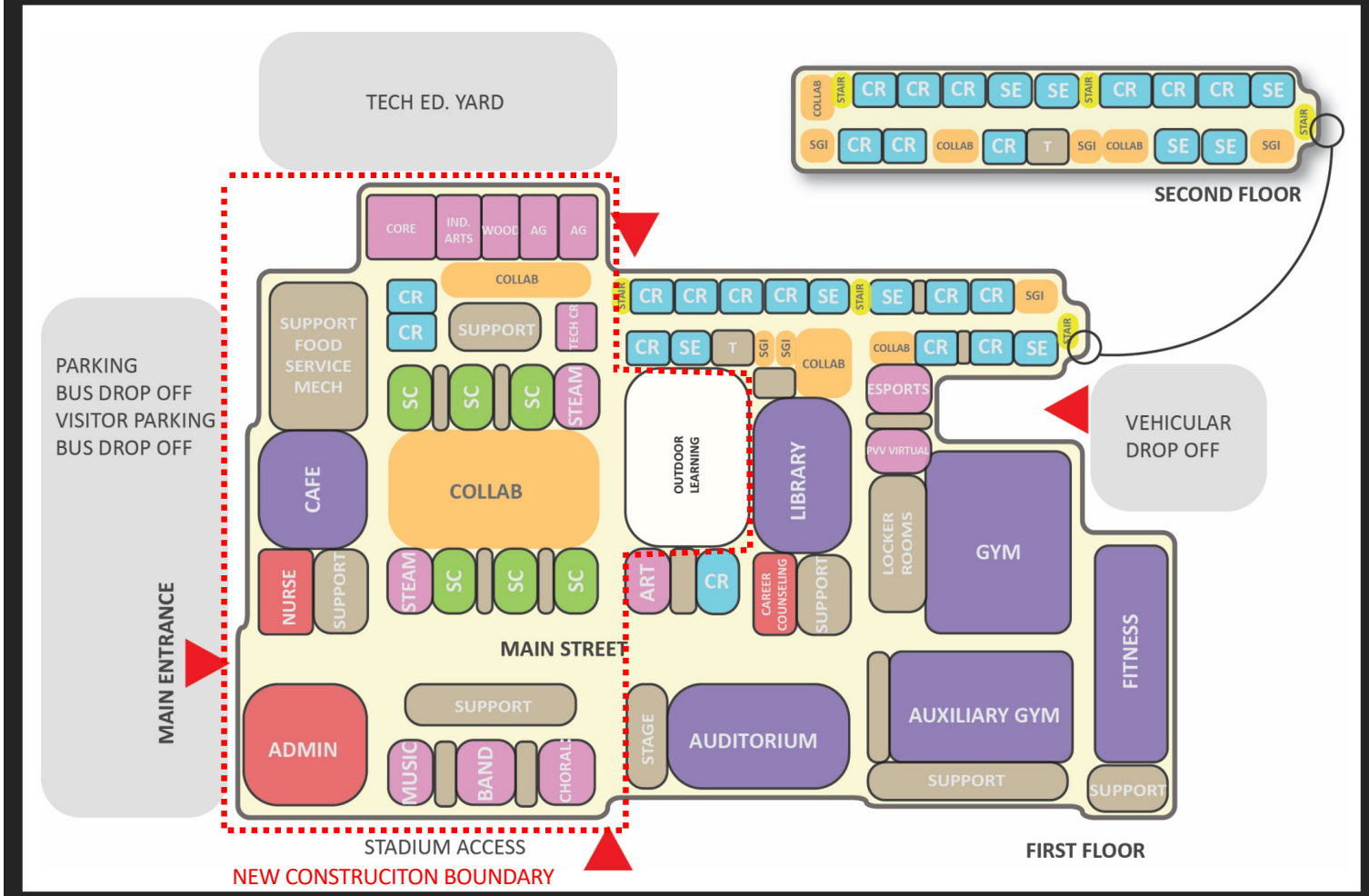
FIRST FLOOR



SECOND FLOOR

NEW CONSTRUCTION

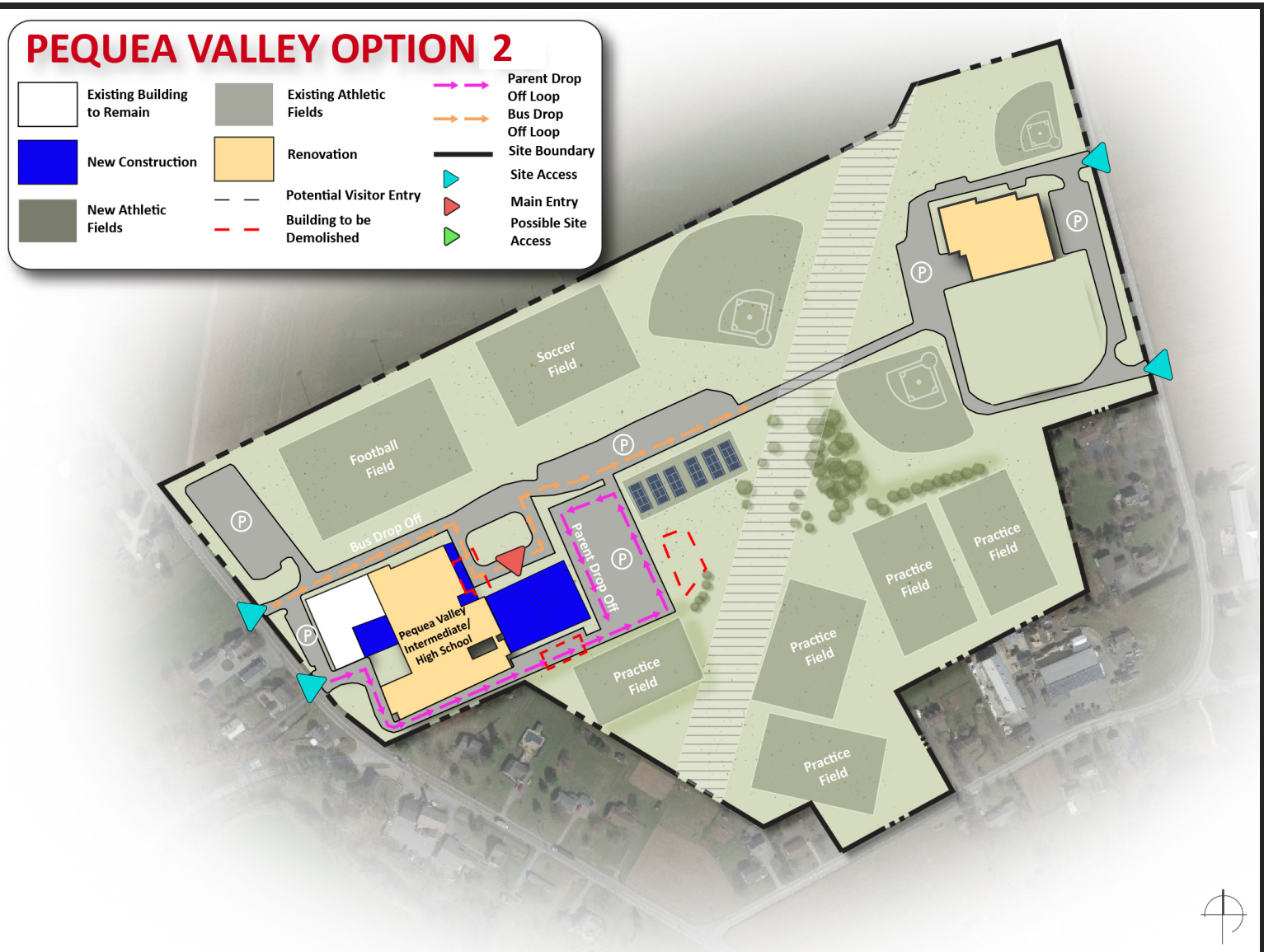
AREA OF DEMOLITION



OPTION 1 – HIGH SCHOOL

- CREATE COLLABORATIVE SPACES
- CREATE VISUAL CONNECTION THROUGHOUT THE BUILDING
- COLLISION SPACE FOR CROSS DISCIPLINE LEARNING
- MEET PROGRAM NEEDS
- UPGRADED BUILDING SYSTEMS

PEQUEA VALLEY OPTION 2

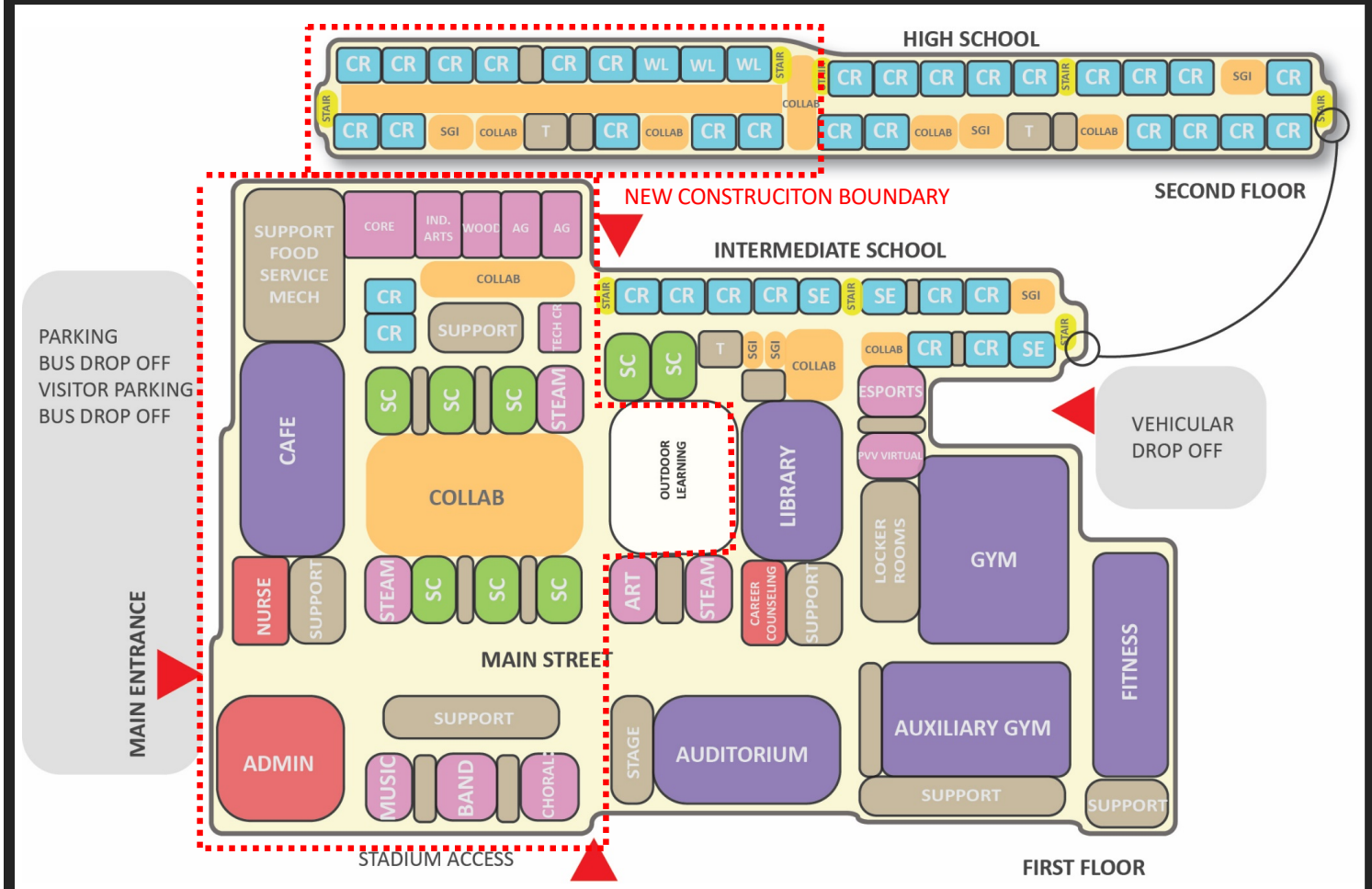


PRO'S

- MINIMAL SITE IMPACT
- NEW STEAM / AG & WOOD SHOP WING
- H.S. SEPERATED BUS / PARKING

CON'S

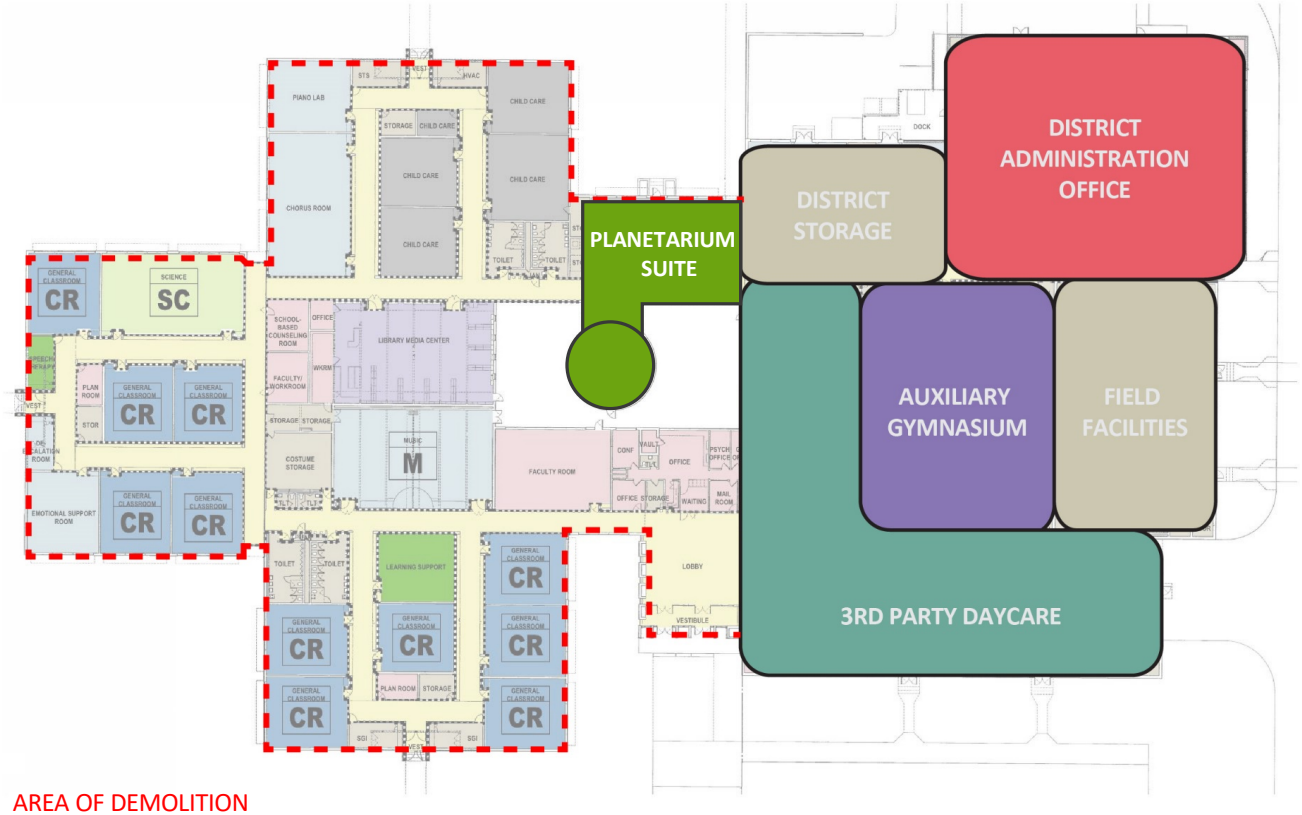
- PHASED CONSTRUCTION
- SMALL BUS LOOP
- ADDITION INTERUPTS SEWER TREATMENT



OPTION 2 – HIGH SCHOOL & INTERMEDIATE SCHOOL

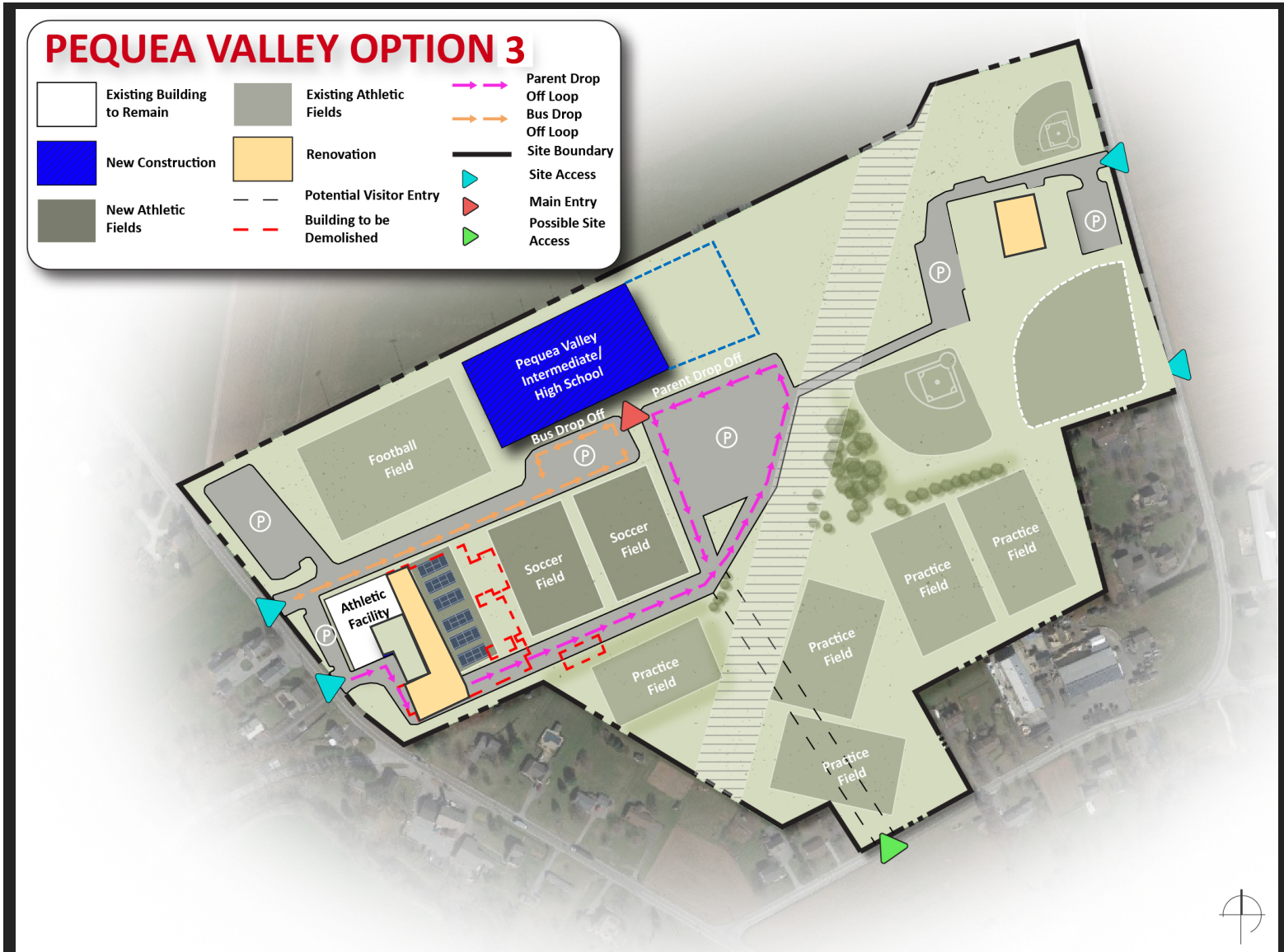
- CREATE COLLABORATIVE SPACES
- CREATE VISUAL CONNECTION THROUGHOUT THE BUILDING
- COLLISION SPACE FOR CROSS DISCIPLINE LEARNING
- MEET PROGRAM NEEDS
- UPGRADED BUILDING SYSTEMS
- EFFICIENCIES FOR OPERATIONS, STAFFING, AND STUDENT EXPERIENCE

OPTION 2 – DAO / 3RD PARTY DAYCARE / FIELD FACILITIES



- RETAIN USEFUL BUILDING ELEMENTS
- DAO CONSOLIDATES TO ONE LOCATION
- PROVIDES FIELD FACILITIES AT THE FAR END OF THE SITE

PEQUEA VALLEY OPTION 3

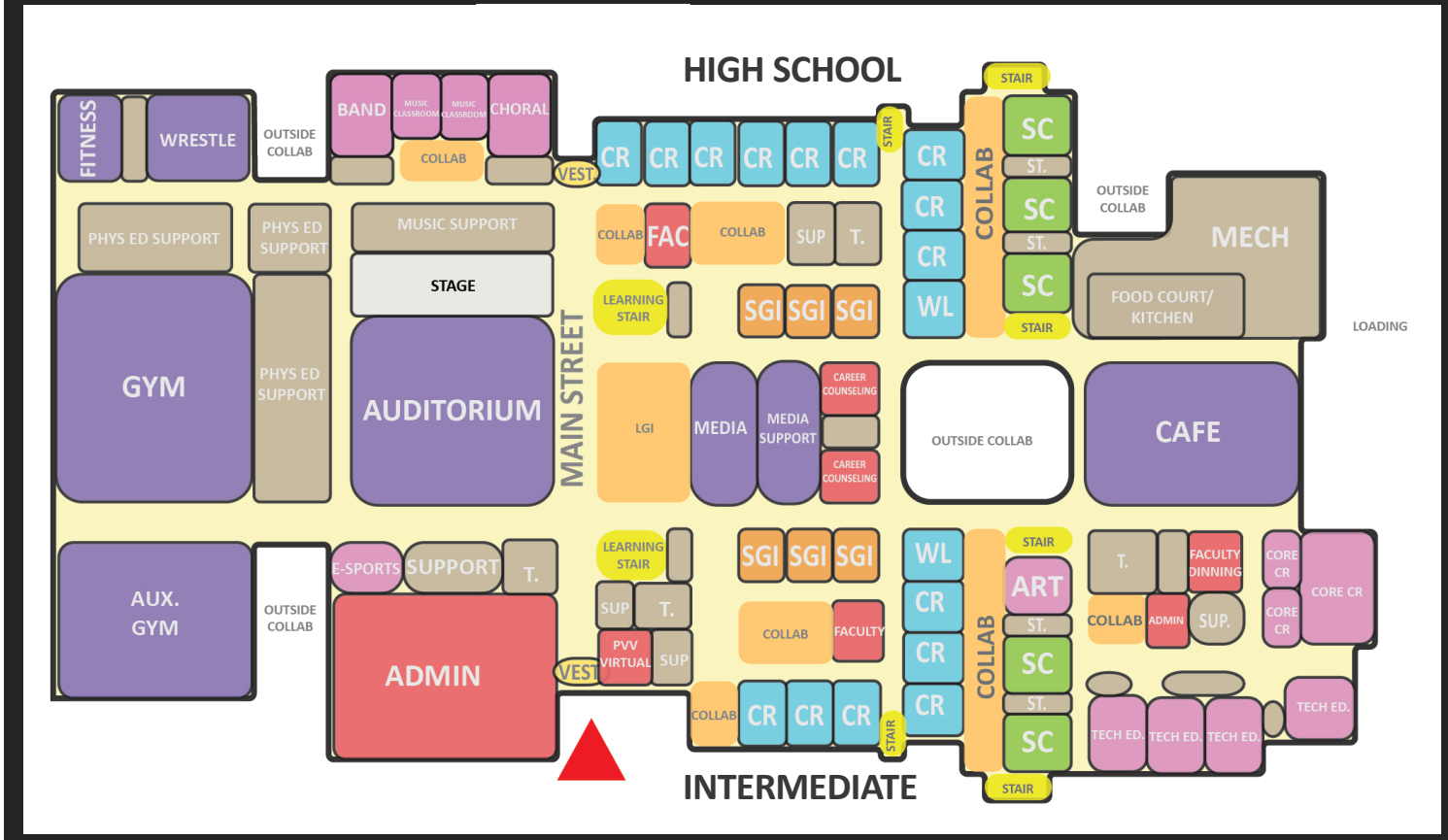


PRO'S

- NO PHASED BUILDING CONSTRUCTION
- NEW CONSTRUCTION
- NEW SPORTS 'COMPLEX'
- POTENTIAL NEW SITE ACCESS REMOTE BUS/CAR
- EQUAL DISTANCE FROM I.S. AND FITTNESS
- LEVEL SITE

CON'S

- NO DIRECT CONNECTION TO FITNESS
- REQUIRES MOVING BASEBALL



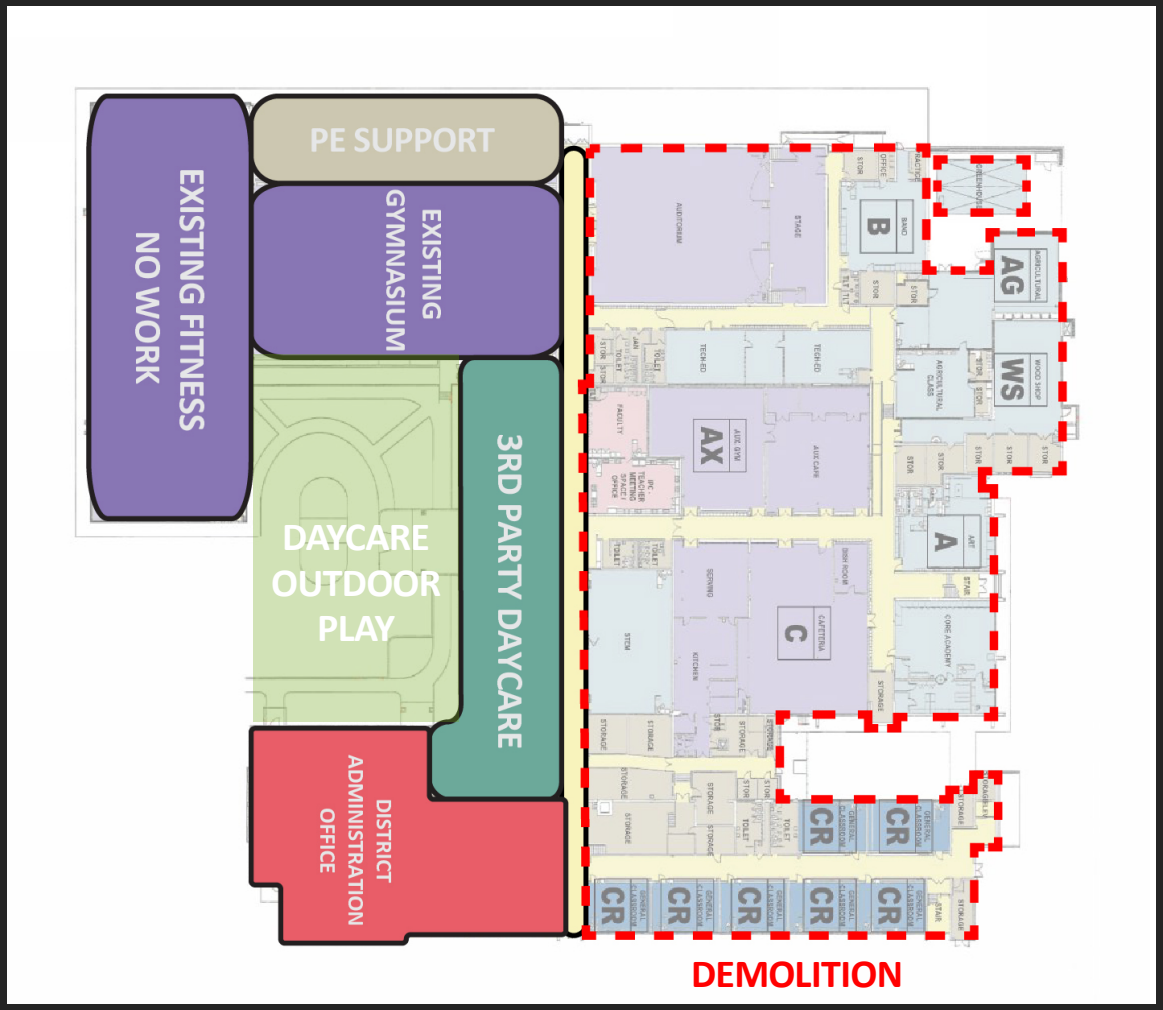
OPTION 3 – HIGH SCHOOL & INTERMEDIATE SCHOOL

- CREATE COLLABORATIVE SPACES
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- COLLISION SPACE FOR CROSS DISCIPLINE LEARNING
- MEET PROGRAM NEEDS
- NEW EFFICIENT BUILDING AND SYSTEMS
- EFFICIENCIES FOR OPERATIONS, STAFFING, AND STUDENT EXPERIENCE



OPTION 3 – HIGH SCHOOL & INTERMEDIATE SCHOOL

- CREATE COLLABORATIVE SPACES
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- MEET PROGRAM NEEDS
- NEW EFFICIENT BUILDING AND SYSTEMS
- EFFICIENCIES FOR OPERATIONS, STAFFING, AND STUDENT EXPERIENCE



OPTION 3 – FITTNESS / DAO / 3RD PARTY DAYCARE

- RETAIN USEFUL BUILDING ELEMENTS
- DAO CONSOLIDATES TO ONE LOCATION
- PROVIDES FIELD FACILITIES AT THE FAR END OF THE SITE
- DAYCARE HAS SECURE OUTDOOR PLAY

NEXT MEETING

- JANUARY 2TH, 2020
- 7 PM @ P.V. EDUCATIONAL
- REFINE / FINALIZE
  - FLOOR PLAN OPTIONS
  - PROBABLE COST OF OPTIONS
  - PROBABLE COST OF OPERATION
  - SCHEDULE & PHASING



FACILITY ASSESSMENT



PV PARADISE ELEMENTARY

1. Enclosed playground fencing, equipment, and paving
2. No secure vestibule
3. Upgrade adapted office spaces
4. Replace lighting fixtures with LED; interior and site lighting
5. CO2 sensors near equipment or vehicle areas

Paradise Elementary School

OPTION MATRIX	ESTIMATED TOTAL PROJECT COSTS		
PROJECT OPTION	RANGE		EXISTING SF
Facility Conditions (2-10 years)	$ 1,230,035	$ 1,453,678	92,000

FACILITY ASSESSMENT



Salisbury Elementary School

OPTION MATRIX	ESTIMATED TOTAL PROJECT COSTS		
PROJECT OPTION	RANGE		EXISTING SF
Facility Conditions (2-10 years)	$ 6,839,459	$ 8,192,255	142,698

PV SALISBURY ELEMENTARY

1. Play surface recoating / replace
2. Masonry repoint / caulking
3. Secure lockdown
4. Material replacement
5. Heating plant is 17 years old with 8-10 more years of average life. Chiller system 17 years old and uses R-22 refrigerant
6. Access to attic service areas
7. Replace lighting fixtures with LED; interior and site lighting
8. Upgrade building automation system
9. CO2 sensors near equipment or vehicle areas

ANATOMY OF A BUDGET

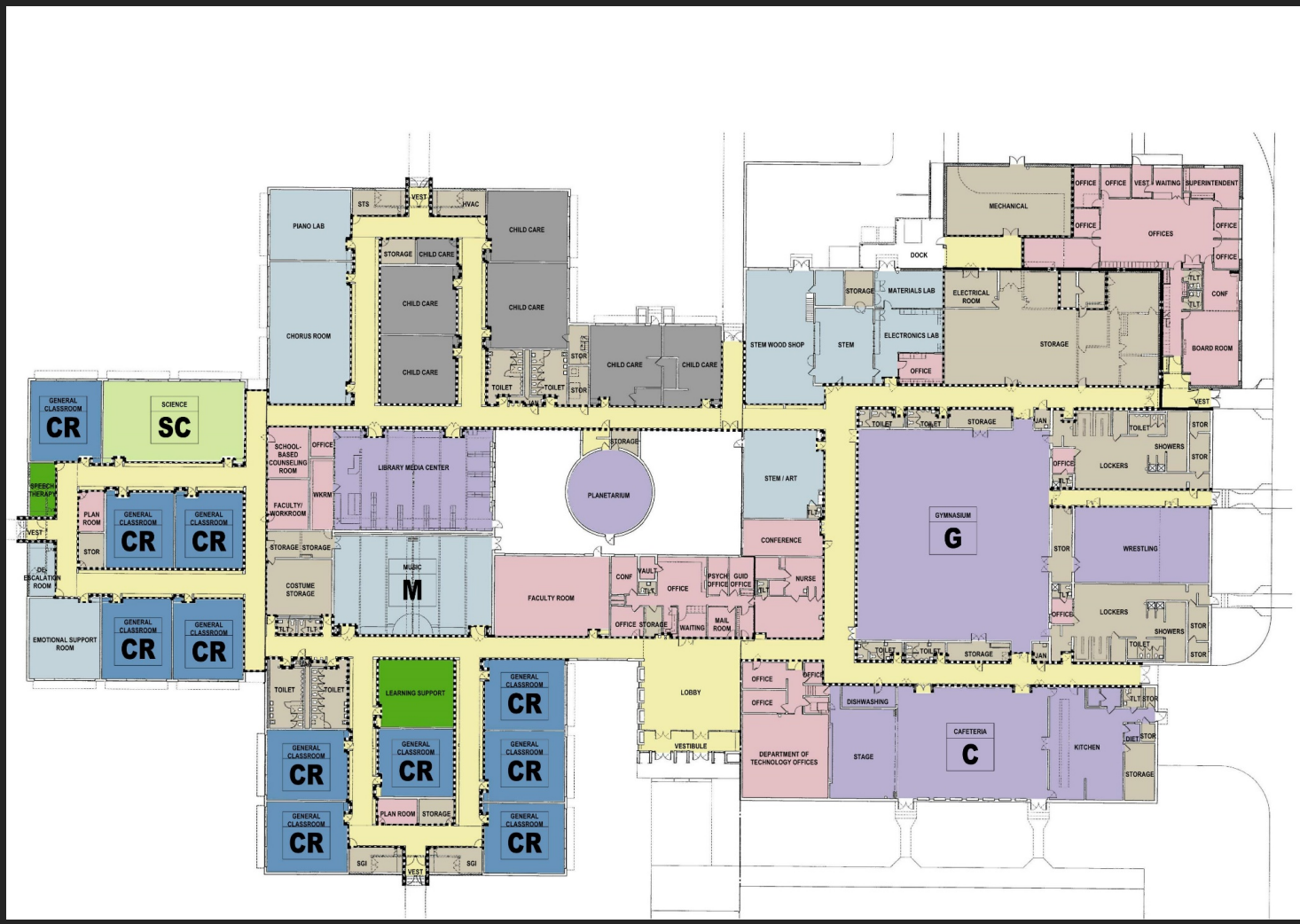


- Cost Estimates based on CRA, PDE, National Construction Data
- Operational Cost Analysis
- Life Cycle Cost Analysis
- Reimbursement
- Financing

SITE PLAN


Pequea Valley SD
High School / Intermediate School
E Newport Rd
Pequea Valley Rd
S New Holland Rd
Hershey Church Rd
1011
772
N
1000 ft
Google Earth
© 2018 Google

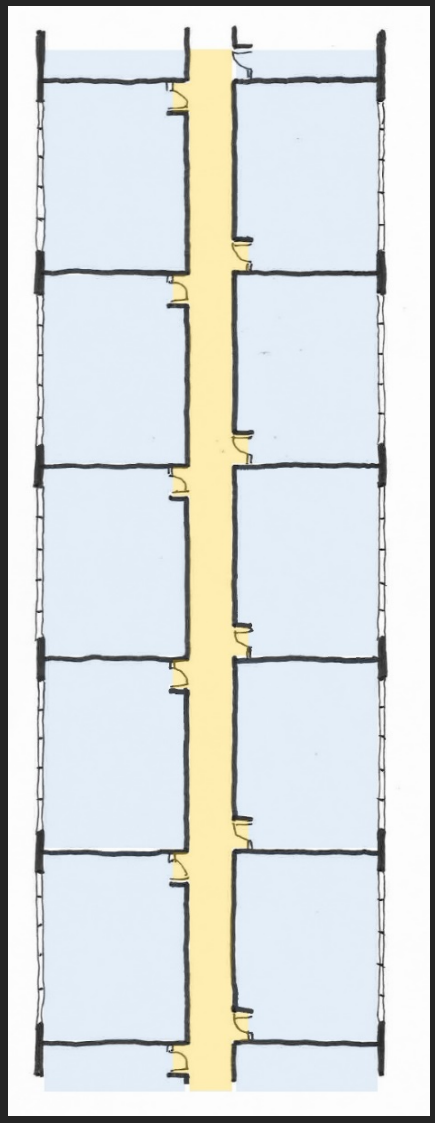
I.S. FLOOR PLAN



EXISTING CAPACITY			
NAME OF SPACE	QTY	CAPACITY	TOTAL
GENERAL CLASSROOM (660+ SF)	11	25	275
SCIENCE CLASSROOM (660+ SF)	1	25	25
SCIENCE LAB	-	20	-
PLANETARIUM W/ CLASSROOM	1	20	20
ALTERNATIVE ED ROOM	-	20	-
BUSINESS CLASSROOM (660+ SF)	-	25	-
BUSINESS LAB	-	20	-
COMPUTER LAB	-	20	-
TV INSTRUCTIONAL STUDIO	-	20	-
ART CLASSROOM	1	20	20
MUSIC CLASSROOM	1	25	25
BAND ROOM	1	25	25
ORCHESTRA ROOM	-	25	-
CHORAL ROOM	1	25	25
FAMILY / CONSUMER SCIENCE	-	20	-
INDUSTRIAL ARTS / SHOP (1,800+ SF)	1	20	20
TECH ED (1,800+ SF)	-	20	-
VO-AG SHOP W/ CLASSROOM	-	20	-
DRIVER'S ED (660+ SF)	-	20	-
GYMNASIUM (6,500 - 7,500 SF)	1	66	66
AUXILIARY GYMNASIUM (2,500 SF)	-	33	-
NATATORIUM	-	-	-
TOTAL CAPACITY			501
TARGET CAPACITY (85%)			426

BUILDING AREA	
FLOOR	AREA
FIRST	~95,160 SF
TOTAL AREA	~95,160 SF

- GENERAL CLASSROOM
- SPECIALS CLASSROOM
- LEARNING SUPPORT / SPECIAL EDUCATION
- SCIENCE CLASSROOM
- SMALL GROUP INSTRUCTION
- CAFETERIA / GYMNASIUM / LIBRARY / AUDITORIUM
- ADMINISTRATION / FACULTY
- CIRCULATION
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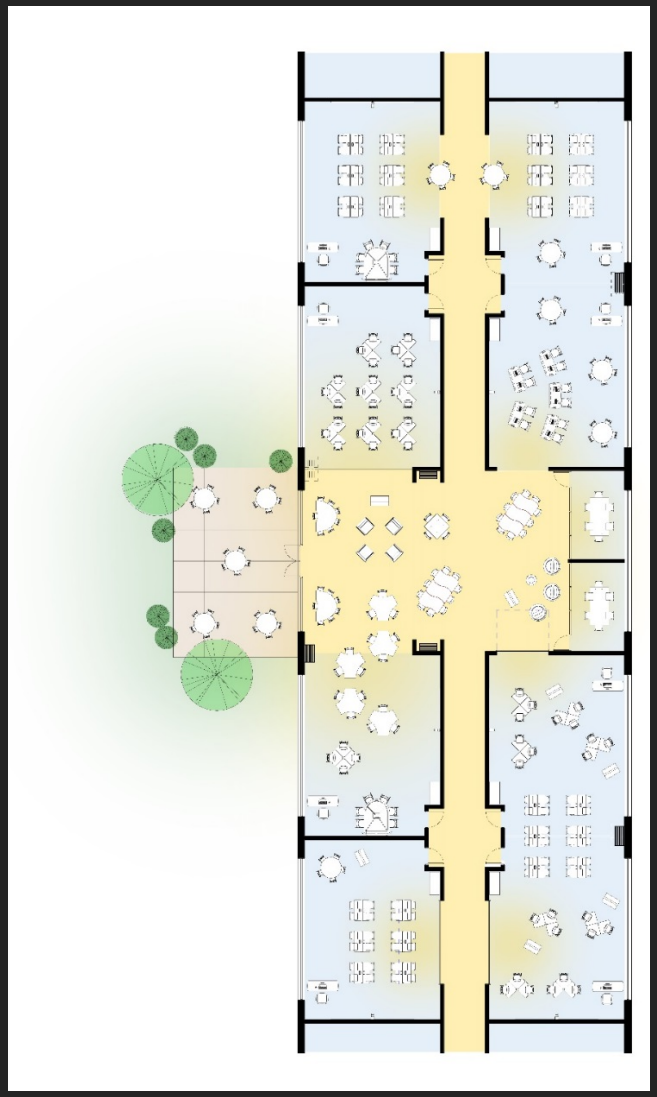


2020's ??????

21ST CENTURY LEARNING

The industrial age factory model

- Information is rare
- Limited technology
- Teacher centric
- Learn in classroom
- Focus on 3 R's
- Passive learning
- Conformity expected
- Assertive assessment
- Curriculum fragmented







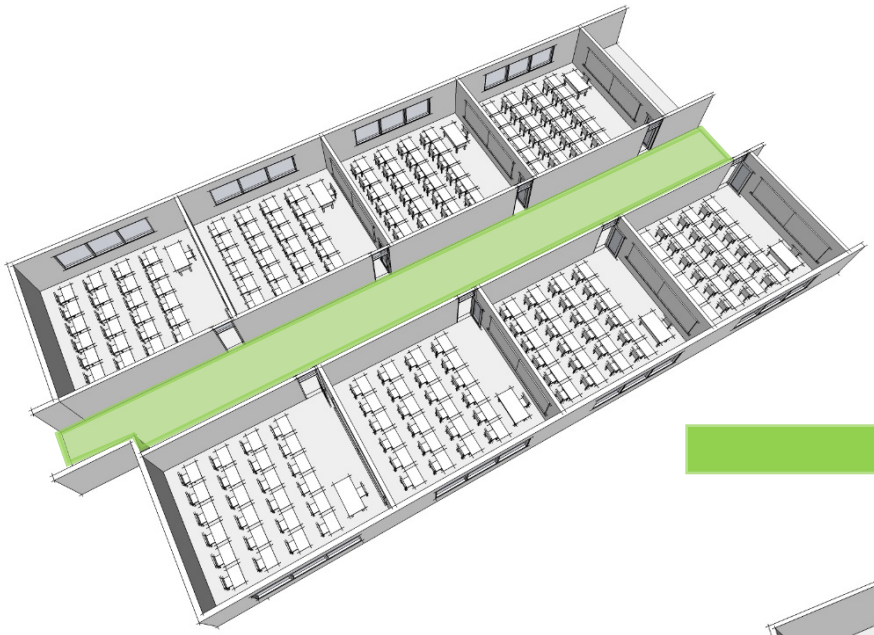


21ST CENTURY LEARNING

The innovation age model

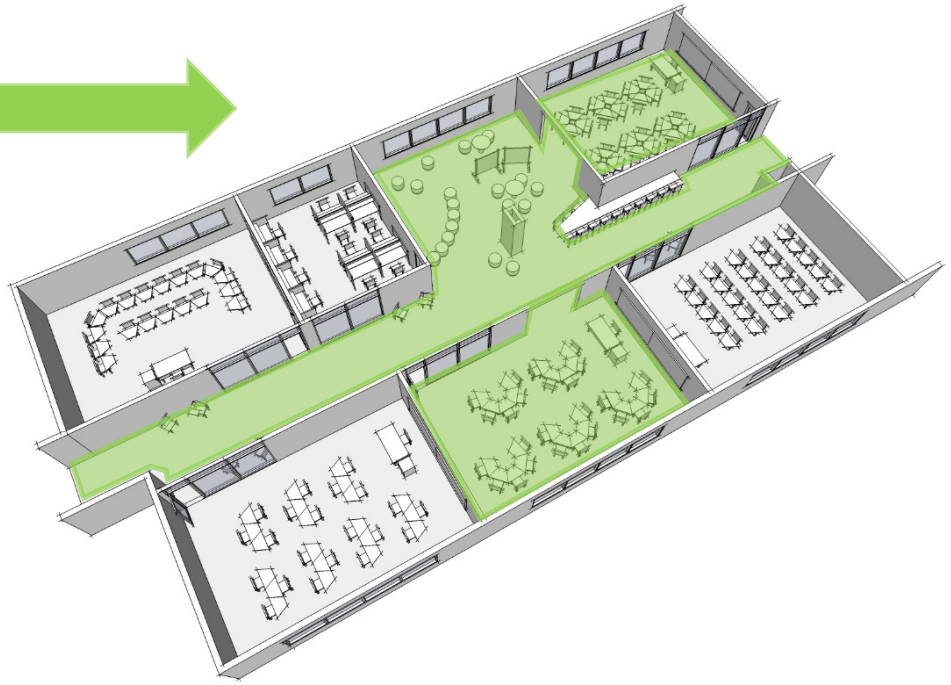
- Information is a commodity
- Ubiquitous technology
- Student centric
- Learn anywhere
- Develop 4 C’s
- Active learning
- Individuality celebrated
- Demonstrative assessment
- Curriculum integrated

21ST CENTURY LEARNING



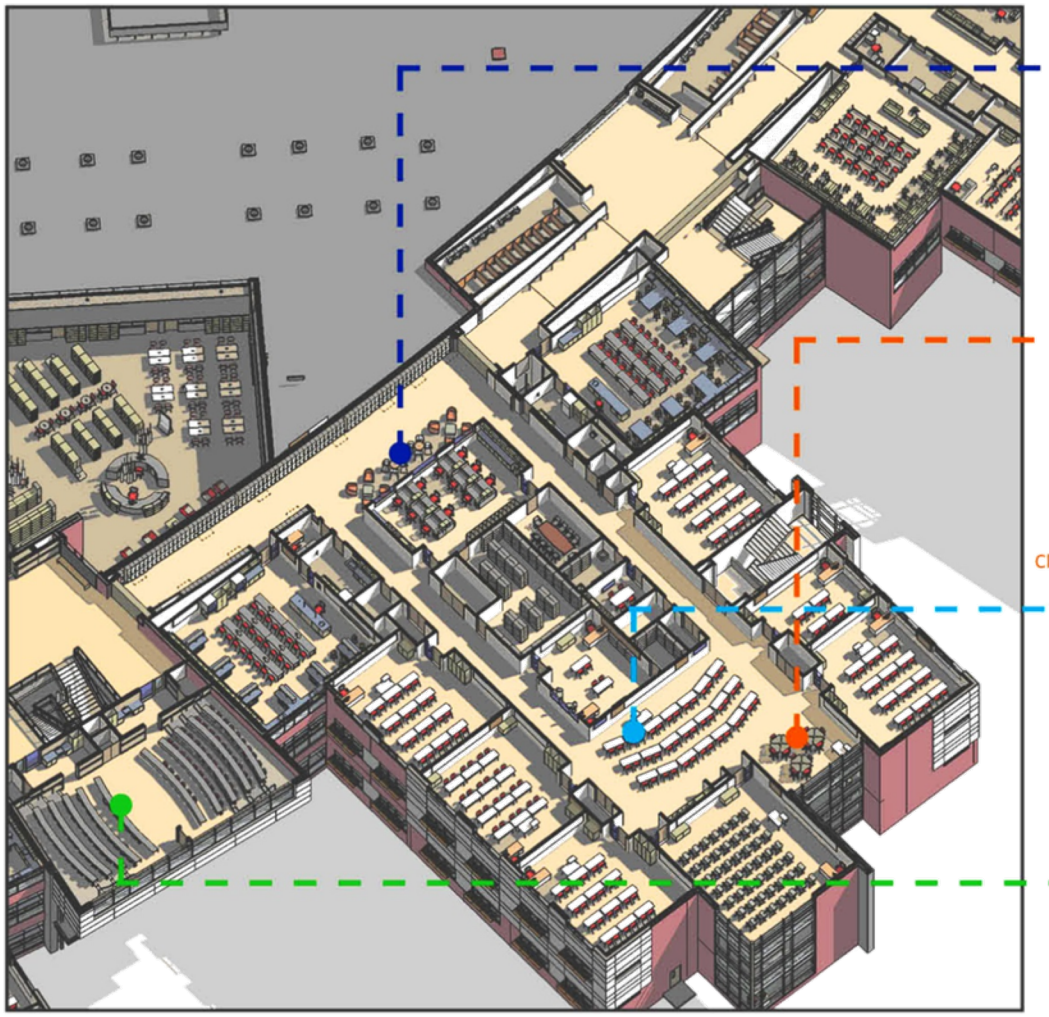
THEN

- Mass production of education
- One size fits all
- Learning environment had no impact on outcomes
- No foreseeable need for change = fixed



NOW

- Mass customization of education
- Learning environment impacts outcomes
- Change = flexibility
  - Plan for change
  - Module to facilitate change
  - Easily upgradable systems
  - Consider the collabratory
  - Consider the skunk works
  - Consider the Google model



CREATIVITY

Individual Study
1 - 4 People



CRITICALTHINKING

Small Group Collaboration
4 - 12 People



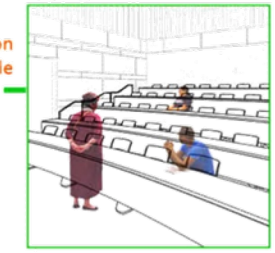
COLLABORATION

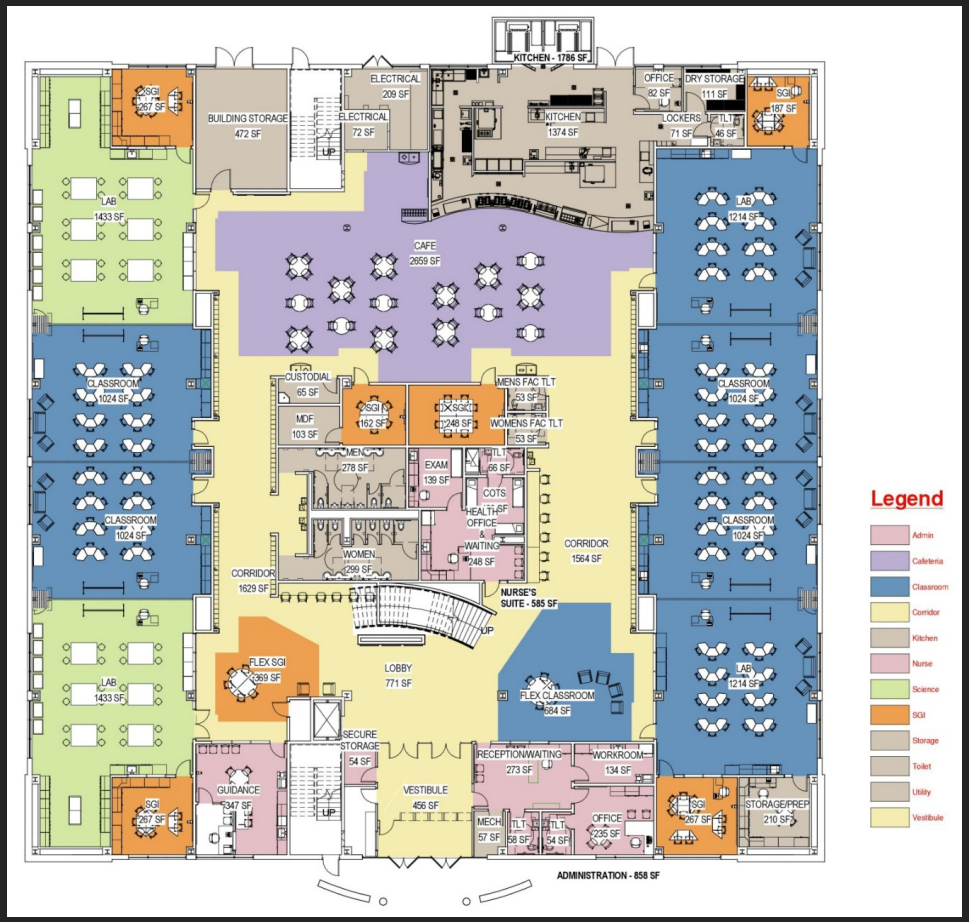
Classroom Collaboration
12 - 25 People



COMMUNICATION

Large Group Collaboration
25 - 90 People



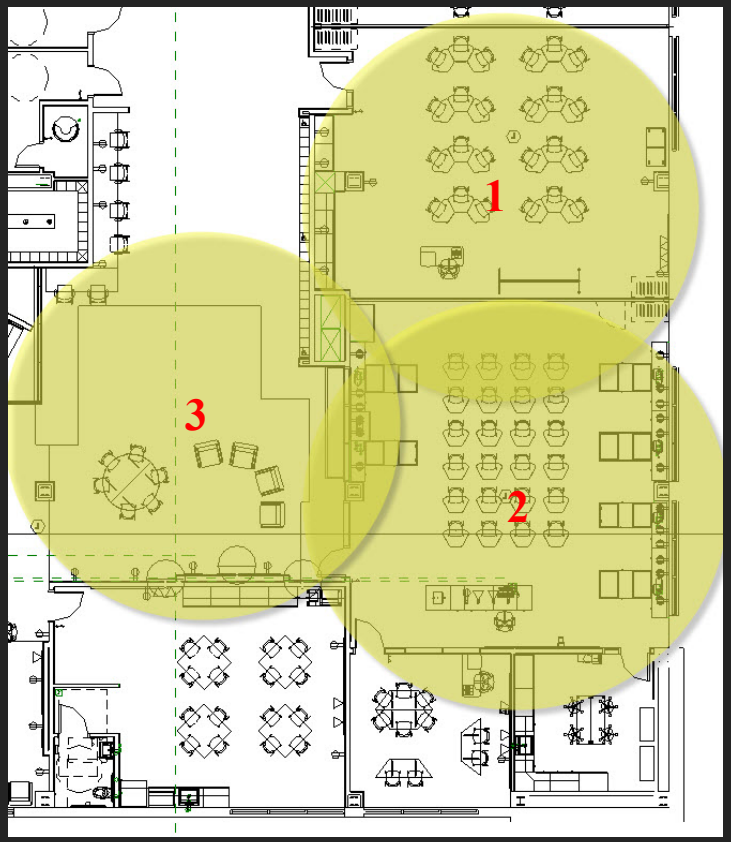


FIRST FLOOR PLAN

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Scheduled Spaces:

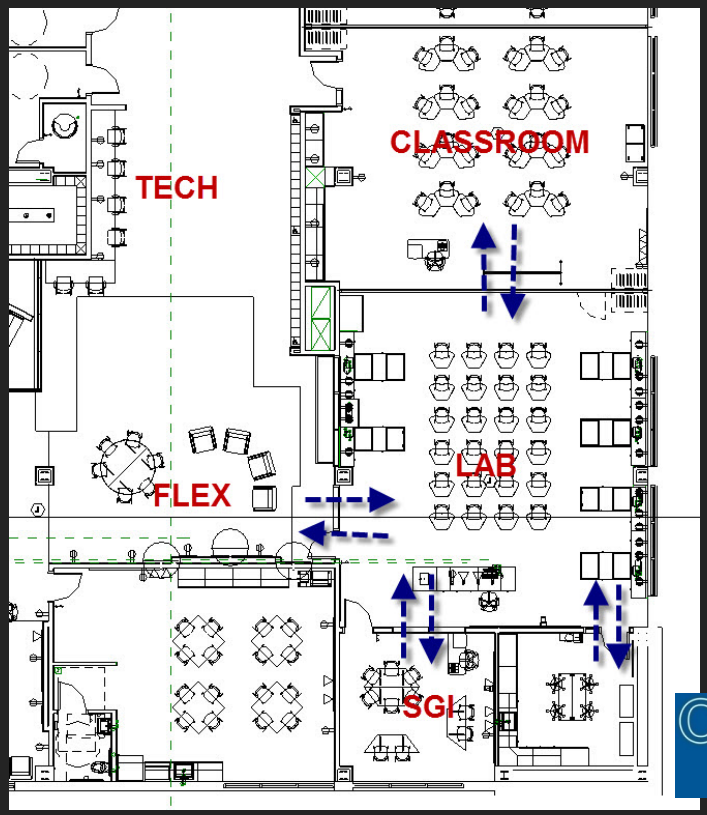
- *4 Engineering Classrooms/Labs*
- *3 Mathematics Classrooms/Labs*
- *1 General Classroom*
- *1 Open Flex Classroom*
- *Cyber Café*
- *6 Small Group Instruction*



Rotational Model Refined:

- Instruction using a mixture of online learning, hands-on activities, one-on-one, small and whole group instruction, and research.
- Flexibility and visual control of spaces within the cluster allows for constant monitoring and interaction of students and staff.

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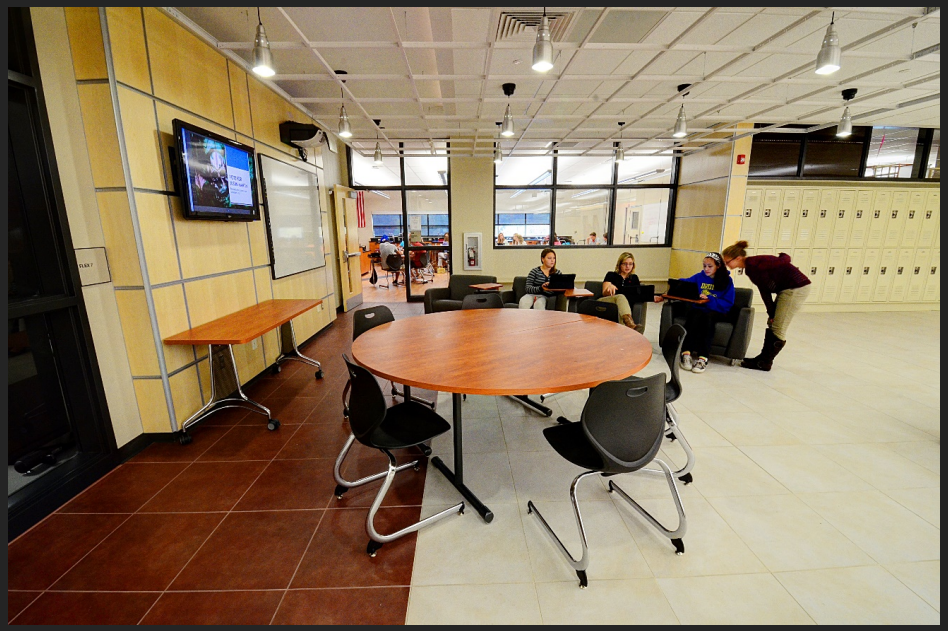


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COLLABORATIVE LEARNING AREAS



COLLABORATIVE LEARNING AREAS



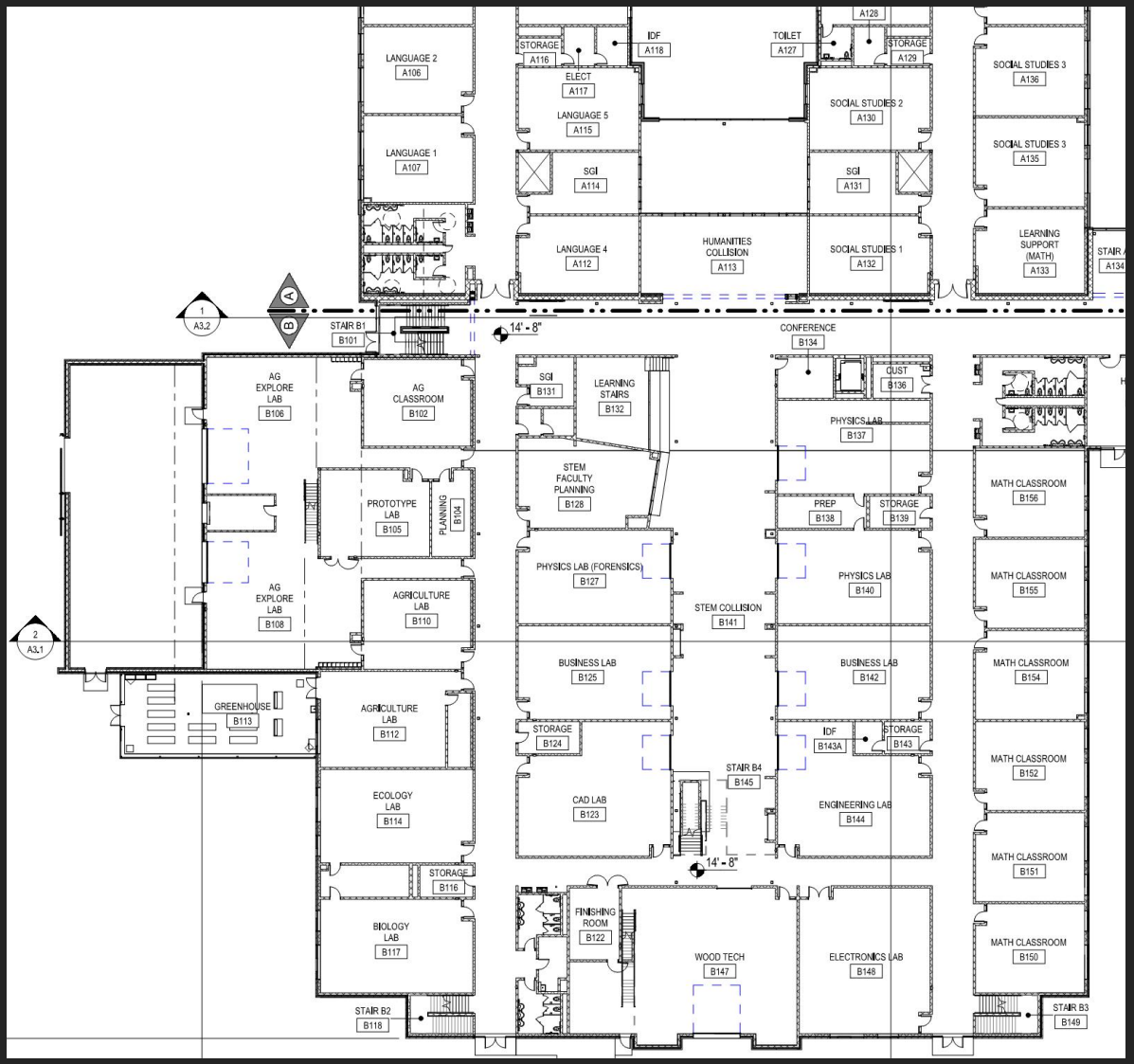
COLLABORATIVE LEARNING AREAS



COLLABORATIVE LEARNING AREAS



COLLABORATIVE LEARNING AREAS



COLLABORATIVE LEARNING AREAS



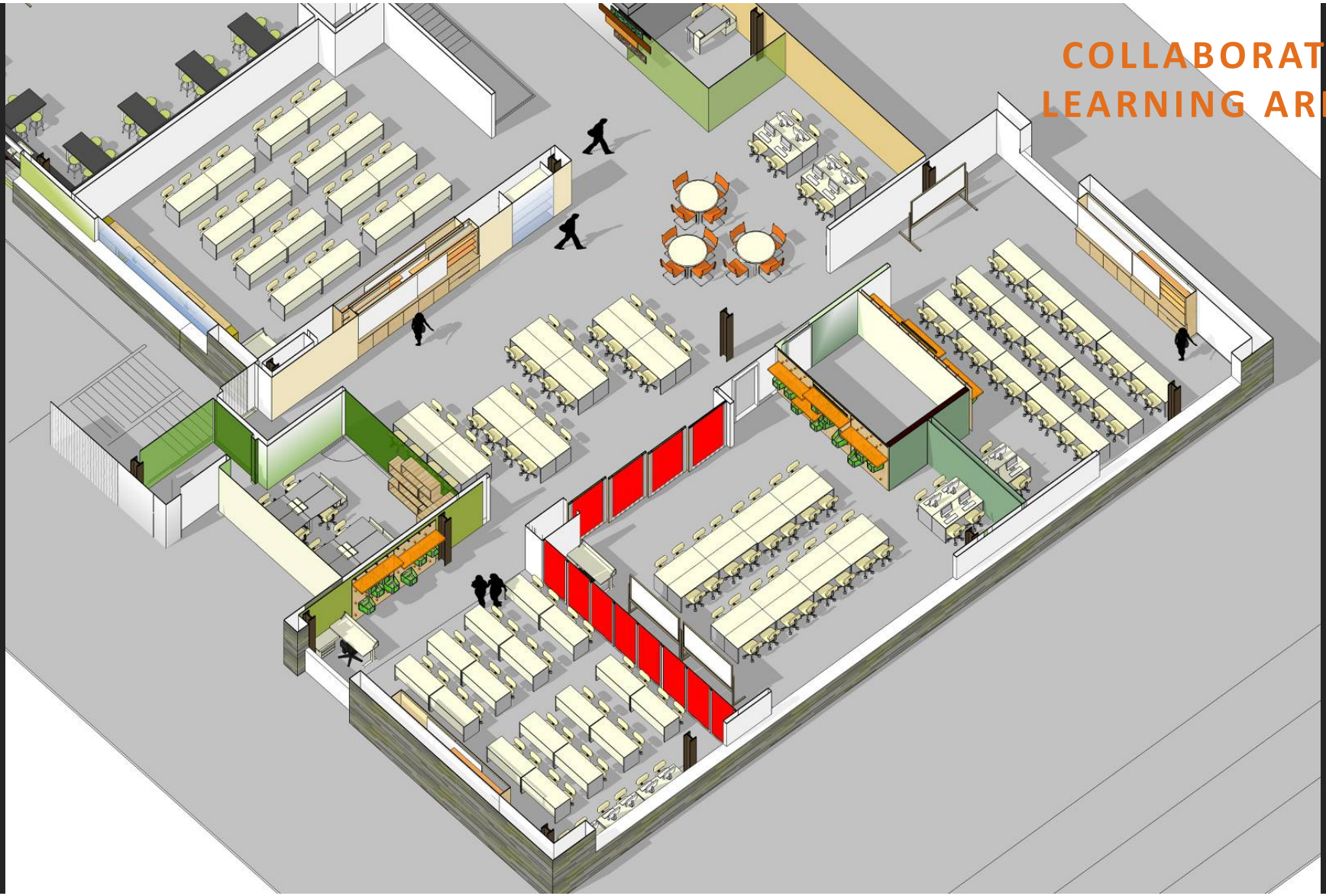
COLLABORATIVE LEARNING AREAS



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